



***Bethlehem Seyum, Age 15 from Gursum, Oromia
One of a new generation of Ethiopian Innovators***

**Report
of an
Analytical Study on “Innovation in Delivery of Better Basic
Services: Challenges and Opportunities for Ethiopia”**

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¹ See Annex 6.

² See Annex 6.

Executive Summary

Ethiopia has made enormous strides in reducing poverty, in all its dimensions, and achieving many of the Millennium Development Goals over the past 15 years. Much of the progress can be attributed to the Promotion (formerly Protection) of Basic Services (PBS) programme, now in its third phase as the Basic Services Transformation Programme. This is a multi-donor supported, but government-led programme. The programme has provided strong leadership from the centre, taking to scale many innovative programmes that are now seen as good practice, such as the Health Development Army. At the heart of delivering basic services across the complexity of Ethiopia's range of development, agro-ecological and physical challenges has been striking the right balance between implementing centrally driven policies and locally driven services that are responsive to context.

Ethiopia has developed innovative approaches to managing a programme of decentralization, involving both finance and decision-making, and has taken risks in supporting a social accountability programme (ESAP) that is being extended to more Woredas and involves management by civil society partners. The tension remains between ensuring minimum standards while allowing flexibility and innovation to develop. The study has found that Ethiopia has a wealth of innovators and a willingness to adapt and adopt innovations from elsewhere³, but the institutional mechanisms for allowing this to flourish are yet in their infancy.

Many themes recur across the sectors, showing how decentralization is enabling responsive service development and the strength of partnerships, particularly with NGOs working in remote environments where development is behind other areas. However, innovators do not have the means to turn their inventions into scalable innovation and front-line technical experts are not aware of new processes that are being tried in other areas and lack incentives and the necessary outcome orientation to try new approaches.

The complexity of sharing information across Ethiopia's regions and Woredas was reflected in the difficulty of collecting data from all regions and a sample of 96 Woredas representative of all. The lack of experience in qualitative participatory research in Ethiopia has parallels in the weakness of participatory service design and monitoring. Despite the limitations of data availability, the study has identified exciting innovative practice that is being taken to scale or can be adopted more widely in order to improve efficiency and effectiveness of basic service delivery, including ensuring more equitable access to services and consequent outcomes and reducing or sharing risk through innovative insurance products, building on traditional *Iddir* mechanisms. Local level examples of innovation include new farming practices, technology for new-born intensive care, or mobile education for pastoralist children and new community designs for rural roads, with support from the Ethiopian Roads Authority. The study highlights particular local level innovation whose promotion will require an innovation promotion strategy.

Chapter 1 introduces the objective of the study **to generate relevant knowledge to strengthen and deepen Ethiopia's innovation in the provision of decentralized basic social services to make it more responsive and effective**. Innovations provide a novel solution to a social problem that is more effective, efficient, sustainable, or just, than existing solutions and ... can be a product, production process, or technology ... or ... a piece of legislation, a social movement, ... or some combination of them. Innovations require the right

³ The Consortium implementing this study has provided the Bank with a separate document, giving details of international practice that could be relevant to Ethiopia for possible adoption and adaption. These interventions are only listed in this report in order to keep the focus on innovation in PBS in Ethiopia.

environment to flourish. Innovations contribute to the performance of PBS at several levels in its implicit Theory of Change that quality will improve if there is greater accountability and access will be increased as services become more responsive to local needs and context, matched by improved efficiency and effectiveness, provided capacities are enhanced and participation of communities increased. This requires a shift of focus from inputs and outputs to one of achieving outcomes. The problems of adequate participatory qualitative data collection have prevented anticipated robust quantitative analysis of the environment in which innovation in basic service delivery can flourish. However, enough has been recorded to show that innovation is present, as well as plenty of adoption and adaptation of known practices introduced from elsewhere – innovative as they seem to local communities unfamiliar with these approaches.

Chapter 2 looks at the governance environment for the promotion of basic services. Ethiopia has established a strong sectoral policy environment with sector plans, under which PBS operates, as well as a clear decentralized financial management system with a formula for Federal Block Grants. There is strong central oversight of PBS under MoFED, supported by development partners. Central programmes of health and agricultural extension and education receive financial support for their staffing through PBS. WaSH and rural roads interventions also operate under national guidelines. Capacities of Woreda offices have been strengthened and accountability increased through a Social Accountability programme where government and civil society collaborate, but M&E remains technically weak. Top-down initiatives are well developed, but innovation from below is less well promoted.

Chapter 3 looks at innovations in that governance environment for the promotion of basic services. Decentralised management has required strong capacity building, supported by the central programme of CBDSD, and the need for improved inter-sectoral cooperation. The governance of PBS has been an area of success, with innovation in community participation and Social Accountability (ESAP) and financial transparency and use of traditional mutual accountability and incentives (*gemgema* and *kaizen*) and of GRM, which all increase accountability. This also requires strengthening in capacity of communities and an innovative approach to training of front-line workers to respond to community demand, noting an example of the impact of innovative participation of communities in service design. Initiatives are being taken by several BoFEDs and Woredas to design and introduce innovative incentives to encourage and motivate service providers to ensure higher performance and effective delivery of quality decentralized basic social service to beneficiaries. Community based monitoring has yet to be integrated into the M&E system, which could also gain from moving digital. Innovative PPP partnerships, especially with the Diaspora, offer great potential for PBS sustainability. This will require a 'culture change' at all levels of service delivery, which will involve in-service training and reinforcement of new behaviours.

Chapter 4 looks at the role of innovation in health services. Health has shown remarkable successful progress in health outcomes within comprehensive policy frameworks, for maternal and child health, and the Health Extension Programme and its Health Development Army of extension workers, reaching down to the level of every five households. But retaining front-line staff and achieving equity in outcomes, especially in difficult environments, is a problem that requires innovative use of financial and non-financial incentives and performance-based funding. There are examples of technical innovations, particularly for maternal health. Community based health insurance (CBHI) is an area of innovation that could be enhanced. Focus on adolescent girls has been led by NGOs, which are well placed to pilot initiatives with local community leaders. There are opportunities to learn from successful interventions elsewhere, such as for neglected tropical diseases (NTDs) and use of mobile phone technology for rapid reporting of disease. Community budgeting for health and community based monitoring of healthcare providers are developments that will work with ESAP. A number of key technical innovations, which could be adopted, are identified.

Chapter 5 looks at the role of innovation in education services. The 1994 Education and Training Policy (ETP) has clear goals and three areas for action. Backed by the 20-year ESDP, Ethiopia has shown innovation and success in increasing access towards the goal of universal primary education by 2015. But access for all, especially girls and disadvantaged regions such as Somali and Afar, and quality remain challenges. Local initiatives have done much to address access issues and the Survey Data has a number of examples, reducing financial, social and physical barriers, such as ABE, boarding facilities and school feeding, as well as initial moves on use of ICT. NGO partners have piloted many innovative education initiatives, especially in early childhood care and education (ECCE) and in pastoralist areas. Decentralized financial management and resource flows have complemented greater community participation in school management, increasing quality through implementing school improvement plans. Quality has also been improved through BSO and the Child-Friendly Schools initiatives, particularly impacting girls' education. A range of international innovations from school mapping to cash transfers and performance-based incentives is presented.

Chapter 6 looks at the role of innovation in agricultural services. Promoting agriculture, from crop production to livestock, across Ethiopia's varied ecological zones is a challenge, which has been met through a variety of initiatives such as the innovative land registration that has placed women's names on joint certificates; integrated water resource management; reforestation; agro-forestry; integrated farms and cluster farming; expanding extension services; use of Farmer/Pastoralist Training Centres in every Kebele; Farmer Service Centers; participatory livestock disease surveillance; and use of farmer participatory research and indigenous knowledge. Many of these have involved local innovation. In drought-prone Woredas, this has complemented the Productive Safety Nets Programme (PSNP). Urban areas are also promoting intensive household production and Addis Ababa has developed an innovative urban agriculture policy. Discrimination against women in access to inputs reflects traditional gender relations that are hard to change. Land Certification, although not part of PBS, is one of Ethiopia's important devolved activities, which bestows ownership of the land to the farmers and thereby motivates them and insures them against risk. ESAP has shown that the simple accountability tool of scorecards can improve timely provision of inputs. Ethiopia has been assisted by the research arms of a number of international partners and the innovative government Agricultural Transformation Agency has provided a strong lead in new partnerships and working with farmers to maximise its agricultural bio-diversity. New ways of planting, harvesting and storing crops have been introduced successfully, increasing yields. Inter-sectoral work with Education and Health, with school meals using local produce and promoting improved nutrition, shows potential if scaled up across all Woredas.

Chapter 7 looks at the role of innovation in the WaSH sector. From a low baseline 25 years ago, Ethiopia has achieved significant success in rural water supply coverage and in many Kebeles being declared defecation-free as a result of the Community-Led Total Sanitation & Hygiene initiative. There has been strong collaboration under a common policy framework involving the 2013 launch of the One WaSH National Program (OWNP), bringing together MoH, MoE, MoWIE and MoFED as well as development partners, and covering all aspects of WaSH, urban and rural and all regions. It has also sought to address urban water and sanitation problems and could learn from the achievements of Development Workshop working with the poor in Luanda. Ethiopia provides strong coordination through its Community-based Water Resource Management, building on water mapping and water safety planning. Water and sanitation committees (WASHCOs) are responsible for planning, financial management, implementation and maintenance and manage the community contributions and the government subsidy provided for capital expenditures. "Drop of Water" has developed innovative partnerships, including universities, in provision of water (Box 1). WaSH has developed positive partnerships with schools as part of the Child-Friendly School initiative,

where there are innovations in providing sanitary services for girls. With strong national programme coordination, WaSH has created an environment in which local innovation can flourish to meet its objectives.

Chapter 8 looks at the role of innovation in rural roads and transport. The Ethiopian Roads Authority (ERA) has been the source of innovation at the national level, particularly with the Ethiopian Rural Travel and Transport Program (ERTTP), initially piloted in 8 Woredas, to develop appropriate roads using mainly local resources. This led to the nationwide Universal Rural Roads Access Programme (URRAP). This has been backed by the ERA Design Manual for Low Volume Roads, suggesting innovative solutions to appropriate rural road construction and maintenance. URRAP has also built the capacity of many Woreda road offices to administer contracts under URRAP. URRAP promotes application of innovation, knowledge and learning and promotes labour-based approaches and community contributions, developing small and medium scale private enterprises, with impressive results.

Chapter 9 looks at cross cutting issues of inter-sectoral collaboration, gender equity and youth employment. Decentralized governance of basic service delivery through PBS has not been matched by all sectors, which have also tended to continue to work in their silos without effective collaboration. Horizontal collaboration is essential for key areas of WaSH, nutrition that includes use of Ethiopia's traditional crops, school feeding, use of ICT, insurance, social accountability and participatory research and monitoring. Achieving gender equality requires greater participation of women in planning and decision-making and equity in access to basic services, assets and outcomes and should mean that PBS is part of a wider investment in girls. Focus on youth employment, especially young women, is extremely weak and vocational training only affects about 2%, although URRAP is an exception.

Chapter 10 offers a conclusion. There are challenges for innovations being promoted, but also opportunities. They are a critical element for today's agenda focusing on quality and leaving no-one out, requiring services that are responsive to local context and need. Innovation in basic service delivery does not just arise spontaneously and survive, it must be cultivated. The challenge is how to promote such innovation.

Chapter 11 offers a number of overall, as well as sector specific, implementable recommendations, including that Government should create the overall enabling environment in which innovation can go to scale and flourish, providing for multiple actors together achieving rapid transformation in poverty reduction and inclusion. The enabling environment should cover a range of financing, contracting, licensing and standard-setting functions that can release resources and direct effort towards national goals. It will require appropriate in-service training in community-led development.

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Acronyms

AADT	Average Annual Daily Traffic
ABE	Alternative Basic Education
AEW	Agricultural Extension Worker
AFCAP	Africa Community Access Program
AfDB	African Development Bank
AHP	Animal Health Post
AI	Artificial Insemination
ASRHR	Adolescent Sexual and Reproductive Health and Rights
ATA	Agricultural Transformation Agency
BESO	Basic Education System Overhaul
BoFED	Bureau of Finance and Economic Development
CAHW	Community Animal Health Worker
CBDSD	Capacity Building for Decentralized Service Delivery
CBHI	Community-based Health Insurance
CBWRM	Community Based Water Resource Management
CFS	Child Friendly School
CLTSH	Community Led Total Sanitation & Hygiene
CtCSRP	Child-to-Child Approach for School Readiness Programme
CMP	Community Managed Project
COPCU	Channel One Programme Coordination Unit
COWASH	Community-led WaSH
CSA	Central Statistical Authority
CSO	Civil Society Organisation
CSRP	Civil Service Reform Programme
DA	Development Agent
DC	Design Class
DFID	Department for International Development (UK)
DHS	Demographic and Health Survey
DP	Development Partner
DQAF	Data Quality Assessment Framework
EADG	Ethiopian-American Doctors Group
EBS	Equitable access to Basic Services (post-PBS III)
EC	European Commission
ECCE	Early Childhood Care & Education
EIO	Ethiopian Institution of the Ombudsman
eMIS	electronic Management Information System
ERA	Ethiopian Roads Authority
ERTTP	Ethiopian Rural Travel and Transport Program
ESAP	Ethiopian Social Accountability Programme
ESDP	Education Sector Development Programme
ETB	Ethiopian Birr
FBG	Federal Block Grant
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
FSC	Farm Service Center
FTA	Financial Transparency and Accountability
FTC	Farmer Training Center
GDP	Gross Domestic Product
GEAC	Girls' Education Advisory Committee
GEQIP	General Education Quality Improvement Programme
GER	Gross Enrolment Ratio
GoE	Government of Ethiopia

GPS	Global Positioning System
GRM	Grievance Redress Mechanism
GTP	Growth & Transformation Plan
GWP	Global Water Partnership
HC	Health Centre
HICES	Household Income, Consumption and Expenditure Survey
HDA	Health Development Army
HEA	Household Economy Approach
HEP	Health Extension Program
HEW	Health Extension Worker
HMIS	Health Management Information System
HP	Health Post
HSDP	Health Sector Development Programme
ICRW	International Center for Research on Women
ICT	Information and Communication Technology
IGAD	Inter-Governmental Authority on Development
IHA-UDP	Integrated Holistic Approach - Urban Development Project
IK	Indigenous Knowledge
ILWM	Integrated Local Watershed Management
IMNCI	Integrated Management of Neonatal & Childhood Illnesses
IMT	Intermediate Means of Transport
IUSH	Integrated Urban Sanitation and Hygiene
IWRM	Integrated Water Resource Management
JBAR	Joint Budgetary and Aid Review
JMP	Joint Monitoring Report WHO-UNICEF
J-PAL	The Abdul Latif Jameel Poverty Action Lab
JRIS	Joint Review and Implementation Support
KII	Key Informant Interview
LIG	Local Investment Grant
LiST	Lives Saved Tool
LVR	Low Volume Roads
MACEPA	Malaria Control and Evaluation Partnership in Africa
M&E	Monitoring & Evaluation
MDG	Millennium Development Goal
MDSR	Maternal Death Surveillance and Review
MDTF	Multi-Donor Trust Fund
MfR	Managing for Results
MIS	Management Information System
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn and Child Health
MoE	Ministry of Education
MoFED	Ministry of Finance and Economic Development
MUDHCo	Ministry of Urban Development, Housing and Construction
NER	Net Enrolment Ratio
NGO	Non-Governmental Organisation
NHG	Neighbourhood Group
NTD	Neglected Tropical Disease
NWRM	National Water Resources Management
ODF	Open Defecation Free
ODI	Overseas Development Institute
OFAG	Office of the Federal Auditor General
OWNP	One WaSH National Program
PAD	Programme Appraisal Document
PBF	Performance-Based Financing

PBS	Protecting (for PBS I & II) / Promoting (PBS III) Basic Services
PEFA	Public Expenditure and Financial Accountability
P/FFS	Pastoralist/Farmer Field School
PFM	Public Financial Management
PforR	Program for Results (in EBSP)
PPP	Public Private-sector Partnership
PSCAP	Public Sector Capacity Building Programme
PSIA	Poverty and Social Impact Assessment
PSNP	Productive Safety Nets Programme
PTA	Parent Teacher Association
REST	Relief Society of Tigray
RBF	Results-Based Financing
RCT	Randomised Control Trial
RSDP	Road Sector Development Program
SA	Social Accountability
SAIP	Social Accountability Implementing Partners
SBA	Skilled Birth Attendants
SFA	School Fees Abolition
SNNP(R)	Southern Nations, Nationalities and Peoples (Region)
SPA	Service Provision Assessment
SRHR	Sexual and Reproductive Health and Rights
STH	Soil Transmitted Helminthes
TB	Tuberculosis
TDA	Tigray Development Association
ToR	Terms of Reference
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
URRAP	Universal Rural Roads Program
VFM	Value For Money
WaSH	Water, Sanitation and Hygiene
WaSHCo	Water, Sanitation and Hygiene Committee
WB	World Bank
WFP	World Food Program
WHO	World Health Organization
WMS	Welfare Monitoring Survey

Chapter 1

1. Introduction

1.1. Objectives of Study

The purpose of the study, on behalf of the African Development Bank (AfDB) in conjunction with the Government of Ethiopia and the World Bank (WB), on “Innovation in Delivery of Better Basic Services: Challenges and Opportunities for Ethiopia” is **to support efforts in expanding access and improving quality of basic services**. The study is expected **to generate relevant knowledge to strengthen and deepen Ethiopia’s innovation in the provision of decentralized basic social services to make it more responsive and effective, thereby ensuring value for money and increasing opportunities for inclusive growth**. It seeks to identify relevant Ethiopian and international innovation and best practices for adapting, adopting and applying in order to enhance the effective protection and delivery of basic social services.

In its Terms of Reference for this analytical study, the African Development Bank noted that: “Innovation is increasingly recognised as fundamental to economic transformation, growth and poverty reduction. As such, Ethiopia’s ability to tap and absorb innovative capacities, both internally and externally, to accelerate new and relevant ideas and products remains critical to basic service delivery within the context of today’s globalization and technological demands. Harnessing innovation in basic service delivery can play a catalytic role in improving its access and quality to help curb vulnerabilities and curtail extreme poverty in Ethiopia. More importantly, integrating rural service delivery innovations should encompass a more holistic approach with a view towards encouraging human capital development, social well-being and rural economic growth stimulation. There are real opportunities for Ethiopia to innovate and utilize resources more efficiently within an open and co-creative approach that encompasses the social sector public agencies across different levels, private sector and, more essentially, citizens. Ethiopia thus gains to strengthen its innovative base in service delivery to create better and effective products, processes and technologies”.

The flagship study is aimed at leveraging innovation to foster quality and accessible basic services to all citizens in Ethiopia. The ToR stated that the study was expected to identify innovative approaches to promote greater results for quality and efficient basic service delivery particularly at the decentralized level, while ensuring sustainability. This big picture aim of leveraging innovation to foster quality and access, which effectively required the study to identify the conditions for success of innovations, was supported by three intermediate objectives. These were (i) to provide an overview of approaches to delivery of basic services (primarily in education, health, agriculture, water and sanitation and rural roads) and trends and recent service improvements; (ii) analyzing the performance of delivery of decentralized services and taking stock of existing bottlenecks, innovations and opportunities⁴; (iii) assessing and examining how/what innovative approaches in decentralized delivery of basic social services can be strengthened and deepened⁵. These intermediate objectives, with their qualifying clauses, all focus on innovation and the enabling environment to ensure gains for all citizens through a range of institutional delivery and enabling transformations. The emphasis is on creating a ***culture of innovation***⁶ and an environment in which innovation is encouraged, promoted and multiplied, which will be responsive to citizens’ needs across the rich diversity of Ethiopia. We also recognise the key role of innovators, individual and institutional, in

⁴ In the following areas: policy and regulatory framework; Institutional arrangement, management and capacity; Tools and mechanisms for delivery; Participation and citizens’ engagement; Collaborative partnerships; Employment creation.

⁵ This goes on to detail innovations fostering accessibility and quality for all citizens (our emphasis); innovative public private partnership (PPP); necessary reforms to the enabling environment; innovative financing; potential to create jobs for youth.

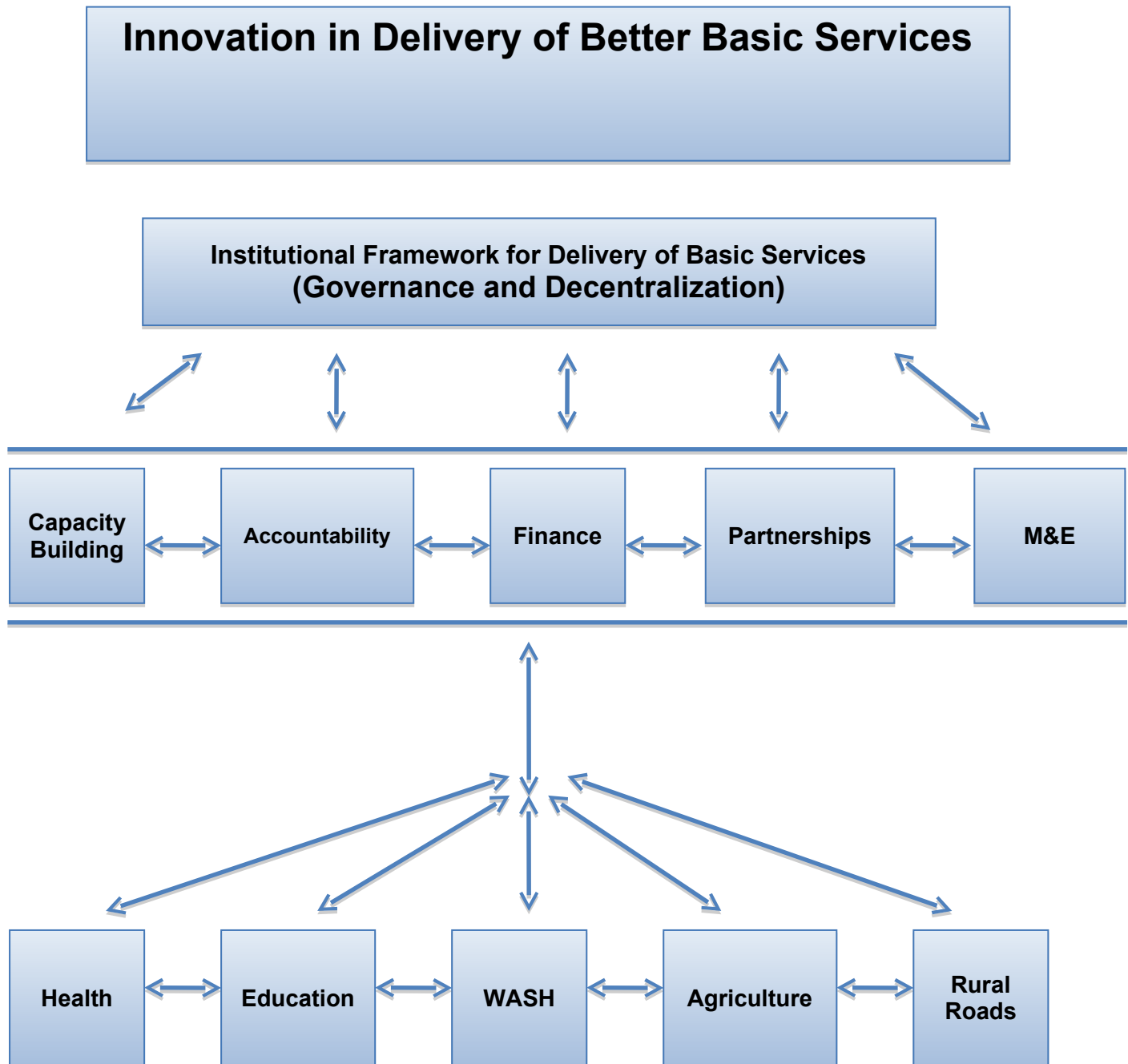
⁶ This is described further under §4. See the webpage http://www.realinnovation.com/content/what_is_innovation.asp

developing a new product or process and promoting and enabling this to deliver changed outcomes.

The team has worked with a Data Collection Team, contracted by the World Bank in parallel, to develop a process to identify, filter, document, analyse and present innovations within and across all the sectors of PBS. In the context of the functional objectives of the assignment, it is critical to have a research methodology that will be effective in not only profiling innovative products and approaches to service delivery, but one that also identifies reasons for success or failure in the approaches. It should also allow for analysis of what works and when and why. This proved too demanding an agenda for the qualitative research capabilities available in Ethiopia. As output to this work, the Consortium Innovations Analysis Team has sought to provide a report that assists the PBS III Basic Services Transformation Programme in making a difference in the lives of poor people in all regions of Ethiopia, particularly women, children and others who are marginalised by disability or other attributes.

Much detail is provided in the Annexes to this report, which should be read by those needing to see the breadth of innovation that has been identified. It sees Ethiopia as well on the way to being a market leader in innovative service delivery, given an enabling environment that with further fine-tuning can create a truly institutionalised “culture of innovation”. Such an emerging culture of innovation must be understood in the context of Ethiopia’s evolving state structures and relationship between citizen and state, significantly influenced by the approach to decentralisation. The report also highlights the capacity gaps between aspiration and achievement.

1.2. Conceptual Framework



Social innovation applies to public institutions in response to the societal and political pressure to align their way of working and products to the requirements of citizens and companies. In the context of the Europe 2020 strategy, social innovation is defined as indicating 'new responses to pressing social demands, by means which affect the process of social interactions. Social innovations are characterized by the production of a social return and the creation of new social relationships or partnerships which involve the end users and thereby make policies more effective'⁷. The EC (2010) report further explained social innovation as 'a

⁷ European Commission InnoServ Literature Review on Innovation in Social Services in Europe (sectors of Health, Education and Welfare Services) Work Package 1 May 2012 (EC 2012) page 22: quoting Phills, Deiglmeier and Miller, 2008 in The Open Book of Social Innovation, 2010, note2, p. 10; the Social Economical Council of the Netherlands; Advice SER 2006 and European Commission 2010 "Social Innovation as part of the Europe 2020 strategy". For an overview of social innovation in the Member States see <http://www.socialinnovationeurope.eu/>. Information on finance, context, governance, health and wellbeing, design and technology, education and youth, local development and communities, environment and climate change and methods and tools are collected.

means to empower citizens to be actively engaged in an innovative and learning society and to recognize the value of social capital. It is also an excellent entry point for a social dynamics behind technological innovations'. Social innovation refers to 'a novel solution to a social problem that is more effective, efficient, sustainable, or just, than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals. A social innovation can be a product, production process, or technology (much like innovation in general), but it can also be a principle, an idea, a piece of legislation, a social movement, an intervention, or some combination of them'.⁸

The diagram above of the Conceptual Framework captures this rationale in relation to PBS. The application of Innovation in PBS is seen as the result of a robust functioning Institutional Framework for the Delivery of Basic Services anchored on a viable and highly decentralized governance system. The system facilitates, encourages and promotes the development and growth of the key Enabling Factors for Innovation viz Capacity Development, Accountability, Finance, Monitoring and Evaluation. A dynamic two-way interaction is established between the Governance and Decentralization platform and the key Enabling Innovation Factors that in turn promote the development and strengthening of the five sectors of PBS, Health, Education, WASH, Agriculture and Rural Roads. The sectoral programmes are organized in such a way as to benefit from two-way exchanges between them to enhance adoption and application of innovations and taking them to scale.

The wide range of basic services that individuals, households and communities require in order to make their full contribution to society is mediated through a system of governance institutions that enable resources to be rationally allocated and accountability and feedback expressed. If these are functioning and the horizontal and vertical links between the sub-systems are coherent, then services will be improved and delivered efficiently and effectively that meet the needs of citizens, making overall investment in infrastructure and human capital generate maximum returns.

The report will indicate the success of Ethiopia in establishing the decentralized institutions for efficient resource allocation and the emergence of accountability and feedback mechanisms through the Social Accountability Programme that is now expanding to cover more Woredas. There is a long way to go before the vertical linkages from communities through Kebele and Woreda structures generate effective services responsive to demand. Less evidence has been found of inter-sectoral linkages that effectively address poverty through basic service provision in holistic ways, rather than within traditional sector silos managed by members of "dominant professions"⁹. Such inter-sectoral working, particularly required to improve children's nutritional status, is an area where innovation is required, although there are a few examples as with WaSH in schools. Ethiopia took an innovative approach in placing PBS under MoFED as an attempt to address the systemic issue of horizontal linkages and cross-sectoral working, which is a problem experienced in all countries.

⁸ European Commission 2010 "Social Innovation as part of the Europe 2020 strategy"

⁹ See Ivan Illich "[Disabling Professions](#)" London 1977 on the solutions of experts and Paulo Freire "Pedagogy of the Oppressed", translated into English by Myra Ramos 1970. However, Birhan Social Development Training & Consultation Center (Box 3) and the Integrated Holistic Approach Urban Development Project (Box 4) both reflect this kind of holistic approach.

1.3. Overview of Basic Service Delivery and PBS modalities in Ethiopia

The Federal Democratic Republic of Ethiopia's decentralized programme for "Protecting (now Promoting) Basic Services" is now in its third phase (PBS III) for a period of 5 years starting from Jan 2013. The Objective of the Government's new program, supported by a number of development partners, is: *to contribute to the higher-level objective of expanding access and improving the quality of basic services by funding block grants that ensure adequate staffing and operations, and by strengthening the capacity, transparency, accountability and financial management of government at Regional and Local Authorities Level*. The PBS recognizes five poverty-targeted sectors (education, health, agriculture, natural resources, including water, and roads). There is recognition that innovation in management and delivery of services can be critical for the poor in difficult to reach locations to be able to access a range of services and for those services to be provided sustainably in cost efficient ways that are also effective in changing outcomes. Innovation can occur in overall management of the programme between the Federal government and the regions and Woredas, through decentralized budgeting, planning and resource deployment to achieve changed outcomes where indicators are worst.

Ethiopia is a large, populous and very diverse country¹⁰ where innovative solutions are required to meet needs and enable improved equality of outcomes despite inequalities in access. Restrictive top-down standardised solutions could not fit all environments and the range of capacities for delivery. Logistical problems confound any centrally-determined protocols that attempt to provide identical service and identical budgetary allocations, focusing on inputs rather than equity in access and equality in outcomes. Ethiopia, more than most countries, is required to balance setting of minimum standards and permitting responsive community-led solutions. Youth unemployment is a serious underlying problem, together with the lack of opportunity that drives many young men and women to risky behaviour and migration to Addis Ababa or the Gulf states where they can become victims of abuse and exploitation¹¹. The PBS programme must address the fundamental issues of sustainable livelihoods and predictability for life choices of the poor that will reduce their vulnerability and increase their capacity for adaptation to climate change and climate unpredictability. The African Development Bank (AfDB) has been supporting the PBS programme since 2006, particularly supporting front-line workers, alongside other development partners, including the World Bank, the UK's DFID and the European Union.

There is a growing body of evidence of what works and what is cost effective¹². Africa's sustained surge in growth and improved governance offers a wealth of examples and opportunities which has been refined by the Consortium on the basis of sufficient evidence of

¹⁰ Its population of 99.5 million is spread across 4 major ethnic groups having more than 5% of the population (Oromo 34.4%, Amhara 27%, Somali 6.2% and Tigray 6.1%) with Oromo being spoken by 34% and Amharic by 29%. It has religious diversity, with Orthodox (43.5%), Muslim (33.9%) and Protestant (18.5%) being the main affiliations. It is a youthful population with a median age of 17.6 years and a growth rate of 2.89%. 19.5% live in urban areas. Infant mortality is 53.37 deaths/1,000 live births. 57.3% access an improved drinking water source and 28% access an improved sanitation facility. Literacy is at 57.2% (male) and 41.1% (female) – Source: The World Factbook, CIA, 2015. UN Country Profile Data <http://data.un.org/CountryProfile.aspx?crName=ethiopia> gives a 2012 population of 83.1 million; a 2012 GDP growth rate of 8.5% (down from 12.6% in 2010 and 11.8% in 2005); mobile cellular subscriptions in 2012 of 23.7% (up from 8.3% in 2010); infant mortality rate (2010-2015) of 49.7 per 1000 live births; and primary-secondary gross enrolment ratios (f/m per 100) of 65.8/71.2.

¹¹ The Survey Data Collection produced little evidence of impact of innovations on employment, particularly for youth and women. Exceptions include the URRAP roads programme and particularly the use of traditional cobbles for roads which have spawned many micro-enterprises in which youth have benefitted.

¹² A large body of this evidence, particularly on health, education, credit and entrepreneurialism, has been brought together by Abhijit Banerjee and Esther Duflo in "Poor Economics – a radical rethinking of the way to fight global poverty" Public Affairs 2011. This reports on both randomised control trials and epidemiological evidence, often counter-intuitive, of what works or of what other inputs or policy changes are needed to enable a particular intervention to work. More recently, as part of a 6-country study, Poverty Action Lab partnered with the Relief Society of Tigray (REST) and the Dedebit Credit and Savings Institution (DECSI) to use a randomized control trial to assess the impact on graduation from the PSNP of an intervention package developed by BRAC in Bangladesh in 2002 of 5 components of Productive Asset Transfer; Technical Skills Training; Consumption support; Savings and Household visits. This intensive package over two years 2010-2012 showed sustainable economic impacts a year after ending the intervention, with consumption up by 18.2% and more households than the control group reporting having enough food every day; higher financial inclusion of borrowing and saving; but little change in psycho-social wellbeing or community participation and no improvement in women's decision-making power. Overall, the programme generated a 260% return to households on the investment costs per household. See <http://www.povertyactionlab.org/evaluation/graduating-ultra-poor-ethiopia>. There is a planned randomized control trial of particular aspects of the ESAP programme.

impact and transferability for the wide range of contexts across Ethiopia, together with Ethiopia's own experience of innovation and creative policy and solutions that reach the poorest and ensure multi-sectoral poverty reduction and employment generation. For example, the impact of Ethiopia's flagship land registration inclusion of women on certificates has been internationally recognized for its contribution to women's agricultural productivity.

1.4. PBS II Successes and Challenges

Available evidence has demonstrated that overall, Ethiopia's Protecting Basic Services project (PBS II) has been an exceptionally successful programme and has contributed in a significant way towards support in the expansion of basic services towards the achievement of national targets that in some cases exceed the Millennium Development Goals (MDGs) for 2015 – a challenge in which, starting from a poor base, Ethiopia has made outstanding progress. Challenges remain, in particular ensuring equality of outcomes across the country. This report recognises the successes in each sector and seeks to identify innovation that will help Ethiopia meet the challenges, not least in evolving more accountable and responsive, efficient and effective, basic service provision that can meet the needs of all in such a diverse country. Government has essentially put in place the policies, protocols, programmes and resources that can deliver basic services, but these need to be refined to suit all contexts. For this, increased participation of communities in planning, budgeting, implementing and monitoring programmes is essential. It will involve enabling innovation to flourish and will itself be innovative in creating a permissive environment while ensuring minimum standards and accountability.

1.5. PBS III Theories of Change (implicit and explicit)

PBS III has sought to take to scale PBS II successes in delivery of basic services, such as extending the Health Development Army and Health Extension Programme of a package of basic services to every Woreda, while allowing the Woreda to respond to local context through appropriate allocation of resources from the Basic Service Block Grants. Implicitly, PBS III is consolidating what works, backed by devolved decision-making and resources, supported by the Public Sector Capacity Building Programme, complemented by extending at community level the social accountability programme and tools for increased accountability. This reflects the primacy of the decentralized institutional governance framework in shaping and driving basic service delivery, as noted in the Conceptual Framework above. The Implicit theory of change in this framework is that decentralisation of budgets and decisions, backed by increased local accountability, will result in better management and more efficient and responsive service provision, which, with adoption and adaptation of best practice that is known to work well, will increase access and improve outcomes in health and education as well as agricultural production. Improvements in access to safe drinking water and sanitation are seen as supporting improved health outcomes for which hygiene and behaviour change are instrumental objectives. This outcome in turn also promotes higher access to education and enrolment and reduction in school dropout. Improving rural roads contributes to access to basic services and to markets. IT infrastructure is used in relation to improving basic services, where the infrastructure is accessible, but is not seen as an integral part of improving basic service provision that offers a return on investment in terms of outcomes.

As a report following completion of PBS II noted: *Underpinning this expansion has been the Government's unwavering commitment to the programme, providing approximately 60 percent of overall funding to the block grant. Also of significance have been the actions taken to make*

the public financial management system more robust, efforts to help government listen to its citizens, and support for improving measurement of progress and impact. These combined actions help improve basic service delivery now and long into the future. As a consequence, government and donors no longer speak in terms of ‘protecting’ basic services; rather, they are now focused on continued expansion to ensure that all Ethiopians are reached. As a result, the third phase of the PBS Programme now stands for Promoting Basic Services¹³.

PBS has had a clear, albeit implicit, underlying theory of change. The theory driving PBS development is that a virtuous circle of providing avenues for articulation of need by communities (Social Accountability) will lead to improved quality of services if matched by greater efficiency of resource deployment (in part through Federal Block Grant, Local Investment Grant and MDG Fund and front-line staff deployment), which in turn will lead to greater access to and use of basic services, which then will prove effective in changing outcomes. The assumption is that service quality will be improved through greater accountability and access increased as services become more responsive to local needs and context. Improved efficiency will release more resources for service delivery where it is most needed and more appropriate responsive services will be more effective in transforming society and addressing multi-dimensional poverty. This will only be possible if capacities for appropriate programme design and resource deployment are enhanced and participation of communities increased. However, this requires a significant shift away from a top-down emphasis on inputs and outputs to a focus on achieving outcomes in terms of improved health, nutrition and education status and agricultural and associated added value. Such a cultural change in delivery will be reinforced by attention to disaggregated measures of outcomes, particularly focusing on the most marginalised and those with the poorest current outcomes – indeed a clear Management for Results approach.

This report will show how such a Theory of Change demands increased innovation and an environment in which innovation will flourish in developing a more responsive and therefore effective, more accountable and therefore efficient, service delivery with strong two-way linkages vertically and horizontally. There are parallels here with the global shift from the essentially input/output supply-driven MDGs towards the more rights-based and inclusive demand-driven post-2015 agenda with its focus on equality of outcomes for all. Not surprisingly many of the early PBS indicators were at the level of inputs/outputs, rather than of outcomes disaggregated to focus on reducing geographical (at the level of Kebeles), social, gender and other inequalities. Two of the best international examples of achieving such a transformation of focus to the poorest have been India’s national Sarva Shiksha Abhiyan Education-for-All programme¹⁴ and its National Rural Health Mission¹⁵ and the Reproductive & Child Health programme Phase 2, which in 2005 turned on its head the previous Phase 1 programme that had largely focused on inputs and outputs¹⁶.

The various development partners (DPs) with the Government of Ethiopia (GoE) have articulated their own version of the Theory of Change in their own support programme

¹³ Sandford, J. and Connolly, D.: Serving the Ethiopian People – The Origins and Evolution of the PBS Programme, World Bank 2012.

¹⁴ See www.ssa.nic.in for a summary of its goals and details of its programmes.

¹⁵ The National Health Mission works on the basis of an “Outcome Budget”. – see www.mohfw.nic.in under Documents. The Executive Summary states: “The Government of India in association with the States has been implementing various programmes to provide affordable, equitable, accessible and quality health care to the people with focus on poor and the underprivileged. NHM is the main plank of rural health care interventions through improvements made across the rural health delivery system in the country. Emphasis was accorded to reducing disparities in health care across regions and communities by ensuring access to affordable health care. National Health Mission (NHM) has promoted decentralized planning and implementation providing flexibility to states and local body institutions resulting in improved programme management, innovative practices in health care delivery, improved and better drug availability, etc.”

¹⁶ A disaggregated outcome focus and its administrative incentives can of itself drive up performance, as was found in the Government of India \$10 billion Reproductive and Child Health programme phase 2. Following the required placed by the centre on the States to focus on outcomes for the poorest and addressing the failures of service delivery for these, changes in outcomes across States were evident even before the linked Performance Fund was activated in order to reward and sustain such performance. The Indian administrative culture of top-down planning and protocols had been transformed in anticipation of the financial reward structure for well performing states, which were to be based on their improvements in addressing the poorest outcomes from the state’s baseline.

documents. AfDB notes that the goal of its support for PBS is “to contribute to reducing poverty and improving the standard of living of Ethiopians”; the purpose of the programme is “to expand access and improve the quality of decentralised delivery of services”; enhanced delivery is seen as “reliant upon more robust PFM systems and structures, which in turn is enhanced by deepened local accountability and transparency in basic service delivery”¹⁷. Another development partner set out the logic¹⁸ along the lines of:

- to meet poverty reduction goals in Ethiopia there must be a significant increase in the usage of good quality basic services.
- increased usage requires better quality services available at all levels, backed by disaggregated data to measure results and feedback to enable good decisions about the level and allocation of resources.
- better quality services require substantial additional public spending.
- more efficient and effective public spending – with optimal returns on investment - requires strengthened management systems down to the *Woreda* level, for planning, budgeting and delivery of services, with citizens participation.

As the Conceptual Framework suggests, sector provision of services cannot be effectively delivered independently of the decentralized governance for basic service delivery and it also requires inter-sectoral collaboration and partnerships between ministries and with other players on the ground. Failure to achieve such collaboration and partnerships undermines service delivery. Lack of adequate mechanisms for accountability and monitoring weaken management and responsiveness of services. To achieve these requires capacity building of sector and finance staff, especially at the regional BoFED as well as *Woreda* and *Kebele* levels, training them in transparent planning and budgeting as well as innovative training of citizens in participatory budgeting, which has been part of the PBS social accountability investment.

In its PBS III Annual Review Summary for 2014¹⁹, DFID noted the UK’s reduced contribution to PBS, including the cancellation of the Results Enhancement Fund, claiming “a more sustainable approach to PBS that encourages the Government of Ethiopia to take responsibility for a larger proportion of recurrent costs as their own domestic budget and tax revenues increase”. Among assumptions and risks that DFID consider should be added to the programme logframe and which seem to question the robustness of DFID’s own PBS Theory of Change are: Increased social accountability creates incentives for sustainable service delivery and helps to lock in benefits of the programme for the long term; Sufficient space exists for citizens and civil society to engage with and influence government over key service delivery issues; Citizens have confidence to engage in the space that does exist, particularly

¹⁷ AfDB PBS-III Appraisal Report, July 2012, p12

¹⁸ The Assumptions underlying the DFID PBS Theory of Change reflect the primacy of investing in the decentralized institutional governance framework, including strong citizenship feedback, in order to transform the quality and quantity of basic services for improved outcomes. The assumptions were that:

Block grant financing results in more recurrent resources at local levels (evidence = strong);

Financing improved PFM, planning and budgeting leads to more efficient expenditure (evidence = medium);

Financing for improved M&E systems leads to better functioning M&E systems (evidence = medium);

Financing social accountability mechanisms leads to better functioning citizen feedback (evidence = medium)

Then:

Stronger citizen feedback mechanisms result in better informed expenditure decisions (evidence = medium);

Better Information, Monitoring and Evaluation systems generate data that is used by decision makers (evidence = medium);

An appropriate quantity of recurrent resources and better expenditure management lead to better quality services (evidence = strong);

And:

Better services result in greater use of services (evidence = limited);

And:

“Greater use of basic services leads to accelerated progress towards achievement of MDGs and reduced poverty” (evidence = strong)

¹⁹ DFID Annual Review Summary Sheet for Promotion of Basic Services Programme Phase III (PBS) 20-10-14 to 7-11-14

on budget and service delivery issues; and the Grievance Redress Mechanism has the will and authority to support citizens to address issues that are raised. These risks/assumptions reflect the complex interplay required between the technical and governance aspects of quality basic service delivery.

A Feb 2015 report by ITAD on Value For Money in PBS²⁰ notes the complexity of PBS:

- *It involves multiple sectors, and in each of them PBS deliberately complements other Government of Ethiopia and donor partner activities. To take one example, the block grant is a major component of the funding of regional and Woreda basic health programmes; but these take place within a wider context of national health strategy and a well - established sector coordination framework (the Health Sector Development Programme – HSDP). Within the HSDP framework, numerous aid-supported programmes co-exist; some are national in scope, others more local. There is similar complexity in each of the other focal sectors.*
- *It includes interlocking sub-programmes (block grants, transparency and accountability) each of them complex in themselves, but designed to complement each other.*
- *It has multiple objectives, some of which involve hard-to-measure outcomes and impacts – for example quality, accountability, decentralisation and capacity development, and aid effectiveness.*
- *It operates through multiple levels of government and is adapted to Ethiopia's unique system of decentralisation. Its financial flows allow significant discretion to recipients (for example, the allocation of the grant between sectors is not directly prescribed) and PBS financing operates in conjunction with other resources available to regions and Woredas through a variety of channels which follow Government public financial management systems in varying degrees. The incentive frameworks for local governments, their capacity, and the effectiveness of direct and indirect efforts to strengthen their capacity and accountability are key issues.*

1.6. Study Methods: Defining Innovations in Basic Service Delivery (innovations and adoption & adaptation of good practice)

1.6.1. Defining Innovation in order to Identify Real Innovation

As already noted (EC, 2010), social innovation refers to 'a novel solution to a social problem that is more effective, efficient, sustainable, or just, than existing solutions and ... can be a product, production process, or technology ... but it can also be a principle, an idea, a piece of legislation, a social movement, an intervention, or some combination of them'. EC 2012 Literature Review draws together several approaches and concludes that "*conceptualization of innovation in social services in Europe can be understood as an innovation process framework. ... According to this framework, social service can only be considered innovative if introducing:*

- *new forms of service,*
- *new forms of outcome,*
- *new ways of delivery/process,*
- *new forms of governance,*
- *new forms of resourcing,*
- *new way of monitoring,*

²⁰ itad: Value for Money Assessment of the Promotion of Basic Services (PBS) Programme, Final Report, DFID-Ethiopia Feb 2015 pp3-4

- *establishes new practices for old needs, new perspectives on old needs or new practices for a new need*²¹.

Drawing on the Oslo Manual, the study considered the following kinds of basic service innovations:

- Introduction of technically new service or qualitative change in service provided;
- Delivery innovation – change in process of delivery: who, how, to whom;
- Reaching new beneficiaries – reach and inclusion;
- New sources of supply of materials and providers (including PPP);
- Changes in governance of basic service delivery.

Paraphrasing *Real Innovation*²² for use in the training of the Ethiopia Data Collectors, their company statement was re-phrased in the PBS context to say that: *At Woreda level, administration culture and leadership are two prominent barriers to innovation. If the PBS and Woreda administration culture is not set-up to accept new ideas and creative contributions from its staff then inventions will be unable to break through to the marketplace of service beneficiaries and the community. The sector in a particular Woreda may be structured so that the development of an innovation is more challenging than in another sector or Woreda. This confining structure can be physical or, alternatively, systemic in terms of the service sector's culture. ... and ... An innovation is an extension of an invention. ... For this invention to become an innovation, the community needs to be introduced to the invention and have the invention improve their lives in some way. This may happen behind the scenes (e.g., streamlined processes that deliver drugs more efficiently to a health facility or smart incentives for mature midwives to accept posting to remote areas) or be clearly visible (e.g. a simple maintainable water pump or household water purification device or a gravity-powered solar lamp or an accessible online teaching programme). In summary: "Real" Innovation does not happen haphazardly or sporadically within organizations. "Real" Innovation is accomplished consistently and systematically, given the true voice of the community and beneficiaries and a process for delivering solutions. Sectors and Regions that innovate successfully do so using an efficient and repeatable methodology. Success is not dependent upon genius – it emerges from the disciplined application of a proven innovation methodology.* This provided examples in theory for the Data Collectors in advance of going out to the field in order to recognize and capture appropriate examples of real innovation.

The study took “**Innovation**”, or “*fetera*” in Amharic, in basic services to be **defined operationally** for the purposes of the collection and analysis of data as: ***a new service or design of a service or a qualitative change in the service provided; or change in the process of delivery, or a new way of designing, or providing, or managing, or financing or monitoring an existing service; or a new packaging of several existing services or new partnerships.*** Innovation could be Technical or in Delivery or in Governance, or in reaching new beneficiaries. It may not be confined to one sector. Many innovations cut across sectors and indicate the strength of having overarching PBS policy and implementation that prevents a silo approach to service provision. It could involve new sources of supply of materials and providers, including public-private partnerships (PPP). It could include traditional knowledge applied in a new context. It might be new approaches to training.

1.6.2. Identifying Innovations

Facilitators were expected to initiate discussion on the prevalence and inter-relationship at Woreda level of “inventions” (new products and processes), “innovators”, who seek to utilize and institutionalize inventions, and “innovation” of new products and processes that are being utilized and benefitting community and individual wellbeing. In practice, facilitators and respondents tended to focus on local inventions that had not led to innovation and on adoption

²¹ EC 2012 pages 106-107. See http://www.dwi.uni-heidelberg.de/md/dwi/forschung/innovatio/literature_review.pdf

²² See the webpage http://www.realinnovation.com/content/what_is_innovation.asp accessed 25-7-14

of good practice that was new to communities. The study expected to reveal to what extent PBS already applies or could be attuned to apply in a disciplined way a proven innovation methodology. The Data Collection was required to focus on: **(a) how national policies have innovatively been adapted to local context; (b) how innovative pilots have been adopted as design for national programmes; and (c) how small local innovations interact with higher level Woreda service delivery.**

The FGD/KII training guide was designed to facilitate discussions and collect in-depth information from technical experts and civil society (NGOs) at Woreda level and individuals at community/facility level regarding technical, delivery and governance innovations in basic service delivery in their Woreda/community. It noted that for an innovation to be adopted and successful, it may require the “right combination of institutional and management arrangements, human and financial resources, tools and mechanism for delivery, participation and engagement of key stakeholders and beneficiaries, monitoring and feedback mechanism”. The combination of these is what can be considered the “enabling environment for promoting innovation”. The training guide noted: **An innovation may fail without the right conditions, so we need to know not only the innovation, but the circumstances surrounding it.**

It was expected that some innovations involve PBS performance incentives, administrative efficiency and capacity to reach the poorest and most marginalized and monitor its effectiveness and to provide and respond to feedback mechanisms. Innovative solutions in all these areas of governance of basic service delivery should be able to be assessed for their relevance and applicability and contribution to programme effectiveness and gaps in capacity and authority identified with a view to appropriate recommendations.

Box 1: Governance Innovation in Service Delivery

Drop Of Water – an Innovation in Partnerships

In 2009, civil engineering student Hermela and six university students from Mekele University created a platform through which University students could be involved in the needs of the communities in areas surrounding the university campus. The platform was inspired by a visit that Matt Damon made to Mekele to support REST and its water projects in Mekele. Hermela and her friends were shocked by the level of need in their University town and the surrounding areas, so approached REST to see what the students at Mekele University could do to alleviate some of these challenges. REST was able to arrange a visit to some potential project sites. The area they visited had no clean water. Hermela and her friends campaigned and fund-raised for water points and in their final year at university they had managed to construct 5 wells. Part of their work in Mekele University was to raise awareness on hygiene issues within the university and amongst university students. The project has gone some way to narrow the gap between universities and the communities in which they are located creating a forum to facilitate the involvement of Mekele University, as an institution, to become involved in the process of engaging in issues and creating solutions affecting the communities in which they are located.

In 2010 Hermela graduated from Mekele University and was employed by a large construction company. She felt a strong pull to go back to the work of building water points and resigned from the construction job to acquire a Federal license which would enable the new organization, Drop of Water, to work anywhere in Ethiopia. In November 2012, Hermela took part in a Water Safety Planning course in Uganda. At present, Drop of Water is partnered with Norway Church Aid, WHO, mostly for technical advice, Mekele University and others. Drop of Water has been asked to develop Water Safety Plans and is moving towards a model of implementation that has communities leading projects in Mekele and in Harar using a program of Aware, Activate and Change.

Innovation & Replication

What is innovative is not essentially the wells, but creating a new form of partnership between (i) the university as an institution, both students and faculty, (ii) technical agencies and funders and (iii) communities to solve their own water and sanitation problems. This could be replicated widely to create new Ethiopian capacity for partnerships in development that deliver services across the country, especially in remote areas.

Website www.dow-dropofwater.org

E-mail hfdw2001@yahoo.com and hermella.w@dow-dropofwater.org

The research instrument was divided into the five sectors of PBS – Agriculture; Rural Roads; Health; Water, Sanitation & Hygiene (WaSH); Education; and Governance, covering Budgets and Planning, Capacity Building, Incentives for Service Delivery, Monitoring and Accountability and overall governance, including gender equality in delivery of basic services. Questions and probes in each sector covered potential Technical, Delivery and Governance innovations in delivering basic services in the sector. Data Collectors were given case studies and broad examples (Annex 3 §14.10).

Through the training, Data Collectors learnt to recognise what is innovation in a complex transformation of service provision or implementation of a simple product. For example, in a model description of the Drop of Water organisation (see Box 1), after considered debate they agreed that the delivery of protected water points is not innovative. Such water points have been delivered for many years. What is innovative is the engagement of university students in providing improved water supplies and the new support partnerships generated with Universities, funding Foundations, existing CSOs and international agencies (REST and WHO). The innovator is a social entrepreneur in new partnerships for basic service delivery.

1.6.3. Gap between Innovator, invention and innovation

Clearly, Ethiopia is full of innovators whose innovations need to be realised in the right environment. In addition to innovations described in the sector analyses below, the Data Collection identified several individual innovators producing inventions (not necessarily innovations) in Oromia, all in schools, although not the same Woredas, and two others in Tigray. A 15-year-old girl in Class 7 in Gursum, Oromia, in doing lab work in her school, has invented a TV antenna; rat poison; an incubator; and a machine to tell when milk turns into butter. A school has developed and installed a radio antenna for improving school radio reception in Miessa, Oromia. Another innovator is a Primary teacher in Bedese, Oromia. A woman in Semen Mekele city, in Tigray, has developed a method of mixing charcoal and clay to produce a new charcoal that is much more energy efficient than normal charcoal - and taught 6 other women to do this so that they all increase their income. The Neo-Natal Intensive Care (NICO) alarm developed in Adigrat, Tigray is also an interesting technical invention. IT utilisation in education includes Excel Automation in DireDawa that provides teacher and student quality support and the Special Exam Administration in Jile Tumuga, Amhara, which enables administrators to test if teachers are randomly allocating marks to students not based on genuine marking. A less technical innovation is the Community Conversations for Capacity Enhancement (CCC) dialogues aimed at reducing spread of HIV in SNNP regional. So innovators and inventions do occur in Ethiopia as in any vibrant society, but are not necessarily developed or able to be taken to scale.

1.6.4. Developing capacity to turn invention into innovation

In the example from delivering services for the urban poor, the innovation is empowering the poor to identify their own needs and solutions to meeting these in new ways, such as the shared water, sanitation and cooking facilities for high-rise condominiums. While these “products” are themselves inventions that have become innovations, the approach itself is innovative and, without the approach, the innovative products would not have been adopted and community wellbeing raised. The innovation of the Birhan Social Development College (see Box 3) in training Community Service staff lies in drawing on their experience and that of similar expertise in government and non-government organisations to develop an experiential approach to learning, based on community identification of needs. It seeks to train professionals in listening to people’s needs and views to create responsive service provision, while meeting professional standards of accreditation.

Such interactive, experiential training is critical in creating an environment in which innovation can flourish and services evolve in response to community needs. Such innovation in response to need can overcome the constraints on inclusive service delivery in a complex social and ecological environment. One-size cannot fit all circumstances in Ethiopia and within a broad policy framework and setting of minimum standards, complex needs can be met through innovation at the Woreda level, where conditions are best understood. Top-down protocols, the responsibility of government, must be balanced by community led initiatives and where the two meet there is potential for creative innovation. The incentive for such innovation is a shift away from supply-driven standardised service inputs and delivery to a focus on achieving quality outcomes for all in terms of their health, education, agricultural production and incomes. Input-focused development dampens innovation, which flourishes in a demand-driven service environment, where the focus is shifted to achieving outcomes for all.

The study expected to discover how responsive services were to local needs and the extent to which innovative solutions are being found in order to overcome constraints and achieve outcomes for all. Based on quality participatory information from the local and Woreda level, conclusions can be drawn as to where and how innovation is flourishing in meeting demand.

1.7. Study Methods: Data Collection

1.7.1. Sampling Frame

As a basis for analysing innovation taking place in basic service delivery, data was collected across the country at Woreda and community level. A sampling frame (see Annex 3, §14.1 – Woreda Selection Criteria)) was developed to ensure that a full cross-section of Woredas was selected in order to test correlations between levels and kinds of innovation and environmental, social, administrative and other characteristics surrounding the delivery of services. Data, focusing on innovation, could then be collected from a range of administrative and technical informants, government and civil society, service providers and beneficiaries, at all levels down to the community. The aim was to ensure that no relevant innovation in the sample was missed.

At a meeting in July 2014 between the AfDB contracted PBS Innovations Analysis Consortium team and the separately contracted MoFED/World Bank Data Collection team from BDS-CDR the parameters for the Data Collection were agreed. The survey was designed to provide information on innovations for the following domains: Ethiopia as a whole; urban and rural; and 11 geographic areas (9 regions and 2 city administrations), namely: Tigray; Afar; Amhara; Oromia; Somali; Benishangul-Gumuz; Southern Nations, Nationalities and Peoples (SNNP); Gambella; Harari; Addis Ababa and Dire Dawa. The survey expected to ask Woreda sector bureaux (health, education, water, agriculture and rural roads), community organizations, not-for-profit service providers and households to collect information on a number of aspects including new or improved services, products, or processes introduced, objectives of innovation and factors hampering or facilitating innovation as well as reports and individual sources of information on innovations. MoFED sent letters of introduction to Regional BoFEDs and thence the Woredas. As well as the BDS-CDR Data Collection teams visiting every Regional capital and 96 Woreda capitals to hold Key Informant Interviews and focus group discussions with officials, front-line workers and communities, the Innovations Analysis Consortium team experts visited sector and BoFED SNNP Regional offices in Awassa and also Shula Woreda, Adama Zone, Oromia, in order to discuss innovation in PBS and sense the range of evidence that could be expected from the Data Collection. The approach being taken and the Inception Report were validated in full day's workshop of BDS-CDR and the Analysis Consortium with key Stakeholders in Addis Ababa on 24th October 2014, opened by Ato Melaku Kifle, Senior Adviser to Channel One Programmes in MoFED. The workshop also offered excellent examples of innovations known to the participants.

MoFED requested a sample of 96 Woredas, chosen according to a formula that would ensure selection of far/close to Regional Capital; well/poorly connected; good/poor social indicators²³. Initially the plan was to cover 1,928 activities in which 200 key informants from all regions, 1,056 Focus Group Discussions (FGD) and 872 Key Informant Interviews (KII) in all Regions and the sample of 96 Woredas. In practice, in the field, the planned activities had to be altered to fit the circumstances.

1.7.2. Selection & Training of Data Collectors

The planned approach for facilitated participatory processes was rejected in favour of a more strongly structured instrument with explicit questions and probes seeking examples within the parameters of the question. Even this structured approach, with an approved instrument covering the five PBS sectors and the governance and financing of basic service provision, proved challenging for enumerators used to quantitative surveys and closed questions. Quality qualitative data is far more difficult to generate than quantitative data, requiring facilitators that are familiar with local languages and sector contexts, gender sensitive and able to guide a respondent to understand and recognize innovation in practice.

Training on how to recognise an innovation²⁴ and on qualitative participatory research principles and practice, with facilitation, interviewing and recording practice, was provided by a combined BDS-CDR and Innovations Analysis Consortium team²⁵, but budgets constrained the first training to five days and a second training for later recruits to only three days, with shorter training to fill gaps of coordinator-researchers for certain regions. Delays in approval of the instrument led to Data Collectors withdrawing and replacements being sought. The final selection of Data Collectors produced 58 field workers in 13 teams, with three teams deployed in Oromia, two teams in Amhara and 2 teams in SNNP regions and one team in each of the remaining regions, expecting coordinators for each team who had wide experience in their respective regions, speaking and writing their local languages fluently. The coordinator supervisors were selected from the best trainees, with responsibility for ongoing mentoring and quality control. Despite selection criteria of Masters and PhD student qualifications, there proved to be a lack of available experience in participatory approaches and understanding of its requirements. The result was weak following up in FGDs and KIIs and failure to identify and follow innovations down to community level and to collect the required data on costs and benefits and evidence from annual or other reviews. BDS-CDR sought to recruit as many female Data Collectors as possible, but it proved hard to recruit and train sufficient women with the necessary qualifications and willingness to travel to remote Woredas. There was also consideration of recruiting a breadth of language skills and sector knowledge, but the majority were bilingual in Amharic and English and more comfortable in Amharic. Discussion on the translation of key words and “innovation” in particular was carried out in the training and “fetera” was agreed as the Amharic equivalent. No translation of the instrument was made as the Data Collectors expressed competence in simultaneous translation into Amharic and use of a mixture of languages as required in specific Woredas, with local interpreters for meetings in the community. The instrument was pilot tested for each sector in Yeka and Arada sub-cities in Addis Ababa, with monitoring of team member understanding of their roles and interviewing protocols. De-briefing led to instrument revision and to adjustments to the interviewing protocol. BDS-CDR HQ data management staff were also involved. All BDS-CDR staff

²³ 78 Woredas were selected using the criteria in Annex 1.1, while the remaining 18 were selected purposely in consultation with regional officials to ensure that strong innovations would not be missed, with 3 Woredas selected from each regions of Amhara, SNNP, Tigray and Oromia (12 additional Woredas) and similarly one from each of: Afar, Harar/Dire Dawa, Gambella, Benishangul-Gumuz, Somali and Addis Ababa regions of the country. The 78 Woreda sample selection were conducted by a statistician from CSA on the basis of advice and criteria from the Analysis Consortium statistician.

²⁴ including case study discussions clarifying distinctions between invention; innovator; innovation; best practice; adoption and adaptation of known practice and between technical, delivery and governance innovations

²⁵ Dr Tadele Ferede, Dr Jemal Aliy, Dr Workneh Negatu and Hareg Adamu of BDS-CDR and Dr Dennis Pain and Dr Memmenaha Haile-Giorgis of ACTS Consultancy. The BDS-CDR team was coordinated by Hareg Adamu (later Eden Fenta) and included Yigrem Tefera Yirgu, Statistician, and Yemane Mebrahtu, Data Quality Controller. The survey was carried out under the guidance of Ato Abate Mamo of COPCU; Wendm Mekasha of World Bank responsible for the BDS-CDR contract; and Mulu Merhatsidk and Mulle Chikoko of AfDB responsible for the Innovations Analysis Consortium.

engaged in research are required to hold to a Code of Conduct and Ethics. Completed questionnaire/forms were delivered via soft copy to the central office of the survey at BDS-CDR on a regular basis for further quality control and validation.

In each Woreda, separate Meetings were required to be conducted with a) technical experts; b) civil society and NGOs; c) two FGDs with each of Health Extension Workers (HEWs) and of Agricultural Extension Workers (AEWs) and/or teachers; and d) between 1 and 4 FGDs with beneficiaries of one or more innovations in the community, which might involve only women or only youth or only children, depending on the innovation. The civil society meeting was expected to be held on the first day and be asked to identify innovations worth following up and to facilitate logistics for the community FGDs with beneficiaries and for a KII with the innovation implementer addressing specific innovations. Data Collectors were told in their training that the main purpose was, through discussion, to identify innovations of all kinds and record as much detail as possible about the innovation and its environment for completing the Proforma, which might involve follow up as a case study. Identification of specific innovations and achieving the community level FGDs proved challenging. Additionally, many of the required FGDs and KIIs could not be held due to special conditions in particular Woredas or Regions²⁶. Data collection lasted for the period 17 December 2014 to 2 March 2015, with editing and data entry and summary writers continuing through April 2015.

The 1,565 FGDs and KIIs were expected to lead to collated Summaries for each sector in all 96 Woredas, drawing on all sources in the Woreda – KIIs, FGDs with technical sector experts and with civil society as well as the FGDs with HEWs, with teachers and with AEWs. However, most of the Summaries reduced to being a record of a KII with the Bureau head in the presence of some of their technical experts. Examples were not systematically given to support the claimed presence of innovations and innovations known to one respondent, but not known to others in the sector and Woreda, failed to be noted in the Summaries. Only a few interviews regarding innovation in WaSH and Rural Roads were recorded for less than 10% of Woredas. The identified innovations across the sectors in each Woreda were expected to lead to completion of a Proforma²⁷, giving full details of the innovation and its costs and benefits and links to reports and implementers, which could be used in an interactive map of innovations across the country. Only two such Proforma were completed approaching the expected standard. Many proved to be examples of inventions rather than innovations, with about 70% of all Questionnaire responses limited to Yes/No or missing. Innovations have not been described adequately to determine the aspect that is truly innovative, rather than simply new in application in that location. Without data on costs and benefits, econometric VfM and cost-benefit analysis had to be foregone. Generally, the records lack data on what the innovation addresses; lack beneficiary perspective on the impact on access to services and therefore wellbeing; lack description of which social categories benefit; lack evidence for going to scale and of sustainability and replicability; lack supporting evidence in terms of reviews, reports etc.

²⁶ Unavoidable reasons included the celebration of political holidays, particularly in Tigray region (the celebration of 40 years TPLF anniversary forced the data collectors not to conduct 28 KIIs and 18 FGDs); in Afar region (the celebration of the pastoralists day prevented the data collectors conducting 8 KIIs and the apparent absence of NGOs in the four Woredas eventually led them not to conduct the required 4 FGDs with civil society); Addis Ababa region (the failure to identify agriculture extension workers and health extension workers compelled the data collectors not to conduct 18 FGDs). In addition, in Benishangul-Gumuz and Dire Dawa and Harar, the absence of Woreda level administration structure prohibited the data collectors conducting 14 interviews and 31 interviews respectively; in Somali region (the nations, nationalities and people's day celebration forced the data collectors not to conduct 7 KIIs and the absence of NGOs in 5 Woredas led them not to conduct 5 FGDs). There was also a problem on the institutional structure of some sectors like WASH and Rural Roads where relevant offices in some Woredas did not exist (either phased out or not included in the administrative structure) and in other Woredas they are merged with other functions. For instance WaSH is covered within Health and within Water, Energy and Mining/Irrigation offices and Rural Roads office is merged with agriculture sector; as a result, 64 interviews were only addressed indirectly. Finally, absence of NGOs was observed in different Woredas of the following regions (Oromia in 6 Woredas, Amhara in 5 Woredas, Benishangul-Gumuz in 2 Woredas, SNNP in 4 Woredas and Tigray in 3 Woredas). As a result, there were 218 planned interviews that could not be conducted by the data collectors. Consequently, this reduces the amount of the expected data to be 1710 interviews. Practically, BDS-CDR has managed to complete 1565 activities, which constitutes 93% of the newly set maximum number of activities (that is 1710 activities). The reduction in numbers interviewed is mainly attributed to unavailability of Woreda officials; newly appointed officials, unable to respond to interviews; unavailability of interview participant at the scheduled time.

²⁷ See Annex 1.7

Had time permitted, longer training of fewer data collectors with the planned refresher training after the regional level meetings and first Woreda research, with strong back-up mentoring spread over a much longer research schedule would have produced better results. The weakness of participatory research capacity in Ethiopia will take time, resources and opportunities to develop. The problems identified may reflect a lack of experienced qualitative data collectors in Ethiopia. However, the project has invested significantly in new capacity, which will be of use for future research.

1.7.3. Results of Data Collection

By completion of Data Collection and hand-over to the Analysis Consortium by end May, there were the following “Summaries”, including those that were simply KIs with Bureau heads²⁸:

Table 1: Woredas having sector summaries

	Total	Agriculture		Health		WaSH		Rural Roads		Education		Governance / Finance	
Regions	10	10	100%	8	80%	2	20%	1	10%	10	100%	9	90%

²⁸ Further details are available in Annex 3 §14.5

Woredas	96	88	92%	96	100%	8	8%	9	9%	95	99%	93	97%
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Proforma provided very limited information on some innovations looked at by the Data Collectors²⁹. Only two in Diredawa achieved much of the content expected and another 17 had the potential for analysis, – too few for any meaningful analysis of the enabling conditions for innovation to be adopted and effective. Even lacking supporting evidence, it would seem that some have the potential for scaling up. Most records were in Agriculture (39), Education (39), Health (33) and Governance/Finance (22), with few for WASH (11) and Rural Roads (2). Many of these were simply records of local implementation of known initiatives, such as an urban sewage system or pipe-type bridges for rural roads. Many were national or regional supply-side innovations being adopted in Woredas, such as the Health Development Army or villagization³⁰. Others included adoption of well-known practices from elsewhere, often introduced by an NGO, such as improved bee-hives or a campaign for community-led total sanitation or against harmful practices, particularly affecting women and girls. However, the fact that respondents identified these as significant innovations reflects the fact that they were new to the communities where they have only recently been introduced, which is a sign that people are willing to adopt what is for them an innovation, such as ox-ploughing or planting tef or other crops in rows or hybridising cattle for increased production or introducing women to small animal husbandry. There is a willingness to change. The agents of change may be as important as the design of a change. Whether it is the woman teacher in Abiy Adi Woreda in Tigray, or the SNNP regional initiative in schools such as Leku Secondary and Dej Arada Primary, that introduces a personal hygiene room and sanitary supplies for girls in a school, these agents of change have separately started something that can and should be copied in every school to make a difference for girls, their continuing in education and their future lives.

Across all sectors, 53 were Technical innovations, 66 Delivery, 34 Governance and 2 a mixture. Of only 15 Innovations for which there was both sufficient evidence and which could be useful for scaling up, 7 were found in Diredawa. However, this could reflect the ability of the Data Collection team in Diredawa to find and record these, rather than a more innovative environment in Diredawa. In addition to Harari-Diredawa, Amhara and Gambella suggested proportionally (not statistically valid) more innovation per Woreda in the survey.

Table 2: Innovation Proforma from All Woredas Surveyed

	Addis	Afar	Amhara	Benishangul-Gumuz	Gambella	Harari Diredawa	Oromia	SNNP	Somali	Tigray	Total
Number of Proforma	14	5	54	7	28	11	5	14	9	7	154
Proforma having potential for Analysis	6	0	2	0	1	7	2	0	0	1	19

²⁹ Further details are available in Annex 3 §14.6 and §14.7

³⁰ Villagization is a common theme across Africa as a supply-side solution to what appears to be inefficient delivery of basic services to scattered populations, rather than finding innovative ways of responding to demand that may be more effective in terms of appropriate service delivery. Villagization has a long history in Ethiopia from the Imperial era to the present. A similar policy was introduced in Tanzania for a decade from 1974 and its impact has been the subject of much debate. However, Philip Osafo-Kwaako, 2012, found that developmental villages in Tanzania, in the short-run, led to an increase in primary school completion rates, literacy rates and total years of schooling and that districts which experienced a high share of developmental villages have greater availability of some public goods and citizens report higher rates of participation in community activities, but per-capita household consumption is significantly lower. Villagization, *Imidugudu* in Rwanda, has not led to the expected diversification of livelihoods according to Isaksson and the approach advocated by the Millennium Villages has had disputed cost-effectiveness of its high level of investment, which is now being subjected to independent academic evaluation.

Potential for Scaling-up, but mostly weak evidence	2	0	19	0	6	10	2	2	2	3	46
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BDS-CDR Data Collection Team expected to obtain from existing CSA datasets a set of secondary data of Woreda characteristics covering critical indicators. These indicators could then be linked to the Woreda Innovations Summaries providing a powerful dataset. CSA proved unable to provide comprehensive Woreda level secondary datasets, leaving many indicators to be collected by the data collectors from Woreda officials – a task that proved impossible to achieve in the two-and-a-half days available for the Data Collection teams in each Woreda for the FGDs and KIIs. An incomplete set of secondary data was available for only 56 of the 96 Woredas, preventing systematic analysis against this data set. Woreda capitals were also provided with GPS coordinates for potential mapping of innovations.

The Summaries and Proforma were expected to provide the basis for analysis, using NVivo software, of the distribution and prevalence of innovations across sectors and environments, drawing on the linked Woreda characteristics. This could have provided a powerful analysis tool, but the limitations in completeness and quality has left the analysis to be based on descriptive indicative associations, with NVivo being used simply to collate, sort and provide primary analysis of the data by checking for occurrence of key themes.

Despite the significant data constraints preventing evidence-based analysis of innovations themselves, some sector analysis of lists of innovations has been carried out, offering effective indications on where innovation in basic service delivery is occurring and where it is proving positive in terms of improved outcomes.

In Summary

Innovations provide a novel solution to a social problem that is more effective, efficient, sustainable, or just, than existing solutions and ... can be a product, production process, or technology ... or ... a piece of legislation, a social movement, ... or some combination of them. Innovations require the right environment to flourish. Innovations contribute to the performance of PBS at several levels in its implicit Theory of Change that quality will improve if there is greater accountability and access will be increased as services become more responsive to local needs and context, matched by improved efficiency and effectiveness, provided capacities are enhanced and participation of communities increased. This requires a shift of focus from inputs and outputs to one of achieving outcomes. The problems of adequate participatory qualitative data collection have prevented anticipated robust quantitative analysis of the environment in which innovation in basic service delivery can flourish. However, enough has been recorded to show that innovation is present, as well as plenty of adoption and adaptation of known practices introduced from elsewhere – innovative as they seem to local communities unfamiliar with these approaches.

Chapter 2

2. Decentralized Service Delivery - Environment for Promotion of Basic Services

Chapter 2 (2.1 - 2.7) presents the current status of the enabling environment for the promotion of Basic Services created by the strengthened Decentralized Governance for Service Delivery. Chapter 3 (3.1 - 3.8) presents the description, assessment, analysis and potential of innovations for scaling up, including the need for an organizational cultural change.

2.1. Policy and Regulatory Framework

Under the overall oversight of MoFED, the overarching policy and regulatory framework for managing PBS are governed by Government of Ethiopia's decentralized governance system. It grants power, authority and resources to the Regions, Woredas and Kebeles to provide basic service delivery to the vast majority of their citizens. The framework is anchored in a decentralized financial management system embedded in the Federal Block Grant (FBG), supplemented by significant contributions from Development Partners (DPs). This financial arrangement is further augmented by the Local Investment Grant (LIG) and the MDG Fund, which support Woredas to mobilize resources to fund their MDG and development programmes. A number of standard setting and quality assurance mechanisms that involve the participation of GoE and DPs have been established to ensure the effective implementation, monitoring and guidance of the PBS programme. These include the Joint Review Implementation Support (JRIS); Joint Budgetary and Aid Review (JBAR); Channel One Programme Coordination Unit (COPCU); Public Expenditure and Financial Accountability (PEFA), the PBS Secretariat and the Social Accountability Committee to ensure effective service delivery. There is also participatory engagement of beneficiaries in the planning and implementation of PBS programmes. These functioning decentralized governance systems have enhanced innovation as described in the following Decentralized Governance for Service Delivery segments of the report (Chapter 3). The 2014 State of Participatory Democracy Report ranked Ethiopia 3rd out of 51, assessed against a number of indicators of local democracy – active citizenry; political; administrative; fiscal; planning – although its score of 94/100 on the formal legal degree of local democracy exceeded that of 66/100 for perception of the reality in practice – a gap that is similar across African countries in the survey³¹. In a World Bank 2012 Working Paper, Ethiopia was ranked 37th out of 182 on a global Decentralization Index or 46th when adjusted for population and heterogeneity, both the highest in Africa, and 37th on “Relative Importance of Local Government”; 74th on Fiscal Decentralization; 86th on Political Decentralization; 59th on Administrative Decentralization³². These are impressive in terms of its ranking in Africa.

The more detailed analysis of Policy and Regulatory Framework is presented in section 3.1, which looks at decentralization and sectoral policies that have supported and enhanced the adoption, application and scaling up of innovations to improve and strengthen the decentralized service delivery.

As detailed in the respective sectoral sections, a number of major sectoral policies have enhanced and strengthened the sectors. In the health sector, Ethiopia is among a number of countries that have made concerted efforts to have a comprehensive policy framework in place backed up by necessary resources and commitment to ensuring the resources reach those who most need them. The objectives are to increase coverage of key health services and interventions, enhance demand for these services, and reduce barriers to accessing them. The impact is a faster reduction in mortality and better progress in achieving MDGs. Several major policies in this sector have contributed to this success: Maternal and Child Health policies that

³¹ UNDEF 2014

³² World Bank, Ivanyina & Shah, 2012

enjoy high priority and coherence; The Health Development Army (HDA) that creates partnerships for health at community level; Community-Based Health Insurance (CBHI) that improve access to health care.

Ethiopia's Health Extension Workers (HEWs) have proved their worth in a number of areas and can make a significant contribution to reducing maternal, neonatal and child mortality. For HEWs to be effective in this role at community level, it is essential to have a supportive and coherent policy framework in place. Bilal et al, 2011, note the impact of increased health expenditure under the Health Extension Programme (HEP) and the support for HEWs, as part of a wider package of support services that are showing results, and the significance of the PBS pooled funding and of the MDG Performance Fund. However, *"some weaknesses remain, and not all regions show a similar level of success. Incentive packages for health human resources are lacking, and the link between compensation and performance is weak. The capacity of the district health offices to provide supervision, monitoring and evaluation is low. These and other constraints need to be addressed if gaps in coverage are to be filled and access scaled up even further"*³³.

The authors of a WHO background paper on CBHI³⁴ point out that lack of comprehensive coverage of populations by CBHI have meant that they have had little effect, except in Ghana and Rwanda, where there has been political will for service expansion for social inclusion and strong commitment toward solidarity of schemes and risk sharing. With the exception of Ghana and Rwanda, CBHI "schemes in Africa are rarely launched on a programmatic nationwide basis"³⁵. Linking community-based health insurance and social protection programmes, such as PSNP if it were to become a national social safety net, could strengthen demand-side purchasing power. Complementing this improved demand, performance funding could improve supply-side quality of delivery and contribute greater administrative efficiency in service provision³⁶. Linking CBHI and social protection funds could avoid unnecessary and stigmatizing fragmentation of funds for different population groups as in Uganda, and lead to scaling up the coverage of social protection for health care. Through careful piloting of local initiatives linking community-based health insurance and social protection programmes, improvement of this situation is a definite policy option for Ethiopia to consider, while government creates the regulatory framework for bringing solidarity of all schemes and going to scale. An appropriate regulatory framework is critical for the development of an insurance market for the poor³⁷.

In the education sector, there is the framework of the Education and Training Policy, within which the government established the Education Sector Development Program (ESDP); School Fees Abolition (SFA) that removed the fees barrier on access to education; the ICT in Education Implementation Strategy and its corresponding Action Plan, which has spawned various innovations at Woreda level.

The decentralized system of governance has created the enabling environment for the delivery of basic services in the agricultural sector. A range of policies and a regulatory framework has been introduced for conservation and management of the natural resources, control of

³³ Bilal et al, 2011, p 442. See also §3.1.2 below.

³⁴ See WHO Technical Brief No 6, 2010 and World Health Report 2010, Background paper no. 48 by Soors, Devadasan, Durairaj & Criel.

³⁵ See WHO 2010 Background Paper No 48. "Ghana and especially Rwanda are powerful examples in Africa showing that political will, clear action plans, national scope of implementation beyond pilot project settings, existence of regulatory frameworks, and – last but not least – the unequivocal acceptance of the need of subsidies to finance partly or totally the premium for the poorest in society are a must".

³⁶ Along the lines of the DFID RBA education funds linked to additional numbers of boys and girls sitting and passing the G10 examination in each Region, noting the questions around the lack of correlation between increased sitting (a partial output) and increased passing (an outcome). The Dec 2013 DFID Review also considers that: "It is uncertain whether the true purpose of RBA, to incentivise performance, is really feasible in Ethiopia's current political context", "where resource allocation to the regions is based on an allocation formula agreed by parliament". It also questions the evidence of Payment by Results (PbR) evaluations.

³⁷ Peleaz 2015 suggests that "Effective insurance regulation supports human rights by enabling financial inclusion, incentivising risk reduction behaviours and facilitating economic recovery after a disaster. Disruptive insurance regulation, or no regulation at all, deprives the poorest people in our world from protecting their own lives and assets".

overgrazing, surveillance and control of animal diseases etc. Land certification, which strictly is not part of the PBS program, is one of the devolved activities, which is important because it bestows ownership of the land to the farmer and thereby motivates him/her to invest in it and is essential for farmers to risk innovating new crops and practices. Other major policies that have contributed to the strengthening of the agriculture sector are those that established strategies and institutions such as Agricultural Extension, through Development Agents (DAs) at Kebele level, with its scaling up of successful agricultural technologies as a major component of the Agricultural Development-led Industrialization (ADLI) strategy; use of farmer participatory research; the Farmer Service Training Centers; and the national Agriculture Transformation Agency.

The Ethiopian government believes there is challenge in water supply and sanitation in schools and health facilities, as well as at households. The “One WaSH National Program” (OWNP), seeks to ensure harmonization among stakeholders and improve water supply and sanitation in schools and health facilities. The OWNP is the Government of Ethiopia’s main instrument for achieving the goals set for water, sanitation and hygiene (WaSH) in the Growth and Transformation Plan (GTP). Other Important WASH sector policies established a number of national programmes, including the Community-based Water Resource Management (CBWRM); Integrated Urban Water Management (IUWM); National Water Resource Management (NWRM) and Integrated WaSH with Education Programmes in Schools.

The Ethiopian Government has been in the forefront of development of policies and strategies for implementation of rural transport programmes to provide vital mobility and accessibility for its rural communities: the pioneering Ethiopian Rural Travel & Transport Program (ERTTP), launched as an innovative pilot programme in eight Woredas under the Ethiopian Roads Authority (ERA) in 2003, developing appropriate roads and other infrastructure and expanding affordable transportation using mainly local resources; Universal Rural Roads Access Program (URRAP), promoting application of innovation, knowledge and learning and based on lessons from experience of ERTTP, as a flagship innovative programme to provide all-year-round access to meet the needs of communities; the ERA Design Manual for Low Volume Roads (LVR) as an innovative approach to rural road construction.

2.2. Institutional Arrangements, Management and Capacity

2.2.1. Institutional Arrangements

The Ministry of Finance and Economic Development (MoFED) is the Government counterpart responsible for planning, monitoring and reporting of the progress of PBS. It coordinates the efforts of the various sectors in programme implementation at all levels of government. This covers the overall financial management of PBS resources, including funds released, procurement undertaken, accounting and financial reporting. The Office of the Federal Auditor General, with support of the Offices of the Regional Auditor Generals, complete both interim (‘continuous’) and final external audits of the PBS expenditures by Regional, Zonal and Woreda administrations. Funded significantly by DPs, most of PBS financial support goes to augmenting the Federal Block Grant (FBG), a constitutional mechanism which provides the bulk of the resources over which Regional and Woreda governments have discretion in delivering basic services in line with national strategies and targets as laid out in the Growth and Transformation Plan (GTP). The biggest share of the PBS Program goes to support the Block Grant to finance basic service delivery at sub-national level. This helps the Government achieve MDGs and its GTP targets in the five basic service sectors. PBS support to the block grants is based on jointly agreed Core PBS Principles that help the country meet its objectives of improved decentralized basic service delivery. The FBG component of PBS II was complemented by sub-programmes to support public finance management, financial transparency, social accountability, and monitoring and evaluation of results. Two additional components, carried forward from PBS I, supported the bulk purchase of health commodities

and a pilot Local Investment Grant (LIG). The World Bank is the lead donor providing donor coordination functions and their Programme Appraisal Document (PAD) governs the overall programme and includes the detailed programme management arrangements covering the funding, implementation, monitoring, accountability and respective roles and responsibilities of the Government and the main DPs.

According to DPs, of all Ethiopia's major development programmes, PBS is the one that best follows the principles of aid effectiveness. The FBG operates wholly through government systems and its multi-sectoral approach is consistent with Ethiopia's system of decentralized budgeting and implementation. It promotes harmonization among Ethiopia's DPs, and its built-in system of monitoring, focuses on six-monthly Joint Review and Implementation Support (JRIS) missions, promotes constructive dialogue and continual improvement of performance. The complementary components (PFM, transparency, social accountability and M&E) are directly relevant in addressing capacity issues and performance weaknesses so as to strengthen service delivery performance. Some of these components experienced start-up delays, but during PBS II they have become increasingly effective with learning by doing. Similarly, over the course of PBS II, the management of PBS became increasingly streamlined and effective, supported by strengthening of the Channel One Programmes Coordinating Unit (COPCU) and of the PBS Secretariat, which valuably combines analytical support for all parties with the management of JRIS logistics and additional technical support to the Government's implementation units.

In assessing Value For Money (VFM) provided by the PBS in Ethiopia, an itad study, carried out within the REEEES framework, assessed PBS through the VFM dimensions of relevance, economy, efficiency, effectiveness, equity, and sustainability (REEEES). Its overall conclusion is that PBS represents good value for money. There is, in particular, very strong evidence of the cost effectiveness of the support that PBS provides for decentralized basic services through its impact on access and outcomes. PBS inputs and outputs also passed key tests of economy and efficiency. The PBS instrument remains highly relevant to the GoE's development goals and the progress, which it is helping to make, needs to be sustainable. But the analysis also highlights VFM weaknesses and points out ways in which VFM can be strengthened, and issues that require close monitoring. These seem to apply most significantly to the efficiency dimension of PBS.

The robust Institutional arrangements and financing modalities, including Results-Based Financing, have created a strong platform that has facilitated the effective flow of funds into PBS, especially at the Woreda level; facilitated the monitoring of the transparent use of resources; and led to improved implementation of programmes through more effective and efficient decentralized service delivery.

2.2.2. Management and Capacity

Capacity building in Ethiopia has evolved systematically through the GoE/WB diagnostic studies leading to the establishment of Public Sector Capacity Building Programme (PSCAP), which prepared the way for the emergence of the Capacity Building for Decentralized Service Delivery (CBDSD) Programme that permeates and supports the whole PBS. As part of the Civil Service Reform Programme (CSRP) the country-wide programme's goals are to strengthen the reform agenda. CSRP seeks to create awareness so that civil servants develop a positive attitude towards serving the public; fully understand government policies and strategies; and are capable of implementing government policies and strategies while ensuring efficiency, effectiveness, accountability and transparency so as to protect and strengthen the effectiveness and efficiency of the public sector service delivery. Although the success in the strengthening and improvement of service delivery at the Woreda level cannot be all attributed to CBDSD, it has contributed in a varying, but significant, way to enhancing and strengthening the national and sub-national capacity for delivery. Nevertheless a number

of constraints persist. Foremost amongst them are slower pace in developing government structures with strong implementing capacity; lack of strong incentives to boost staff morale and increase productivity; lack of a robust institutional capacity development; absence of ability to build and manage partnerships through institutional capacity building; an evolving accountability and transparency system; a challenging building of the Woreda and Kebele capacity and a lagging acceptance and adaptation to new ideas, technology and skills. The latter is most significant in relation to creating a culture in which innovation can flourish. Various identified innovations have been directed at addressing these delimiting capacity constraints in the respective Innovations sections of this report.

2.3. Participation and Citizen Engagement

Embedded in the concept of “deepening transparency and local accountability”, the objective of the Social Accountability (SA) component of PBS is to strengthen the demand side of improving basic service delivery by providing citizens with the necessary social accountability tools. These include citizen report cards and participatory budgeting, and the capacity to interact with local governments and service providers on the basic services budgeting and planning processes. Since the component was planned to operate by financing the social accountability activities of CSOs, exceptionally, the government itself is not included as an implementing partner. It was anticipated that experimenting first with the social accountability and financial transparency initiatives would directly complement each other and subsequent phases would build on lessons learned from the pilot phase.

A high level Steering Committee chaired by a State Minister of Finance brought together the government, CSOs and Donors for the first time around the core issue of Social Accountability. The Steering Committee has been key to dissipating difficulties associated with working in a potentially politically charged environment. The piloting expanded from six to twelve SA projects in a participatory manner (6 more than expected at appraisal). In cooperation with 33 other partner organizations, the implementation of pilot SA initiatives was completed in 80 Woredas, and 6 towns and sub-cities. An unanticipated activity under the SA component was a review of government's GRM that was undertaken during 2011. The recommendations of this review are being carried forward into PBS III. A number of traditional Ethiopian community participation mechanisms, as covered under the Innovations section of the paper, are now fully in play in PBS with encouraging results.

Poor communities in the city of Addis Ababa have long demonstrated the value of participatory approaches to their inclusion in design, implementation and monitoring of services that will meet their needs. This is evident in the Community Managed Projects (CMP) for water in Amhara, under the Ministry of Water and Energy's COWASH team. As Box 4 shows, participation of the poor can lead to technical and delivery innovations as a consequence. One problem is the lack of incentives for allowing beneficiaries to come to the centre of their own development. Officials steeped in a prescriptive mode need incentives to change into a permissive mode that will allow a hundred flowers to blossom, as Chairman Mao Zedong once put it.

2.4. Tools and Mechanisms for Enhanced Service Delivery

Given that public service is delivered by a nexus of relationships between beneficiaries, politicians and service providers and that it is desirable that services are matched to the best interests of beneficiaries, it is necessary to identify and analyze the incentives that govern the behaviour of politicians and service providers and address them. The regional BoFED in SNNP has sought to recognise excellence in performance as one example of raising staff morale. Encouraging efforts are underway by BoFED and Woredas to explore and initiate actions to bolster staff morale and promote efficiency and productivity in the delivery of basic services.

2.5. Collaborative Partnerships

Ethiopia has many partners, including international non-profit organisations working in many Woredas and across regions. Where partnerships are effective, often at Woreda or Kebele level, resources and expertise can be added to the delivery of basic services particularly for hard to reach groups. CSOs are required to be registered nationally with the Ethiopian Charities and Societies Agency and to have their plans approved and their work reviewed at project mid-term and end-of-term by Government ministries at zonal or Regional level, Ministry of Health or of Education or of Women and Youth Affairs or other, depending on the nature of their work. CSO budgets of less than ETB 500,000 must be signed off by BoFED at zonal level or if higher at Regional level. Partnerships at Woreda level can be very positive and creative.

2.6. Data and Information Management, including Disaggregation and eMIS

As the world moves into the post-2015 agenda, Ethiopia is well placed to address its new equity outcome focus. PBS has set out to achieve poverty reduction for all and to leave none out. However its indicators still reflect the earlier MDG approach that was weak on an inclusive rights-based dimension. Disaggregated data is at the centre of the new agenda.

It would be hard to overstate the difficulty of doing national and sub-national empirical work on Ethiopia. There are no more recent published data than EFY 2003 (i.e. 2010/11 in international calendar). Most countries would expect data for the previous year to be available now, if they are to be able to correct the direction in which they are going i.e. for 2013/14. Dependence on anything older may suggest a lack of evidence-based policy-making. Page 6 of the itad VfM Review states that the analysis in some areas has been significantly constrained by the limited availability of information on both inputs and output costs, and by wider shortcomings in the quality of data. In addition there are in some cases problems in understanding the coverage of PBS targets and the changes in these targets that have taken place over time. In the latter context, reviewing and changing targets is an essential aspect of good adaptive programme management. But the Consortium experience is that the changes that have taken place have not always been accurately and quickly reflected across programme documentation, creating some uncertainty about the data to use in analysis and its coverage. The lack of a well-developed monitoring and evaluation system is also a constraint for acquiring reliable sector data for planning and effective monitoring. §49 in the itad VfM Review suggests that M&E is improving but §50 states: However more remains to be done. At a decentralized level there is a need to strengthen M&E systems, including both human resources (i.e. training on results-based management) and building organizational infrastructure for M&E (software design, M&E manuals, ICTs, etc). There is also a need to support utilization of facility information for planning purposes at regions (BoFEDs and sectoral Bureaus). At a central level there is a need to continue strengthening units where data is collated, organized, processed, analyzed, and reported to decision makers and stakeholders to ensure its quality and timeliness. This includes the Welfare Monitoring Unit of MoFED, which pools and coordinates information from the various sectors in monitoring progress toward GTP targets. The ability of line ministries to access, track, and utilize information on program budgets, expenditures and overall financing is also compromised by limited access to central data storage facilities at MoFED. Much more could be done using eMIS systems that are being increasingly adopted across Africa (see §3.7). Currently, a variety of surveys are used as data sources for M&E of PBS (See VfM Review §84) and monitoring of PBS indicators largely remains inaccessible outside the closed world of MoFED and its external development partners.

2.7. Scaling Up of Innovations

Scaling up requires much more than a good innovation. There must be willingness and incentives to adopt and adapt an innovation. In a rational policy environment, the innovation should be evidently effective in delivering otherwise difficult to achieve objectives and efficient in terms of value for money. To achieve a continuous innovation and learning environment, Ethiopia first needs to embrace innovation and then create an environment of continuous

improvement, along the lines of its *gemgema* approach³⁸. The innovation should be culturally acceptable or be introduced with complementary interventions to overcome resistance. There should be adequate resources, human, financial and logistical for it to operate. Innovations cannot flourish in a conservative environment in which those delivering services are expected to conform without risking new approaches, although such a prescriptive environment can ensure implementation of top-down initiatives. Scaling up is a complex process.

A study of innovative interventions targeting mothers and newborns in Ethiopia, the Indian state of Uttar Pradesh and the six states of northeast Nigeria, by London School of Hygiene and Tropical Medicine and partners³⁹ “found that programme implementers across the three settings require multiple steps to catalyse scale-up. Advocating for government to adopt and finance health innovations requires: designing scalable innovations; embedding scale-up in programme design and allocating time and resources; building implementer capacity to catalyse scale-up; adopting effective approaches to advocacy; presenting strong evidence to support government decision making; involving government in programme design; invoking policy champions and networks; strengthening harmonisation among external programmes; aligning innovations with health systems and priorities. Other steps include: supporting government to develop policies and programmes and strengthening health systems and staff; promoting community uptake by involving media, community leaders, mobilisation teams and role models. We conclude that scale-up has no magic bullet solution - implementers must embrace multiple activities, and require substantial support from donors and governments in doing so”.

Another study⁴⁰ has shown the role of education in increasing the adoption of new practices and innovations into a community: *educated farmers are early innovators, providing an example which may be copied by less-educated farmers; and educated farmers are better able to copy those who innovate first, enhancing diffusion of the new technology more widely within the site.*

Government could encourage innovation through creative partnerships with the Ethiopian Diaspora, with the private sector, particularly financial institutions to develop new insurance products that share risk and build on traditional *Iddir* values, and with NGOs that can use their more flexible funding to pilot inter-sectoral innovations. Overall, innovators and innovations in basic service delivery should be recognised and publicised to encourage creative solutions to Ethiopia’s pressing needs in promoting basic services and an Innovation Promotion Strategy should be developed to support and promote local level innovation.

In Summary ...

Ethiopia has established a strong sectoral policy environment with sector plans, under which PBS operates, as well as a clear decentralized financial management system with a formula for Federal Block Grants. There is strong central oversight of PBS under MoFED, supported by development partners. Central programmes of health and agricultural extension and education receive financial support for their staffing through PBS. WaSH and rural roads interventions also operate under national guidelines. Capacities of Woreda offices have been strengthened and accountability increased through a Social Accountability programme where government

³⁸ On taking office as CEO of the Global Innovation Fund, Alix Zwane in July 2015 noted that the first lesson learnt regarding innovation in service delivery was the need “to continue to learn and continue to iterate and continue to test. ... continuously pressure testing one’s business model to see if there are ways to refine your service delivery approach”. See <https://www.devex.com/news/global-innovation-fund-names-first-ceo-charts-path-forward-86555> Maarten Van Herpen, Head of Philips Africa Innovation Hub in Nairobi, considers that the solution to enabling African innovations to go to scale involves structures and process to continuously take technical innovations from pilot to scale by simulating a start-up approach so that innovations are brought to market by corporate entrepreneurs. The Philips Africa Innovation Hub partners with UNICEF’s Global Innovation Centre and Innovation Fund in Nairobi.

³⁹ Spicer, N., Bhattacharya, D., Dimka, R., Fanta, F., Mangham-Jefferies, L., Schellenberg, J., Tamire-Woldemariam, A., Walt, G., Wickremasinghe, D. “Scaling-up is a craft not a science: Catalysing scale-up of health innovations in Ethiopia, India and Nigeria” *Social Science & Medicine* Volume 121, November 2014, Pages 30–38 available <http://dx.doi.org/10.1016/j.socscimed.2014.09.046>

⁴⁰ “Adoption and Diffusion of Agricultural Innovations in Ethiopia: the role of education” Centre for the Study of African Economies, Working Paper WPS/2000-05, Economics Department, University of Oxford

and civil society collaborate, but M&E remains technically weak. Top-down initiatives are well developed, but innovation from below is less well promoted.

Chapter 3

3. Decentralized Service Delivery - Innovations for Basic Service Delivery



Nvivo Governance Word Prevalence – Survey Data 2015

As captured by the Conceptual Framework, Governance for Service Delivery provides the platform for anchoring the enabling themes that drive PBS's basic service delivery through the five service sectors of health, education, WaSH, agriculture and rural roads and facilitates linkages and synergy between them.

The table in Annex 1 §12.1 presents Ten Selected Innovations for Governance for Basic Service Delivery, which are analysed in accordance with the respective themes under which they are categorized.

3.1. Building Capacity and Incentives

3.1.1. Building Capacity

The Capacity Building for Decentralized Service Delivery (CBDSD) Programme is a national strategy aimed at developing and building the human capacity, systems and processes at all levels of government⁴¹. It focuses on the Woreda level, to enhance effective decentralized service delivery country-wide. Capacity weaknesses, particularly lack of strong incentives to boost staff morale to increase productivity; lack of a robust institutional capacity development and a lagging acceptance and adaptation to new ideas are the major challenges CBDSD is addressing. Although recognized as an important capacity, the ability to manage and build

⁴¹ PBS III JRIS Mission and JBAR Review Report, April 2015

partnership is not yet a core thrust of the programme. However, CBDSD is contributing to improving the capacity for service delivery at and below Woreda level. Overall, the problems identified persist and continue to engage the programme.

Although success in the strengthening and improvement of service delivery at the Woreda level cannot be all attributed to CBDSD, it has contributed in a varying and positive way towards enhancing and strengthening national and sub-national capacity for service delivery through establishing government structures with functioning implementing capacity. *“Trainings are given to fill the limitations. Through gemgema, we see our strengths and weaknesses. Workers evaluate their weaknesses and strengths in their respective networks. Then, focusing on limitations, gap-filling trainings are delivered for those who fail to be successful”* (Survey Data, BoFED official, Were-Hele Woreda, Tigray)⁴².

These innovative national mechanisms for Social Participation and communal work contribute to increasing delivery capacity at Kebele, community and facility levels and should be promoted in all Woredas, now that they have been successfully piloted.

Current constraints to the full development of CBDSD need to be addressed – promoting implementation capacity; developing the institutional ability to build and manage partnerships; strengthening transparency and accountability, including on budgets, and use of citizen report cards as part of public participation in evaluating service delivery (see Garcia and Rajkumar⁴³); performance incentives of recognition and salary and non-salary incentives for working in difficult environments; institutionalising the building of capacity at Woreda level; encouraging acceptance and adaptation of innovation.

3.1.2. Incentives

Bureaus of Finance and Economic Development (BoFEDs) are formally established, but not yet exercising their role as regional regulatory units completely removed from implementing and procurement processes, while, at the Woreda level, problems in getting qualified staff are hampering local institutional building. The PBS Secretariat has identified that proper job incentives are particularly acute for procurement officials, whose salary scales are lower than their finance/accountant counterparts, and there needs to be more recognition of procurement as a specialist area in itself. Incentives for performance improvement can operate at all levels: at the national level - Results Based Aid, with focus on SAFE criteria of Sustainability in additionality of donor funds, Accountability and fairness, Fiduciary standards and Effectiveness; at Woreda level - the performance related Local Investment Grants⁴⁴ for capital investment in infrastructure and the MDG Fund and Specific Purpose Grants, now merged into the Basic Service Block Grants sub-programme of PBSIII; at facility and community level - Financial Transparency Initiative (FTI), with budgets displayed in government offices and service facilities; Grievance Redress Mechanisms⁴⁵ to be strengthened in PBSIII; social accountability (SA) tools such as Community Score Cards, contributing to the short route of accountability and now combined in the PBSIII sub-programme for Strengthening Local Accountability and Transparency Systems⁴⁶.

⁴² All such quotations here and elsewhere in the report are from the BDS-CDR 2015 Data Collection

⁴³ Garcia, M., Rajkumar, A. S., Achieving Better Service Delivery Through Decentralization in Ethiopia, World Bank Working Paper No 131, 2008. See <http://elibrary.worldbank.org/doi/pdf/10.1596/978-0-8213-7382-8>

⁴⁴ In 99 randomly selected Woredas in PBSII (§2.40 f.n. 22 in PBSII CR).

⁴⁵ See Edjeta and Randolph, 2011.

⁴⁶ See also Garcia & Rajkumar op.cit.

Both Besley & Ghatak⁴⁷ and ODI throw light on the subject of incentives. They identify incentives that govern the behaviour of politicians and service providers and the potential for designing services that carry in-built incentives that motivate and inspire their positive actions, which will contribute to the best interest of beneficiaries. This is bolstered by addressing the five key factors influencing constraints and incentives as expounded by the ODI paper⁴⁸.

The ODI paper is based on extensive research in Africa focusing on the three actors in the sphere of service delivery – politicians, bureaucrats and non-profit organisations. The paper argues for a focus on accountability, in part through rigorous evaluation of service delivery and basing policy on sound first-principles. It lays out the type of incentive associated with the actors and the case for the reform of public service delivery by focusing on addressing incentives. Woreda incentives of promoting staff retention and morale by transferring them from remote rural to urban areas after certain periods and paying them hardship allowance of 20-40 % of salary is worth pursuing. To address the issue of incentives to boost staff morale and productivity, some Woredas have applied transfers of high performing staff from hardship duty stations to family duty stations and offered some modest monetary benefits to such staff. This initiative/practice is still at the pilot stage but has potential to go to scale. Amhara has used the incentive of teacher recognition at annual schools festivals (Data Survey 2015). The recent introduction of the innovative Development Teams for Consultation & Competition to enhance Performance is another contribution to changing incentives.

International experience is mixed regarding incentives⁴⁹. Performance incentives include Cash on Delivery as an element of financing contracts with private sector or NGO service providers. Direct Grants to Schools has been effective in Malawi⁵⁰. Performance based finance has yet to be tested in PBS for its impact, which can be built into evaluations of PBSIII. Questions include whether the various actors have the capacity and capability in terms of skills, knowledge, networks, communications infrastructure, resources and mandate to develop products and partnerships for effective service delivery. This may involve complex incentive structures from the facility level to the highest levels in national government. There is also the danger of incentives creating perverse performance, such as occurred in India when the maternal health system in Uttar Pradesh created perverse incentives that led to the forced sterilisation of poor women against their wishes⁵¹.

The Development Team would be the right forum to explore and develop attractive incentives to bolster effective service delivery, based on evidence of targeted incentives that work, such as hardship allowances, training opportunities and fast-track career mechanisms, performance bonuses and responsibility allowances.

⁴⁷ Besley, T. and Ghatak, M., (2007), Reforming Public Service Delivery, Journal of African Economies, Vol 16, AERC Supplement 1, pp 127-156 and references pp 127-129 & 133-153. Available online at <http://personal.lse.ac.uk/GHATAK/jae.pdf>

⁴⁸ Wild, L., Chambers, V., King, M., Harris, D., (2005) Common Constraints and Incentives Problems in Service Delivery, ODI Working Paper 351 Aug 2012: pp 1-5, 7-10, 12, 16, 17-18 and 20. Available online at <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7791.pdf>

⁴⁹ Malawi, Kenya and Zimbabwe, among others, have experimented with both financial and non-financial, including recognition, incentives for service delivery and quality, some better targeted than others and some showing perverse results. These include the Best Kept School competition that rewards good maintenance with additional infrastructure construction; incentives for experienced staff to work in difficult areas, such as paying boarding fees for their children's education, shopping trips to town, solar power for homes and access to TV; mobile phones; hardship and housing allowances to bolster salaries; priority access to training. See for example Re-Build Consortium: Policies to attract and retain health workers in rural areas in Zimbabwe – a document review, Nov 2014. However, incentives do not always deliver efficiently nor are they necessarily effective if not targeted on addressing constraints to improved outcomes. E.g. See International Growth Centre & Consortium for Development Policy & Research: Teacher and School Administrator Incentives for Improved Education Delivery in Khyber Pakhtunkhwa Province, Pakistan, April 2015. Their review of incentives in the educational system internationally suggests key lessons learned elsewhere such as: Incentives have the most impact in low performing settings; Modest financial incentives can be as effective as larger financial incentives; Effective supervision by school officials and the community are crucial in the success of financial or non-financial incentives; Changing classroom practices and improving teacher skills are needed to move beyond basic learning levels; Behavioral changes, such as setting deadlines for producing results and recognition by peers and community can also have a positive impact on teacher performance; Exams and assessments of students and teachers associated with high stakes penalties and rewards are prone to manipulation and short-term results. See also Robert Slavin "Can Financial Incentives Enhance Educational Outcomes? – evidence from international experiments" University of York & John Hopkins University Feb 2009. Regarding incentives, see also Basinga et al, 2010, on Rwanda and Lievens et al, 2011, on Ghana

⁵⁰ Nampota and Chiwaula, 2013

⁵¹ See Rao, M. (ed.). *The Unheard Scream: Reproductive Health and Women's Lives in India*. Panos, Zubaan, 2004

3.2. Decentralized Management

MoFED is the principal implementing ministry on the Government side. Within MoFED, primary responsibility for management and coordination now rests with the Channel One Programmes Coordinating Unit (COPCU). COPCU was established under PBS II; it works on six "Channel 1" programmes, including the Productive Safety Nets Programme (PSNP) and the General Education Quality Improvement Programme (GEQIP), but PBS is the only one for which MoFED itself is the implementing ministry. At Federal level, COPCU now holds monthly coordinating meetings with the PBS Secretariat and PBS donors. The Ministry of Health is the implementing ministry for the health commodities component. The M&E units of the five sector ministries and the Central Statistical Authority (CSA) are involved in implementation of the M&E component. The Federal Auditor General (OFAG) audits PBS Implementation of the programmes that PBS funds, involving finance and sector agencies from federal down to regional and Woreda levels⁵².

On the donor side, the World Bank has played a leading role in managing and coordinating PBS and the multi-donor trust funds (MDTFs) through which other donors channelled their PBS contributions. Since 2005, AfDB funds have been committed to pay for teachers, HEWs and AEWs. The World Bank has been a permanent co-chair of the donor PBS group, with the other chair rotating among other PBS donors. There are a series of technical working groups linked to the components and themes of PBS. A PBS secretariat was introduced under PBS I; it is hosted by the WB and other donors support it through a dedicated MDTF. For the NGOs the social accountability component is implemented by CSOs overseen by a management agency. Two Ethiopian innovation mechanisms to improve and strengthen management of PBS, have been introduced into the programme to boost the provision of services and a change team strategy to strengthen performance. These were noted by several respondents in 2015 BDS-CDR Data Survey. They are:

Kaizen – this is a mechanism for boosting provision of services through moral support and incentives to boost higher performance and enhance confidence and self-esteem. It applies peer consultation and pressure;

Yelowitbudin - this is a newly introduced system of creating a Change Team tasked with various assignments for reform and strengthening performance.

The established management system for PBS is functioning well, but inter-sectoral collaboration, performance incentives and accountability for results at Woreda and community levels remain weak for the effective implementation of PBS III. The new management innovations of *Kaizen* and *Yelowitbudin* are relevant to PBS because they constitute powerful traditional mechanisms that appeal, motivate and inspire individuals, especially service providers, to aspire for self-esteem, building their confidence and motivation to perform at a higher level of efficiency and resulting in higher productivity for the decentralized service delivery. Both mechanisms will require close monitoring and assessment as to their effectiveness and potential for wider application and going to scale in PBS III. This would enable the viability and sustainability of these traditional practices at Woreda level to be assessed.

3.3. Sectoral Cooperation and Synergy (Coordination)

Although they all fall under a single overarching umbrella of governance for service delivery, overseen and managed by PBS management, technically speaking, the five service sectors, health, education, WaSH, agriculture and rural roads fall respectively under separate ministries and institutions. As is the usual case, they act in silos and the horizontal coordination, linkages

⁵² See PBS II Government's Implementation Completion Report, June 2013

and synergy between the sectors and the relationship between them and the coordinating governance structure are weak.

The PBS Conceptual Framework, placing coordination of service delivery under BoFED, was designed to address and strengthen systemic weak horizontal coordination and linkages and to create synergy between the sectors on the one hand and between them and the governance structure of the programme on the other. This was an innovative attempt to develop delivery efficiencies between services, but has not been taken forward strongly as sector ministries maintain control of all human and technical resources in their respective sectors, with PBS being seen by them more as a funding mechanism. PBS coordinators in Regional BoFEDs would need more capacity and counterparts at Woreda level in order to achieve management control and inter-sectoral coordination.

There are encouraging examples of innovations, best practices and lessons learned that can unleash and fully develop the potential of BoFED Coordinators at both the Woreda and regional levels to their full capacity. Good examples of best practices in inter-sectoral coordination have been identified in some Woredas. In Lalay Woreda of Tigray Region, (the processes of computing merchants in open ways), through a committee including journalists, community representatives, police and others has increased wider and fair participation of merchants, *“For example for computing merchants to provide materials for sectors, it was not more than 2 merchants who won regularly. But, later we called volunteer merchants to compute through media and letters. Then 29 merchants from the whole of Tigray came and the cost of materials was minimized by far than it was before”* (Survey Data, NVivo Analysis, Lalay Woreda, Tigray).

In Kirkos Woreda of the Addis Ababa City Administration, the Cascading Programme is described by the BoFED Head as follows: *“I consider Cascading Programme innovative. It is new and it is a means of allocating and monitoring work responsibilities. For example there are two sub divisions under my department, hence the finance work activities are divided into the two sub divisions. Then the two divisions, each have different types of activities hence the work load and activity is sub divided up to the lowest level employee. The cascading program has a format which includes time frame for each activities, vision, responsibility, responsible employee and measurement like time, quality, or number. It has daily work activity listing form, the form includes, the task assigned to the employee, measuring standards (volume, time and quality in percent), review (compares planned with actual performance). Each Friday there is 1 to 5 meeting where each work activity is reviewed and evaluated including cascading. We are new to the program, hence it is very hard for us to examine its impact on our work performance as we didn’t fully understand the entire program, but we are trying to learn”* (Survey Data, BoFED Head, Kirkos Woreda, Addis Ababa).

There is a need to design and develop a special on-the-job training package for BoFED and PBS Coordinators at the regional and Woreda levels, covering all technical, financial and management aspects of PBS work. Such training should include developing understanding of sector perspectives on cost-benefit analysis of achieving specific sector outcomes. It could also provide training on how to enhance working relationships with beneficiaries⁵³ to ensure the strengthening of the vertical and horizontal linkages for effectiveness of the delivery of decentralized basic services.

3.4. Social Accountability

3.4.1. Ethiopian Social Accountability Programme (ESAP2)

⁵³ See Box 3 below on an innovative Ethiopian training centre for participatory working with beneficiaries.

The Social Accountability (SA) component has piloted Community Score Cards, Citizen Report Cards and Participatory Budgeting to create citizen awareness of their participation and rights in PBS. As a complement to the financial transparency and accountability results, the SA program supports civil society organizations that improve opportunities for citizens to provide feedback to local administrators and service providers of their participation in all aspects of PBS, including budgeting. It also promoted interface meetings between citizens and local authorities to provide feedback on service delivery, which in some cases has resulted in improved service delivery.

The April JRIS PBS III Review Report noted that, during the preceding two quarters, interface meetings, involving the participation and facilitation of 25 social accountability implementing partners (SAIPs), were conducted in 80 Woredas between service providers and citizens. As a result, Joint Action Plans (JAP) were drawn up to improve the provision of the five basic services. To date, 118,687 citizens and 12,452 local officials and service providers have been engaged in evaluating the provision of the five basic services in 223 Woredas, about 20% of the country, using various social accountability tools i.e. community score cards (CSC), citizens' report cards (CRC), participatory planning and budgeting (PPB), gender responsive budgeting (GRB) and public expenditure tracking (PET). More than 52,500 representatives of citizens, service providers and local government officials were involved in the structured dialogue (interface meeting) and in designing JAPs in 206 Woredas resulting in improved service delivery. The social accountability committees are established in all participating Woredas, and they have managed to monitor implementation of JAPs in 140 Woredas on a quarterly basis⁵⁴.

Overall, ESAP2 has achieved the targeted outputs and some of the key outputs are as follows:

- A total of 12,833 local government officials and service providers have undertaken SA tool training by March 31, 2015 against the target of 9,897 which was to be achieved September 30, 2015
- During this time, 206 Woredas designed Joint Action Plans against the target of 223 Woredas for September 30, 2015.
- A total of 31,250 citizens and citizens' groups have been trained on demanding better public service — way above the target of 17,150 for September 30, 2015.
- 510 participants have been trained on gender sensitivity again far above the target of 305 for September 30, 2015⁵⁵.

JRIS/JBAR sees the future continuation and going to scale of ESAP 2 in the following terms: "With regard to the deliverables for the April 2015 JRIS, the two deliverables, viz. "Agree on the future of social accountability program and approach to sustaining and scaling up the program beyond Dec. 31, 2015" and "Rapid assessment of options for institutionalization to inform rollout plan undertaken" are attained. The third deliverable "Elaborate a rollout plan to operationalize the medium term road map on SA" is postponed for the upcoming JRIS for it is an activity subsequent to the approval of the roadmap which demands the engagement and commitment of multiple stakeholders. This will involve a rigorous consultative process".

During the earlier phases of PBS, SA was piloted in 86 Woredas. In the current phase, it is being implemented in 223 Woredas by a total of 49 SA Implementing Partners (SAIPs) by supporting public service providers to deliver improved quality of services in the five PBS sectors, In response to feedback from communities and citizen groups. Further evidence to support this is gleaned from the quote from Jijiga City of the Somali Region "There is Financial and Social Accountability. It is the demand side (social side) and the supply side (financial).

⁵⁴ PBS III JRIS Mission and JBAR Review

⁵⁵ PBS III Aide Memoire, April 2015

The project idea started from Woreda level and everybody participates for the better and success of the programme. Projects are followed up by elders, Ethiopian Social Accountability Programme (ESAP) operating in some Woredas” (Survey Data, NVivo Analysis).

Box 2: Social Accountability

Ethiopian Social Accountability Programme (ESAP)

ESAP aims to improve the quality and delivery of basic services, through citizens identifying their own needs using Social Accountability (SA) tools. They do this within the context of government service delivery standards and SA is enabling government to do more with existing resources. It operates in 223 Woredas in the country – for details see the interactive map: <http://esap2.org.et/mapreg/index.html>

Approach:

Social accountability is about affirming and making operational the direct accountability relationship between citizens and the state for a mutually agreed objective; for instance, improved service delivery. It involves citizens/communities working together, to ensure that government and service providers are managing public funds effectively and transparently. It is a constructive dialogue, which brings ordinary citizens, CSOs, local government institutions and public service providers towards a common vision of effective service delivery and improved accountability within PBS.

The program specifically targets vulnerable groups, such as women, youth, elderly, people living with HIV/AIDS, and persons with physical disabilities, and it uses a specific SA tool for Gender Mainstreaming of Gender Responsive Budgeting. Dialogue at the interface has resulted in Joint Action Plans to improve basic services delivery as per the needs of the people.

Outcomes:

So far a total of 131,481 citizens have been involved in the target 223 Woredas and 3-5 Kebeles per Woreda. Studies showed that up to 50% of basic service subsidies to Woredas were not being utilised – through SA these resources are now being employed.

See: <https://www.flickr.com/photos/128622788@N07/sets/> Also many Participatory Videos with stakeholder testimonies available on: <https://www.youtube.com/user/ESAP2Channel/playlists>

Website: www.esap2.org.et

The changes perceived and determined in the successful implementation of the ESAP2 and lessons learned as well as areas to address⁵⁶ include:

- Massive training and creation of awareness of/in Local Government officials, service providers and citizen’s groups in SA tools, demanding better services and gender sensitivity
- Development Agents (DAs) provide improved services
- There is agreement on the future of social accountability program and approach to sustaining and scaling up the program beyond end of 2015
- Rapid assessment of options for institutionalization that will inform the rollout plan have been undertaken.

Nevertheless a number of challenges persist which need to be addressed. Drawing on one Woreda, they include:

⁵⁶ PBS II Government’s Implementation Completion Report, June 2013

- Staff turnover in the Woreda was evidently a challenge and some SAC members were quite busy with other engagements.
- There was no clear evidence to show that the Joint Action Plan had any influence in the Woreda budget allocation i.e. linking social accountability with Woreda budget preparation was not evident.
- FTA/SA linkage in the Woreda needs to be strengthened further.
- Though members of the SAC said that they would continue using SA tools after the program period was over, as is typical for most SA Woredas, issues pertaining to institutionalization, expansion and sustainability of SA are nebulous that require overall review and streamlining

Box 3: People Centred Service Delivery Training

Birhan Social Development Training and Consultation Center

Birhan Social Development Training and Consultation Center (BSDTCC) is set up to provide training to individuals who are engaged in social development work. The focus of the training is to educate social workers interested in community development in the context of poverty alleviation.

The courses studied cover a wide range of subjects that are framed in the National Qualification requirements weaving into these children and youth issue, gender sensitive issue, urban health issues, disability, HIV an AIDS, basic research skills, communication approaches, business administration processes, ethics and other crosscutting urban issues.

Aims

Share the wealth of 23 years of community development experience gained from working in six economically challenged communities in Addis Ababa.

Explore national and international best practice in community development with students who want to embark on this type of work.

Exposing students to the best practices in poverty alleviation programs.

Methods

Consultation with students about the challenges and gaps in their work environment.

Responding to students' questions by drawing on Birhan's own practical experiences through case studies.

Delving into national and international best practices to ensure that students are able to grapple with the real challenges of doing community work in their various work contexts.

Expected Outcomes

Creation of competent and innovative professionals who are able to address the challenges of complex and interlinked root causes of poverty.

Advocating for approaches that directly impact on economically deprived communities.

Promotion of demand responsive approach to education, student centered curriculum, gender equality, team-work, transparency and accountability.

Innovation

What is innovative in BSDTCC lies in its inductive bottom-up experiential training that puts students and the communities they serve at the centre of learning, teaching students to listen to the poor and recognise the value of their knowledge and priorities – training workers for effective participatory development. Other social development training in Ethiopia tends to be deductive, top-down and driven by theory. BSDTCC provides a model for staff training across Ethiopia, relevant to PBS and to developing effective responsive service delivery. The approach of BSDTCC lends itself to promoting innovation and adoption of innovation at local level.

www.linkedin.com/pub/berhane-gebrehiwot/5b/987/b42

SA has contributed to the acceptance, adoption and application of innovations at the Woreda level in a number of ways including:

- More aware and informed citizen's groups, which are well equipped to participate in PBS programmes and demand their rightful entitlements in terms of public and basic social services (based on innovations), from local government officials and service providers
- Creation of a social platform for citizen's groups and service beneficiaries to interact productively with Local Government officials and service providers in exchanging new ideas especially on innovations and accepting and adopting them for application and going to scale
- Greater participation in and ownership of PBS

ESAP has evolved strongly and with significant high-level political support as it is an essential component of both efficient accountable and responsive effective service provision that meets the needs and contexts of all communities. However, it needs to be placed at the heart of decentralized governance of service delivery. This could be improved if the Joint Action Plans were to be reviewed to ensure that effective Woreda budget allocation is linked closely to Social Accountability and is supported by a strong monitoring and reporting mechanism. It would also be made more central by strengthening the linkages between social accountability and the Financial Transparency & Accountability (FTA) tool.

There is a wide range of international experience of social accountability approaches. Rwanda has had outstanding success over the past 15 years in enabling communities themselves to design and monitor the development agenda according to priorities that local communities define. This has been achieved over the past 15 years in Rwanda through its *Ubudehe* participatory approach to development, starting from a point where, historically, development and authority was entirely top-down, culminating in orders to commit genocide. Today, every one of Rwanda's approximately 10,000 villages can use Scorecards to analyse services and display its own map, drawn on cloth, that shows every household and its resources and level of poverty, offering a transparent community-agreed database for social protection programmes and health and education initiatives, backed by EU grants of EUR€1,000 each year for development programmes designed by the village⁵⁷. The Rwandan experience has much to offer Ethiopia in enhancing decentralisation that empowers communities. Brinkerhoff and Wetterberg have recently used four case studies to look at the importance of the supply-side of state structures and processes in enabling social accountability for service delivery, including a project in Rwanda, as an example of a very centralized structure that has nevertheless engaged in social accountability for citizen empowerment and service provision⁵⁸. The authors found the following:

- Active state support for social accountability, although conducive to service improvements and enhanced governance, may not necessarily translate into opportunities for citizen empowerment.
- State structures and processes often dominate the terms on which citizen input is solicited and responded to, which constrains the potential for social accountability to mobilize citizens around shared concerns and express them to public officials. State

⁵⁷ For more information on Rwanda's *Ubudehe* approach see, for example, UN Public Service Award 2008 pages 10-17 of <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan034191.pdf> and Sam Joseph describing 3rd generation Participatory Poverty Action/Assessments (PPAs) in Feb 2008: "Ubudehe: Creating Spaces for Citizen Participation in self governance, poverty analysis, local problem solving and sector/district planning".

⁵⁸ Brinkerhoff and Wetterberg, 2015. "The primary impacts [of the health project in Rwanda] were in improved service delivery. The joint committees (PAQs) channeled community issues to health center managers, resulting in changes in provider behavior (e.g., punctuality, attendance, waiting times, confidentiality) and greater resources and investments in facilities. A 2009 study found that 74 percent of PAQs effected changes in health services (IntraHealth International 2009). PAQs also channeled information to communities and made suggestions to higher levels of government. At some centers, service utilization increased dramatically. In one district, it rose from 40 percent of eligible citizens in 2006 to 91 percent in 2008, and one health center credited the PAQ's outreach with contributing to a rise in family planning acceptance from 5 percent of eligible patients in 2006 to 35 percent in 2008. The strengthening of PAQs fostered learning and allowed citizens a greater say in health facility governance. The planning process became more participatory, better matching local needs. Plans were more realistic, reflecting available resources".

structures and processes also influence the capacity and incentives of local governments to be responsive.

- Alignment between supply- and demand-side factors can promote mutual reinforcement for social accountability.
- Sustainable social accountability mechanisms and processes emerge from extended interactions between citizens and state actors that support both learning and capacity building.

Malawi is seeking to place community based monitoring as an integral part of its M&E system for basic services⁵⁹. RCT research by J-PAL showed that a community-based monitoring programme in Uganda led to large and sustained increases in health care utilization and improvements in child health⁶⁰ (See Box 5).

Box 4: Design By and For the Poor in Addis Ababa

Integrated Holistic Approach Urban Development Project (IHA-UDP)

IHA-UDP, a local NGO, worked in 6 Kebeles in the Teklehaimanot area of Addis Ababa in its first decade from 1990. The project was based on a World Bank study that identified these Kebeles as being the poorest in the city. Towards the end of 1990s, IHA UDP was scaled up into two other Kebeles in the Kera area of Addis Ababa.

Aims

The aim of the project is based on the rationale that poverty affects individuals, families and communities in multiple ways and so any strategy to alleviate poverty has to deal with the root causes of poverty in an integrated and holistic manner.

Methods

The development process began with consultation with those living in the community so that they can verbalize their needs.

The identification of needs is then translated into programs on the ground under three components of Primary Health Care, Community Development and Physical Upgrading.

There were a total of 52 programmes under the three components.

Identification of needs created relevant and appropriate ways of running programmes.

This process led to a community of poor households being involved in the planning of a condominium to be built on land where their houses were to be demolished. The community design changed the design from individual toilet/washing facilities in each apartment and individual cooking facilities to having communal WaSH facilities and kitchen on the ground level adjacent to a safe play area for children, where the households contribute towards maintenance as well as enjoying a high level of community neighbourliness and supervised children's play. It has also led to each household having additional bedroom/living space.

Outcomes

One of the most important outcomes of the work is in creating a transparent mechanism for identifying the neediest individuals and households in the community.

A community structure such as the Neighbourhood Group (NHG) is made up of residents of the community who were elected by their neighbourhood to represent them within the NGO. Each of the four Kebeles was divided into 10 zones. Each zone members elect 3 representatives, one for each component of the project. A further election would determine Kebele level representatives for each of the three components.

Innovation

By putting the poor at the centre of their own development, as anticipated in PBS, the design of a modern condominium has been significantly improved, providing additional rooms to all households in their apartments and creating safe spaces and well-maintained communal facilities, as well as many other developments that respond to priorities identified by the poor.

⁵⁹ See Malawi's Ministry of Finance, Economic Planning & Development, M&E Division Dec 2014 report on "State of M&E in Malawi".

⁶⁰ J-PAL eNews: New Briefcase on Community Monitoring, July 2015 See www.povertyactionlab.org > publications > "community monitoring" e.g. Information is Power.

The World Bank's Global Partnership for Social Accountability (GPSA)⁶¹ supports many initiatives around social accountability and hosts a knowledge platform. There is a surge of interest in the role of participation in delivering better services, but there can be a wide range of understanding how to carry this out⁶². The Philippines has strong experience in using participation, social accountability, and citizen engagement to improve the delivery of social protection and other services to the poor, while converging a suite of anti-poverty programmes (conditional cash transfers, community-driven development, and livelihoods support) to address vulnerability and poverty reduction⁶³. It includes targeting poor communities in the poorest provinces and enabling decentralized response to their needs. Kenya is engaging in participatory accountability, emphasising the role of public participation in local government and service delivery, as part of its ambitious decentralization agenda following adoption of its new constitution⁶⁴.

3.4.2. Participation and Citizen Engagement

Within the framework of ESAP2, citizen and community participation in the PBS Social Accountability Programme has taken on a wide range of application across the country, building on well-established traditional mechanisms and practices that go by various names and terms. They all aim at improving the effectiveness and productivity of the group in relation to the organization's aim or mission and tasks involving community level workers, farmers, artisans, teachers, parents, students and Woreda officials. Taking traditional mechanisms and applying them to basic service provision is innovative. Below is a summary of these mechanisms, traditional, adapted and new, and the functions they serve:

Iddir (Communal Support) – essentially an informal insurance arrangement, particularly for health and burial expenses, often linking urban residents to their home communities, and a mutual basis for cooperative work undertaken by community members to support each other in farming, construction and marketing and many other pursuits of life.

Aderjajet (Community Network) – based on supporting community members through networking and exchanging of vital information e.g. on new technology and marketing information. The growing internet and broadband usage is promoting this practice.

Konoba (Participatory Community Communal Work) – similar to *Iddir* above but with stricter membership obligations.

Gemgema --- An important and widespread traditional capacity building practice in Ethiopia⁶⁵. Gemgema, encourages improvement based on regular group feedback to individuals regarding their performance and behaviour in relation to the group and organizational objectives. Developed during the period of armed struggle (1975-91) against the Derg, first by the Tigray Peoples Liberation Front and then by other allied groups during the civil war, and has gradually begun to be practiced by all branches of the civil service and society in Ethiopia.

One Biir to One Mother (Community Support to Women) – a special community support to disadvantaged poor women, who are caught up in difficult circumstances such as sickness, childbirth, loss of breadwinner etc.

1-5 Network for Awareness Creation – Like *Aderjajet*, a networking mechanisms practiced especially by vocational workers and professionals within PBS

⁶¹ See www.thegpsa.org/sa

⁶² e.g. See Thomas Carothers and Saskia Brechenmacher [Accountability, Transparency, Participation, and Inclusion: A New Development Consensus?](#) Carnegie, October 20, 2014

⁶³ See, for example, <http://www.worldbank.org/en/news/press-release/2015/05/13/philippines-world-bank-cites-secretary-soliman-six-others-for-leadership-in-social-accountability> accessed 7 Sep 2015

⁶⁴ See for example The Institute for Social Accountability – TISA: Policy Proposals on Citizen Participation in Devolved Governance in Kenya. Annette Omolo n.d. http://www.tisa.or.ke/images/uploads/Policy_Recommendations_on_Citizen_Participation-TISA_2011.pdf

⁶⁵ See, for example, Watson, D., Yohannes, L., Capacity Building for Decentralized Education Sector Delivery in Ethiopia, Discussion Paper No 57HJuly 2005 p 4 and Box 2 on p5

Villagization – mostly practiced in Gambella, Benishangul-Gumuz and Tigray Regions where citizens are collectively settled in selected, easily accessible areas to facilitate efficient basic service delivery.

The application of several traditional mechanisms, as described, is contributing to citizen and community participation in PBS in significant ways. However, it is not easy to determine their respective attributable contributions in the programme's success. This calls for developing tools for measuring and assessing such contributions, with the aim of organizing them in an appropriate form for promoting their adoption, application and taking them to scale. Taking Gemgema as an example, there has been no formal assessment of the impact of the mechanism. It is however symbolic of the perceived importance of the contributions of all individuals to achieve the purpose of the organization for which they work, and through it the socio-economic development of the country. It is frequently mentioned in Key Informant Interviews with government officials. This feature of working life is pervasive, transparent and apparently unique. It is a dynamic consultative process, promoting productive exchanges and interactions between teachers, students, parents, community leaders and Woreda officials. Gemgema can be used as a capacity building tool for monitoring the implementation of basic social services (short route accountability). At the same time there is a potential risk that the mechanism could be exploited manipulatively to serve the interest of managers in a non-transparent way. Based on the outcome of a review of the mechanisms in use around basic service delivery, it would be possible to design training packages on traditional mechanisms and community participation for dissemination to practitioners and beneficiaries in order to understand, appreciate and apply them more effectively and take them to scale.

The exchange between traditional and modern participatory processes is evident in Kirkos Woreda of Addis Ababa City Administration. Responding to the BDS-CDR question asking if any innovation failed due to traditional thinking or belief, a BoFed respondent replied, *"FTA training has changed peoples images about us, as we are now transparent on our spending and the community also participate on the budget design even if they have small inputs on the final outcome as the budget we request and receive is different - it is lower. The FTA training is done every three months through inviting different stakeholders like religious leaders, Iddir, different unions and forums. Hence through this awareness-creation program, many has changed their traditional way of thinking where they can monitor, comment and work with the Woreda on its budget allocation and implementation activities"* (Survey Data, BoFED, Kirkos Woreda, Addis Ababa).

3.4.3. Grievance Redress Mechanisms (GRM)

The Grievance Redress Mechanism (GRM) is an impartial public forum set up in 2011 to receive and give hearings to the complaints of citizens and resolve them. They operate in several of the country's regions using different regional level mechanisms established during the past decade under the government's various programmes. The Woreda GRM offices receive and redress complaints and grievances in accordance with the procedures laid out by the regulation and report quarterly to the respective zones on their performance. PBS supports the expansion of GRM offices including capacity building and standardization between regions and extension to all Woredas⁶⁶. It also provides technical and financial support to GRM's legal counterpart, the Ethiopian Institution of the Ombudsman (EIO). Since the last JRIS, the EIO has provided training to 57 GRM officers drawn from the EIO and 85 GRM officers of Benishangul-Gumuz regional state⁶⁷. These should continue in all the regions including

⁶⁶ See Randolph, R. C. and Edjeta, B., Strengthening Grievance Redress Mechanisms for the Protection of Basic Services Program in Ethiopia, Addis Ababa September, 2011; and

Khan, Q.M., Faget, J-P., Gaukler, C., Mekasha, W., Improving Basic Services for the Bottom Forty Percent: Lessons from Ethiopia, World Bank Jan 2014. Available at http://www.researchgate.net/publication/266652406_Improving_Basic_Services_for_the_Bottom_Forty_Percent_Lessons_from_Ethiopia.

⁶⁷ PBS III JRIS & JBAR Review Report, April 2013

Developing Regional States (DRSs), and also for Woreda and Kebele level GRM officers. EIO has completed the purchase of airtime and printing of materials to continue the promotion of GRM activities using print and electronic media to improve citizens' understanding about the procedures of appeals and complaints mechanism. GRM ensures that citizens' voices are heard regarding government services. The GRM is not yet effective at Kebele level, where it would be easily accessible to all.

Overall, the GRM system is functioning well despite capacity constraints in terms of trained staff, logistics and inadequate office space at the Woreda level. As evidenced by Mieso Woreda of SNNP, *"GRM is functional and instances was those farmers whose farmland been taken by Addis-Djibouti Railway Line were given to express their grievances to the Administration and the company have been informed the case and have paid the compensation that have been estimated by the Woreda committee"* (Survey Data, Nvivo Analysis, Mieso Woreda, SNNP). Data from the region and visited Woredas (Dugda Dawa and Dire Woredas) indicate that more than 90% of the complaints of grievances received by the respective GRM structure have been resolved. Kebele Managers, who are the GRM focal points, have many duties to perform, beyond their direct responsibilities, and lack incentive to effectively work on GRM. It is suggested that Kebele Managers undergo awareness training on the importance of the function and role of GRM. This need will be discussed at the GRM higher level working group before the next JRIS. GRM has already displayed its value as an effective mechanism for resolving grievances nationally and is ready to expand and go to scale in the rest of the regions and Woredas, if the key recommendations proposed for addressing the lingering capacity and management constraints are accepted and applied.

There is a need for appropriate awareness training for Kebele Managers on the importance, role and functions of GRM in order to resolve GRM management and capacity constraints and limited access at the Kebele level and enhance the mechanism's growth and going to scale. As part of strengthening GRM, the complementarity in functions between GRM and the Ethiopian Institution of the Ombudsman needs to be articulated in order to ensure synergy and enhancement of the justice and human rights environment.

3.5. Finance

3.5.1. Financial Transparency and Accountability (FTA)

Public Financial Management (PFM) issues are at the core of PBS, which uses government systems and simultaneously seeks to strengthen them. Support to the Federal Block Grant was based on an assessment that GoE financial management systems were robust enough for donors to be confident that their funds would be properly and effectively used. This approach to PBS was feasible only because of the extent of PFM reform that had already taken place, within the framework of the Expenditure Management and Control Programme (EMCP), which began in the late 1990s. The Woreda decentralization initiative (from 2003 in the major regions) had created additional PFM challenges, since hundreds of Woredas were given budgeting and expenditure management roles far beyond their previous responsibilities. Building on investments made to strengthen FTA in the use of public resources, it aims to strengthen and deepen the FTA initiative, which includes enhancing transparency around public budget procedures (planning, budget preparation, expenditures, and audits) and deepening the awareness, engagement, participation and "voice" of citizens and citizen representative groups on public planning and budget processes and service delivery. With around 1,000 Woredas, this is an ambitious programme.

FTA's progress and success are best summed by the JRIS/JBAR statement: *"Significant achievements have been made in the area of FTA as evident both from the pre-JRIS supervision field mission and the JRIS discussions. FTA initiatives are gradually being integrated into the government public finance management system and planned activities are*

*progressing well*⁶⁸, Over the last five years, the Financial Transparency and Accountability (FTA) tools designed under PBS have been rolled out and used to disclose regional and local-level budget and service delivery information. As a result, more than 90% of all Woredas and city administrations across the country now post information on local budgets and service delivery targets and accomplishments publicly. This is a significant change that has revolutionized transparency, as there was no such public release of this key information before 2006. The effect of this has not been even all over the country. In many regions, Woreda officials are frequently challenged by citizens, whereas in other areas the impact is less. Over time, this has led to an increase in the frequency of citizens raising issues of budget and spending priorities with their local authorities. The PBS review team found universal enthusiasm for this among those interviewed. From a baseline of budget information publicly available in no Woredas at the beginning of the program, now budgets and service delivery information are available in 84 percent of Woredas (WB 2012c). An interview respondent in Wolita Woreda of SNNPR stated: *“The community most of the time does not know the government budget, Participatory budgeting makes the community understand each budget allocation to the sector and comments received from the community related to their problem feed into better understanding, planning and usage of resources. In the process, weaknesses are addressed and community thinking is positively changed”* (Survey Data, NVivo Analysis, Wolita Woreda, SNNP Region).

The independent PBS review’s assessment⁶⁹ found that the PEFA ratings indicate a substantial strengthening of PFM systems over the past decade with Ethiopia’s score one of the highest in Africa. PBS has provided an effective framework for GoE and DPs to work together on further strengthening of decentralized financial management. The demand for quarterly reports has stimulated the timely production of end-of-year accounts by the regional and Woreda level authorities and created pressures for the system to improve, while the system of continuous audits has helped to identify weaknesses, which the PFM component of PBS has then helped to address. PBS II has been a major support to strengthening the Office of Federal Auditor-General (OFAG), and has also helped reinforce professional links between Federal and Regional audit bodies. Outcomes have vindicated the strategy of working to strengthen GoE’s own decentralized disbursement channels, rather than setting up separate disbursement procedures.

These efforts have helped improve citizen direct voice, with 37% of survey respondents indicating that Woreda and city officials had sought citizens’ views on budgetary issues, and 43% revealing that officials had also sought the views of the people on the quality of public services. Citizens have thus started to provide feedback on budget execution and participate in monitoring project implementation. Creating linkage and synergies between FTA and Social Accountability will play a significant role in solidifying the gains already made⁷⁰.

3.5.2.Fiscal Transparency, Participation and Accountability around the World

“Open Budgets” is a global study on the Political Economy of Transparency, Participation and Accountability⁷¹. It is authored by many prominent economists, planners and financial experts trying to address demands coming to the public officials responsible for budgets, from their citizens and from other government officials, economic actors and increasingly from international sources, to make spending more transparent and participatory. Aimed at a global audience and especially government officials responsible for budgets, economists, financial experts and development experts, it is relevant for application in Ethiopia.

⁶⁸ PBS JRIS/JBAR Aide Memoire, April 2015

⁶⁹ Financial Transparency and Accountability Implementation Assessment Report, September 2013, Addis Ababa, pp34-35

⁷⁰ Ethiopia’s weak development of ICT infrastructure does not lend itself to use of ICT for strengthening transparency and accountability as in many countries outlined by Davies and Fumega June 2014

⁷¹ Khagram, S., Fung, A., De Renzio P., (2013) pp 1-50, Open Budgets: The Political Economy of Transparency, Participation and Accountability

The study comprises seven Country Case Studies on Fiscal Transparency, Participation and Accountability in Brazil, South Korea, Mexico, Guatemala, Tanzania, Vietnam and Senegal. The overview and synthesis of the study identifies seven broad trends that have brought fiscal transparency, participation and accountability into focus. Bringing evidence from statistical, cross-national and in-depth country case studies, the study found that four main factors affect transparency, participation and accountability across countries. They are related to (a) a thriving democracy; (b) fiscal and economic crises; (c) media handling of corruption scandals; and (d) external (international, global, regional and transnational) influence. An example from Mexico⁷² illustrates impact of budget transparency community initiatives, where a public advocacy campaign to expose the capture of an agricultural subsidy program by wealthier farmers made use of budget transparency tools. The campaign used the country's freedom of information laws to obtain the list of agricultural subsidy recipients and created user-friendly websites to publicize government data. There are many examples of the effectiveness of use of Right to Information legislation to effect increased accountability by service providers, particularly on resource allocations and use. A PwC report in India shows how it has led to: (i) greater transparency in functioning of public authorities; (ii) Improvement in accountability and performance of the Government; (iii) promotion of partnership between citizens and the Government in decision-making processes; and (iv) reduction in corruption in the Government departments⁷³.

Ethiopia may have been more proactive, rather than reactive as in the case studies, in driving an agenda for fiscal transparency and participation in order to pre-empt the very conditions that have driven other countries down this path. However, there may be lessons to learn from the experience outlined in these case studies.

3.5.3. Local Budget

In the Ethiopian context, Local Budgeting entails the decentralized fiduciary empowerment of Woredas vis-à-vis regions and zones, through bottom-up empowerment of communities in participatory budget planning and formulation⁷⁴. This applies across all Woredas, but with special study examples drawn from Amhara, Oromia, SNNPR and Tigray. Local Budget ensures the participation of beneficiaries at all the various stages of the process including implementation. It promotes the sense and spirit of ownership at the Woreda and Kebele levels. It also enhances the flow and usage of resources.

Local Budget Instituted equity-oriented, formula-driven Block Grant to meet both recurrent and capital needs of the regions and Woredas. The April 2015 JRIS PBS III Review Report concludes, *"Based on monitoring progress on the transfer of Federal Block Grant allocation to regions and Woredas with the full Fairness Test for the fiscal year to be conducted during the October/November JRIS, (the FBG) was on track during the first half of the fiscal year with 57% of the annual allocation transferred. Transfers from regions to Woredas was also largely on track in all regions although few off-track cases were noted in Amhara and Afar. During the discussions at the JRIS, representatives from these two regions explained that most of the Woredas that received relatively low transfers during the first half were Woredas that rely more on revenue collection for their block grants than transfers from the region. Another factor mentioned from Afar was holding up of transfers for delays in reporting by some Woredas."*

⁷² Global Voices Online: <http://transparency.globalvoicesonline.org/listing/subsidios-al-campo-en-m%C3%A9xico-rural-subsidies-mexico>

⁷³ PricewaterhouseCoopers (PwC). Final Understanding of the Key Issues and Constraints in Implementing the RTI Act. Vol 2 See http://rti.gov.in/rticorner/studybypwc/progress_made.pdf

⁷⁴ Heymans & Mussa 2004; *Decentralization, Delivery and Accountability, Governance Review Process*, 2006 pp 4, 7 & 10; Garcia, M. and Rajkumar 2008, pp xv-xix, Box p26, 37-53 and 57-85; PBS II Government's Implementation Completion Report, FDRE June 2013; IPE Global (India), 2011, pp 9,10,12,13 & 30.

Donors provided 32% of FBG in the period EFY 1998-2000, with 68% coming from the Federal Government. FBG provided 85% of revenues of the Regions and Woredas, with 75-60% spent on the provision of basic services (Multi-Annual Review of PBS Programme, Final Report, June 2012). One region, SNNPR entered into “performance agreements” with Woredas committing them to attain numerical performance targets in each key sector. More work is needed to strengthen Woreda organizational and management capacity and in defining their structures and jurisdictions better, but overall the achievements in terms of meeting targets have been impressive. Primary school gross enrolment doubled from 37% in 1995/6 to 74% in 2004/5, but net enrolment in 2013/14 was only 49.5% against a target of 80.0%. Immunization for under-five children rose from 40% in 1995/6 to 56% in 2004/5 and by 2013/14 the proportion of children vaccinated Penta-3 was 91.1% against a target of 94%. Safe drinking water as share of population rose from 19% in 1995/6 to 36% in 2004/5 and rural water supply coverage within 1.5km radius (although not clear about functioning supplies and numbers of persons access the supply) was 75.5% against a target of 86% for 2013/14, although varying between 49% in Amhara and 97% in Oromia⁷⁵.

Additionally the Local Investment Grant (LIG) contributed to increasing the quantity and improving the quality of local level capital investment and the MDG Fund contributed to meeting the MDG goals. LIG will be discontinued, but the MDG Fund will be continued in PBS III.

The organizational structures and jurisdictions of Woreda administration needs to be defined better and their management capacity strengthened for more effective implementation of PBS. With stronger and clearer mandates and capacity, Woredas will be better placed to select, adopt and adapt sector-specific innovations that will enable them to focus on outcomes and achieve the best possible for their context. Community participation in programme and budget formulation will enable Woredas to become increasingly accountable to beneficiaries and responsive to their service needs and investment priorities.

3.5.4. Public Expenditure and Input Tracking System

A Public Expenditure and Input Tracking System is a public and transparent resource tracking system to ensure inputs reach the end users, are accounted for and used for the purposes for which they were provided in the first place. It is aimed at increasing accountability of service providers through such public resource tracking. One model, of publicly disseminating school-specific information on what resources to expect, entails mobilizing communities to monitor the resource distribution in schools as an approach to reducing leaks. For example, the Philippines Textbook Count 1-2-3 programme was instituted to combat corruption in textbook supplies. Starting in 2003 and for three years thereafter, the Textbook Count 1-2-3 program published a detailed list of when textbooks were going to be delivered in each province. These lists were widely published in newspapers and socialized through meetings with teachers, government officials, and NGOs. There is evidence of success of such tracking schemes: (a) In Philippines, by 2005, all textbooks produced were delivered (compared with an estimated loss of 40 percent in 2001), textbook prices were reduced, and quality standards reportedly improved; (b) In Uganda, the share of the public spending allocated to schools that actually reached schools increased from 20 percent in 1995 to around 80 percent in 2001⁷⁶. It has also been credited with improving total enrolment in schools.

Ethiopia could draw on the experience of simple methods of public expenditure tracking and publishing of data as part of increasing community participation in budget formulation and monitoring.

⁷⁵ Source: Aide Memoire PBS III JRIS April 2015 – Annex 3: Results Framework and Monitoring.

⁷⁶ Reinika, R., and Svensson, J. 2005

3.6. Collaborative Partnership - Collaboration with Diaspora

Public Private-sector Partnership (PPP) as an approach is still in its infancy in Ethiopia, with policy, legislation and capacity yet to be developed⁷⁷. Many Ethiopians are familiar with such partnerships from their experience in the Diaspora. Ethiopians and foreigners of Ethiopian origin abroad constitute a formidable social, economic and technical manpower that can be harnessed to join hands with the motherland in developing their country. Mindful of this, GoE has already established a Diaspora Engagement Directorate-General, with regional coordinating offices in Amhara, SNNPR, Somali, Harari, Benishangul-Gumuz, Diredawa and Gambella, in the Ministry of Foreign Affairs, given wide mandate to participate in all sectors of the economy. This facilitates Ethiopian Diaspora to get involved in all socio-economic activities in the country; mobilize Ethiopians abroad and keep them informed on developments back home and conduct research to inform policy on Diaspora's participation in nation-building. At this early stage, most of the activities are initiated and conducted by Ethiopian Diaspora engaging with national NGOs/CSOs, regions and Woredas. Direct localized partnerships between public and private service providers is still emerging. The Ethiopian Diaspora Policy⁷⁸ §5.7.4. states that: *An effective resource mobilization mechanism would be commenced so that Diaspora charities' donations aimed at sustaining the country's development endeavor would rigorously be mobilized and their proper and speedy utilization would be guaranteed.* This opens the door for developing an arrangement to establish and promote partnership between PBS nationally, as well as at the regional and Woreda levels, through which the Ethiopian Diaspora can participate in the service delivery programme, bringing into play their rich and diverse expertise and multi-disciplinary experiences and resources. In addition they can also play important roles in the economic and development spheres in the country as well as the private sector in which they are already participating. Dr Girma Tefera, chair of the US-based Ethiopian-American Doctors Group (EADG), is quoted as saying that among professionals in the diaspora there is a real desire to use their expertise and skills to make a difference in home countries: "A lot of my colleagues' primary motivation is to give back to the society at large back home," Tefera says of the 171 Ethiopian physicians in the US who have pledged money and time to EADG's project to build a state of the art hospital in Addis Ababa⁷⁹.

The Diaspora has the capacity to play an important part in taking to scale successful PBS pilot projects. In addition, by virtue of their spread all over the world, the Diaspora could also be the best ambassadors for disseminating the concept and benefits of PBS abroad and promoting its replication widely. Even at this early stage there are already some encouraging examples of Diaspora participation in Ethiopia as evidenced by the following quote from Batti Woreda of Amhara region: *"The Woreda is able to get 4 Yamaha motor cycles from the Canadian Hunger Foundation. Also in the construction of Batti Woreda TVET building, Saudi and Djibouti Diaspora have contributed"*. Another notable example, again from the same region, relates to Menz Mama Woreda, Amhara: *"There is no link with Diaspora from abroad, but they are working with rich people in the Woreda and in Addis Ababa. For example there is a bad road, which is troubling people in their Woreda. To maintain the road, the Diaspora mobilized the rich people in Addis Ababa and the local community. As a result, now the road is being maintained. There are also similar works in supporting education sector. For example, one rich person constructed a building by 1,500,000 bir and donated it for technical and vocational school as they reported"* (Survey Data, NVivo Analysis, for Batti and Menz Mama Woredas, Amhara). A 2014 analysis across Africa suggests that Diaspora firms have better export performance and labour productivity compared to domestic firms and that African governments

⁷⁷ The African Development Bank is working with the Government of Ethiopia to improve the legal and regulatory framework for PPPs through its Institutional Support Project for Public-Private-Partnerships (ISP-PPP). The Bank is currently looking for international technical advisors to prepare PPP Policy and Law, set up a PPP Unit, design a capacity building programme and prepare a PPP Manual/Guidelines.

⁷⁸ See http://www.ethioembassy.org.uk/community/Diaspora_Policy_English.pdf

⁷⁹ IRIN Report 8 Jan 2014: <http://www.irinnews.org/report/99436/beyond-remittances-diaspora-and-development>

ought to design specific strategies to encourage Diaspora investments⁸⁰. Such technical expertise could be brought to bear on the performance of PBS.

MoFED could engage with Diaspora on their potential support for PBS and design an appropriate monitoring and assessment system, which could determine the potential and real attributable contributions of the Ethiopian Diaspora within a possible Diaspora - PBS Partnership. In promoting this approach, there is a need to identify what incentives could be employed to attract the Ethiopia Diaspora to become engaged substantively in participating in the PBS programme.

3.7. Monitoring and Evaluation

Monitoring and Evaluation arrangements for such a broad programme as PBS have to strike a balance between M&E of the programme's own activities and inputs, and M&E of the wider programmes of basic service delivery to which PBS contributes. The JBAR and JRIS have been the centrepiece of the PBS monitoring and evaluation system, alongside the broader results matrix. A new M&E sub-programme was introduced under PBS II to enhance Government and donors' capacity to assess the actual impact PBS is making at local levels⁸¹. This sub-program will support the strengthening of existing national and sectoral M&E systems. Particular attention will be placed on ensuring that all studies, surveys and data quality assessments will complement existing initiatives and not duplicate ongoing efforts. A Joint Technical Working Group for M&E was also established, and has been in the forefront of efforts to make PBS more result-oriented, not least in its inputs to the design of PBS III. PBS has supported the Central Statistical Authority (CSA) to develop a national Data Quality Assessment Framework (DQAF) and to use the framework for a number of sector diagnostics; inter alia, the DQAF is a check on the credibility of data (including administrative data) on which PBS monitoring and safeguards relies.

Data quality assessments for education and roads have been completed (CSA 2011b), while assessments for health and water are in progress. An assessment for agriculture has been deferred to PBS III. PBS has also supported the roll-out of the Ministry of Water and Energy MIS. It has also supported linking 15 CSA branch offices to the IT network, and the strengthening of the Household Income, Consumption and Expenditure Survey (HICES) and the Welfare Monitoring Survey (WMS), both of which are key for monitoring of progress in service delivery and poverty reduction. Progress in finalizing TOR, commissioning and completing studies under the M&E component has been uneven and slower than expected⁸². The experience with the PBS Innovations Data Collection and Analysis by BDS-CDR leaves much to be desired. As with other components, there have been delays attributed to procurement issues, but the independent PBS review found that the work programme is highly relevant to PBS's broader objectives and that the focus on systemic support to national data systems is highly appropriate. Health is leading in introducing modern information technology to provide more current monitoring of health, but mobile coverage remains a serious problem across Ethiopia, which is behind most of its neighbours in IGAD in connectivity. Despite many Woredas reporting use of manual paper formats, one Woreda reported: *data is collected and uploaded into the Health Management Information System (HMIS) using PC, HMIS software and ICT professionals including mobile phones reporting and responding to outbreaks of disease in a community in every rural Kebeles*. Another reported: *There is no advanced ICT which is used in a reporting system except the utilization of mobile phones. Both mobile and wireless phones are used in reporting and responding to outbreaks of diseases. There is no as such more advanced partnership that supports the reporting system*.

⁸⁰ Amadou Boly, Nicola Daniele Coniglio, Francesco Prota, Adnan Seric. [Diaspora Investments and Firm Export Performance in Selected Sub-Saharan African Countries](#). World Development vol 59, July 2014, pages 422-433

⁸¹ PBS II Government's Implementation Completion Report, June 2013

⁸² JRIS Mission & JBAR Review Report, April 2015. While Education and Health sectors had relatively robust M&E systems with a functioning MIS, Agriculture, Rural Roads, and Water and Sanitation sectors were at their early stages &/or had no robust M&E system in place when PBS MFR planned its current support from 2011.

PBS has introduced an approach of Managing for Results (MfR), under the MfR Working Group, in order to see the results from resource allocations in each of the PBS sectors. The MfR component has three interrelated objectives: (1) results monitoring; (2) M&E system strengthening; and (3) undertaking analytical works. M&E system strengthening has involved support for sector systems, the ERA census and CSA. Apart from administrative delays in the sectors delivering M&E results, there have been “continuous changes in the national statistical systems that deliver outputs related to MfR activity”⁸³. “The results monitoring component ... has systematically collected and shared information about progress toward PBS results, performing disaggregation by region and gender”. It has supported “disaggregation of data by gender” at regional level. Consideration by PBS on revising indicators has continued to reflect its focus on monitoring outputs such as enrolment, rather than outcomes⁸⁴, although some indicators are well chosen for their known direct link to outcomes, such as Penta-3 immunization. The rural water coverage uses a radius around a water point of 1.5km⁸⁵ and the indicator on non-functioning water points has revised its baseline as the 2013 Water and Sanitation Inventory showed that the initial estimates for PBS 3 were over-ambitious. For urban areas, there is a lack of appropriate indicators relating to the poor, which allows for their poor access and outcomes to be ‘hidden’.

Complementing the MfR approach of COPCU, the Ministry of Women, Children and Youth Affairs has focused on Inequalities in coverage⁸⁶ of basic services, assessed against wealth quintiles, region, educational status and sex. The indicators are mostly at the level of outputs and do not cover the agriculture sector. These indications of inequality are a necessary beginning of appropriate disaggregation, if it can be extended to Woreda level, if not Kebele, and focused more on outcomes. This is necessary if PBS is to be able to identify the locations and social categories that currently have the worst outcomes and to enable all levels of decision-making to focus on these. As has already been touched on in §1.5, relating to the Theory of Change, it is essential to have adequate disaggregated data on outcomes if resources are to be allocated optimally. This focus, in turn, will enable increased responsiveness to local context and require adoption and adaptation of relevant innovations in services and their delivery in order to achieve improved outcomes. The public sharing of such data on outcomes can provide an incentive and exchange of knowledge between Woredas regarding what has worked best and how outcomes have been changed. Malawi has used such public sharing to effect, also drawing on triangulation of data from the three independent sources of MIS, Surveys (such as DHS and WMS) and community based monitoring (CBM)⁸⁷. The central role of the availability of disaggregated and timely data for effective resource allocations and to enable community participation in improving services and making them more responsive to need has yet to be appreciated. Currently, use of data is seen as an internal monitoring device, rather than one of public accountability and capable of contributing to improvements in design and delivery of services. Communities “hold” a wide range of data that is never recorded or uploaded into the national monitoring system, such as the functionality of water points, children immunised, maternal deaths, teacher attendance, basic learning outcomes etc⁸⁸. They know what is important to them and what counts in their lives.

⁸³ This and the remainder of the paragraph draw heavily on PBS 3 MfR Component – Activity Update, March 2015. Generally, PBS monitoring is heavily dependent on sector MIS and the DHS which is only carried out about every 5 years, with the latest being a mini-survey in 2014.

⁸⁴ MoA’s output focused M&E system, supported by MfR, in looking at the extension service, does include two indicators pointing to outcome - % annual change in yield of major crops; and % of farming HHs who use improved/new technologies; also an indicator on prevalence of livestock pests and disease.

⁸⁵ This reflects the lack of international agreement on the indicator – many waterpoint types have a maximum capacity of 250-300 persons per pump and some use an international norm for access as no more than 300 persons AND within 500m, (as the MDG fails to define a reasonable distance for access) of a functioning improved waterpoint.

⁸⁶ Ministry of Women, Children and Youth and Affairs. Inequalities in Coverage, June 2014, GoFDRE

⁸⁷ Mchinji District in Malawi has been holding Annual Review Weeks to publicly assess progress. See Government of Malawi, Dec 2014

⁸⁸ Community indicators, disaggregated by sex where possible, that could be monitored through CBM might include: pupil and teacher attendance; primary school leaving exam results and progression to secondary school; literacy; WASH indicators on hygiene, sanitation and water point functionality; occurrence of fevers, diarrhoea, maternal deaths, child and infant deaths; immunisation; agricultural production and prices; cost of transport to nearest health facility, rural hospital, Woreda capital; reported theft and homicide cases.

Box 5, below, presents a good example, from the Poverty Action Lab, of a community-based monitoring programme in Uganda, which could be adapted and adopted for wider application in Ethiopia (see also §4.2.9.2 below). However, it should be noted that PBS is “no longer implementing community information management systems”⁸⁹.

Box 5: impacts of community monitoring⁹⁰

⁸⁹ PBS 3 MfR Component – Activity Update, March 2015

⁹⁰ See J-PAL: <https://www.povertyactionlab.org/publication/power-information-community-monitoring>

A community-based monitoring program in Uganda led to large and sustained increases in health care utilization and improvements in child health. After the first year, the weight-for-age for infants was 0.14 z-scores higher and under-five mortality was 33 percent lower in program communities. These positive impacts were still present four years later. The results prompted researchers to conduct a second randomized evaluation, testing a less expensive version of the program, which facilitated meetings to discuss the status of health services in the community, but did not give community members information about provider performance. The modified program did not affect the quality or quantity of care, indicating that the key to success was providing communities with information on the performance of health care providers.

J-PAL Policy Briefcase of July 2015 by Martina Bjorkman Nyqvist (Stockholm Scholl of Economics), Damien de Walque (World Bank), and Jakob Svensson (Stockholm School of Economics).

Capacity for commissioning and overseeing independent evaluations of programmes needs to be built at the centre in order to ensure robust lesson learning from implementation of programmes that can inform future programme design across the sectors. This will help to drive up the evidence base for assessing effective programme design in reaching goals such as inclusion of all across the sectors. In addition to mid-term and final evaluations, current evaluations of aspects of PBS are ad hoc, rather than part of a national evaluation plan, and determined by partners within the PBS. South Africa has been taking a lead in the area of evaluation in the SADC region, with other countries, such as Malawi, sending technical experts to learn from their experience. In 2010, the South African Government instituted and mandated the Department of Monitoring and Evaluation (DPME) located in the President's Office to develop a methodology to monitor the quality of management practices in the national and provincial government departments. A Management Performance Assessment Tool (MPAT) was developed. Various initiatives from the administrative centre departments have been put in place to support departments in their improvements and to review policies based on results from these assessments. Case studies on good practice have also been documented and shared with departments to use to improve their own practices. The MPAT assessments are done annually and the results are presented to National and Provincial Executive structures and released publicly. This has created an immense interest from departments and a commitment by many to ensure improvements are implemented⁹¹. If adopted in Ethiopia, the capacity should be held outside COPCU⁹² to ensure independence of the evaluation process and enable all sector programmes, PBS and non-PBS, to be evaluated for their complementary effectiveness⁹³. Currently, PBS III is committed to include three independent evaluations throughout the life of the programme to be contracted independently by the PBS Secretariat, which has been expected to strengthen the results orientation.

Ethiopia has yet to take full advantage of the digital revolution in its data systems by developing e-MIS systems that allow data to be recorded monthly at Woreda level, if not Kebele and facility level, and immediately transferred to central systems and made publicly

⁹¹ After an initial slow take up from departments, the tool has grown and is used to assess at least 155 national and provincial departments in South Africa. A baseline measure was established in 2012 and departments have implemented plans to improve their MPAT scores. See Visser et al. (2014)

⁹² COPCU has its own M&E Operation Manual for PBS, but evaluation needs to be managed outside a programme's management structure.

⁹³ The May 2013 ICR noted:

§2.76. M&E arrangements for such a broad programme as PBS have to strike a balance between M&E of the programme's own activities and inputs, and M&E of the wider programmes of basic service delivery to which PBS contributes. The JBAR and JRIS were the centrepiece of the PBS monitoring system, alongside the broader results matrix.

§2.77. A new M&E sub-programme was introduced under PBS II, with the following objectives: To enhance Government and donors' capacity to assess the actual impact PBS is making at local levels, this sub-program will support the strengthening of existing national and sectoral M&E systems. ... Particular attention will be placed on ensuring that all studies, surveys and data quality assessments will complement existing initiatives and not duplicate ongoing efforts. (PBS II PAD)

available⁹⁴. This is being done effectively by Zimbabwe and Kenya. Using web-based DHIS software (DHIS2 since 2012, formerly DHIS1.3 - www.dhis.org), which, fully activated, can generate automatic reports, metadata and headlines, for example on the key reportable diseases. These automatic reports can be publicly available, driving up service performance and indicating immediately at federal level any crises or blockages that need to be managed⁹⁵. Malawi is developing its own use of DHIS software in order to monitor all indicators required by government, potentially from social to agricultural, from administrative to revenue. DHIS2⁹⁶ is a tool for collection, validation, analysis, and presentation of aggregate statistical data, tailored (but not limited) to integrated health information management activities. It is a generic tool rather than a pre-configured database application. Effective use empowers both Ministers and technical directors at the centre and the public at community level, making service providers more accountable and removing much of the potential for mis-reporting. Public availability of disaggregated PBS indicator data would create a strong incentive for improved performance and innovative and collaborative ways to deliver positive outcomes. When neither beneficiaries nor front-line service providers are aware of how their outcomes and service delivery compares with others in the country, both tend to accept the status quo without question.

To bring data to the centre of PBS design and implementation as an accountable and responsive delivery of basic services, several actions should be undertaken. Data accuracy and value can be increased by triangulating data, with a focus on outcomes, rather than inputs and outputs, and with ESAP taking on responsibility for community-based monitoring (CBM) of a key set of indicators that complement those available from existing MIS and survey sources. The data should be disaggregated sufficiently to identify those currently experiencing the poorest outcomes. Such data could be publicised in annual public events whose purpose, like *Gemgema*, is to initiate discussion of how things can be improved and lessons learned. This will be the most significant driver of innovation as service providers and communities collaboratively seek to change living conditions for the better. Overall, there is a need for improved quality of Data Collection and Analysis, including qualitative research, for which capacity is weak in Ethiopia, and community-based monitoring, which will help all to understand links between services and context.

3.8. Organizational cultural change

There is a need to shift institutional and individual focus from satisfying management to looking beyond the institution to the people it serves and their needs. The reward of seeing the lives of all in the community being impacted positively with improved outcomes in health, education and livelihoods should drive those who provide and manage services. Community participation in design, implementation and monitoring of services alongside service providers has a dramatic effect on motivation. The UK learnt this when it moved to a programme of urban renewal of housing and environment, renovating old properties rather than demolition and re-building, from the late 1970s. Performance of officials improved and services were demand-driven and developed collaboratively. Shifting PBS to a focus on quality equitable outcomes for all, with social accountability integrated into the programme and community-based monitoring into a real-time M&E system, with a broad base of partnerships and a range of incentives and recognition, financial and non-financial, and elements of outcome performance-based additional funding, will stimulate a massive organizational cultural change. The whole needs to be backed by appropriate capacity building and in-service training on community-led development along the lines of BSDTCC (Box 3), with continuous reinforcement of new behaviours. At the heart of this will be a release of creative energy and innovation and

⁹⁴ PBS III is supporting IT capacity for sector M&E systems, including hardware and training – with a total budget over USD2 million and additional IT support for CSA and ERA.

⁹⁵ The overall databank architecture for DHIS2 is located here <https://www.dhis2.org/>. The countries using this system for health information can be found on: <https://www.dhis2.org/deployments>. “Real-time” information on Zimbabwe, available to an approved regular user, is available on http://nhis.mohcc.gov.zw/index.php?option=com_content&view=article&id=75&Itemid=28. For Kenya, one can create a user name and access the complete system on a read-only basis at <https://hiskenya.org/>

⁹⁶ See <https://www.dhis2.org/downloads>

consequent improvement in quality and responsiveness of services. Traditional elements of *kaizen* and *gemgema* can also contribute to this.

In summary ...

Decentralised management has required strong capacity building, supported by the central programme of CBDSD, and the need for improved inter-sectoral cooperation. The governance of PBS has been an area of success, with innovation in community participation and Social Accountability (ESAP) and financial transparency and use of traditional mutual accountability and incentives (*gemgema* and *kaizen*) and of GRM, which all increase accountability. This also requires strengthening in capacity of communities and an innovative approach to training of front-line workers to respond to community demand, noting an example of the impact of innovative participation of communities in service design. Initiatives are being taken by several BoFEDs and Woredas to design and introduce innovative incentives to encourage and motivate service providers to ensure higher performance and effective delivery of quality decentralized basic social service to beneficiaries. Community based monitoring has yet to be integrated into the M&E system, which could also gain from moving digital. Innovative PPP partnerships, especially with the Diaspora, offer great potential for PBS sustainability. This will require a 'culture change' at all levels of service delivery, which will involve in-service training and reinforcement of new behaviours.

Chapter 4

4. Health



Nvivo Health Word Prevalence – Survey Data 2015

4.1. Context – Trends and Recent Health Service Improvements

Ethiopia was credited in September 2013 with achieving a reduction in child mortality by two thirds since 1990, an impressive three years ahead of the MDG target⁹⁷. Significant progress was also noted in a range of other health indicators in the 2014 mini Demographic and Health Survey. The Government-led Joint Review and Implementation Support (JRIS) mission for PBSIII of April 2015 focused on the health sector and provides the most recent assessment of trends and improvements. In general, the findings are encouraging, although there are anomalies in data depending on the source. This can be at least partially explained by differences in methodology between DHS and the routine Health Management Information System (HMIS), thus making direct comparisons inappropriate. The table below summarises some of the key indicators.

Table 3: Key Health Indicators

Indicator	Baseline (2011)	Target (2014)	Achievement (2014)	Data source	Comment
Maternal mortality	676/100,000 live births ⁹⁸	267 ⁹⁹	NA* (420)	DHS 2011 (WHO estimate)	Next available data DHS 2016
Infant mortality	59/1000		NA*	DHS 2011	Next available data DHS 2016
Contraceptive prevalence	29%		42%	DHS 2011/ mini DHS 2014	Good progress mainly with use of injectables
Skilled birth	10%		15% ¹⁰⁰	DHS 2011/	Only deliveries

⁹⁷ http://www.unicef.org/esaro/5440_ethiopia_under5.html

⁹⁸ Baseline from 1990

⁹⁹ Target for 2015

¹⁰⁰ Huge variation across the country, from 6.6% in Afar to 86% in Addis Ababa

Indicator	Baseline (2011)	Target (2014)	Achievement (2014)	Data source	Comment
attendance (SBA)				mini DHS 2014	by midwives, nurses, doctors
	<23%	28%	41%	HMIS	Also deliveries by HEWs
Antenatal care 1 st visit	34%		40%	DHS 2011/mini DHS 2014	
Pentavalent 3 Immunisation	85%	94%	91% ¹⁰¹	HMIS	Large variations across regions
	37%		NA	DHS 2011	Survey data much lower
Prevalence underweight children	29%		25%	DHS 2011/mini DHS 2014	
Ratio HEWs to population	1:2144	1:2500	1:2446	HMIS	

*NA = Not available

Underlying this trend is a steady increase in health per capita spending and growing proportion of budget allocated to health at regional level. The Poverty and Social Impact Assessment (PSIA) shows that an increase of per capita district spending in health of \$1 was associated with an increase in contraceptive prevalence rate of 6.4%, an 11.3% increase in SBA, a 3.6% increase in antenatal care coverage. Many achievements are also largely attributed to efforts by the Health Extension Workers (HEWs) at the peripheral level. Despite the improvements, the disparity related to urbanity or education in the use of health facility for birth in Ethiopia is staggering¹⁰². Skilled birth attendance is a key indicator for maternal health, and improving this will be a major factor in reducing maternal and neonatal mortality.

The recent Health Service Provision Assessment (SPA+) study generated wide-ranging data and information in areas of availability and adequacy of facilities, staff composition, qualification and attendance; diagnosis and treatment procedures, clinical knowledge and working conditions. While it showed high level availability of some essential services, it also identified major challenges, such as, high absence of health professionals (33%), low availability of many known basic client services (13%), low availability of computer with internet (7%) and communication equipment (14%) in health facilities, and specifically in health posts lack of regular electricity (29%), poor availability of HIV diagnostic facilities (14%), and inadequate availability of essential medicines.

Similar challenges were noted in the visit to Benishangul-Gumuz region during the JRIS, including:

- A critical shortage of budgetary resource, especially lack of adequate operating budget at facilities level;
- A severe shortage of functioning primary hospitals and Health Centres (HCs) to supervise and provide support to Health Posts (HPs) with resulting significant strains on the referral system;
- A decline in total number of HEWs;
- Mal-distribution of health professionals in the region.

¹⁰¹ Performance varies across regions with dramatic rise in Afar (37% in 2011 to 99% in 2014) but some regions such as Somali, Gambella and Dire Dawa lagging behind at 60%, 50% and 68% respectively.

¹⁰² http://www.healthynetwork.org/sites/default/files/resources/Yesuf_2014_Inequalities%20in%20Institutional%20Deliveries.pdf

Nonetheless, substantial progress had been achieved through a number of important measures, such as free maternal health care including delivery, free ambulance service at Woreda level, accelerated training and deployment of midwives, strengthening of HEWs' engagement in registering and undertaking follow up on pregnant mothers in rural communities, and establishing regional blood banks that allowed access to blood infusion for needy mothers.

Key issues to be addressed were noted to be related to coordination of resources; ensuring the availability of all basic services set as a minimum standard in health facilities; addressing disparities across regions and Woredas; attending to the absence of health professionals in health facilities; addressing implementation problems related to fee-waiver scheme; addressing challenges in the demand side of health; and strengthening social accountability as a mechanism to improve the quality and efficiency of health services.

Block grants have been found to support the expansion of basic service access at decentralized levels across the board, and in an equitable manner with poorer households within Woredas as well as poorer Woredas themselves receiving a relatively larger share of benefits through the block grants than richer households or wealthier Woredas. Building on this success, the proposed follow-on program to the PBS III, the Equitable Access to Basic Services (EBS) Program is planned to have four thematic areas of focus – expansion of equitable access to basic services, deepening of service provider accountability, enhancing fiduciary systems, and improving data availability and quality of development data.

4.2. Ethiopian Health Innovations Stock-take and Assessment of Potential for Extension

The following themes were identified as health innovations in Ethiopia with potential for extension;

4.2.1. Maternal and child health policies with high priority and coherence

Ethiopia is among a number of countries that have made concerted efforts to have a comprehensive policy framework in place backed up by necessary resources and commitment to ensuring the resources reach those who most need them. The objectives are to increase coverage of key health services and interventions, enhance demand for these services, and reduce barriers to accessing them. The impact is a faster reduction in mortality and better progress in achieving MDGs.¹⁰³

Ethiopia, along with Bangladesh, Cambodia and Rwanda all ***rapidly increased coverage for multiple interventions across the continuum of care***, and offer lessons for countries with slower or more uneven progress. Ethiopia's achievements are outlined above in the background section. Rwanda increased SBA rates from 28% in 2005 to 69% in 2010 and the Maternal Mortality Ratio (MMR) fell from over 1000 in the year 2000 to less than 500 in 2010. Comparison with progress in other countries showed the **importance of three types of institutional factors in shaping maternal health outcomes**:¹⁰⁴

- **Internally coherent policies on maternal health;**
- **Provider performance standards; and**
- **Local solutions to major bottlenecks.**

¹⁰³ [Countdown 2015a](#)

¹⁰⁴ [ODI, 2012](#)

Additional enabling factors have been noted in other countries, for example:

- **Nepal** – achieved a striking reduction in maternal mortality during the 1990s and early 2000s of 47%, thought to be due to:^{105,106}
 - *Consistent policy focus and sustained financial commitment which allowed for widespread improvements in access to medical services, particularly in remote areas;*
 - *Behavioural and economic changes at the household level, driven by increased empowerment and education of women;*
 - *A sustained rise in incomes.*
- **Mozambique** – has reduced under-five and infant mortality rates by over 50% since 1990. Factors both within and outside the health system have contributed to progress, including:¹⁰⁷
- *Increased domestic and foreign financing to support implementation of a comprehensive policy framework in which maternal and child health, and responding to the HIV/AIDS crisis, were prioritised;*
 - *The steady expansion of health services and facilities to undersupplied areas;*
 - *Rising effective demand, spurred by education and community outreach efforts.*
- **Niger** – has achieved far greater reductions in child mortality and gains in coverage for interventions in child survival than neighbouring countries in West Africa. Results from the Lives Saved Tool (LiST) show that about 59,000 lives were saved in children younger than 5 years in 2009, attributable to:¹⁰⁸
 - *The introduction of insecticide-treated bednets (25%);*
 - *Improvements in nutritional status (19%);*
 - *Vitamin A supplementation (9%);*
 - *Treatment of diarrhoea with oral rehydration salts and zinc, and care-seeking for fever, malaria, or childhood pneumonia (22%);*
 - *Vaccinations (11%).*

Government policies supporting universal access, provision of free health care for pregnant women and children, and decentralized nutrition programs permitted Niger to decrease child mortality at a pace that exceeds that needed to meet the MDG 4.

Ethiopia can continue to improve its performance by increasing the scale of implementation of the enabling factors identified above, most of which are already being implemented to some extent at least. In order to further strengthen decentralized service delivery, district level health officials will need to enhance their leadership skills and their capacity to promote innovation and effective coordination since many of the factors noted above are related to general economic development, education and empowerment of women. This emphasises the importance of multi-sectoral approaches and inter-sectoral collaboration.

An equity analysis of Ethiopia's performance in the health sector based on the DHS 2011 reveals significant differences in access by socio-economic status with stark variations particularly for family planning, antenatal care, SBA rates, immunisation and care-seeking for pneumonia between the richest and poorest quintiles.¹⁰⁹ It will be essential to maintain continuous efforts to address inequity in access to health services with special attention to

¹⁰⁵ [Engel, 2013](#)

¹⁰⁶ [Shrestha, 2014](#)

¹⁰⁷ [Rodriguez, 2014a](#)

¹⁰⁸ [Amouzou, 2012](#)

¹⁰⁹ [Countdown, 2015b](#)

regions performing poorly. These vary for different outcomes, but in general, Afar and Somali have worse indicators than other regions.^{110, 111}

4.2.2. The Health Extension Program

Ethiopia's *Health Extension Program (HEP)* is the country's key innovative intervention marked by institutionalization of primary health care, strong government leadership, and the alignment and substantial support of development partners. The objectives are '*democratization and decentralization of the health system; expanding the primary health care system and emphasizing preventive, promotional, and basic curative health services; and encouraging partnerships and the participation of the community and nongovernmental actors*'.¹¹² It aims to bridge the gap between the community and health facilities through the deployment of Health Extension Workers (HEW), who are linked to health facilities but spend most of the time in their communities. The HEP incorporates many of the enabling factors noted above in the first innovation.

The impact of the HEP has been acknowledged extensively in annual reviews of the health sector and is thought to have contributed substantially to the impressive improvements in Ethiopia's health indicators.¹¹³ In addition, various evaluations have been conducted showing positive impacts, including:

- An evaluation by Save the Children in 2012¹¹⁴ showed that their project of support to the HEP was successful in implementing all pillars of **Integrated Management of Neonatal & Childhood Illnesses (IMNCI)**. The project also successfully operationalized zinc and pneumonia treatment for childhood diarrhoea and pneumonia respectively at HCs and HPs. The treatment of diarrhoea with zinc, and pneumonia with antibiotics, was the first at scale in Ethiopia, resulting in the project contributing to operationalizing the national policy. These achievements were accomplished as a result of a comprehensive strategy with strong partnership and collaboration with local health authorities in project implementation. However, main gaps existed in care for newborn babies.
- **Community-based diagnosis and treatment of TB** in Sidama zone, Southern Ethiopia showed that active case-finding of Tuberculosis cases by female HEWs led to doubling of the notification rate from 64 to 127/100,000 and better treatment outcomes.¹¹⁵
- An evaluation in West Gojjam zone revealed significantly improved contraceptive utilization due to the HEP.¹¹⁶
- HEWs were able to obtain a high-coverage birth registration and measure maternal mortality in rural communities.¹¹⁷

The **Health Development Army (HDA)** is a social mobilization initiative, which supports the HEP and increases the density of volunteers to improve service uptake.¹¹⁸ It is made up of health development teams (HDA groups) that comprise up to 30 households residing in the same neighbourhood. The health development team is further divided into smaller groups of six members, commonly referred as one-to-five networks. The leaders of the health

¹¹⁰ [Central Statistical Agency, 2014](#)

¹¹¹ [Central Statistical Agency, 2012](#)

¹¹² [Health Systems 2020, 2012](#)

¹¹³ [FMOH, 2012](#)

¹¹⁴ [Save the Children, 2012](#)

¹¹⁵ [Yassin, 2013](#)

¹¹⁶ [Yitayal, 2014](#)

¹¹⁷ [Yaya, 2015](#)

¹¹⁸ [FMOH, 2011](#)

development teams and the one-to-five networks are selected by the team members. The main criteria for selection of the leaders are being a model family and having the trust of the members in mobilizing the community. A Federal Ministry of Health evaluation documented success and learning from the experience in Tigray¹¹⁹ and recommended the following for scale up:

- *High commitment of the top political leadership;*
- *Women-centred HDA as the preferred option to scale up best practices;*
- *Supportive supervision and close monitoring of the HDA network*
- *Experience sharing forum to be organized once a year in all regions;*
- *Clearly defining the roles of development partners and civil societies and rallying them to support the HDA.*

Box 6: Health Development Army

¹¹⁹ [FMOH, 2013](#)

Health Development Army

The Health Extension Programme (HEP) was launched in 2003 and until 2010 involved the training of over 34,000 Health Extension Workers (HEWs) across the country. The HEWs operate in pairs from Health Posts and cover a population of 5,000. While this increased service coverage dramatically, there was still limited demand for these services.

The Health Army provides essential health services to communities. This is a national program with substantial domestic funding, which is fully integrated into the government's system of operation. The Health Development Army (HDA) is an organized community movement of health volunteers launched by the government in 2011 and it is regarded as the key vehicle that will help Ethiopia achieve its ambitious Health Sector.

Aims

The programme aims to promote participatory community engagement and adoption of healthy lifestyles, with particular emphasis on improving uptake of critical maternal and newborn health services. It involves organizing the community into small groups and engaging them to own the services that are implemented through the Health Extension Programme – a defined package of basic and essential promotive, preventive and selected high impact curative health services targeting households.

Methods

The HDA ensures that every household is reached by forming networks of five households with a model household leading the group. Five of these networks form a Development Team, with each Kebele having 30 or more teams.

The HDA links to the HEWs at the Health Posts who are in turn connected to the Health Centre.

This is a bottom-up approach from household level where people identify their needs in collaboration with the HEWs. The full package in the HEP includes 5 Family Health, 3 disease control, and 7 Hygiene and environmental sanitation interventions and Health education & communication.

Outcomes

The HDA is designed to accomplish the following critical tasks:

- Identify locally salient bottlenecks that hinder families from utilizing key services and implementing the HEP and prioritize those that they want to address as a team;
- Come up with feasible strategies to address these problems;
- Implement the strategies; and
- Evaluate their activities.

Innovation

What is innovative is the participatory approach to creating responsive health services and increasing access to services and public health promotion, with positive outcomes.

One example of HDA contribution to quality improvement is the support by JSI through the Last 10km project: See http://110k.jsi.com/About/110k_approaches.htm

Weblink to Relevant Press/Newspaper cutting: <http://www.voanews.com/content/ethiopia-recruits-health-army-to-combat-child-mortality-malnutrition-133693378/159160.html>

The BDS-CDR data provided many examples of good work in the HEP, including this example from Afar Region, Awash Woreda:

“There are a lot of best experiences in the health sector these are: 16 packages of Health extension program and to implement this program we use a health committee which is a combination of Kebele officials, religious and traditional leaders, women's group, principals, DA's and community health volunteers. These health committees work to create community mobilizing and health awareness, they teach the 16 packages and its implementation by making house to house visits. They evaluate Kebele health achievements, and monitor health posts activities.”

The HEP initiative will help to address remaining areas of low service utilization as was shown in one evaluation¹²⁰ where it was noted that age, occupation, knowledge of the community on the health extension service, community participation in planning of health extension activities and graduation of model family were identified as the independent factors affecting the community's utilization of health extension services.

As the aim of the HEP is to reach every single household, this program is very likely to contribute to addressing inequity in Ethiopia and increase access to the most underserved populations. Some of the local solutions to addressing bottlenecks or barriers to access include candle-lighting and coffee ceremonies to acknowledge mothers and celebrate deliveries conducted by SBAs. These were mentioned by many Woredas and regions as being innovative methods used to attract pregnant women to facilities for delivery. In addition, a number of Woredas have implemented a 'zero home delivery' approach which stimulates communities to ensure that pregnant women deliver in health facilities. For example, it was reported in *Amhara Region South Wello Zone, Kallu Woreda*: "we have declared zero delivery at home in 14 Kebeles out of 34 - that is great progress."

In *Addis Ababa*, the government has provided the HDA with a form to report maternal deaths so that health officials can link up with the Maternal Death Surveillance and Review (MDSR) system, which is an acknowledged mechanism to improve quality of care and maternal and newborn health outcomes.¹²¹

4.2.3. Traditional and modern ambulances

Distance from health facilities is a major factor in accessing maternal care and affects perinatal outcomes adversely, even in developed countries.¹²² Many examples were provided during the data collection exercise for this study of traditional ambulances being introduced in communities to facilitate access to emergency maternal care. These are usually locally made stretchers, which men in the community can use to carry a pregnant woman to the nearest health facility. Examples from other countries include bicycle ambulances, stretchers pulled by donkeys, and boat ambulances. These schemes often link up with modern ambulances to ease transfer from HP to HC level and above, and are credited with improving access significantly in some places, including Afar which has serious access problems.¹²³ However, there are mixed experiences with ambulances¹²⁴ and success depends on the support given to HEWs by higher level health workers and officials.

Some of the challenges were outlined from *Afar region, Burea-Madaitu Woreda*:
"Providing ambulance services in each Kebele for delivery, and by fulfilling necessary materials at health facility like portage for pregnant women who give birth at health facilities and give some sanitation (materials) and malaria nets for mothers to promote others to give birth at health facilities - due to this the number of birth attendance at health facilities increases from time to time. But there are some obstacles: some health facilities have no delivery couch, have not got their own delivery room and some others are not comfortable and could not protect the privacy of mothers."

¹²⁰ [Kelbessa, 2014](#)

¹²¹ [WHO, 2013](#)

¹²² [Grzybowski, 2011](#)

¹²³ [King, 2015](#)

¹²⁴ [Jackson, 2014](#)

Other countries have implemented similar initiatives in rural areas and provide additional lessons for implementation and scaling up^{125,126} including the need for government to devise a transport policy which recognises the role of communities in providing transport solutions at the lowest level of the referral chain. In Nigeria, an innovative rural access initiative involved training commercial car drivers from the Nigerian National Union of Road Transport Workers (NURTW) to run a community-based emergency transport scheme (ETS). Access to essential health services increased significantly.¹²⁷

4.2.4. Maternity Waiting Centres

Maternity waiting homes have been in place in Ethiopia for decades but their utilization and success in increasing access to essential services is erratic.¹²⁸ Other countries have had similar experiences – factors for success include:¹²⁹

- *Strong community links and cultural acceptance;*
- *Being able to identify women at risk of complications;*
- *Availability of timely and adequate obstetric care.*

However, reaching those furthest away from health facilities remains a major challenge in some countries.^{130,131} Provided that maternity waiting home service is standardized and institutionalized, it can be one approach to improving access to comprehensive emergency obstetric care for rural mothers in Ethiopia who are challenged by distance to access services.

One example from *SNNP region, Hadiya Zone, Sorro Woreda*, shows what can be achieved: *“There is a well-organized and equipped delivery and waiting room at the health centre in the Woreda which is constructed by the help of the office. And also there is an Ambulance and motorcycle which gives service to mothers coming to health centres for delivery.”*

Nevertheless, it should be noted that there is insufficient evidence in the international literature to determine the effectiveness of maternity waiting facilities for improving maternal and neonatal outcomes.¹³² Other barriers to access need to be assessed in order to overcome the factor of distance. Combining transport options and waiting areas may prove more effective than either one in isolation and research from other countries suggests that a range of measures are required that are closely tailored to the local context of each community.¹³³ Some examples of these, in addition to having functional community health workers and local transport options, include community savings schemes, food banks and child care support. The mix of options depends on the local circumstances and greatest need.

4.2.5. Community-based health insurance

A key objective of Community-based health insurance (CBHI) is to create access to cheaper outpatient care instead of relatively expensive inpatient care for the population in the informal sector. A comprehensive overview of CBHI is provided by WHO in a background report for the World Health Report of 2010, which describes such issues as population coverage, range of

¹²⁵ [Surridge, 2014](#)

¹²⁶ [Green, 2013](#)

¹²⁷ [Green, 2013](#)

¹²⁸ [Gaym, 2012](#)

¹²⁹ [WHO, 1996](#)

¹³⁰ [Ruiz, 2013](#)

¹³¹ [Wild, 2012](#)

¹³² [Van Lonkhuijzen, 2012](#)

¹³³ [Ensor, 2014](#)

services covered and proportion of costs covered.¹³⁴ Although there are broader experiences in Rwanda and Ghana, other examples of CBHI in Africa are small-scale and marginal. Furthermore, evidence is limited on its effectiveness as a contributor to the performance of health financing systems in terms of revenue collection, pooling of resources and purchasing of services.¹³⁵ Achievements of CBHI in each of these sub-functions have been modest, although many CBHI schemes still are relatively young and would need more time to develop. Factors likely to increase performance include:

- *The demand for and the supply of health care in the community;*
- *Adequate technical, managerial and institutional set-up of CBHI;*
- *The rational use of subsidies.*

In recent years, there has been a proliferation of CBHI schemes designed to provide financial protection against the costs of health care and expand access to modern health-care services to the informal and rural sectors. In 2011, a pilot CBHI scheme was introduced in Ethiopia in Tigray, Amhara, Oromia, and SNNPR. References to CBHI schemes in Amhara and SNNPR were given during the data collection exercise, as well as in Somali region (Babile Woreda), although it was not clear if these are part of this pilot or additional schemes and there was no evidence of further evaluations. A study on the pilot scheme examining the primary outcomes of outpatient visits and inpatient days spent in modern health-care providers found the following:¹³⁶

- The pilot scheme increased outpatient care services from modern providers;
- The mean number of outpatient care use per insured household member (0.19) was higher by 0.074 visits than the visits per non-insured household member (0.11; $p=0.01$);
- There was no significant difference in the size of inpatient care use that could be attributed to the pilot scheme – it should be noted that CBHI aims to reduce in-patient care by enabling earlier detection of disease through increased outpatient care, but may result in increased inpatient care in the early stages due to improved awareness of health issues generally through the CBHI scheme;
- The benefit of the scheme in terms of creating access to care was more pronounced for the rich than for the poor.

The choice of a financing method should mobilize resources for health care and provide financial protection. Overall, the evidence base is limited in scope and questionable in quality.¹³⁷ Benefits of CBHI schemes include:

- Strong evidence of some financial protection by reducing out-of-pocket spending;
- Moderate evidence that such schemes improve cost-recovery.

However, there is little evidence that schemes have an effect on the quality of care or the efficiency with which care is produced. In absolute terms, the effects are small and schemes serve only a limited section of the population. The main policy implication is that these types of community financing arrangements are, at best, complementary to other more effective systems of health financing. Ethiopia is implementing various national health care financing reforms and has included both CBHI and Social Health Insurance in the national health financing policy. CBHI is now being scaled up to 161 Woredas (15 in Tigray, 39 in Amhara, 60 in Oromia and 47 in SNNPR) according to the latest annual health sector report. The success

¹³⁴ [WHO, 2010](#)

¹³⁵ [Carrin, 2005](#)

¹³⁶ [Mebratie, 2013](#)

¹³⁷ [Ekman, 2004](#)

factors noted above should be considered while implementing this expansion.

4.2.6. Improving the health of Adolescent Girls

Reaching adolescent girls to improve their health, nutritional status and access to services is critical for Ethiopia, since according to the 2011 DHS:¹³⁸

- 12% of young women age 15–19 have already begun childbearing (10% are mothers, and an additional 2% are pregnant with their first child);
- Young motherhood is more common in rural areas than in urban areas;
- Young women with no education are more than six times as likely to have started childbearing by age 19 as those who have secondary education (33% versus 5%);
- Teenage childbearing also varies markedly by region; just 3% of young women in Addis Ababa have started childbearing by age 19, compared with 21% of young women in Gambella.

The consequences of early marriage and early childbearing are enormous and include:¹³⁹

- Missed educational and economic opportunities;
- Higher maternal morbidity and mortality, often linked to poor nutritional status;
- More limited voice and power within the family and community;
- Inter-generational poverty transfers.

While poverty plays a key role in marriage decisions, it is important to understand the social norms that value girls primarily in terms of their reproductive capacities. The interplay of economic and social drivers of early marriage differ between communities, regions and countries and therefore no single strategy is likely to end the practice. Key factors to consider are:

- *Community awareness-raising,*
- *Support for girls' secondary education,*
- *Economic strengthening initiatives and*
- *Legal empowerment for girls and women.*

A number of initiatives have been successful in Ethiopia in supporting adolescent girls, for example:

- The program “Towards Economic and Sexual Reproductive Health Outcomes for Adolescent Girls” or TESFA, sought to improve the lives of 5,000 child brides ages 10–19, in Ethiopia’s rural Amhara region. Implemented by CARE-Ethiopia over three years and evaluated by the International Center for Research on Women (ICRW), TESFA sought to mitigate the effects of child marriage. It also provided opportunities for married adolescent girls – who are among the most marginalized members of society – to participate in the social, economic and political life of their families and communities. The study found that when given access to “life skills and education,” girls were

¹³⁸ [Central Statistical Agency, 2012](#)

¹³⁹ [Harper, 2014](#)

measurably more able to resolve conflicts, discuss money, use contraception, and work for pay.¹⁴⁰

- The Berhane Hewan Program made significant impacts on the social, educational, and health status of adolescent girls. An evaluation of the project found that girls aged 10–14 in the experimental site were 90% less likely to be married at the end of the two-year enrolment, compared to girls in the control site, and three times more likely to be in school. Married girls in the project site were three times more likely to be using family planning methods compared to married girls in the control site.¹⁴¹

Good nutrition is the cornerstone of good health and this is particularly important for adolescent girls before they fall pregnant. The 2013 Lancet series on nutrition identified adolescent girls as a key priority, placing them together with women of reproductive age and mothers at the centre of nutrition interventions.¹⁴²

International recommendations for promoting and protecting the health and rights of young people include:¹⁴³

- Adolescents must be reached earlier in their lives with sexual and reproductive health and rights (SRHR) programmes and services – particularly the most vulnerable and marginalised adolescents, such as adolescent girls and young women;
- Gender inequities, in terms of beliefs, attitudes and norms, must be addressed, and equal power relationships must be promoted, as an integral part of all adolescent SRHR programmes;
- ASRHR programmes must be implemented synergistically and collaboratively at different levels;
- ASRHR programmes must develop to become large scale and sustainable. This requires greater attention and investment;
- Research must be implemented to develop and test ASRHR interventions, and to rigorously evaluate ongoing projects and programmes.

Ethiopia has some good experiences in this area as noted above which could be further institutionalized and scaled up. The HEWs and HDA provide a feasible mechanism to reach young people throughout the country, even in the most remote locations, and test different approaches on working with adolescents.

4.2.7. Rapid reporting of malaria cases and commodity needs by mobile phone

Despite the growing availability of mobile phones in Africa and ‘mhealth’, there has been slow progress in terms of making the most of the technology.¹⁴⁴ However, through the Malaria Control and Evaluation Partnership in Africa (MACEPA), PATH is working with partners on a demonstration project in eight *Woredas*, with the goal of supporting national malaria elimination, achieving rapid reduction of transmission, and ultimately eliminating malaria in the target districts. The project trains surveillance assistants to use mobile phones for rapid reporting of malaria cases and commodity needs, giving health managers real-time data on local malaria transmission and allowing data-driven decision-making. The work is building the

¹⁴⁰ [Tesda Project](#)

¹⁴¹ [The Berhane Hewan Program](#)

¹⁴² <http://www.thelancet.com/series/maternal-and-child-nutrition>

¹⁴³ [WHO, 2015](#)

¹⁴⁴ [Royston, 2015](#)

evidence base for regional scale-up efforts to eliminate malaria and prevent re-introduction in the demonstration districts.¹⁴⁵

PATH is supporting the Ministry of Health's mHealth strategy to use mobile technology to connect the country's health workers to health systems and improve the quality of service to patients, overcoming gaps in traditional infrastructure and reducing delays in care. The aim is to help the country deploy a scalable health information system that allows real-time data transmission to address these needs for the country's 35,000+ HEWs.

Some places show promising use of mobile technology, for example, Somali Region, Babile Woreda:

"Data is collected and uploaded into the Health Management Information System (HMIS) using PC, HMIS software and ICT professionals, including mobile phone reporting and responding to outbreaks of disease in a community in every rural Kebele. In the case of collaboration, all Health, Water, Agriculture, Education service providers collaborate to improve nutritional status, particularly of under-fives and collaboration on hygiene and de-worming between Health, Education and WaSH service providers."

4.2.8. Integrated approach to Neglected Tropical Disease (NTD)

Ethiopia has an active programme for the prevention and control of NTD, which provides an opportunity to learn from those countries which have achieved strong progress in this area and to further strengthen the national response. Although Ethiopia has made good progress in some areas, for example, reaching over 7.4 million people out of a planned 8.4 million with Ivermectin treatment for Onchocerciasis in 2013, ongoing challenges with coordination across the range of NTDs were noted in the last health sector review, limiting the efficient use of scarce resources. Sierra Leone and Cambodia have emerged as leaders in the fight against NTDs due to an integrated approach to NTD control, delivered via a post-conflict reconstructed and scaled-up health sector.

Key factors in their success include:

- Sierra Leone built upon a pioneering history of efforts to control NTDs, government commitment, external funding and strong partnerships, as well as a bottom-up approach that has resulted in community ownership in a broader context of progress leading to improved and scaled-up delivery.¹⁴⁶
- Cambodia developed a strong **collaboration at implementation level to boost sustainability and effectiveness** by taking advantage of the drugs, funds and strategies available for three separate diseases.¹⁴⁷

Through these approaches, Sierra Leone treated over five million of the country's estimated six million people each year for the past four years and reduced prevalence for the four targeted NTDs dramatically. It is expected to move its focus from control to elimination in 2014. Cambodia met targets such as the WHO's anti-worm treatment goal six years ahead of schedule. Ethiopia can extend its success in NTD control by emulating these practices through the wide reach of the HEP. NTDs tend to affect the poorest and most vulnerable groups in society; hence, the elimination of NTDs promotes equity. The good progress achieved with control of Onchocerciasis can be further expanded through the HEP and the work of the HEWs.

¹⁴⁵ [PATH, 2013](#)

¹⁴⁶ [Rodriguez, 2014b](#)

¹⁴⁷ [Rodriguez, 2014c](#)

4.2.9. Complementary and Potentially Transferable International Innovations;

Some of the following innovations have been tried out in various places in Ethiopia, however, no major evaluations of their effectiveness or success were found. Therefore, it is recommended to learn from other experiences, which have been more thoroughly reviewed.

4.2.9.1. Performance incentives for increasing health services coverage

Many countries are increasingly adopting results-based financing (RBF) or performance-based financing (PBF) schemes and many of these have been associated with marked improvement in uptake and coverage of primary health care services.¹⁴⁸ Incentives can be targeted to users of services or to health care providers. Two specific examples are provided below.

- In rural India, small incentives for parents were coupled with reliable services at convenient mobile clinics.¹⁴⁹ The impact was a sixfold increase on full immunization rates and the approach was twice as cost-effective as improving service reliability without incentives.
- In India and Indonesia, where some primary health centres experience 40% absenteeism rates, impersonally administered and direct incentives were given to health workers.¹⁵⁰ The combination of external monitoring with credible rewards or punishments cut absenteeism in half.

Incentives can be given for increasing service coverage, encouraging appropriate health-seeking behaviour or targeting specific groups, for example, the poorest populations or particularly high-risk groups, thus reducing inequity. These incentives can be in terms of public recognition or career enhancing actions, not simply financial rewards.

Another method is to provide community block grants to incentivise whole communities to achieve defined targets. Community Block Grants improved health and education in Indonesian villages, and adding performance incentives sped up improvements in health.¹⁵¹ The objective was to provide communities with funds for any purpose they chose in order to improve a range of health and education indicators, which were tracked and disaggregated by wealth quintile and location. Publicly available budgets and expenditure tracking were key features. The impact was impressive with disadvantaged areas benefitting the most and health indicators improving relatively more than other areas, e.g. malnutrition reduced by three times the average effect and school participation improvement was nearly double the average effect. Health indicators improved faster in villages that received additional performance incentives. There were a number of examples from the BDS-CDR data of initiatives that could be linked with PBF/RBF schemes or where they are already being reported although no evidence of impact was available. For example, a community budgeting initiative from Afar region could perhaps be linked to performance incentives and then evaluated for impact.

Performance incentives, particularly financial, are not a magic bullet and there are several major potential pitfalls:

- Schemes that are poorly designed and implemented can quickly lose their power to influence behaviour and in some cases can lead to undesirable outcomes.
- The recipients of bonuses may focus excessively on meeting targets, while neglecting other important responsibilities or they may focus exclusively on population groups that

¹⁴⁸ www.rbf.org

¹⁴⁹ [Poverty Action Lab, 2011](#)

¹⁵⁰ [Poverty Action Lab, 2009](#)

¹⁵¹ [Poverty Action Lab, 2014](#)

are easier to reach, unless recognition is focused on achievements with those harder to reach.

- The indicators of performance may not be reliable since there may be an incentive to over-report positive results.
- Purchasers and providers of services may collude to benefit from the bonuses without improving performance.

The main lesson from experience is that schemes to alter incentives work best when they are a component of a coherent strategy for improving health system performance.

Ethiopia has the potential to implement RBF or PBF schemes on a large scale as it has a strong governance system that reaches down to the lowest level of society. It can learn from other countries like Rwanda, which has already implemented RBF on a national scale and seen positive results.⁴⁵ However, the scheme in Rwanda had the greatest effect on those services that had the highest payment rates and needed the least effort from the service provider. Financial performance incentives for beneficiaries and providers can improve both the use and quality of maternal and child health services, and could be a useful intervention to accelerate progress towards Millennium Development Goals for maternal and child health, but their limitations also need to be acknowledged.

Box 7: Community Budgeting for Health

Community Budgeting for Health

"The key problems are:

- *High malaria circulation*
- *Lack of awareness*
- *Number of health facilities not balanced with community size and qualified health personnel*
- *Lack of cold chain for vaccine*
- *Lack of budget at health centres especially for ambulance services*
- *Health services given without consideration of communities' interests and perspective.*
- *Lack of reporting and information sharing mechanisms of health posts with health centres and Woreda health bureau.*

These problems are addressed by developing a community participatory budgeting and planning system, recruiting qualified health persons and expanding health facilities by constructing new health facilities depending on communities' interests, expanding cold chains for vaccines by using renewable solar energy at health facilities, recruiting and deploying female health extension workers from the community and teaching the community about health seeking behaviors, developing a reporting system for health posts with health centres within the cluster; having budgets for health centers etc."

Afar Region, Zone one

"We use result based planning and monitoring in order to address the problem. This results based planning and monitoring starts from the very small 1-5 network level. They check their performance and come with a solution to overcome their problem found in progress. This method of evaluation works in all parts of hierarchy."

Amhara

"There is results based planning in which every health service giver plans for six months and is monitored by the report they give in 15 days to their respective officers. According to the monitoring based on the plan and report, if training is needed we will provide and fulfill the material needed. Incentive like certification and recognition is given for the best performer. More specifically, every worker is evaluated by BSC. 6 months plan is given to everyone and they are expected to report in 15 days accordingly. After 6 months anyone with the best performance is given recognition by certificate."

4.2.9.2. Community-based monitoring of primary healthcare providers

In Uganda an innovative community-based monitoring system of primary healthcare providers was established with interesting results.¹⁵² Local NGOs facilitated three sets of meetings: firstly, with approximately 150 community members, both the disadvantaged and the elite, who discussed the status of their health services and means of identifying steps the providers should take to improve health service provision; secondly, a provider staff meeting was held to contrast the citizen's view on service provision with that of the health worker; and thirdly, an interface meeting was held, which allowed community members and health workers to discuss patient rights and provider responsibilities. The outcome was a shared action plan, or a contract, outlining the community's and the service provider's agreement on what needs to be done, how, when, and by whom. These three sets of meetings aimed to kick-start the process of community monitoring. After six months, community and interface meetings were held to review progress and suggest improvements.

Impacts were recorded in three areas:

- Quality of care – a year after the first round of meetings, health facilities in treatment villages were 36% more likely to have suggestion boxes and 20% more likely to have numbered waiting cards, relative to the comparison facilities. There was a 12 minute reduction in wait time, a 13% point reduction in absenteeism, and the overall facility cleanliness of the facility improved. In addition, utilization of general outpatient services was 20% higher in the treatment group.
- Service delivery – 58% more people came for child birth deliveries, 19% more patients sought prenatal care, number of patients seeking family planning increased by 22%, and immunizations increased for all age groups, especially newborns. Households also reduced the number of visits to traditional healers and the extent of self-treatment.
- Health outcomes – relative to the comparison group, intervention communities saw a 0.14 z-score increase in infant weight and a 33% reduction in the mortality of children under 5 years old. Variation in treatment intensity across districts shows a significant relationship between the degree of community monitoring and health utilization and outcomes.

The Community-based Health Planning and Services model in Ghana also reported successful outcomes in reducing child mortality and fertility substantially due to: (1) deployment of local nurses to the community and engagement of local leaders; (2) adaptation uniquely to each district; (3) mobilization of local resources; (4) developing a shared project vision; and (5) “exchanges”, so that staff who initiating operations could observe the model working in another setting, pilot the approach locally, and expand it based on lessons learned. Community-based monitoring is firmly embedded in this model.¹⁵³

Some examples of community-based monitoring of health services were given in the BDS-CDR data, including:

Amhara region, Kemise Zone, Batti Woreda:

“Community based supervision in health centres by collecting data is done to check the satisfaction of the community in the health service. It's implemented by way of a questionnaire survey which is given to the service user to fill their level of satisfaction. This resulted on the improvement of the service delivery.”

¹⁵² [Poverty Action Lab, a](#)

¹⁵³ [Awooner-Williams et al, 2013](#)

Amhara region, Dewa Chefa Woreda:

“There is also a card prepared for reporting by the community (red/emergency, yellow/referral, Green/no disease) in each Kebele/Goxe the leader of development group sends a red card to nearby health extension worker if there is any problem or outbreak of disease in that area. It’s done every week. So this is the best practice in reporting in this Woreda. It’s called community based supervision of disease.”

In view of the extensive coverage of the HEP, it would not be difficult to put similar systems in place as exist in Uganda and Ghana and evaluate the outcomes.

4.3. Additional Innovations in Health

A number of additional innovations tried out and evaluated in various countries are listed with more detail in the health sector Annex1 §12.7.

- 1. Free delivery of chlorine through dispensers at water sources to prevent diarrhoea -** Source dispensers, in combination with paid community promoters, increased chlorine usage by 57% in communities in Kenya, and prevented an estimated 494 diarrheal incidents per \$1,000 spent.¹⁵⁴
- 2. Primary therapeutic centre for immediate oral rehydration therapy to treat diarrhoea and malnutrition -** providing patients with a treatment of sugar, salt, and water in conjunction with zinc supplements in Burundi, increased vitamin A supplement coverage from 38% to 96% in mothers and children and had a dramatic impact on reducing the social and economic consequences of malnutrition.¹⁵⁵
- 3. Insecticide-treated nets –** these are the most prominent malaria preventive measure for large-scale deployment in highly endemic areas and can reduce deaths in children by one fifth and episodes of malaria by half, but the means of their promotion and distribution can be critical for sustainability of use.¹⁵⁶
- 4. Package of maternal and neo-natal resources –** this package includes ten technical resources/inventions that were identified as the top ten recent innovations in maternal, newborn and child health (MNCH).¹⁵⁷
 - 1) Backpack Plus** – a toolkit to empower community health workers.¹⁵⁸
 - 2) The non-pneumatic anti-shock garment** – reduces the impact of post-partum haemorrhage.¹⁵⁹
 - 3) Magnesium sulphate for eclampsia** –the most effective drug to prevent and treat life-threatening convulsions among women with severe preeclampsia and eclampsia.¹⁶⁰
 - 4) Sayana Press:** A packaged and pre-filled contraceptive with a one dose injection system called Uniject.¹⁶¹

¹⁵⁴ [Poverty Action Lab, b](#)

¹⁵⁵ [Vishwanath, 2013](#)

¹⁵⁶ [Lengeler, 2004](#)

¹⁵⁷ <http://www.path.org/innovations2015/>

¹⁵⁸ <http://unicefstories.org/model/chwbackpackplus/>

¹⁵⁹ <http://www.path.org/projects/antishock-garment.php>

¹⁶⁰ <http://www.everywomaneverychild.org/component/content/article/1-about/304-magnesium-sulfate-mgso4--product-profile->

¹⁶¹ <http://sites.path.org/rh/recent-reproductive-health-projects/sayanapress/>

- 5) **Helping Babies Breathe**: An innovative program training one million “birth attendants” to keep babies breathing after they are born.¹⁶²
- 6) **Chlorhexidine** – a low-cost antiseptic, prevents deadly infections that enter an infant’s body through a newly cut umbilical cord.¹⁶³
- 7) **Bubble CPAP**: This airway device forces oxygen down babies’ lungs to save them from severe respiratory diseases.¹⁶⁴
- 8) **Kit Yamoyo**: This medical kit contains anti-diarrheal medicine that is packaged to fit over Coca-Cola bottles.¹⁶⁵
- 9) **Phone Oximeter**: The mobile phone-based monitoring system is able to report blood oxygen levels for healthcare workers in areas without proper health facilities.¹⁶⁶
- 10) **Rotovac**: The vaccine prevents rotavirus related diarrhoea.¹⁶⁷

In summary ...

Health has shown remarkable successful progress in health outcomes within comprehensive policy frameworks, for maternal and child health, and the Health Extension Programme and its Health Development Army of extension workers, reaching down to the level of every five households. But retaining front-line staff and achieving equity in outcomes, especially in difficult environments, is a problem that requires innovative use of financial and non-financial incentives and performance-based funding. There are examples of technical innovations, particularly for maternal health. Community based health insurance (CBHI) is an area of innovation that could be enhanced. Focus on adolescent girls has been led by NGOs, which are well placed to pilot initiatives with local community leaders. There are opportunities to learn from successful interventions elsewhere, such as for neglected tropical diseases (NTDs) and use of mobile phone technology for rapid reporting of disease. Community budgeting for health and community based monitoring of healthcare providers are developments that will work with ESAP. A number of key technical innovations, which could be adopted, are identified.

¹⁶² <http://www.helpingbabiesbreathe.org/>

¹⁶³ https://www.youtube.com/watch?v=RHg9kc1UAQs&list=UUK8hF_5j4QP1ImohdpD6KMg

¹⁶⁴ <http://borgenproject.org/tag/medical-equipment/>

¹⁶⁵ <http://www.colalife.org/>

¹⁶⁶ <http://www2.lgtmedical.com/products/phone-oximeter/>

¹⁶⁷ <http://www.defeatdd.org/rotovac-clinical-trial-results>

Chapter 5

5. Education



Nvivo Education Word Prevalence – Survey Data 2015

5.1. Background to Education

Prior to the 1990's, Ethiopia was one of the most educationally disadvantaged countries in the world. The majority of its current population has had little access to modern schooling¹⁶⁸. Furthermore, there were severe regional differences in primary gross enrolment rates (GER), ranging from 7 percent in the Afar region to 87 percent in the city of Addis-Ababa¹⁶⁹. The quality of education was also poor, with inadequately trained and poorly motivated teachers and an overall lack of instructional materials¹⁷⁰. One third of all the students dropped out of school in their first year. The system was underfinanced.

Given the above situation, with the end of the civil war in 1991, the government came up with a comprehensive education and training reform policy with the following objectives: (a) strengthening individuals' and society's problem-solving capacities; (b) identifying and replacing harmful traditions; (c) diffusing science and technology; (d) promoting respect for human rights and democratic values; and (e) creating the conditions for equality, mutual understanding and cooperation among people¹⁷¹. Realizing these objectives has been extremely challenging. The government found itself in a complex situation where it had to reconstruct the system while expanding access, educating children while reorganizing management, and improving quality while attending to equity, all with little money and inadequate capacity.

¹⁶⁸ Almost two-thirds of its men and three quarters of its women were unable to read and write in 1994 (World Bank, 1996a). A total gross enrolment rate (GER) in 1992 was 23 percent and female GER of 19 percent (Williams, 2002). By 1991, access to education was very low: gross enrolment rates (GER) were 30 percent at the primary, 13 percent at the secondary, and less than 1 percent at the tertiary level (Ethiopia, 1994). The primary enrolment rate was less than half the average GER for Sub-Saharan African countries. Girls' participation rates in primary education were much lower than those of boys, especially in rural areas.

¹⁶⁹ Dufera, 2011

170 Joshi and Verspoor, 2013

¹⁷¹ Transitional Government of Ethiopia, 1994

5.1.1. Implementing the 1994 Education and Training Policy

The 1994 Education and Training Policy (ETP), outlines a high access, high quality, highly diversified and highly equitable system. Despite the multiplicity of objectives, the ETP names three “areas of special attention and action priority”: (i) curriculum change and preparation of new education materials; (ii) teacher training and overall professional development of teachers and other personnel; (iii) change of educational organization and management with emphasis on decentralization. The new policy mandated the Ministry of Education to achieve all these under adverse conditions. The tall order could be likened to moving the country from an 18th century education system to one of the 21st century with limited resources. This called for innovations and Ethiopians responded with some impressive results. Within the framework of the Education and Training Policy, the government established the Education Sector Development program (ESDP) in 1996/97, a long-range, rolling plan focused on the comprehensive development of the education sector over a 20-year period. The ESDP translates the policy statement into action by providing a sector-wide implementation framework. The program has had four phases. ESDP 1 covered the first five years, 1997/98-2001/02. ESDP II and ESDP III covered the respective periods of 2002/03-2004/05 and 2005/06-2009/10. ESDP IV began in 2010/11 and extends through 2014/15¹⁷².

5.2. Trends in the Improvements of Education Services:

5.2.1. Achievements in Education:

These programmes succeeded in expanding access and moved the country near to achieving the goal of universal primary education by 2015¹⁷³. In addition pre-school education for both boys and girls achieved 5-year targets in just two years¹⁷⁴. The introduction of child to child and zero class helped to increase the pre-school enrolment.

5.2.2. Challenges in Education

Access and quality are the two main challenges. These require not only resources, but innovation if they are to be addressed.

5.2.2.1. Access in Education

The remarkable progress in getting many people into school notwithstanding, access is still a major challenge. Many efforts will be needed to achieve NER target for grades 5-8 and the GER target for grades 9-10. In fact phase IV of the ESDP established the goal of achieving universal general secondary education completion by 2014/25¹⁷⁵. Achieving this goal will be a major challenge. There are still disparities in access – regional and gender. There are great variations between the national gross enrolment rates and those for disadvantaged regions, such as Somali and Afar, particularly for girls¹⁷⁶.

¹⁷² Ethiopia, 1998; 2002; 2005a; 2010b respectively

¹⁷³ The ESDPI target of raising primary enrolment from 3.7 million in 1996/97 to 7 million in 2001/02, was surpassed. Enrolment reached 8.1 million representing an average enrolment growth rate of 12.8 percent per year. ESDP II and III followed similar trends, with annual average enrolment growth rates of 11.7 percent per year. Primary enrolment reached 13.5 million in 2005/06 and 15.8 million in 2009/10 (MOE, 2011; World Bank 2005). Thus, over the period 1995/96-1999/2000, the GER for primary education increased from 34.0 percent to 53.9 percent (World Bank, 2005), and the Net Enrolment Rate (NER), from 19.0 percent (Dufera, 2011) to 40 percent (UIS). Secondary school enrolment as a whole (grades 9-12) expanded from 371,000 in 1994/95 to 1.7 million in 2009/10 (MOE, 2011). The GER for general secondary education (grades 9-10), rose from 12 percent in 1998/99 to 38 percent in 2010/11; for secondary preparatory education (grades 11-12, from 3 percent in 2002/03 to 8 percent in 2010/11; and for secondary education (grades 9-12), from 7 percent in 1994/95 to 24 percent in 2010/11 (MOE, 2003;2004; 2005b, 2006, 2007, 2008a; 2009, 2010c; 2011).

¹⁷⁴ The gross enrolment rate for pre-school was 4.8 percent and 5.2 percent, in 2009/10 and 2010/11 respectively. The plan was to increase this enrolment rate from 5.2 percent in 2010/11 to 12.1 percent in 2011/12. By the end of 2011/12, however, pre-school enrolment rate had reached 21.6 percent (FDRE, 2013: 63). This achievement includes child to child and zero class data. Disaggregating the achievement by gender, the GER of boys increased from 5.3 percent (in 2010/11) to 22.1 percent (in 2011/12), while that of girls increased from 5.2 percent to 21.1 percent during the same period (FDRE, 2013). This achievement, both in male and female rates, exceeded even the 2014/15 target of 20 percent.

¹⁷⁵ Dufera, 2011

¹⁷⁶ Primary GER in Somali and Afar grew from 23.3 and 20.9 percent, respectively in 2004 to 61.5 and 40.1 percent, respectively in 2010/11. Furthermore, gender is still an issue. The gender parity index in primary education has risen from 0.66 in 1991 to 0.94 in 2010/11 and to 0.83 in general secondary education; it is also rising at the preparatory level, reaching 0.71 in 2010/11, compared to 0.46 in 2009/10 (MOE, 2011). There are regional variations in gender disparity. Female GER in 2010/11 was 58.0 percent in Somali and 39.1 percent in Afar (MOE, 2011).

Generally, students in rural areas have made significant progress. In 2009, 80 percent of primary enrolment was in rural areas. At the primary level considerable progress has been made by (a) reducing the distance between schools and pupils' homes (b) establishing more Alternative Basic Education (ABE) centres and transforming some existing ABE centres into regular schools (c) promoting multi-grade classes, and (d) providing special support programs (including scholarships, school feeding, mobile schools and para-boarding schools for second cycle primary students¹⁷⁷. However, students – especially in Afar and Somali – still have limited access to education (WB, 2013). At the post-primary level, the urban-rural disparity remains¹⁷⁸.

Poverty is a major issue impacting negatively on education access. Poor people have remained excluded from modern educational opportunities for a long time. According to 2005 DHS data, 78 percent of all 25-29 year-olds in the poorest-income quintile, and 86 percent of women in this category, have never been to school (WB, 2013). Much has been achieved in the past 10 years and the figures/indicators must have improved, but challenges of equity still remain. Addressing these inequities is very fundamental, not only for reasons of right and fairness, but also to support the development objectives of the Growth and Transformation Plan for 2010/11-2014/15. Dealing with this will require putting in place cost-effective strategies and innovations that could remove barriers to access for poor students, especially those living in sparsely populated areas.

5.2.2.2. Quality of Education and Learning Achievement

Unlike the significant achievements made in access, progress in raising the quality of education in Ethiopia has been minimal. The country had great difficulty in maintaining the quality of education during a period of very rapid enrolment expansion. Learning achievement in the education system remains unacceptably low¹⁷⁹. Current efficiency indicators suggest issues of poor quality, including a continued increase in high drop-out rates from 16.7 percent in 2009/10 to 19.9 percent in 2010/2011 and 25 percent in 2011/2012 in grade 1¹⁸⁰. There is also an average national primary education repetition rate of almost 5 percent, a survival rate of less than 40 percent to grade 5 and a mere 49 percent primary education completion rate¹⁸¹. Secondary education faces similar challenges.

Information on learning achievement in Ethiopia is not very strong/robust. The country has not invested much in tracking this vital information. We can have an idea of the situation by looking at the figures from the National Learning Assessment (NLA) and national examination results. A capability of learning assessment national study report for 10th and 12th grades published in December 2010 showed a performance of 36 and 47.8 percent respectively. It is important to note that the national minimum standard target is 50 percent.

5.3. Education Innovations implemented in PBS

The innovations implemented to achieve the ETP objectives are examined under the three areas of: access; quality; and efficiency planning and management; and a fourth area of gender will be looked at as cross-cutting.

5.3.1. Universal Access Driven innovations in Education

Some innovative approaches to improving access have been very local, while others are part of national or regional initiatives. Examples of local initiatives recorded in the BDS-CDR Survey are:

- School charity club to support poor children (Amhara);
- Training teachers for the blind and adapting books into Braille (Amhara Region);
- DayOne ClassOne prompt start of school year (Dewa Chefa Woreda, Amhara);

¹⁷⁷ MoE, 2010

¹⁷⁸ Only 11.2 percent of general secondary and 3.6 percent of upper secondary enrolments are in rural areas (MOE, 2011).

¹⁷⁹ World Bank, 2013

¹⁸⁰ FDRE, 2013

¹⁸¹ MoE, 2010c

- Material incentives (solar energy, books, pens and uniforms) for girls retention in school (Abobo Woreda, Gambella); incentives and awareness raising for girls attending school (Shinile Woreda, Somali); various initiatives for girls' facilities reported elsewhere (§5.3.3.2 & §7.2.3);
- Cluster of satellite schools around one resource school (Abobo Woreda, Gambella); opening a satellite school for just 8 pupils (Menz Lalo Woreda, Amhara);
- Temporary canvas school for flood victim families (Diredawa);

National initiatives recorded at the Woreda level include:

- 1to5 Parents Groups promoting school enrolment (various, but particularly highlighted in Amhara)
- school feeding programme (see below)

5.3.1.1. School Fees Abolition (SFA)

One year after the introduction of the Education and Training Policy (ETP), instructions on fee abolition were forwarded to the regions and schools¹⁸². The objective was to remove the financial burden of most Ethiopian families, inhibiting them from sending their children to school¹⁸³. Although the directives were issued from the federal Ministry of Education, they were not readily implemented in the regions and schools the same way. The variations in implementation were because the progress and magnitude of decentralization differed among states/regions and local authorities. The gradual and varied processes of decentralization, which first reached the regional states (not the zones, Woredas, Kebeles, and schools), was a democratic process in which consensus building among the regional states was necessary¹⁸⁴. Although fees of 10-15 birr per student were not large, they were the principal source of revenue for schools. Fees had three important effects on the educational system: (a) the fees precluded many students from joining from participating in schooling; (b) the fee was the largest source of reliable cash for school management and consequently vital in the school learning process in the classroom; (c) to waive the fees (which is cumulatively high) would require another regular financial source. School fees abolition essentially meant that the federal government increasingly provided the financial resources for running schools.

The Innovations Survey found that the implementation of SFA was universal. All regions and Woredas complied. The school principals from Adama Town, Oromia Region had this to say: *"The national policy on fee-free universal primary is being implemented as it is, without any change. This policy allows students to learn effectively without thinking about fee they are going to pay. But as a mean of income for the school community will contribute their part by anything they have to improve the school facility and the quality of education given in the school"* (Survey Data, School Principals, Adama Town, Oromia). The experts team from East Shoa zone reaffirmed the school principals' views by saying that: *"It is the country's policy, we are implementing it as it is, without any modification. We don't ask students directly to pay school fee payment – instead, community will participate by supporting their school by anything they have to improve the school facility and the quality of education given in the school"* (Survey Data, Education Experts, Adama Town, Oromia). This is true of all regions, although there could be variations based on technical competence.

SFA is a policy innovation that was nationally implemented by all education institutions and agencies. The fee waiver has been an important factor in the rapid growth in general education

¹⁸² World Bank and UNICEF, 2009

¹⁸³ A review of Ethiopia's history of education shows that there was no regulated tuition fee in the government schools; however, there were payments in various forms. These payments (registration fees, cleanliness fees, rental book fees etc) were significant for most parents sending their children to school. The fees were a burden for most rural poor Ethiopians. Many of them could not send their children to school.

Prior to 1995, student fees in Ethiopia were the principal financial source for schools (WB and UNICEF, 2009). Schools covered their operational expenses from all types of fees. The fee varied from school to school and was decided by each individual school usually on an ad hoc basis. See Table 2 in the Appendix for examples of fees paid by students just before fee abolition. According to the PHRD (1996) study, on average, a government school was levying about 10 to 15 Birr per year per student. For a family with four children in school, the fees amounted to 40 or 60 Birr per household.

¹⁸⁴ World Bank and UNICEF, 2009

enrolment. Generally, access, equity, and budget target indicators set for the ESDP (I, II, III, and IV) at the country level have performed satisfactorily. School fees abolition contributed significantly in expanding access and moving primary education towards the goal of universal primary education by 2014/15, in accordance with the government's commitment to meet the education-for-all targets and Millennium Development Goals. It may have reduced gender and regional disparities in enrolment, but the increase in enrolment led to poorer quality due to lower financial allocations per student, higher pupil-section ratios, doubling of pupil-teacher ratios and lack of qualified teachers¹⁸⁵. Ethiopia could have prioritized high quality in the early phases of school fee abolition. Depending on the strategies adopted, this would not necessarily have made universal access more difficult.

The Woredas used innovation to make the best use of the school fee abolition. In response to the question: Are there any innovative ways in which the national policy on fee-free Universal Primary Education is being implemented in this Region/Woreda, Mieso Woreda in Oromia gave a package of approaches, which together they saw as innovative (See Box 8).

Box 8: Fee-Free Universal Primary Education

A package of ways, by which the national policy on Fee-Free Universal Primary Education is being implemented in Mieso Woreda/Oromia Region, which the stakeholders saw as innovative:

- using a flexible curriculum and schedule and encouraging registration by communicating with the parents of the children and students;
- identifying students who need special education from schools of the Woreda and providing education in one centre;
- opening satellite schools in pastoralist Kebeles

The Principals added:

- persuading parents of the children to send their children to the schools;
- Primary schools were made more accessible for students;
- calendars and schedules were made flexible to meet the needs of students and parents

The experts in the Bureau of Education commented:

- since this Woreda is semi-pastoral, we revised the provision of education to meet the needs of pastoral family students;
- we involved parents, elders and religious leaders for the improvement of the teaching-learning

¹⁸⁵ By attracting and retaining students who may have dropped out for lack of cash, school fee abolition is believed to have influenced considerably the rather fast growth of enrolment in general education. The disadvantaged regions benefited more from the fee abolition policy. A review of the regional annual enrolment growth rate between the years 2001 and 2005 shows the highest growth rates were 22.4 percent and 17.3 percent, respectively for, Somali and Afar, the most disadvantaged regions (WB and UNICEF, 2009), albeit from low initial GERs.

However, the policy has some short-term downsides. The surge in enrolment increase created some issues that impacted negatively on the quality of schooling. First, the pupil-teacher ratio (PTR) changed from 33:1 in 1994/95 to 66:1 in 2004/05 and the pupil-section ratio (PSR) grew from 48:1 to 69:1 within the same period (WB and UNICEF, 2009). Second, in 2006, nearly half of the teachers for the second cycle of the primary level were under qualified, which means they did not have the professional diploma qualification for teaching. Third, the growth in enrolment decreased the financial allocation per student at the national level from Br 239.30 per student in 1994/95 to Br 199.07 per student in 2004/05.

There is good evidence that school fee abolition increased access in education; very importantly it reduced disparities in educational participation (gender and regional). There is also good evidence that the surge in enrolment impacted negatively on some elements of quality of education; and also decreased the financial allocation per student.

- process in the Woreda;
- we enforced the society to send their children to the school by communicating with the stakeholders;
- we involved parents for construction of schools

(Survey Data, Mieso Woreda, Oromia)

There are innovative strategies in which quality improvements could facilitate increase in access. Supplying textbooks and uniforms is associated with lower drop-out rates and with additional students being attracted to a school¹⁸⁶. A mixture of innovations of school fees abolition with school feeding/school health and de-worming of school children could be some creative strategies that are capable of enhancing both quality and access.

When fees were abolished in Ethiopia, enrolment increased; but repetition rates soared and learning outcomes sagged. The country could now use the increased visibility and political support, which the school fee abolition policy generated, to provide innovative opportunities to improve quality by (a) channelling resources (teaching and learning materials) direct to schools (See §5.3.2.1 below); and (b) strengthening local capacity for managing quality improvement interventions. A focus on quality that delivers improved outcomes for all, moving away from the earlier focus on the output of enrolment, would create the incentive for innovation in improving all aspects from enrolment and retention with gender equality through quality school environment to effective learning outcomes for all. Now that Ethiopia has moved to prioritize the quality of education through GEQIP, resources could be channeled towards enhancing equity and inclusiveness in education services. Resources channeled to augment school fees should be utilized for increasing inclusion by doing the following: (i) enhancing the ABE programs; (ii) targeting pastoralists (mobile schools, boarding schools and hostels etc); (iii) arranging special programmes for over-age children; (iv) enhancing the special needs components of education.

5.3.1.2. Alternative Basic Education

Alternative Basic Education (ABE) is a non-formal alternative delivery mode of education in the country and an integral part of the education system. The objective of the programme includes “to provide good quality basic education....through an alternative mode of delivery suited to the socio-economic and cultural realities of the regions” (MoE, 2006: 4). ABE has played a vital role in the government’s efforts to achieve Universal Primary Education (UPE) by 2015. Most ABE activities are accomplished in ABE centres (ABECs) that enrol the same age groups as formal primary education. The curriculum is a condensed version of the first cycle of the primary school curriculum consisting of mother tongue, English, mathematics and environmental science¹⁸⁷.

There is good evidence that ABE enabled increase in enrolment of children in school, especially children in very hard to reach areas such as the children of pastoralists. But the quality of schooling is still a big issue¹⁸⁸. Awbere and Babile Woredas in Somali region, noted the effect of distance ABE teacher training in addition to their mobile schools for pastoralists (Survey Data 2015). ABE programmes need to be managed with the objective of enabling quality improvements. To meet this appropriately, NGO–State partnerships or State-Private sector partnerships could provide creative solutions. With respect to the quality of education issue, Save the Children’s interventions in ABE in the pastoral communities of Afar and Somali regions have shown that ABE of quality can be delivered in very difficult areas. Building on the

¹⁸⁶ Kremer et al 1997

¹⁸⁷ Yiman, 2005

¹⁸⁸ Onwu and Agu, 2011

successes with mobile camel and donkey libraries (Survey Data 2015 for Somali Region), SCF, through its innovative Literacy Boost Programmes and USAID funded READ projects, improved the quality of primary education. In one year, Literacy Boost increased student literacy by 24%; literacy boost schools out-performed peer institutions in nearly every assessment¹⁸⁹.

The emphasis for ABE in the future should be for quality improvement. In the short run, three things are suggested: (a) comprehensive stakeholder analysis to determine commitment on scaling up ABE innovations and improving the quality of ABE; (b) strengthening the ABE-related data base and information systems, including evidence of costs and benefits, at various levels; and (c) agreeing/enforcing a basic minimum level of physical and material inputs for ABE in recognition that it is mainstreamed into the education system. However, ABE remains a critical area that requires innovation in order to be responsive to a range of contexts and barriers to education that have existed in the past. As such, it is a prime candidate for results-based funding to Woredas against evidence of learning outcomes that can be utilised at facility level through output-based public-private contracts that encourage innovative solutions, which will be measured by their results.

5.3.1.3. Boarding Schools for Orphans and Children of Pastoralists

Accommodation of children while the parents move around with livestock is extremely important in increasing retention of students from remote villages in several regions – Gambella, Somali, Diredawa and SNNPR. There is no government-run boarding school in Amhara, though there is one in Bahir Dar, run by SOS Children Village (Jennings, 2011). For example, institutions like the Catholic church in Lare Woreda in Gambella provide ‘scholarships’ of accommodation and food for students from remote rural areas to the only government-run high school in the Woreda. In Somali region, the establishment of boarding schools is a strategy for expanding access for excluded children, such as children from areas of high mobility, students from economically poor families, and orphans and vulnerable children who do not have families to support them. There are two boarding schools in the region, a primary school in Shegosh and a secondary school in Gashemo. Two other boarding schools are under construction in Jijiga and Fik. Diredawa has built a hostel for 200 girls that live too far from a secondary school, providing accommodation, food, sanitary materials and a library (Survey Data, 2015). In SNNPR, a boarding school has been established in Arbaminch aimed at challenging remoteness, giving access for excluded groups, and it accepts students aged 10-35 years from all remote Woredas. Pastoralists are especially targeted. It provides a combination of accommodation, food, clothing, stationery and health care, all of which are seen as critical for retention. In SNNPR, boarding schools for pastoralists have added the incentive of moving on to government employment (Survey Data, 2015). Some Woredas, as in Gambella and Benishangul-Gumuz, have used special funds to build boarding schools for the vulnerable children. The Innovations Survey got this answer from a Benishangul-Gumuz administrator: *“Yes, there are two boarding schools in the Woreda one is for boys and the other one is for girls. These schools are innovated mainly to assist poor and vulnerable children, particularly orphans”* (Survey Data, BoE Administrator, Benishangul-Gumuz Region).

Boarding schools have shown some positive results. They have enabled students who completed level 3 in ABE and grade 8 to continue their education and enabled vulnerable children to continue their education, such as children from poor households, orphans, pastoralist children, and children from border areas who are affected by war and conflict (in

¹⁸⁹ Ethiopia.savethechildren.net/.../Ethiopia

Gambella). Although not innovative of themselves, they are seen as innovative within an overall strategy of inclusion by some regions where they have not been used previously.

The evidence is that boarding schools should be used as part of the overall strategy to include very difficult hard-to-reach children. Despite expense, boarding schools should be considered when other options are not feasible. The management of such schools should be well thought out and a single-sex boarding school with all safety precautions is recommended.

5.3.1.4. School Feeding Program (SFP)

Ethiopia is a country where hunger has been a major barrier to child education. The country has historically experienced severe famines, often in drought-affected rural areas. Households in such areas usually find it difficult to feed the entire family. Consequently children need to engage in some kind of activities to generate livelihood for their households. Thus, many primary school age children in food insecure areas remain out of school.

The Ethiopian MoE, in collaboration with the United Nations World Food Program (WFP), adopted the School Feeding Program (SFP) for the first time in 1994 with an initial pilot project covering 40 primary schools in selected zones of 4 different regions (Amhara, Tigray, Afar and Oromya)¹⁹⁰. In 2007, the total beneficiaries reached 653,036 in food insecure areas of six regions – Afar, Amhara, Oromia, SNNPR, Somali and Tigray – with more than 1,000 schools assisted¹⁹¹. SFP is an integral part of the Education Sector Development Programs (ESDPs). Accordingly, SFPs are expected “to raise and maintain school enrolment with a particular focus on meeting the demand side of education of chronic food insecure and vulnerable children”¹⁹².

Under SFP, each child is entitled to approximately 650 kcal (kilo calorie) per day in the form of porridge. The food is prepared inside school premises by community paid cooks and the ingredients often used are Corn Soya Blend (CSB) mixed with a small amount of vegetable oil and salt, fortified with selected micronutrients¹⁹³. In pastoral and semi-pastoral areas, a special focus has been given for girls through the ‘Girls Initiative’, an initiative to support girls with a monthly ration of 2 litres of vegetable oil, subject to 80 percent class attendance¹⁹⁴.

There has been no rigorous evaluation of the separate contribution of SFP in Ethiopia to the rise in national enrolment rate from just 32 percent in 1990/91 to 91 percent at the end of 2007¹⁹⁵. There is some evidence of SFP as an important element, particularly in the most food insecure Woredas of the country¹⁹⁶. In the most drought-prone, poorest, food-insecure areas of Ethiopia, families have been increasingly willing to spare their primary school age children from household agricultural and supporting activities to attend school, in part due to availability of school lunches for their young children and in some cases, because of the take-home ration of vegetable oil provided parents of some girl students. There is strong evidence that SFP interventions improve enrolment and attendance. These impacts are more pronounced on girls, when take-home rations are part of the feeding program. The results of SFP on education convinced MoE to declare its desire to provide school lunches for all Ethiopian primary school children as a matter of national policy. A national school-feeding program for Ethiopia could go a long way in addressing the equity/disparity issues in education. School feeding programmes in Ethiopia and elsewhere have been found to promote access and retention in schooling¹⁹⁷; their impacts on quality of schooling are mixed and there are sustainability issues.

¹⁹⁰ WFP, 2008a

¹⁹¹ Dheressa, 2011

¹⁹² MoE, 2005: 9

¹⁹³ Riley, Ferguson et al, 2009

¹⁹⁴ WFP, 2008

¹⁹⁵ MoFED, 2008: 11

¹⁹⁶ Riley, Ferguson et al, 2009

India has taken its transformational decentralized Mid-Day Meals scheme further than most through ensuring employment as cooks of poor women and also by using local products in the meals, thus contributing to employment, market demand, nutrition and retention at the same time. Linked to school gardens, as in Liberia, children can learn about agriculture, nutrition and life-skills. Use of nutritious cereals, high in micro-nutrients, such as tef and finger-millet (*dagusa*) are advantageous, although some national school feeding programmes have used them as an opportunity for micro-nutrient fortification. India has also learnt the lesson of the need for quality control of school meals and ensuring safe handling of food.

Ethiopia should use school feeding as part of its strategy for improving retention and quality of learning outcomes. Costs of School Feeding should be covered from public resources. This will not only improve the human capital of young Ethiopians, but also catalyze local agricultural production and marketing as well as employment. SFP should be part of an overall PBS III architecture that is linked to other complementary interventions. What is needed in the short and medium terms are to develop comprehensive integrated strategies to maximise the development impacts of the school meal. SFP should be integrated with health and agricultural institutions. For example, it is important to link SFP to agricultural development by gradually moving the food currently supplied to schools from donors to local producers. But locally produced food need to be received, stored and cooked, which will require a school-woreda, regional-national infrastructure and logistical support system to be successful. In the long run, there could be the possibilities of Private Sector Participation especially with respect to local food processing.

5.3.1.5. ICT in Education

The ICT in Education Implementation Strategy and its corresponding Action Plan are components of a wider Ethiopian national e-education initiative. This initiative forms one of the pillars of the ICT for Development 2010 Plan¹⁹⁸. The objective is to widen access to education for the Ethiopian population, for supporting literacy education, and for facilitating educational delivery and training at all levels. The strategy is built on three main streams: (i) Ethiopia National School-Net Initiative; (ii) The National ICTs in Higher Education; and (iii) The National ICT Education, Training and Awareness Initiative (Hare, 2007). These three streams form the basis for the implementation of the strategy across the education sector. The National School-Net initiative for instance, is aimed at the deployment and exploitation of ICTs to facilitate the teaching and learning process within primary, secondary, technical and vocational schools. The ICTs on Higher Education Initiative focuses on deploying ICTs within the universities, colleges, and research institutions. And finally the National ICT Education, Training and Awareness initiative promotes ICT awareness and literacy, lifelong and Adult Education, and distance and virtual education and learning.

There is a major government initiative that connects all 600 of Ethiopian's local councils (Woredas) to 11 regional capitals through internet telephone and video-conferencing. The initiative provides connectivity for the SchoolNet, eHealth and AgriNet. WoredaNet is implemented by the Ethiopian Telecommunication Agency with funding from the African Development Bank and the World Bank. Given the framework, there are varied innovations of ICT in Education at pilot level. For example, MoE with support from UNDP have experimented with a total of 181 (and later an additional 15) schools equipped with a minimum of 15 networked computers and a printer. Some Woredas and schools studied have also tried some experiments with ICT in Education. There are other ICT innovative experiments such as: (a)

¹⁹⁷ See, for example, the research of IDS on local agriculture and education in drought prone areas of Mali: <http://www.ids.ac.uk/project/home-grown-school-feeding-mali>

¹⁹⁸ Ministry of Capacity Building, 2006

One Laptop Per Child (OLPC) initiative, which could not be developed because of inadequate funding and lack of electricity, especially in the rural areas; and (b) The Plasma Broadcast project. These have given rise to many local initiatives on ICT in education.

The impact of ICT in education is still too early to know. At the innovation level there are just sporadic attempts. Ethiopia has experimented with the use of technology in education (such as plasma, radios, EMIS etc) with mixed results. The study Survey found some innovative ICT education experiences: *“There is a beginning to develop software to disseminate basic education in all areas through simple satellite dish”* (Survey Data, Jijiga, Somali Region). But what is clear is that Ethiopia has done well in developing a detailed strategy and an accompanying implementation plan. However, there are still challenges and constraining factors to the adoption of ICT. As connectivity is increased, the country can learn from a wide range of international innovative experiences and could link this with Diaspora initiatives¹⁹⁹.

Since teacher quality is key to improving quality and learning in schools, Ethiopia could strengthen the use of ICT for continuous professional development (CPD) of teachers and objective evaluation of teacher performance. This should be linked to the solar energy development in the country, given Ethiopia’s enormous solar power potential. Currently, the Ethiopian Electric Power in conjunction with Green Technology Africa (GTA) plans to develop Solar Energy Plants in the country. The deal will help the country hit the goal of expanding electricity capacity from current 55% coverage to 75% by the end of 2015. This could impact positively on the promotion of ICT in education.

A number of innovative initiatives for ICT in education were reported in the 2015 BDS-CDR Survey Data, including:

- Mobile English Dictionary (Menz Mam Midr Woreda, Amhara);
- Schools developing project proposals for ICT development in their schools in Bahr Dar, Amhara;
- Innovative low-cost satellite dishes or TV aerials from local materials (Oda Bultu and Gursum Woredas, Oromia)

5.3.1.6. NGO Partnership in Education

NGOs in Ethiopia have been participating in implementing education services by (a) building schools or (b) building a school community. In Tigray region, the Tigray Development Association (TDA) worked with School Management Committees to offer community financial and labour support to government schools. In the Southern Nations, Nationalities and Peoples Region (SNNPR), World Learning saw its work with school management committees as building community participation in decision making and management. TDA used a three level grant system using increased enrolment rates, reduced dropout rates and reduced repetition rates to determine which schools should receive the largest grants. Community participation involved financial contributions and labour. In contrast, World Learning used grants to motivate organizations to prepare strategic plans, establish codes of ethic, and other more qualitative accomplishments. Community participation meant involvement in school management and decision-making. Some schools have been finding innovative ways to enhance their resources, such as that mentioned for raising funds for ICT through writing project proposals for grants (Bahr Dar, Amhara), or a school renting out shops for income generation (Minjar Shenko

¹⁹⁹ The digital divide was evident in the focus on developed countries in an OECD report on “ICT in Innovative Schools: case studies of change and impacts”, main author – Richard Venezky, which saw ICT as being part of wider educational reform to reorient schooling from rote learning, shallow but wide coverage, and individualistic learning processes to higher level skills, problem solving, in-depth study, and collaborative learning. However, Andreas Schleicher, OECD’s Education Director, in September 2015, reported to the media that its Programme for International Student Assessment showed that ICT in schools did not necessarily turn into positive learning outcomes. See <http://www.bbc.co.uk/news/business-34174795>

Woreda, Amhara). Others have been less innovative in seeking community contributions for school buildings (e.g. Guba Woreda, Benishangul-Gumuz).

NGO's in Ethiopia have been very active in the delivery of early child education services at the Woreda level. The survey reported that "*SRI and Right to Play NGO gives training to KG teachers in Zone Kirkos Woreda (Addis Ababa) on how to teach the kids as a play*" (sic). Furthermore, some NGOs like Life Addis have taken the social accountability concept down to the school level. The study survey reported that Life-Addis (NGO), "*teach that the school community should consider all the problems of the school as if it is there own and to work together to solve the problems*" (Survey Data, Kirkos Woreda, Addis Ababa). A project in Gaiyint, South Gonder, Amhara, has shown how early childhood education can be an important element of inclusion of the poorest and most vulnerable children, giving them an early start in the education stakes²⁰⁰.

5.3.2. Efficiency (Planning and Management) Driven Innovations

5.3.2.1. Decentralized Financial Management and Resource Flow

Decentralization policy in Ethiopia affected financial management and resource flow at the different administrative levels, from the central down to the school level. The objective was to ensure that every region, Woreda, Kebele and school gets its fair share of the supplemental budget from the federal government, based on agreed criteria. The innovation re-structured the financial system of education to align with the system of federal governance. With respect to the education sector, the country followed a highly decentralized system of management in general and devolved financial administration in particular²⁰¹. Every region gets its share of the supplemental budget from the federal government by a formula issued by the House of the Federation and implemented by MoFED based on three criteria: population, development indexes, and the efforts of the region to increase their revenue.

The regions give *block grants* to *Woredas*, and *Woredas* to schools following criteria that are generally similar²⁰². The regional governments give *Woredas* their total annual budget in lump sums, using three basic criteria with varying weights, namely, population of the *Woreda*, the socioeconomic indexes of the *Woreda*, and the efforts of the *Woreda* to generate revenue. Schools are expected to use the *block grants* from the *Woredas* to run their day-to-day activities with the assistance of the *Kebele* education and training board and Parents Teachers Associations (PTA's). The transactions between the *Kebele*, schools and PTAs are the unfinished agendas in the process of decentralization in Education in Ethiopia.

One report suggests that grants to schools helped to improve the training of teachers, increased non-salary spending at school level, increased the availability of quality textbooks and built capacity for planning, monitoring and evaluation. As a direct result of the funding: (i) more than 98% of the schools received grants and used them to fund school improvement plans, developed and agreed with school communities; (ii) the proportion of qualified primary teachers increased from 38% in 2009 to 56% in 2012; (iii) over 88 million high quality textbooks and teachers' guides were distributed to primary and secondary schools; (iii) completion rates in grade 5 improved from 69% in 2008 to 74% in 2012 and from 45% in 2008 to 52% in 2012 for grade 8. The 2011 national learning assessment showed that deterioration in learning outcomes seen in previous years has been halted²⁰³.

²⁰⁰ Beza Project communication with author, 2014

²⁰¹ World Bank and UNICEF, 2009

²⁰² MoE, 2002a

²⁰³ DFID, 2013

Parallel lessons have been learnt from the Malawi Direct Support to Schools grant that has helped improve education quality through ensuring that teaching and learning materials are available; improving the learning environment; increasing local participation in school management; increasing the financial management skills of head teachers and School Management Committees; and improving parental attitudes to schooling. However the impact of the grant has been negatively affected by criteria for allocation, grant amount and delays in its disbursement²⁰⁴.

There is good evidence that, as a result of the decentralized funding approach, funds reached schools and they were more optimally utilized; quality of schooling improved as the proportion of qualified teachers in schools increased. There was also increased availability of quality textbooks. The efficiency of the school system improved (higher completion rate). There is suggestive evidence that learning outcome improved. Further evidence-backed advice is needed to enable the school authorities to invest more on activities that will enhance learning outcomes.

The study survey investigators found out that decentralized financial flow has become institutionalized in the Woredas and school levels. For example in Afar *“Budgets are distributed to schools according to number of students. We have two types of budget, which is federal and regional. These budgets are sending to school by block grant. Principals are responsible to take these budgets. After these budgets received, schools display their budgets in a bill board to create transparency with the community. Woreda education bureau and BOFED bureau inspect schools on the budget completion. Schools have no right to hire and fire teachers, rather they request to Woreda office”* (Survey Data, Awash Woreda, Afar).

With respect to how budget decisions are made at the Woreda level and the effectiveness of school based management, a story from Meint Sahsha Woreda is instructive – see Box 9 below

Box 9: Local School Based Management

Meint Sahsha Woreda Budget decision and effectiveness of school based management:

- In addition to Kebele and Woreda council offices, notice boards are used to publicize annual budgets to communities;
- Schools use their school based management, including PTA, KETB and principals, for decision-making at school level on their annual budget;
- For schools to be given their grants, PTA and KETB must be informed and put their signature on the action plan prepared for the school budget;
- The budget's application against the planned issues and according to the manual is monitored by PTA and command post;
- Budgets and expenditures are made public at meetings at school level, through PTA and Kebele councils;
- Schools are given both Block Grants and School Grants based on the action plan that they prepare, which is used for maintenance purpose of school class rooms; of learning (materials), stationeries, libraries and laboratories;
- The communities are largely invited to monitor and support the work of education

²⁰⁴ Nampota and Chiwaula, 2013

- The Woreda education office uses PTAs and “Command Posts” to monitor the work of education and take daily and weekly reports from schools

(Survey Data, Meint Sahsha Woreda, SNNPR)

5.3.3. Quality Driven Innovations in Education

5.3.3.1. *Basic Education System Overhaul (BESO)*

In 1993/1994 USAID worked closely with the government to design and implement a seven year, comprehensive sector reform programme named BESO. BESO’s overall goal was “to improve the quality and equity of primary education in an expanded (and expanding) primary education system”²⁰⁵. BESO was designed to achieve the following five objectives: (i) improved quality and equity of the primary school environment; (ii) increased pedagogical effectiveness of the content and quality of educational materials; (iii) improved performance and equity of teacher training graduates; (iv) improved decentralized management of primary education, and (v) increased and more rational and efficient sectoral financing. BESO provided assistance to MoE in eleven regions: for professional development; for strengthening the capacity of Parent Teacher Associations (PTAs) and local government; and for increasing the access and equity of education, particularly for girls and other disadvantaged populations. The programme also included efforts to strengthen education administration through improved systems for planning and management. BESO helped to enhance the capacity of 80,000 teachers and school directors; built the capacity of 3,256 Woreda education officers in educational planning and management; provided grants to 5,100 schools; and strengthened more than 14,000 members of PTAs and Kebele Education and Training Boards. The Girls’ Education Advisory Committees (GEACs) introduced by BESO, now function in all schools and have helped prevent thousands of girls from sexual harassment, early marriage, and incomplete education.

There is good evidence that BESO strengthened the capacity of the education system in terms of training, management and planning. Some aspects of BESO programmes have been mainstreamed in national education strategies, but the lessons should be looked at again and applied effectively, especially in the developing regional states. Some education authorities have introduced their own quality controls, such as special exams to check teacher assessments (Jille Tumuga Woreda, Amhara) and standardising teaching and exams through Excel automation (Diredawa).

5.3.3.2. *Child Friendly School (CFS) Initiative*

Since 2007, UNICEF Ethiopia has been supporting MoE with the establishment of Child Friendly Schools (CFS), covering all the nine regional states and the two city administrations in the country. The introduction of CFS is aimed towards encouraging schools and education systems to move progressively towards quality standards to ensure the development of the whole child. The programme started in 51 selected primary schools with the intention of establishing CFS prototypes from which innovations could be adapted at a wider scale nationwide. The CFS model is a child-seeking, child-centred, gender-sensitive, inclusive school. The key principles that underline the process of making schools child friendly are: (i) inclusiveness; (ii) safe, healthy and protective environment; (iii) academic effectiveness; (iv) gender responsiveness; and (v) key actor involvement²⁰⁶. Quality improvement is very

²⁰⁵ USAID/Ethiopia, 1994

²⁰⁶ Attig and Hopkins, 2006

fundamental for the CFS model. The global conceptualization of quality with the following five dimensions: learners, environments, content, processes and outcomes²⁰⁷ cohere with the CFS principles.

The CFS experiences globally, including Ethiopia, have been evaluated with positive results. The results include: (i) physical learning environments were improved; (ii) enrolment increased especially in favour of girls; (iii) community participation was enhanced. Furthermore, in Ethiopia, all of the visited child-friendly schools were aware of gender issues and claimed to be more gender responsive than they were before participating in the initiative. But they still seem to lack a clear gender strategy for action that goes beyond quantitative targets of enrolment²⁰⁸.

Related to CFS have been specific initiatives such as DFID's investment in school toilets in Malawi, in which students were involved in the design, with girls and boys toilets clearly set apart and girls insisting on designing a girls' urinal that reduced queuing – also inclusion of a change and bathing room for use of girls during menstruation, which can have a major impact on girls retention in education²⁰⁹. One Primary School has introduced a special room, where girls can go during their menstruation to *use the sanitary napkin & get rest - there are materials like worksheets, prepared notes and such things which can help to scale up their educational level, so it is also being a female studying center* and similar provision has been made in a number of schools in SNNPR, for example Leku Secondary School, Dej Arada Primary School, Dirriba Fomu Secondary School and others at zonal towns (Survey Data, Abiy Adi, Tigray and SNNPR)²¹⁰.

Box 10: Girl Friendly Schools

Simanda Woreda, Amhara use of CFS principles to make schools girl friendly

“Yes, there is innovations in making schools child friendly, particularly for girls:

- Female teachers give training for female students about sanitary pad utilization;
- Sanitary pad provided by UNICEF for female students in schools and made available in the school compound;
- Toilets for girls are built in a different corner of school compound from those for boys;
- Providing Water service in school compound;
- Girls' clubs established to encourage girls in their education – and a Girls' Forum;
- Female parents committee participate in the issue of female students in schools;
- School meals are provided for poor students;
- Safe water service provided by the Woreda WaSH bureau;
- Tutorial class for girls in out of school days

²⁰⁷ UNESCO 2004

²⁰⁸ UNICEF, 2010

²⁰⁹ DFID, 2010

²¹⁰ Uganda has developed several practical initiatives producing sanitary pads for girls while also generating income, which could be adopted in Ethiopia, such as the reusable Afripads e.g. See <http://centre-for-frugal-innovation-in-africa.nl/news/article/detail/summary-round-table-on-frugal-innovations/>

There is good evidence of the impact of CFS on increase in enrolment, especially for girls²¹¹, community participation and improvement of physical learning environment. CFS did enable an improved environment for all children to learn. More is required on how CFS can be implemented in various contexts to impact significantly on learning outcomes. In particular, what should CFS offer teachers to provide them with good teaching skills and how can CFS be integrated in the national teaching and learning strategy development? This will require partnering with universities, teacher training institutions and other agencies.

However some Woredas, such as Meit Sahsha Woreda in SNNPR have been influenced by the CFS pedagogy. CFS enabled the Woreda to adopt *“practical and participatory learning and teachings are provided through demonstrations, field observations and by using real models which are available locally”* (Survey Data, Meit Sahsha Woreda, SNNPR). Elsewhere, the BDS-CDR Data Survey reported that schools have innovated with other quality enhancing ideas, such as school drama clubs and a reading corner in primary schools (Amhara);

To take this further, CFS should be made an integral part of the teacher training programme, with regional universities and other teacher training institutions integrating the principles of CFS in the training of new teachers. The methodology developed by the Commonwealth of Learning could be utilized.

5.3.3.3. Delivering Quality Early learning in Low Resource Settings

In 2010, in collaboration with UNICEF and some NGOs, the Ethiopian government designed a national framework for Early Childhood Care & Education (ECCE) that includes ideas from many innovative low-cost programmes in the rest of Africa. The objective is for the government to continue to regulate private sector and NGO providers, but also to begin to offer low-cost alternative ECCE programmes using two approaches: (a) constructing ECCE facilities attached to primary schools (b) Grade 1 and 6 teachers train Child-to-Child facilitators. The development of the ECCE Framework is a welcome policy advance. No studies yet have been done on the ECCE Policy Framework. However, the results on the Child-to-Child approach (see below) are pointers to the positive potential of ECCE implementation in Ethiopia. *Data from multiple countries show that poor children who do not have access to quality early childhood development (ECD) interventions are denied access to nutritional benefits, play and learning opportunities and social support that improve their school readiness. Long term, they are more likely to have low productivity and income as adults, to provide poor care for their children, and to contribute to the transmission of poverty from one generation to the next*²¹². There is no evidence yet on the impact of ECCE on schooling for Ethiopia; but there is compounding evidence globally.

In Batic Woreda, the survey found noticeable differences between NGO-supported ECCE versus state/public supported ECCE. In this Woreda, *“We can see the way early pre-school learning is given in two ways; the first is in government schools, (where) it is given under primary schools’ classes with primary schools’ curriculum and the second is in private or NGO schools. Under this category, schools are filled with full facility such as playing materials, comfortable playing area, sleeping places, toilet”* (Survey Data, Batic Woreda, Oromia). An excellent example is reported from Lay Gaiyint Woreda in South Gonder, Amhara, where the

²¹¹ A study undertaken in Bangladesh revealed an 11% increase in girls’ enrolment mainly due to the provision of sanitary latrines (IRC 2007). A key factor in the rapid expansion of female enrolments in secondary schools in Bangladesh since the early 1990s has been the provision of a healthier and safer setting for girls by improving standards of water supply and sanitation (UNGEI 2003). A study in Uganda found that 1 in 3 girls missed all or part of a school day during their menstrual cycle (Kirk and Sommer 2006). In Alwar District, India, school sanitation increased girl’s enrolment by one-third, and improved academic performance for boys and girls by 25% (UN-Water 2008).

²¹² DFID, 2013; Naudeau et al World Bank, 2011

Zonal Bureau of Women, Children and Youth Affairs has endorsed the work of an NGO in providing ECCE for the poorest and most vulnerable families, as part of a mother and child programme alongside income generating activities, that will enable children from these households to have a strong start in education. Government has not invested as much financially and in human resources to this important subsector and could be very willing to allow NGOs to work unhindered. NGO partnership with the government for the promotion of ECCE could be the future.

5.3.3.4. Child-to-Child School Readiness Program

The purpose of the Child-to-Child School Readiness Programme (CtCSRP) is to improve children's school readiness through a child-centred, peer tutoring approach that engages older children (young facilitators) to conduct early learning activities with pre-school aged children in their home villages. By the end of the programme children are expected to achieve basic pre-literacy and numeracy competencies that can support their successful transition into Grade 1. Comprehensive evaluation found that: (i) young children who participated in the CtCSRP had significantly higher scores on all early numeracy and literacy tasks tested compared to children in the control group; (ii) positive outcomes were found across all geographical regions in the study; (iii) CtCSRP had positive impacts not only on children's academic skills but on their social skills as well. (Mundy et al, 2014). There is good evidence of the positive impact of CtCSRP on early numeracy and literacy tasks and also on social skills. Further research will be needed to show whether these early skills are continued into the middle and final years of schooling.

NGOs have a potential role in both the Early Childhood Care & Education (ECCE) sub-sector and the Child-to-Child Approach for School Readiness Programme (CtCSRP) to make a difference particularly for children from the poorest households.

5.4. Complementary Potentially Transferable International Interventions in Education

A number of innovations have been identified that could complement the innovations and systems being used in Ethiopia, where there is evidence of benefits from similar programmes to those already in operation in Ethiopia (See Annex 1, §12.8 for fuller details). These include:

- **School Mapping and micro-planning**, which could improve efficiency of resource utilization and so increase enrolment and reduce dropout.
- **Conditional and unconditional cash transfers**, where evidence is that unconditional cash transfers to girls has increased retention.
- **School voucher programmes** that are paid to parents and/or students to cover fees, rather than direct payments to schools.
- **School-based health programmes**, particularly de-worming and nutritional iron supplementation that have increased participation rates at low cost²¹³.
- **School level Report Cards** that complement report card tools being used by ESAP.
- **Student Performance-Based Incentives**, which could encourage improved education outcomes.
- **Test-Based School Rankings**, which could be linked to school grants, as well as **Positive Discrimination of special measures** for poor performing schools.
- **Remedial Education Programmes**, which could support ABE programmes and ensure that all achieve positive learning outcomes.

In summary ...

The 1994 Education and Training Policy (ETP) has clear goals and three areas for action. Backed by the 20-year ESDP, Ethiopia has shown innovation and success in increasing access towards the goal of universal primary education by 2015. But access for all, especially

²¹³ For evidence on de-worming, see J-PAL research Policy Bulletin of March 2012: <http://www.povertyactionlab.org/publication/deworming-best-buy-development> which also evaluated programmes in a number of countries including the pilot by Save the Children in Ethiopia. See <http://www.povertyactionlab.org/scale-ups/school-based-deworming>

girls and disadvantaged regions such as Somali and Afar, and quality remain challenges. Local initiatives have done much to address access issues and the Survey Data has a number of examples, reducing financial, social and physical barriers, such as ABE, boarding facilities and school feeding, as well as initial moves on use of ICT. NGO partners have piloted many innovative education initiatives, especially in early childhood care and education (ECCE) and in pastoralist areas. Decentralized financial management and resource flows have complemented greater community participation in school management, increasing quality through implementing school improvement plans. Quality has also been improved through BSO and the Child-Friendly Schools initiatives, particularly impacting girls' education. A range of international innovations from school mapping to cash transfers and performance-based incentives is presented.

Chapter 6

6. Agriculture



Nvivo Agriculture Word Prevalence – Survey Data 2015

6.1. Background Context

Ethiopia, with its diverse culture and multi ethnic composition is home to extensive indigenous knowledge and systems that over the millennia helped the people to produce food and survive the many adverse environmental conditions and famine. In today's Ethiopia, agriculture is changing with many players, relationships, and policies emerging, influencing the way in which information is generated, exchanged and used by the farmer. Agriculture accounts for 45% of the Ethiopian Gross Domestic Product (GDP) and engages over 85% of its population. The Sector is largely rainfall dependent and suffers from frequent droughts, low level farming practices, low technology, high post-harvest losses, weak infrastructures, particularly roads, resulting in low access to the markets, degradation of soils and environment, and land fragmentation in some areas leading to scarcity of land. These factors made Ethiopia not to produce sufficient food, that resulted in food insecurity and the all too often famines of the past. The local food insecurity and local constraints, compounded by the global financial and food price crises have combined to make food insecurity a critical issue in the development and wellbeing of Ethiopians. However, this does not need to be the case. The wide variety of agro-ecological zones and extensive arable land have bestowed on Ethiopia a very great potential for growing a wide range of crops as well as for the rearing of a wide range of domestic animals.

6.1.1. Achievements

Significant strides have been achieved in recent years in both agricultural production and productivity through country-wide national programmes such as by the Ministry of Agriculture; the Agricultural Transformation Agency (ATA), and supported by PSNP, and the successive PBS programmes as follows:

In crop production, significant achievements have resulted from a variety of initiatives such as:

- adoption of integrated water resource management (IWRM)²¹⁴ practices, where community based organizations have undertaken harnessing of streams for irrigation, reclaiming watersheds and allocating the reclaimed lands to youth for apiculture as in Oromia Region, Moro Gudura Woreda; the controlling of soil erosion, through modern and indigenous methods like terracing, *fanayaju* trenches and wire mesh gabions to control gullying;
- passing local orders to prevent overgrazing; reforestation and protecting forests and incorporating agro-forestry into crop culture using trees (*Sesbania sp*) that also serve as fodder for livestock;
- expanding the extension service through increased employment and deployment of extension officers (Development Agents - DAs) throughout the country, which makes Ethiopia to be the country with the largest numbers of extension officers in Sub-Saharan Africa. In this way, the DAs are very easily accessible to the farmers. The effectiveness of the communication between DAs and farmers has been enhanced by community organizations such as *aderjejet*, 'one to five groups' and *Iddirs*, which are informal risk-sharing associations of neighbours and kin.
- establishment of Farmer Training Centers (FTCs), in all Kebeles. The FTCs are the foci where the local farmers and DAs meet and interact and exchange information and ideas and where new inputs and methods are practically demonstrated by the DAs to the farmers. The success of the interaction between the DAs and farmers is evident from the words of a respondent in SNNP Miza Woreda that "*we now know that agriculture is beyond subsistence*" (Survey Data, Miza Woreda, SNNP).
- the increases in productivity and production have also been due to innovations by the community through use of their indigenous knowledge and their participation in tackling some tasks together such as 'cluster farming' in Oromia, Mieso Woreda (See Box 11), joint harvesting and joint storage.
- In addition to the social safety net provided by PSNP in drought-prone Woredas, various innovative weather insurance schemes for smallholder farmers have been piloted as the one in Zway Dugda Woreda, Oromia, piloted by IFPRI (Survey Data 2015), which will be severely tested by the current drought that has caused crop failure in 2015.

All these have impacted positively on crop production and productivity and on resilience. Consequently food security is more stable as gauged by the number of farmers graduating from the PSNP program. The role of women, especially of female headed households, has been recognized in agriculture and encouraged. Data collected by BDS-CDR indicate that, not only do women receive equal treatment like men as in the distribution of land and other inputs, but they get favoured treatment in the allocation of those inputs. Literature and the Survey Data by BDS-CDR also indicate the recognition of the critical role of youth in agriculture. This ranges from training in agriculture and its practices to mobilizing and organizing them into development teams to undertake certain tasks, such as raising seedlings in the nursery.

Box 11: Boosting production through community participation

²¹⁴ See §8.3 below.

Cluster Farming

Description: Miesso Woreda in SSNP Region, a PSNP receiver, is extremely hot or 'Qola'. There are many pests and diseases, which frequently affect production and productivity. Whenever diseases occur, crops are extensively devastated.

The innovation: The application of cluster crop sowing, including use of hybrid seeds, helps with follow up control like the application of chemicals (pesticides and fungicides) at one time, since the crops of the individual farmers are the same and in close proximity.

Outcome: The common control of pests and diseases has resulted in increase in yields from farmers' land where this system was applied. According to an eyewitness farmer, those farmers who applied this harvested 40 Ku per hectare, whereas those farmers, who did not participate in the system, only harvested 10 Ku per hectare on the average. Because of the success of this approach, it is now being implemented by 14 Kebeles and Farmers' Associations out of 45 Kebeles in the Woreda and involving 386 households. The practice was adopted from other Woredas in the region, but has proven particularly successful in Miesso. At the beginning there was high resistance to using and applying the technology, but after seeing the production at harvest, others regretted not applying the innovation. This innovation that has increased productivity has had the support of DAs. The increased yields have led to better incomes and increase in school enrolment and is likely to increase the number of farmers graduating from the PSNP program.

Collaborative "cluster farming" underscores the advantages of participatory work by communities anywhere in the country. Additionally it lends itself to other agricultural operations such as tillage, irrigation and many others.

Drawn from a Survey Data Report by Mengistu Tulu Balcha for Gorba Kebele, Miesso Woreda, West Hararge, Oromiya

In the livestock sector, productivity and production have also been rising. In the realization that disease control is a prime step in securing animal production, the control of animal diseases has been prioritised through treatment; through veterinary clinics animal health posts (AHP) in the Woredas; and through effective disease surveillance with community participation and in conjunction with neighbouring Kenya. This treatment and control programme is enhanced by the presence of community animal health workers (CAHWs) among the communities themselves. Efforts are also underway to improve the production and productivity of livestock through introduction of the practice of animal fattening, which has been widely practiced in many regions, and cross breeding to improve dairy production using live bulls or artificial insemination from foreign stock. Poultry production has been increasing especially in peri-urban areas. Whereas traditionally, livestock have been generally an affair of men, literature and data have indicated an increasing number of women involved in livestock production, especially under zero grazing conditions. The BDS-CDR data show that women have been supplied with better quality roosters in order to improve the quality of the local breeds as in Kirkos Woreda, Addis Ababa. In fish production, surveys indicate two approaches to increasing production: the introduction of new fishing gear, as in the Gambella Region, Annuah Woreda, and fish farming as in Benishangul Yaso Woreda and innovatively as in Ziway (See Box 12 below), where it is being done in an integrated way with vegetable and poultry production. As with the Extension Officer in crop production, studies have shown the importance and centrality of the Livestock Extension Officer in livestock production.

Box 12: Integrated Poultry, Fish and Vegetable Farm

Integrated Poultry, Fish and Vegetable Farm

Description: Aquaculture is a potential alternative source of fish supply to fill the increasing demand for fish. There is strong farmer interest in small scale fish farms of tilapia ponds in the region, both commercially and for consumption.

Fish culture in Ethiopia started small scale in farmers' ponds by stocking wild freshwater fish species, mostly Nile tilapia (*O. niloticus*) and common carp (*Cyprinus carpio*) collected from lakes. African catfish (*C. gariepinus*) is also included in the culture to control unwanted multiplication of the tilapias in the pond. Generally, few farmers have experience in handling the fish, and consequently fish farms are operating sub-optimally and below capacity because of lack of expertise in technical aspects, management issues and problems such as: lack of supplement feed; lack of male mono sex tilapia for more rapid growth; untimely harvesting. Presently there is no commercial fish farm and no commercial fish seed supply present in Ethiopia, partly due to lack of knowledge and disease challenge in hatcheries. Expertise and extension service providers sent out by the Livestock Agency have limited technology and knowledge on the main aspects of aquaculture. Ziway Fisheries Resources Research Center (ZFRRC), working for Oromia Region in Ethiopia, and being one part of Oromia Agricultural Research Institute (OARI), is attempting to alleviate some of the problems appearing at the farmers' level to introduce and sustain pond culture of fish.

Innovation: Integrated poultry-fish-horticulture farming is one of the aquaculture technologies adopted, evaluated and being demonstrated on farmers' plots by ZFRRC.

Outcome: The advantages of integrated poultry-fish-horticulture farming are several: plays a role in food security and nutrition, through provision of proteins (fish, poultry, eggs) and vitamins (fruits and vegetables); recycles waste in an environmentally friendly way, particularly by making waste product of one component as an input for another component i.e. poultry waste to fertilize fish pond; waste fish pond water for irrigation of vegetables; by-product vegetables/plants for fish and poultry feeding. An additional outcome is the increase of income for the household from three products, fish, poultry and vegetables.

Further details available from Ziway Fisheries Resources Research Center, P.O.Box 229, e-mail: iamendebu@yahoo.com Phone:+251464412030

Drawn from a Survey Data Report by Mengistu Tulu Balcha for Gorba Kebele, Mieso Woreda, West Hararge, Oromiya

6.1.2. Challenges:

Despite impressive achievements, several challenges remain for agriculture in Ethiopia. Drought is the chief source of food insecurity.

- (a) Although early warning and breeding of drought resistant varieties can mitigate the effect of drought and bring about resilience, they cannot completely erase it. Large-scale irrigation is an effective way of mitigating the effect of drought and ensuring food security, Fortunately, Ethiopia has several rivers and expanse of land that is suitable for large-scale irrigation. However, this will require heavy investment;
- (b) Land and soil degradation continues in many parts of the country;
- (c) Although Land Certification has greatly improved access to and ownership of land, especially for women, the programme has yet to address the land needs of youth. Currently, only at local levels is reclaimed land being allocated to youth. Landlessness among youth needs to be addressed in order to reduce their migration to towns.
- (d) In order to enhance the delivery of services over and above the current level, the capacity of the DAs and FTCs needs to be built through training, resourcing and facilitation. Additionally gender aspects need to be addressed, since most of the DAs are males and they cannot communicate effectively with women and relate fully to gender issues. Significantly, since an increasing number of women are becoming

farmers on their own, a deliberate policy of recruitment of women in extension training institutions should be pursued.

- (e) Cultural and religious beliefs also stand in the way of accepting and adopting new technology or ideas or ways of doing things. For example, the traditional mindset has yet to accept women fully in the agricultural sector. A typical credit system is not acceptable in some Woredas by Muslims on religious grounds. However, in Oromia, the Oromia International Bank has overcome this problem by having a window of interest-free banking for Muslim farmers. Religious and other cultural festivities have also been cited as factors affecting productivity and production.
- (f) Access to markets and marketing information is another challenge in both crop and livestock sectors. The idea of value chains coupled with facilitating market access is hardly ever promoted. Nonetheless this strategy was successfully used to resuscitate the production of Arabica coffee from Sidama, SNNPR, as well as export of beef from Botswana and cotton from Malawi. The BDS-CDR data show that some farmers associations and cooperatives have been formed to overcome this, aimed at helping small farmers get access to markets. However, other studies indicate these bodies have been found to suffer from limited number of members; poor women representation; domination by a few members (elite capture); lack of financial transparency; unfair distribution of inputs; or are profit oriented and not for social benefits.
- (g) Physical access is another challenge. Although Ethiopia has one of the best rural road connections in Sub-Saharan Africa, many parts remain to be reached. The poor roads and transport connections mean that extension service attention and basic inputs are not in reach of all farmers equally. Moreover, remote locations are less attractive to DAs and account for a large number of DAs deserting the profession.

6.1.3. Opportunities

Prospects for the Ethiopian agriculture sector are very bright, based on the following: varied agro-climatic zones; extensive agricultural land; abundance of rivers for irrigation; a population size suitable for a robust internal market; sufficiently educated people, who can plan and undertake research; a sound foundation and strategy for agricultural development; stability and a strategic location in a part of Africa noted for instability and food insecurity. Given these factors, Ethiopia is likely to achieve the goals spelt out in its GTP strategy. .

6.2. Innovation in agriculture in Ethiopia

Innovations in agriculture in Ethiopia can be seen to fall under two broad categories: those with endogenous origin, arising from Indigenous Knowledge (IK) of which Ethiopia is rich; and those with exogenous origin, which have either been introduced by researchers, Development Agents (DAs), NGOs, or borrowed from neighbours within and without Ethiopia. The Survey Data from the 96 Woredas and 10 Regions identified over seventy innovations, but with limited evidence and many being adaptations of known practices.

Out of over seventy innovations observed, a greater number of them, especially those of endogenous origin, were found in the more developed Regions of Amhara, SNNP, Tigray and Oromia. Innovations were found also in basic services delivery - in natural resource management, crop production and livestock production. Some of them were essentially routine and best practices elsewhere, but were novel introductions to some parts of Ethiopia. For example, the growing of fodder is a normal practice elsewhere, but is novel to pastoralists in parts of Ethiopia and was reported by respondents as innovation.

6.3. The Enabling Environment for Agricultural Innovations

6.3.1. Decentralized environment

The decentralized system of governance in Ethiopia has created the enabling environment for innovations in delivery of basic services in the agriculture sector. A range of policies and a

regulatory mechanisms have been devolved to the lowest administrative levels, the Woredas and the Kebeles, thus making it easier for on-the-spot decisions to be made. Additionally, it enables farmers and/or their associations to participate in budgetary allocations at the Woreda and Kebele levels. Almost all respondents in the BDS-CDR Data Survey expressed satisfaction with decentralization and that, to a large extent, it contributes to innovation and increased production.

6.3.2. Capacity and Abilities

In Agriculture, capacity and ability to innovate, adapt and scale up any new ideas, items or methods thrives in an environment where and when the three key players work together: the agricultural researcher; the extension officer called Development Agent (DA); and the farmer. In Ethiopia, the extension officer and farmer work well together, while an Input Coordination Unit interfaces between research and the extension service. Additional capacity is provided through co-operation with the many international and regional research bodies located in the country, such as, CIAT, CIMMYT, CIP, ILRAD, IFPRA, ICRISAT and ILRI. The BDS-CDR Data Survey brought up many instances of innovations arising from collaboration between research, extension officer and farmer, as well as from NGOs. The ATA, working with these institutions, has the mandate to assess which innovations can be adapted to which ecological zones and to promulgate this to innovative farmers through the Farmer Training Centres.

6.3.3. Robust Extension Service

Another enabling environment is the presence of a robust extension service, since it is the *sine qua non* for delivery of basic services in agriculture²¹⁵. Much of the achievements in food production during the PBS phases can be attributed to the extension service and officer, the Development Agent (DA). Several studies have shown the centrality of the DA in the delivery system, but a DA Tracking Study identified gaps in the training as well as gaps in the institutional support for them, leading to poor morale and ultimately to abandonment of the service²¹⁶. Additionally, the service is weakened by the low percentage of women among DAs, particularly in view of the increasing number of female farmers. The training that a DA receives in college and in the field is critical for his/her efficiency, effectiveness and responsiveness to the needs of farmers and it is important that this includes training in participatory methods and effective two-way communication.

Under PBS, training of farmers has been carried out by the DAs in Farmer Pastoral Training Centres (P/FTC). These sites have been venues for the effective exchange of knowledge, skills, advice and attitudes. Recently the Government has enhanced the resources in the P/FTCs. Placing the farmer at the heart of agricultural research and development is an innovation which is delivering results as can be seen in the examples of the poultry-fish-horticulture integrated farm in Batu/Ziway Woreda (Box 12) and use of cluster cropping to reduce pest and disease loss in Miesso (Box 11), both in Oromia.

In the successive PBS I and II, data in many agricultural sector reports have not been disaggregated. What have been availed are composite figures, which limits analysis as to which particular basic service delivery contributed to the increase in production or productivity. This has been highlighted in the recent April 2015 Aide Memoire, which noted that “all reports are the same in the last JRIS, that the productivity of the main crops for 2013/14 reached 20.3 Quintals, including both Meher and Belg seasons.” Lack of information on regional disaggregated data and direct agricultural beneficiaries as well as of DAs were cited as recurring and, consequently, a great handicap for data management. Problems in management of real-time data was evident in the inability of CSA to provide agricultural data for the 96 Woredas surveyed.

²¹⁵ However, one research study found that knowledge is only effectively transferred to contact farmers by direct training and further diffusion across the community is limited, except for labour-saving techniques. See Kondylis et al, 2014

²¹⁶ MoA Draft Final Report on DA Tracking Study, April 2015

6.3.4. Participation and Social Accountability in Agricultural Extension

The ESAP programme benefits have been considerable as farmers groups and cooperatives make service providers accountable for their performance. As a result, inputs to the farmers like good quality seeds, fertilizers or veterinary drugs have been delivered in the right quantities and in time. For example, in Dugda Dawa in Oromia, the Social Accountability Implementation Program used scorecards on the demand side to improve timely provision of adequate inputs and distribution of improved livestock breeds. Literature indicates that knowledge and practice of Social Accountability needs to be deepened through training for the DAs and other officers on the supply side and for the farmers on the demand side. It would also need to be gender-sensitive with women and men farmers engaging separately in focus group discussions and use of scorecards.

6.3.5. Incentives for Performance Improvement in Agriculture

In the agricultural sector, recognition of good performance requires incentives for two persons, the farmer and the DA. For the farmer, the type of incentives have ranged from higher yields, leading to increased income and wellbeing and the prestige it brings in the society, with recognition as a model farmer and material rewards, such as water pumps, In addition to certificates. On the other hand, good performing DAs have not been incentivized as they deserve. An exception is in Benishangul-Gumuz Region, where the community have built a house for the DA. The fact that DAs have not received recognition for good performance is one of the contributory factors to low morale and abandonment of the profession.

6.3.6. Innovative Collaboration and Partnerships in Smallholder Agriculture

Ethiopia benefits from a great number of partners - donors, NGOs and private foundations such as the Bill Gates Foundation. Government has carried out collaborative work with these partners. Many have resulted in innovations that have boosted production and productivity in the agricultural sector. For example, USAID²¹⁷ introduced the Farmer Service Centers (FSC)²¹⁸, which are one-stop places that provide a complete range of supplies such as quality seeds, fertilizers, pesticides, veterinary products, information and marketing links. FSCs have enabled some of the farmers to transit the step from subsistence to commercial production. Another example is the NGO EDGET, which has introduced heifers in order to increase milk production and consumption. Furthermore, as the headquarters for many regional and international bodies, Ethiopia has benefitted from collaborative work with these bodies.

6.4. Agriculture innovations Implemented in PBS

The BDS–CDR Survey Data provided examples of innovations across a wide field, covering major crops, livestock, fisheries, poultry, forestry, land, water, environment and climate. Others were essentially best practices elsewhere, but novel in Ethiopia. The following cases have been chosen for innovation analysis, representing all aspects of the Agriculture Sector: Land, Water and Natural Resources; Crop Production; Livestock Production; and Cross-cutting Issues. Other innovations are given in Annex1, §12.3.

²¹⁷ See: <http://www.feedthefuture.gov>

²¹⁸ See CNFA (Cultivating New Frontiers in Agriculture) who are implementing a 2-year USD 2million programme for USAID adapting CNFA's proven FSC Commercial Farm Service Program (CFSP) model, modelled in Georgia, Moldova and Afghanistan, to the Ethiopian context through 6 viable input-supply FSCs in Oromia. Following competitive bidding in 2013 from Ethiopian entrepreneurs and enterprises, the six private and cooperative-owned FSCs provide a complete range of high quality inputs, services, information and output marketing linkages to reach more than 30,000 Ethiopian smallholders, enabling them to take the leap from subsistence to commercial production. Of these six, one is a woman-owned enterprise, two are owned by cooperative unions, and three are owned by private entrepreneurs. - <http://www.cnfa.org> > programs.

6.4.1. Innovations on Land, Water and Natural Resource Management

6.4.1.1. Innovations in Natural Resource Management

In Ethiopia, land degradation has become a critical impediment to the conservation of biodiversity and sustainable use of natural resources as a result of unsustainable man-made agricultural practices, deforestation and over-grazing, as well as from other natural causes. The World Bank (2013) estimated that the cost of land degradation in Ethiopia is 2-3 % of GDP. As the PBS programme aims to expand and increase agricultural production, policy and decision makers must be careful that this expansion does not impact negatively on land natural resources and consequently biodiversity. Farmers must be taught about biodiversity and its importance while growing more crops.

Literature indicates that GoE is fully cognizant of this fact and, under decentralized administration, has devolved the task to the lower rungs of the government - the Regions, Woredas and Kebeles. The 2015 BDS-CDR Data Survey revealed that, across the country, they have risen to the task and have taken impressive measures, which include: enlightening communities; organizing communities into committees or bodies solely to address the issue of natural resources and their management; enacting and passing local orders and regulations to control and regulate the exploitation of natural resources; undertaken reforestation with both indigenous and exotic trees; introduced agro-forestry into the crop culture; and creatively linked the resources of PSNP to work for natural resource management. Additionally, in Oromia, the Japanese donor agency, JICA, has introduced the topic of natural resource management into the Farmer Field Schools, which used to cater for crops only. The impact of all these actions is increasing awareness by farmers about the importance of natural resources and biodiversity, which they can be expected now to put into practice.

6.4.2. Innovations in Crop Production and Productivity

6.4.2.1. Innovations in cultivation

Soil preparation varies in many parts of Ethiopia, depending on the size and features of the land. In areas where the tradition of crop growing is long, as in Amhara, Tigray, Oromia and SNNP, animal traction is the norm for land preparation. However in some Regions, such as Gambella, Benishangul-Gumuz and Afar, this is not the case. In fact, some traditional farmers consider it as torture and abuse of animals. In these regions, cultivation is done by hand and this limits the area of land that can be cultivated. This results in low yields. The introduction of ox-ploughing and its adoption by farmers is an innovation, for these areas of hand-cultivation, that has increased the area cultivated and consequently yields. Another innovation in cultivation is zero tillage, which is being tried for maize production in Amhara Region, Gozamin and Guangua Chagni Woredas, under ATA. Zero tillage is especially beneficial in cases where the soil has been over worked (ploughed) to the extent of loss of its structure. Zero tillage gives the soil time to restore its structure and consequently good condition for root growth.

Recently the Government has encouraged more holistic approaches to agriculture. Such an innovation, which is delivering results, can be seen in the examples of the poultry-fish-horticulture integrated farm and use of cluster cropping to reduce pest and disease loss, both in Oromia.

6.4.2.2. Innovative Planting – improved broadcasting and row planting

Improved Broadcasting: Broadcasting seeds by hand can be very tedious, especially if the field is large. In Minjar Shekora Woreda, Amhara Region, a simplified technology of a hand seed broadcaster made of water jars, called *jokk*, for sowing seeds has been developed. It enables the farmer to broadcast seeds more easily, faster and more uniformly. Additionally, a three-litre jar “*yezeyt meyazya goma*” has also been invented for improving broadcasting. This device is employed with simultaneous broadcasting of seeds combined with fertilizers.

Row or Line Planting: Generally in Ethiopia, seeds are broadcast using traditional methods. Respondents in the BDS-CDR Data Survey indicated that row planting is an innovation that is now widespread in the country. With broadcasting, seeds fall randomly, some too close and others too far apart and working between the plants becomes difficult. The optimum number of plants per unit area, which determines yield per hectare, cannot be determined. Row or line planting, on the other hand, enables the farmer to work more rapidly and easily between the plants. As a result he/she saves labour and time for other tasks. Additionally, in row planting it is easier to determine the optimum plant population (seed rate) and thereby achieve good yields. The survey also revealed that, in the production of *tef*, combining row planting with the innovative practice of transplanting the crop increased yields. Furthermore, ATA has been developing a simplified proto-type of a mechanized row planter to assist *tef* farmers, in partnership with the Bill & Melinda Gates Foundation, IDEO.org¹⁰⁵. Though globally row planting is a common practice, it is new to the small holder farmers of Ethiopia and hence an innovation.

6.4.2.3. Irrigation and Multiple Cropping

As crop production in many parts of Ethiopia is rain dependent, crops may only be grown seasonally in the short-season rains of the *belg* (March-April), particularly allowing quick-growing barley to be planted with the first rain, and the longer *meher* main-season kiremt rains (June-Aug), depending on the area of Ethiopia. The belg rains in some years are significantly delayed or insufficient for most crops. Since the rain may be too little, water-demanding and high-value horticultural crops cannot be grown. The practices of harnessing small semi-perennial streams, digging of reservoirs (water harvesting) or sinking wells have enabled many farmers in the dry areas to grow multiple crops, including horticultural crops. It has also enabled the farmers to grow agronomic crops more than once in a season. The resulting increase in yield has improved food security and income from the sale of the various crops and surpluses. Furthermore, the water conserved from those sources becomes available for domestic use, thus saving women the burden of fetching water from distant places.

6.4.3. Innovations in Service Provision

6.4.3.1. Farmers Service Center (One-stop-service)

Smallholder farmers in Ethiopia generally obtain their inputs and other resources from varied sources and these may be far away and/or far apart from each other. Farmer Service Centres (FSCs) were introduced, with the support of USAID, to provide training and grants for rural entrepreneurs, both men and women, FSCs are an Ethiopian-owned farm supply and service. The Centres provide a complete range of supplies such as seeds, fertilizers, pesticides, veterinary products, information and marketing links. Successful FSCs have been established in Oromia Region - in Ambo, Bishoftu, Dodola, Fiche Nekemte and Sheshemane Woredas. Because it cuts out the middlemen in the supply chain, the items are cheaper. The advantage of this is underscored by the expression of one of the owner operators in Sheshemane, Adenech Zewdie, “*this is big news for the smallholder farmers*” for they do not have to travel very far and this might involve transport costs as well loss of time. The experience of Farmer Service Centres in other countries is mixed and in Malawi, the government-controlled system was inefficient and delivered inputs too late in the season to be of use to farmers. When competition with the private sector in relation to provision of fertilizers under a subsidy system was introduced in 2005, there was a dramatic improvement in delivery and maize production

moved into significant surplus²¹⁹. In Uganda, decentralization has not led to improved agricultural extension services, except where provided by NGOs²²⁰.

6.4.3.2. Pastoral and Farmer Training Centres (P/FTCs)

P/FTCs are centres where farmers and DAs gather, interact and learn from one another. In Ethiopia, P/FTCs have been established across the regions in all Woredas of the country. PTCs provide veterinary products, treat livestock and demonstrate veterinary technology to pastoralists. FTCs provide training and advice and give demonstrations of new products in crop husbandry. They also organize annual farmers' field days. Across the Woredas, the survey revealed that PTC and FTCs have been instrumental in the diffusion of ideas and knowledge and accentuated the work of the DAs. Through learning acquired in the P/FTCs farmers have succeeded in increasing their food production. However, it has been noted that many of the P/FTCs lack facilities and resources for their proper operation.

6.4.4. Urban Agriculture

Growing crops in urban areas was considered more a marginal hobby than a serious engagement in food production and therefore nothing was done about it. But in view of increasing cost of food, decreasing areas for crop production due to urban expansion and need for income-generating activities, there is increasing interest in urban and peri-urban agriculture. In Addis Ababa Region, where this situation applies, local agricultural authorities are paying attention to urban agriculture, especially for women and developed an innovative Urban Agriculture Policy. The Urban Agriculture Policy is *"being advertized in different ways. Currently the Office is implementing the policy in all the ten sub-cities. Agricultural works which used land plots implanted in Yeka, Bole, Akaki, Nifas Silk and Kolfe sub-cities. And agricultural works which focuses on using household front yards, back yards, corridors, roofs and gunges are practices in Arda, Addis Ketema, Gullele, Kirkos and Lideta sub-cities. As a result of these the attitude people have about urban agriculture is being improved (as) witnessed by the high level of service seekers in the city"* (BDS-CDR Data Survey, 2015). Urban agriculture is characterized by small space and requires innovative technology with knowledge of plants and accompanying technical skills, such as use of drip irrigation using 'highland' water bottles as in Lalay Matchew Woreda in Tigray. In Addis Ababa Region, another aspect of urban agriculture is the distribution of poultry to women and especially as part of the rehabilitation exercise for former prostitutes to find alternative income sources. The impact of urban agriculture is yet to be seen, but now it brings additional food to the household, thus supporting the family budget; it is suitable for women and changes the attitude of town dwellers towards agriculture.

6.4.5. Introduction of Fodder Crops

Nomadic pastoralists in the drier regions of Ethiopia do not grow fodder crops and sedentary farmers do not grow them extensively. Although globally the growing of fodder crops is a normal practice, in Ethiopia it is an innovative introduction. In the national resettlement ('villagization') programme, fodder crops are a necessary introduction for their livestock, since they no longer move about in search of pastures. The introduction is being carried out in Afar, Benishangul-Gumuz and Somali Regions, together with other crops. In sedentary Regions, the introduction is necessitated by the need for fodder for the growing dairy industry. Additionally, in the Woredas of Gozamin and Babile, respectively in Amhara and Somali Regions, trees like *Sesbania sesban* are being grown for fodder as well as for soil conservation and windbreaks. Furthermore, the introduced fodder crops like Lucerne and *Sesbania* are leguminous, nitrogen-fixing, and so serve to improve the fertility of the soil.

²¹⁹ e.g. See Future Agricultures: Fertiliser Subsidies – Lessons from Malawi for Kenya, Policy Brief 026, Feb 2009.

²²⁰ See Bashaasha et al, 2011

6.4.6. Innovations in Livestock Productivity and Production

6.4.6.1. Livestock Improvement

Studies indicate that Ethiopia has the largest number of livestock in Africa. The livestock play an important role in the social-economic wellbeing of the people and the country. However, the quality of the livestock with regard to dairying is low. This is partly due to the genetic makeup of the breeds, their diseases and the method of husbandry. There are however programmes underway to improve the quality of the local breeds, through cross-breeding with exotic high milk producing types. In this, several approaches have been employed: the first is through importing exotic bulls of the required type; the second is through the distribution of female calves from high yielding breeds. These approaches were acceptable to the farmers, since they closely resemble traditional natural practices to which they were used. An example of the latter approach is the distribution of heifers by the NGO EDGET.

In order to hasten the process and cut down the cost of importing and maintaining bulls, artificial insemination (AI) was introduced which was a novel and innovative practice in rural Ethiopia. Many farmers were not used to it and therefore some resisted it. In Babile Woreda in Somali Region, pastoralists described it as “the devil’s work”. But over time, through the Pastoralist/Farmer Field School (P/FFS) system, AI has been demonstrated and has now been accepted in most parts of the country. In most cases, it involves the insemination of the local (Ogaden) cows with semen from high milk yielding Holstein bulls.

The outcome of the AI has been an increase in dairy production, especially around the urban areas. Increase in milk has resulted in increased income for the owners from the sale of milk and other dairy products. However, some failure of AI has been recorded in Banja and Samada Woredas as the result of lack of expertise in the administering of AI and hormone treatment.

6.4.6.2. Participatory Livestock Disease Surveillance

Ethiopia, like many other African countries, suffers from frequent outbreaks of dangerous livestock diseases. The government has established several institutions for animal disease surveillance, control and treatment, using DAs (livestock officers) and veterinary officers. In recent years, the work of these officers has been greatly enhanced by the use of mobile phones for quick reporting of disease outbreaks. In the Somali Region, Awbere and Babile Woredas, an innovative system has been developed, in which the community participates in disease surveillance. In this system, a surveillance group, comprising of ordinary pastoralists, works in a participatory manner with the official disease surveillance institution to report the outbreak of diseases. Due to the participation by the community, the effectiveness and coverage of the disease surveillance programs has markedly increased.

6.4.7. Cross cutting Innovations

6.4.7.1. Innovations in Service delivery in Agriculture in respect to women

Women in agriculture can be found as married women in male-headed households, or single or widowed in female-headed households. Traditionally, agriculture is the domain of men and the women only play a secondary role in it. Coupled with bias, that placed women in a very disadvantageous position, especially female-headed households. The Ethiopian constitution grants equal rights to all, irrespective of gender, and, in conformity to that in respect to agriculture, efforts have been made to give women access to basic services equally with men. Women have been given equal rights to land under the Land Certification policy and rights to inherit land in case the husband passes away.

Developing an effective school meals service, through collaboration of Ministry of Education with the Ministry of Agriculture, could offer employment to poor women as well as enhancing local markets and enabling children to learn about nutrition and agriculture.

In respect to the delivery of basic services, the BDS-CDR survey points to women having the same access as farmers as for men. They have been empowered through training in agro-business, money saving, access to capital, in form of credit or livestock, and take part in public works such as reforestation. The Data Survey found in Sorro Woreda in SNNP that women are being incentivized by public recognition when they perform well. In Fogera Woreda, Amhara, women have formed their own milk collection and processing cooperative, including butter and cheese production. In Sidama Woreda, SNNPR, a deliberate effort was made to have a woman in the local agriculture office. Nonetheless, in spite of these gains made by the women in agriculture, they still lag behind as aptly recorded by one of the BDS-CDR Data Collectors in Bati Woreda in Amhara Region that: *“Efforts to solve women’s problem (in agriculture) are promising regarding the reduction of work load. But there is (still) no radical change to the existing system. (Although) the opportunities are equal, inequalities within the system which are carry overs of the traditional system”*.

The data also show that there are as yet no innovative ways of addressing the issue of gendered disadvantage for women in the delivery system for basic services, the agricultural extension service. The number of women DAs is very low and no special approaches have been developed to meet the special needs of the women.

6.4.7.2. Innovations in Service Delivery in respect to Youth

The national policy of Ethiopia categorizes youth as anyone between the ages of 15 to 29. As elsewhere, rural youth comprise the largest portion of the youth in the country, where farming has traditionally been the livelihood. A study in the Journal of World Development in 2014 found that, in rural Ethiopia especially southern Ethiopia, youth have limited access to land. Consequently, interest in agriculture is low and the tendency for rural-urban migration is high. Econometric analysis confirms that lack of access to agricultural land is forcing the rural youth away from agricultural livelihoods. This means that few youth are involved in agricultural activities on their own, except as helpers in their family farms or as labour in other farms. In view of this, the BDS-CDR survey identified some relevant innovations, notably the organization of youth into development teams In Sidama Woreda, SNNP Region, where the team were trained in plant propagation and nursery practices and engaged in producing planting materials (seedlings) for sale to local farmers. In Kallu Woreda, Amhara Region, the youth were allocated reclaimed land from watershed management activities.

6.4.8. M&E in Agriculture

A wide range of data are required in Agriculture, particularly with regard to markets and yields, enabling key decisions to be made in a timely manner regarding food security. There is often a compromise between accuracy and timeliness. There is a need to be able to link market prices, crop estimates, production, exports and PSNP beneficiaries at Woreda and Kebele level in order to carry out effective policy and programme analysis. Crop estimates in most countries are carried out at three points in the agricultural season by interviewing a sample of farmers before planting; during the vegetative stage and before harvest. Ideally, such data should be entered immediately by enumerators into a web-based system that automatically aggregates the data. There is often a mismatch between the basis for estimates by AEWs and that by national statistical agency enumerators, relating to field size and planting densities and yield predictions. Agricultural data in many African countries is particularly weak as extension officers are not trained in robust statistical approaches to agricultural data measurement and data collected is not available real-time. Ethiopia’s CSA has recently carried out its 2014/15

Agricultural Sample Survey, with its Volume 1 report on “Area and Production of Major Crops”²²¹. FAO²²² has been supporting national statistical systems in accurate data collection and reporting through [CountrySTAT](#), which is a statistical framework and applied information system for analysis and policy-making designed in order to organize, integrate and disseminate statistical data and metadata on food and agriculture coming from different sources. CountrySTAT gathers and harmonizes scattered institutional statistical information so that information tables become compatible with each other at the country level and with data at the international level. The main objectives are to facilitate decision-maker's access to information and to bind data sources that are currently spread throughout the different institutions²²³. The CountrySTAT approach is based on the application of data and metadata standards of FAOSTAT and GAUL (Global Administrative Unit Layers). Many countries have shown interest and are adopting it into their national statistical system. Furthermore, CountrySTAT is accompanied by a capacity-building strategy at country level to make the system sustainable in the long-term. CountrySTAT is networking with FAOSTAT and other sister information systems like FENIX. CountrySTAT provides direct links to the websites of the Ministry of Agriculture and of the [National Agricultural Input Authority](#). There would be value in developing a real-time data transfer system from the field to the centre across all key sectors, using bespoke DHIS2 or other software and mobile technology²²⁴.

Ethiopia has been in the forefront of using the Household Economy Approach (HEA) for vulnerability assessments, although its operational usefulness as an emergency resource allocation tool must necessarily outweigh some of the statistical assumptions on extrapolating from micro to macro²²⁵. The approach uses a model based on entitlement theory and detailed social and economic data to simulate the impact of production price and other shocks on household income and food access and as a reliable method of “famine prediction”. Public response to such predictions can assist in avoiding the poor paying a cost in terms of foregoing health, education and other basic services; or undergoing a period of hunger and lasting nutritional impact on young children; or long distance migration; or engaging in prostitution or other hazardous occupations; or the sale of assets leading to future vulnerability. The links between PBS and PSNP have significantly reduced the vulnerability of the poor in drought-prone Woredas. The level of timely reliable data flows could be improved by use of digital systems directly linking the field to the centre through an eMIS system, although [FEWS NET](#) is well able to produce current vulnerability assessments across Ethiopia.

In summary ...

Promoting agriculture, from crop production to livestock, across Ethiopia's varied ecological zones is a challenge, which has been met through a variety of initiatives such as the innovative land registration that has placed women's names on joint certificates; integrated water resource management; reforestation; agro-forestry; integrated farms and cluster farming; expanding extension services; use of Farmer/Pastoralist Training Centres in every Kebele; Farmer Service Centers; participatory livestock disease surveillance; and use of farmer participatory research and indigenous knowledge. Many of these have involved local innovation. In drought-prone Woredas, this has complemented the Productive Safety Nets Programme (PSNP). Urban areas are also promoting intensive household production and Addis Ababa has developed an innovative urban agriculture policy. Discrimination against women in access to inputs reflects traditional gender relations that are hard to change. Land Certification, although not part of PBS, is one of Ethiopia's important devolved activities, which bestows ownership of the land to the farmers and thereby motivates them and insures them

²²¹ Accessible from <http://www.csa.gov.et>

²²² See FAO Ethiopia country page: <http://www.fao.org/countryprofiles/index/en/?iso3=ETH>

²²³ See <http://www.countrystat.org/home.aspx?c=ETH>

²²⁴ See §3.7. Malawi is seeking to do just this, including trade and export data, which will generate automatic reports, publicly available, in the same way that Kenya and Zimbabwe currently do for health data and disease surveillance. See

²²⁵ The problems associated with using HEA to assess climate change impact have been well considered by Seaman et al, 2014.

against risk. ESAP has shown that the simple accountability tool of scorecards can improve timely provision of inputs. Ethiopia has been assisted by the research arms of a number of international partners and the innovative government Agricultural Transformation Agency has provided a strong lead in new partnerships and working with farmers to maximise its agricultural bio-diversity. New ways of planting, harvesting and storing crops have been introduced successfully, increasing yields. Inter-sectoral work with Education and Health, with school meals using local produce and promoting improved nutrition, shows potential if scaled up across all Woredas.

Chapter 7

7. Water, Sanitation and Hygiene (WaSH) in Basic Services



Nvivo WaSH Word Prevalence – Survey Data 2015

7.1. National WaSH Overview

Ethiopia has global recognition for its vanguard role in many areas of water supply such as gravity fed systems, sub-surface dams, groundwater exploration, large scale water catchment and storage, integrated water resources management and the use and adaptation of appropriate water collection and storage technologies. In this regard, Ethiopia managed to achieve its water supply MDG by increasing overall national access from a low 19% in 1990 to 50% in 2015²²⁶.

All sources confirm that water supply coverage in Ethiopia is on a strong upward trajectory. According to government data, water supply coverage has risen from 19 percent in 1990 (11 percent rural, 70 percent urban) to 66 percent in 2009 (62 percent rural, 89 percent urban). Based on official government data, Ethiopia has already met the MDG target of 60 percent. Estimates of current coverage from the international Joint Monitoring Programme (JMP) are significantly more cautious, due to a range of factors. Nevertheless, the JMP data still portray a remarkable increase in coverage of over 1 million people per year (1990–2008). For sanitation, performance is less promising, although figures from the Ethiopian Ministry of Health show an increase to 39 percent coverage by 2009 (30 percent rural, 88 percent urban) from a baseline of close to zero in 1990.

National targets for Ethiopia are embedded in the Universal Access Plan (UAP), an ambitious national plan launched by the Government of Ethiopia in 2005 with the objective of achieving full access to water supply and sanitation for all Ethiopians by 2012. Following the update of the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP-2) in 2010, these targets were adjusted slightly to 98.5 percent coverage, and the target date extended to 2015. These are still well above the MDG targets.

²²⁶ Progress on Drinking Water and Sanitation 2015 Update WHO/UNICEF, Joint Monitoring Report

Similarly, Ethiopia is also acknowledged in its current role of piloting and scaling up many cutting-edge approaches and technologies in the WaSH field, such as community-led total sanitation and hygiene (CLTSH), school water, sanitation and hygiene (S-WaSH), water safety mapping and planning, integrated water resources management, prudent sectoral and governance policies, etc. The national programmes/policies for collaboration create an environment in which local innovation can flourish in contributing to improved access. However, the field level 2015 BDS-CDR Survey Data collection process did not manage to aptly capture some of this remarkable work, particularly the use and or adaptation of sector innovations and good practice. This limitation has seriously undermined the ability to undertake a sound analysis of potential WaSH innovations in Ethiopia.

Box 13: Progress on WaSH

The Federal Ministry of Water and Energy Annual Report 2013, assesses the progress and success of the WaSH sector as follows:

- There is good evidence that improved WaSH is associated with significant time savings and that this is highly valued by service users;
- Most of the available evidence on the effect of WaSH on education and gender is based on anecdote, circumstantial evidence and small observational studies - statistically the evidence appears weak. Despite this, what little direct evidence exists confirms the view that the non-health benefits of WaSH interventions are substantial;
- It is plausible that inadequate WaSH inhibits school attendance, especially among girls, but a DFID-funded systematic review of the peer-reviewed literature found that there was no strong evidence either for or against this hypothesis. Current randomized trials in Kenya and India may shed more light on this important issue;
- There is good evidence that lack of access to water continues to impact women significantly through the burden of water collection. Household survey data collected from over 40 countries showed that women carry two-thirds of the burden for water collection;
- There is suggestive evidence that women in particular suffer a range of impacts associated with poor sanitation, including violence and insecurity, but more rigorous research is required to understand and quantify the associated risks;
- Whilst anecdotal evidence suggests that inadequate provision for menstrual hygiene management leads to reproductive tract infections and urinary tract infections, more work needs to be done to build the currently weak evidence base for this.

Social Assessment of the Water Supply, Sanitation and Hygiene Programme, OWN-Ethiopia, October 2013

Water and Energy Annual Report 2013

As Ethiopia moves beyond the MDGs, a key challenge is to redress the disproportionate gap between urban and rural access to safe water supply, which currently stands at 93% urban access in comparison to only 49% for rural access. Trends in sanitation over the past 25 years show that urban access and use has increased modestly from 20% in 1990 to 27% in 2015, whereas rural access and use has increased more significantly from 0 % in 1990 to 28% in 2015²²⁷. Perhaps there is a lesson to be learnt from the rural sanitation experience for potential adaptation and application in high-density urban areas. While recognizing Ethiopia's commendable achievements over the past 25 years, there still exist many challenges ahead for the WaSH sector. The One WaSH National Program (OWNP) is seeking to address these challenges.

²²⁷ All data taken from Progress on Drinking Water and Sanitation 2015 Update WHO/UNICEF, Joint Monitoring Report

The overriding issues of equity and inclusion, recognised by the GoE are that, for a number of disadvantaged and vulnerable groups and regions, there are differing levels of welfare and opportunities to participate in and benefit from extending and improving WaSH services. Spatial inequalities mean that functioning WaSH services are more likely to be located in urban areas and in the more developed regions. The emerging regions, which comprise 10% of the population, are significantly underserved by WaSH services in relation to the other regions. Specific groups who experience the greatest challenges in accessing WaSH services are: women in general, older people, people living with disabilities and HIV, communities in remote rural areas and in urban slums or informal settlements. The poorest and most disadvantaged households and individuals, especially women, in all regions are less likely to access functioning WaSH services of adequate quality, either within their communities or in education and health provision (Social Assessment of the Water Supply, Sanitation and Hygiene Programme, OOWNP-Ethiopia, October 2013).

7.2. Innovative Approaches in WaSH

Data Collection was particularly weak on WaSH innovations, but many other sector records made reference to WaSH and one described the use of an innovation and 8 others referred to a possible innovation even if only giving minimal or partial information (See §1.7.2).

7.2.1. One WaSH National Program (OOWNP)

The Ethiopian government believes there is challenge in water supply and sanitation in schools and health facilities, as well as at households²²⁸. The “One WaSH National Program” (OOWNP), including MoH, MoE, Ministry of Water, Irrigation and Energy (MoWIE), Ministry of Finance and Economic Development (MoFED) as well as development partners (DPs), was launched in September 2013 as a broad inter-sectoral program to ensure harmonization among stakeholders and improve the water supply and sanitation in schools and health facilities. The OOWNP is the Government of Ethiopia’s main instrument for achieving the goals set for water, sanitation and hygiene (WaSH) in the Growth and Transformation Plan (GTP). These four ministries and DPs have pledged, through a Memorandum of Understanding to support an integrated WaSH program that addresses the needs of Ethiopia.

Ethiopia launched the world’s largest Sector Wide Approach Programme (SWAP) in 2013 as a Plan termed ONE-WASH Program (OOWNP). It brought together four ministries - Water Resources, Health, Education, and Finance & Economic Development - in a bid to modernize and ensure that water and sanitation services are delivered to the people of Ethiopia; improving the health situation, decreasing the drop-out rates of children in schools, and making financing for Water Sanitation and Hygiene (WASH) more effective. OOWNP contributes to achieving the government’s social and economic priorities in an equitable and sustainable manner by increasing water supply and sanitation coverage and the adoption of good hygiene practices. It consolidates planning, budgeting and reporting activities of WASH in a broad sector wide approach. It is unique in approach because it is comprehensive, inclusive, cost effective, and progress oriented. OOWNP will have a significant contribution in meeting both the Ethiopia [Growth and Transformation Plan \(GTP\)](#) and [Millennium Development Goals \(MDG\)](#) targets. Achieving GTP targets for water supply and sanitation access will require a total investment of USD 2.41 billion, of which around USD 1.632 billion is available as per present estimate, with a funding gap of USD 0.778 billion, or 32% of the total funding requirement.

Speaking at the launch ceremony in Addis Ababa, the Minister of Water Resources noted the importance of the programme in harmonizing WaSH efforts around the country. “The [Ethiopian] year 2005 [2013/14] was a success in providing water supply to 10million of our population,” he said. “To meet our GTP targets, we need to construct more than 98,000 schemes and rehabilitate over 20,000. With ONE WASH, our management of water and

²²⁸ With appreciation to Dr Jemale Aliy for his input on these central initiatives.

sanitation will be better. The consolidated WASH account at the Ministry of Finance and Economic Development will start operation as of September [2014].” Dr. Peter Salama, UNICEF Representative to Ethiopia, noted on his part: “We believe that, to achieve universal access, however, the following 3 points are crucial. First, the WASH sector needs to intensify its attention to the Urban poor in Ethiopia. Second, the WASH sector needs to prioritize the issue of water and sanitation in schools and health centers. And third, the sector needs to retain a strong focus on equity - prioritizing poorest & most marginalized communities.” It will focus on individuals, communities, schools and health posts more holistically and reduce bureaucratic compartmentalization of services.

The seven ways in which OWNP is unique are:

- **United** - four Ministries
- **Inclusive** - of all aspects of WASH (urban/rural), infrastructure and technical assistance
- **Comprehensive** - nationwide in all regions of Ethiopia
- **Innovative** - first sector-wide in Ethiopia’s WASH Sector
- **Effective** - drawing DPs and GoE into one account pool for greater coverage of the WaSH programme
- **Progress-Oriented** - all relevant stakeholder in the sector-wide together to move sector programme
- **Supportive** - leading towards national results faster

Box 14: Urban Water & Sanitation Services

1. Planning Major Water Supply Investment: Addis Ababa City, All Kebeles

The Survey Data Collection provided information on the scale of the Addis Ababa water supply project – intended to increase water supply from its current 56% coverage to 100% coverage. However, it did not specify a timeframe nor budget estimate for this World Bank funded project. There was no indication of whether this is just another conventional large well-planned urban project or if it is a new innovation in planning or financing or other.

2. Expanding Off-site Sewage Disposal: Arada #1 Woreda, Addis Ababa

This was only superficially described in the record, but the innovation, if any, relates to shifting sewage treatment and disposal from multiple small on-site systems to one large off-site system. This is being funded by the World Bank and may simply be following rigorous standard planning protocol. Specialists need to assess whether this and a similarly large “Modified Off-site Sewage Disposal”, also being undertaken in the same Woreda, have innovative features that could be replicated.

Addis Ababa could learn from the experience of the award-winning Luanda Urban Poverty Programme and the work of Development Workshop in providing appropriate water and sanitation for the poor – See <http://www.dw.angonet.org/content/water-and-sanitation>

Survey Data 2015

International Innovation: The ‘Gulper’, developed by WaterAid, is a simple and easy to use, low-cost manually-operated pump for emptying wet pit latrines and septic tanks. It is particularly easy to use and is ideal for working in tight spaces typically encountered in high density urban slums. It is

Within OWNP, “innovations”, as seen by communities, are really best practice, such as Miyo Woreda where only 5% of town and 47% of rural residents are reported as having access to clean water and the Borana pastoralists migrate in search of water and pasture, but for whom

investment in water points and the training of water committees for maintenance are seen as innovations, enhanced by strong cross-sector government and NGO collaboration (Survey Data, Miyo, Oromia). Similar cross-sector collaboration is identified as progressive if not innovative in Dawe Kachan where they state that “*Woreda sanitation and hygiene activities are highly integrated in this Woreda. We actively work with health sector and education sector specifically ... Health extension workers, agriculture and education experts are all involved in the promotion of sanitation and hygiene in using water services*” (Survey Data, Dawwe Kachan, Oromia). Other Woredas in dry pastoral areas of Oromia reported similar struggles to find resources and agency partners, such as World Vision, WaterAid, SOS Sahel and UNICEF, and to work with communities in good practice in community water point management. In pastoral areas of Gambella, design of water points has included a cattle trough (Survey Data, Gambella). In Benishangul-Gumuz, large water wells are being constructed by the regional government in each Woreda, with some being linked to a pipeline, and hand-dug wells are being constructed at community level with use of chlorine for water treatment (Survey Data, Benishangul-Gumuz Region).

Box 15: Examples of WaSH Innovation in Sample Woredas

1. Community-Led Total Sanitation & Hygiene (CLTSH) – Afar Region, Awash Kebele:

The Awash CLTSH project is led by the Environmental Health Officer with support from health extension workers (HEWs) and is further supported by AMREF (an NGO). Clearly, CLTSH is being implemented in an holistic manner at Woreda level through following the national guidelines on CLTSH. The project not only changes behaviour with regards to stopping open defecation and stimulating families and communities to build and use toilets, it also promotes hygiene via hand washing with soap, menstrual hygiene in schools (via Radium (NGO) and personal and domestic hygiene via women’s and school hygiene clubs.

This CLTSH project also promotes simple drinking water treatment methods at community and household levels using simple sand filters and chemicals (chlorine based products). Likewise, the project promotes capacity building on water point maintenance and, encourages private partnerships such as that with a local sugar company, to provide community water supply.

This appears to be a good example of holistic CLTSH implementation and merits more in-depth evaluation to see if it offers new added value for replication in the wider national CLTSH programme.

Other examples recorded in the survey included promoting and recognising Open Defecation Free (ODF) status in Guba Woreda, Benishangul-Gumuz, and in Abobo Woreda, Gambella. While offering no information on new added value, both are examples of how universally applied CLTSH has become in Ethiopia. The partnership of government with UNICEF ensures that international innovation and best practice can be readily shared.

2. Local Bathroom Design: Amhara Region, Debrebirhan Woreda

The limited Data Collection information indicates that the head of the Woreda Health Bureau is piloting a simple and easy-to-build bathroom using locally available low-cost materials. It is claimed that this approach is so simple to build and cheap that families can easily afford it and build it themselves at one-tenth the cost of having a skilled builder to build it. Apparently this approach has been taken up in seven Kebeles. It is recommended that an experienced WaSH professional follow up on this record to assess its potential for promotion across the country.

Other examples may simply be good practice, but could be checked for any added value. Burea-Mudaitu Woreda in Afar, records a multi-village water supply, which could be reviewed by a competent WASH person to further determine its actual potential to efficiently delivery multi-communities with safe and reliable water supply in challenging hydro-geological environments and to ensure that this can be done in a locally sustainable manner. Amhara Region reported as innovative, the use of community participation in water-point selection, which would be normal good practice.

Survey Data 2015

The emphasis on community participation and self-help water supplies is reported in SNNP and in Mlzan Aman town the community was involved in deciding on the design of its public water supply with local artisans employed in maintenance and progressive pricing for poor households, supported by capacity building from WaterAid-Ethiopia and use of mobile phones to report water point functionality. In Afar, traditional sand filtration of drinking water from river beds has been enhanced by providing communities with chemical purification and use of multi-village drinking water schemes, with traditional leaders involved in awareness raising on safe drinking water and sanitation.

Box 16: Waste Recycling

1. Recycled Plastic Water Bottles: Kemisie, Banja and Kallu Woredas, Amhara

Recycling plastic water bottles is widespread and some uses are innovative. In Kemisie Woreda an innovator has turned these into floral decorations and elsewhere they are used in agriculture and forestry for protecting and watering seedlings. However, this needs to be further evaluation by an agricultural / forestry specialist, including an assessment of the environmental impact of using fragile plastic that could leech contaminants into the soil or edible produce.

Survey Data 2015

GoE has taken several initiatives and achieved significant results from OWNPs:

- The Community Led Total Sanitation and Hygiene (CLTSH) Procedure Manual and the CLTSH Training Manuals were prepared and distributed to Regions and Woredas. Besides, marketing guideline was developed and indorsed to increase latrine coverage.
- To address the continuing urban sanitation and hygiene problem, the Integrated Urban Sanitation and Hygiene (IUSH) Strategy Framework was developed and endorsed by Sector Ministries' State Ministers and DPs.
- A total of 101 environmental health and public health laboratory technicians were trained on portable physico-chemical and micro-biological test kit operation and utilization.
- Moreover, the Water Quality Inspection and Surveillance Draft Strategic Document is prepared and water treating chemicals are brought for pastoralist regions.
- The FMOH report shows the cumulative number of households with latrines was 15,645,216 at the end of EFY 2005, with coverage of 86.1%, only just short of the ambitious 92% target set for the year. A total of 3,655 Kebeles were declared as to Open Defecation Free (ODF) in EFY 2006²²⁹. These have led to a reduction in diarrhoea prevalence for children under 5 years old from 23.6% in 2000 to 13% in 2011²³⁰.

7.2.2. Community-based Water Resource Management (CBWRM)

Community-based Water Resource Management (CBWRM)/Integrated Local Watershed Management (ILWM) is one of the three components of the Integrated Water Resources Management (IWRM)²³¹. The others are Integrated Urban Water Management (IUWM) and the National Water Resources Management (NWRM). These water resource management mechanisms have contributed significantly towards the integration of WaSH and Water Resource Management (WRM). CBWRM applies in environments where institutional capacity

²²⁹ MoH; HSDP IV Annual Performance Report EFY 2006 (2013/14)

²³⁰ Central Statistical Agency [Ethiopia]. 2011. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia.

²³¹ The Global Water Partnership's definition of IWRM is widely accepted. It states: "IWRM is a process which promotes the co-ordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (Chapter 18 of Agenda 21 called for "the application of integrated approaches to the development, management and use of water resources)." IWRM is emerging as an accepted alternative to the sector-by-sector, top-down management style that has dominated in the past.

to manage water resources is weak. It builds upon the principles and procedures of water mapping²³² and water safety planning, drawing together reliable access, quantity, quality and risk factors.

Box 17: Community Managed Water²³³

Community Managed Projects (CMP) and Monitoring

Aims

The Community Managed Project (CMP) approach to rural water supply in Ethiopia includes important innovations in financing, putting communities at the centre of development and enabling government to support faster delivery of new services to more people. The approach is currently supported through Community-Led Accelerated WASH (COWASH) project that runs in 2011-2016.

Methods

Communities in the pilot 71 Woredas are placed at the centre of management of their on water supply. The communities, through water and sanitation committees (WASHCOs), are responsible for the full development process through planning, financial management, implementation and maintenance.

Outcomes

The CMP approach has resulted in an up to five-fold increase in the construction rate of new water schemes in the Amhara region: from an average of 200 water points per year (1994-2003) increasing steadily, from 2003, to over 1000 water points per year in 2008/9. Monitoring and evaluation data from the project show that at the same time the implementation costs per water point have been cut in half. Moreover, functionality rates for CMP schemes (94%) for Amhara are above average (estimated at 75%).

Innovation

The unique and innovative feature of the CMP approach is that funds for the physical construction of water schemes are transferred directly to the community through a micro finance institution (MFI). The WASHCO manages not only community contributions of a minimum of 15% in cash or in kind, but also the government subsidy provided for capital expenditures. WASHCOs can receive training support from a GLoWS TVETC course^{GLoWS}.

<http://www.cmpethiopia.org> See page 165

Water Mapping Monitoring: Water mapping offers readily available, timely data for water –point investment and management. The water mapping tool developed by WaterAid has evolved to reflect differences in complex and changing national water sectors. Several software packages are available; such as [Water Point Mapper](#) and Akvo [FLOW](#) developed specifically for mapping water points. Other packages, such as [PoiMapper](#) and [ODK](#), are designed for conducting surveys of any type of location (e.g., health clinics, schools), and can therefore be used for water points. Packages such as [EpiSurveyor](#) are designed for any type of field survey, regardless of whether the units being surveyed are [persons](#), places (such as water points), or things.

CBRWM acknowledges traditional approaches to water management where they exist, considers multiple water use priorities and promotes good water resource development, as well as matching technologies to the local physical environments, demand needs (quantity, quality, gender and cultural) and affordability and sustainability. This is the level at which there are reports from the Survey Data of good practice, if not innovation. Water resource mapping is being conducted by OWNP nationally, by IRCS in Tigray Region and by Finn-WaSH in 5 major regions. In addition, WaterAid has been piloting water mapping in 10 Woredas, starting in 2010, and its Technical Support Unit provided training for WaterAid-Ethiopia, who in turn

²³² MacDonald, A., O'Dochartaigh, B., and Welle, K. Mapping for Water Supply and Sanitation (WSS) in Ethiopia, RiPPLE, Jan 2009. See <http://nora.nerc.ac.uk/7974/1/MappingwatersupplyEthiopia.pdf>

²³³ in support of this a four-month Global Water for Sustainability Program (GLOWS) course^{GLoWS} is offered with TVETC accreditation and Bureau of Water Resources approval in collaboration with Zonal Water and Health Bureaus and Woreda Offices, which is aimed at locally solving water problems by strengthening practitioners' practical problem-solving skills^{NUWI}.

trained local government officials in the use of GPS devices and a Water Point Mapper at an average cost of about ETB 110,000 or USD 6,000 per Woreda²³⁴.

In DireDawa, waste water is now being used to irrigate crops through key-hole household gardens, introduced by the Hararghe Catholic Secretariat (HCS) organisation, with positive impact on nutrition (Data Survey, DireDawa). Drainage of water-logged land in Amhara (in Gozamin and in Debre Bihan) was considered by officials as innovative in increasing production through two seasons of cropping. Effective participatory watershed management combined with planting of fodder grasses enabling animal husbandry to be combined with agriculture has transformed a formerly eroded low-vegetation area of Ferta Woreda in Amhara. Similarly, reforestation and erosion prevention has been introduced to the margins of Lake Awassa (Survey Data, Dore Bafana, SNNPR).

Although there are no definitive studies to show the full benefits of IWRM, global experience from several governments, UNEP, UNDP, GWP and many others indicates that there is good evidence that IWRM, when systematically and holistically undertaken, improves overall sector management²³⁵. A good example of the shift towards an holistic IWRM approach at all levels is the Ethiopia WaSH Implementation Framework. Within the broad definition and framework of IWRM, key approaches and tools (See Annex 1 §12.5) are adapted and utilized to fit local conditions, including examples on Water Mapping²³⁶ and below, in Box 17, on Community Managed Projects. The WaSH sector has been caught between ministries and marginalised within both, yet it is critical in delivering sustainable health, nutrition, education and gender equity improvements. It is clear that the old model of “business as usual” using top-down approaches, subsidized technology driven sanitation, ad hoc hygiene promotion and stand-alone or ad hoc coordinated sectoral approach is insufficient.

Countries such as Tanzania, Kenya, Laos, India, Indonesia and Ethiopia are making changes in policies, institutional roles, financing approaches, programmatic approaches, and strengthening the implementation capacity of local governments. A good example of shifting towards a more coordinated inter-sectoral approach to sanitation and hygiene through the Ethiopia WaSH Implementation Framework has been described above, which includes many current and newly emerging innovations in sanitation and hygiene promotion pertaining to policies, approaches, technology, funding mechanisms, poverty alleviation targeting, etc. There is a potential lack of focus on WaSH within PBS and improvements at the community level are heavily dependent on partnerships and NGO facilitation and resources.

There is a need to promote and scale up relevant WaSH innovations (such as water point mapping, water safety planning, managing for results, etc.) within the overall framework of IWRM in order to strengthen community-based water resource management appropriate for local social and environmental conditions and ensure proven Innovations permeate and inform the National WaSH Policy. Effective water resource management must involve a wide range of partnerships to be sustainable.

7.2.3. Integrated WaSH with Education Programmes (WaSH-in-Schools)

As has been outlined in §5.3.3.2, under the Child Friendly School initiative, integrating water supply, sanitation and hygiene services in schools improves the learning environment for schoolchildren and contributes to attracting and retaining girls in school. Infections with soil

²³⁴ See http://www.wateraid.org/~media/Publications/WASH_Matters_October_2012.pdf

²³⁵ A 2012 UNEP publication ‘The UN-Water Status Report on the Application of Integrated Approaches to Water Resources Management’ shows that 82% of countries are implementing changes to their water laws in what has been a far-reaching outcome of Agenda 21 proposing integrated approaches for the development, management, and use of water resources. See http://www.un.org/waterforlifedecade/pdf/un_water_status_report_2012.pdf; http://www.un.org/waterforlifedecade/pdf/05_2010_reader_iwrm_eng.pdf; <http://www.gwp.org/The-Challenge/What-is-IWRM/>; <http://www.un.org/waterforlifedecade/iwrm.shtml>

²³⁶ See http://www.wateraid.org/~media/Publications/WASH_Matters_October_2012.pdf

transmitted helminthes (STH) (hookworm, roundworm, whipworm) directly reduce cognitive potential and indirectly undermines schooling through absenteeism, attention deficits and early dropout. The STH are one of the world's most important causes of physical and intellectual growth retardation (Lancet 2006). It is estimated that 47% of children in the developing world between the ages 5-9 are infected by STH. Children enduring intense infections with whipworm miss twice as many school days as their infection-free peers (WHO 2005). The programme for integrating WaSH in the education sector is supported through the WaSH-in-Schools Global Partnership²³⁷, comprising over 25 partner organizations dedicated to increasing investments and raising a higher profile for WASH-in-Schools in almost 60 countries around the world.

It is important that the Ministry of Education takes on board the necessity to make safe drinking water and improved hygiene a central part of child friendly schools. In particular, as a major contribution to girl friendly schooling, all schools should be provided with separate boys' and girls' toilet facilities located in different parts of the school compound, include girls' urinals as per Malawian girls' design, and girls provided with a rest room and sanitary pads as found in Abiy Adi, Tigray, and in schools in SNNP and in Simanda, Amhara.

In summary ...

From a low baseline 25 years ago, Ethiopia has achieved significant success in rural water supply coverage and in many Kebeles being declared defecation-free as a result of the Community-Led Total Sanitation & Hygiene initiative. There has been strong collaboration under a common policy framework involving the 2013 launch of the One WaSH National Program (OWNP), bringing together MoH, MoE, MoWIE and MoFED as well as development partners, and covering all aspects of WaSH, urban and rural and all regions. It has also sought to address urban water and sanitation problems and could learn from the achievements of Development Workshop working with the poor in Luanda. Ethiopia provides strong coordination through its Community-based Water Resource Management, building on water mapping and water safety planning. Water and sanitation committees (WASHCOs) are responsible for planning, financial management, implementation and maintenance and manage the community contributions and the government subsidy provided for capital expenditures. "Drop of Water" has developed innovative partnerships, including universities, in provision of water (Box 1). WaSH has developed positive partnerships with schools as part of the Child-Friendly School initiative, where there are innovations in providing sanitary services for girls. With strong national programme coordination, WaSH has created an environment in which local innovation can flourish to meet its objectives.

²³⁷ See: <http://www.washinschools.info/> and <http://www.washinschoolsmapping.com/index.html>

Box 18: Strengthening Take-Up of Innovations – national and international

Strengthening Take-Up of Innovations – national and international

Take-up of innovations in WaSH could be strengthened by:

- **Database & Dissemination Mechanism:** establish a mechanism in Ethiopia to routinely capture, evaluate, disseminate and promote applicable national level innovations in the WaSH sector via periodic progress reporting, including via i-phones, annual reviews, M&E, etc. This could also be extended to identification of innovations in the region as well as globally.
- **Public Private Partnerships for Innovation:** could be established through partnership arrangements with the media, industry, entrepreneurs, development partners, local banks, government and CBOs in the WaSH sector to facilitate and promote the development, testing and scaling up of innovations that fit the various Ethiopian contexts in which they would be adopted.
- **Innovation Incentives:** this could be established at all levels of government, as well as in civil society to give, for example, national awards or recognition to those who excel in developing or facilitating/promoting or adapting of innovations (e.g. the “Drop of Water” case example).

Other relevant international examples that could be adopted in Ethiopia:

Social Marketing for Sanitation: the application of the best social and commercial marketing practices to change behaviour and to scale up the demand for and supply of improved sanitation, particularly among the poor, including “willingness to pay” assessments e.g. for safe water or for toilets. One of the most cited sanitation marketing endeavors in developing countries is the pilot project that was undertaken in two provinces of Vietnam with the technical assistance of INGOs, NGOs and International Development Enterprises (IDEs) from 2003-2006. The project enlisted community health workers, the Vietnam Women’s Union (a grass-roots organization with some 13 million members) and village heads to promote sanitation among households. It also trained masons and small businesses on how to build and sell improved technology options. Over 15,000 households, of the 54,000 targeted, built safe toilets during the three-year period. Sanitation marketing has been applied in other provinces of Vietnam and other countries in Africa, Asia and South America. In Ghana, social marketing initiatives have proven to be successful in establishing the behavioural change that has been so difficult to achieve with conventional hygiene education programmes. The results of a campaign that involved a marketing approach to stimulate HWWS reported that hand washing rates from baseline to follow-up increased by 13% after using the toilet and by 41% before eating (Curtis et al 2007).

Hand Washing with Soap (HWWS) after contact with faecal material – from using the toilet or cleaning a child – prevents the transmission of the bacteria, viruses and protozoa that cause diarrhoeal diseases. Scientific research shows that hand-washing with soap prevents disease in a more straightforward and cost-effective way than any single vaccine. Promoting this through marketing approaches may prove more effective than government-led campaigns.

Point-of-Use / Household Water Treatment offer protection in situations where there is no safe drinking water supply during outbreaks of diarrhoeal diseases such as dysentery or cholera. Treatment includes: filtration via simple sand/gravel filters or ceramic filters; and disinfection using UV solar, or chlorine (tablets, liquid, and powder) to kill harmful viruses and bacteria. However, disinfection does not kill off all protozoa and helminthes. A study conducted in Uganda showed that the use of a simple, home-based safe water system consisting of a chlorine solution to disinfect water and storage in a container with a narrow mouth, lid, and a spigot reduced the frequency and severity of diarrhoea by over 30% in people living with HIV/AIDS (Lule et al. 2005).

Chapter 8

8. Rural Roads

8.1. Background to Rural Roads as a Basic Service

The information received from KIIs and FGDs across the 96 Woredas generated very little on rural roads to allow any meaningful analysis and conclusion on innovations. However, from the discussions with ERA, this lack of evidence from the field, including all the key informant interviews with BoFED heads, does not necessarily give the right picture of the rural roads infrastructure reality in Ethiopia as most of the innovations in rural roads can be seen at national (program) level, rather than Woreda (project) level. PBS has been contributing mostly in the form of partial coverage of recurrent budget for staff in Woreda road offices. In addition, PBS is financing the M&E system strengthening for the road sector that will cost more than 4 million USD. Thus, the fact that PBS is not financing any actual construction projects will not undermine its contribution to the sector. The rural road sector is effectively integrated in PBS and accordingly the monitoring is being undertaken as it is in the other sectors.

The indicator used for PBS reporting is the average time taken to reach an all-weather road, but data has not been disaggregated even to regional level, because when initially the indicator was put, disaggregation was not a requirement. The BDS-CDR Data Collectors reported that there was a problem on the institutional structure of some sectors like WaSH and Rural Road office, which in some Woredas do not exist (either phased out or not included in the administrative structure) and in other Woredas they are merged. For instance Rural Road office is merged with agriculture sector, as a result, 64 interviews were merged. Therefore, the little information on rural roads acquired from only three regions and nineteen Woredas of the full sample of all regions and 96 Woredas is summarized in Annex 1 (§12.6) to this report²³⁸.

8.2. Key Innovations in Rural Roads

Efficient rural transport²³⁹ is necessary for enabling mobility and accessibility of rural communities to basic social and economic services and opportunities (including agricultural development and market logistics, employment, health and education services). Poor, or lack of, rural transport and access would curtail rural development, thus contributing to increased poverty through social and economic isolation of the affected areas. Examples provided in Annex 1 §12.6 include one Woreda where community labour cut through a mountainous route to reduce access from 250 km to 56 km and integrating forest management and road-side watershed development.

8.2.1. Ethiopian Rural Travel and Transport Program (ERTTP)

Ethiopia has a classified road network of more than 100,000 km. Since the 1990s, the Ethiopian Government has been in the forefront of development of policies and strategies for implementation of rural transport programmes to provide vital mobility and accessibility for its rural communities. The pioneering ERTTP was launched as an innovative pilot programme under the Ethiopian Roads Authority (ERA) in 2003 and worked in eight Woredas to develop appropriate roads and other infrastructure, expand affordable transportation (including IMTs) and construct essential public facilities using mainly local resources. The ERTTP was an

²³⁸ In view of the above shortcoming, the rural roads section of the report takes a different approach from other sectors of the study. Evidence on rural roads has been taken from documented innovations, drawing on ERA and URRAP material and supported by interviews conducted with ERA, Roads Fund and World Bank during the Ethiopia mission in October 2014.

²³⁹ A Rural Transport system includes *infrastructure* (roads, trails/tracks, footpaths, waterways, drainage structures) *transport means* (motorized and non-motorized) and *services* (formal and informal).

important sub-programme of the earlier phases of Roads Sector Development Program (RSDP). The programme explored methods, technologies and approaches for new road construction and improvement at community and village level, in the context of poverty alleviation and improving accessibility for the rural poor. The experience of ERTTP provided important information, data, planning tools and implementation manuals for application at a Woreda level, including the Woreda Integrated Planning Manual. This enables Woreda plans to provide the appropriate information in an integrated framework to guide the prioritization of infrastructure interventions and maintenance, financing and institutional arrangements, monitoring, evaluation and reporting arrangements. The ERTTP approach demonstrated the means by which not just access, but a sustainable and reliable access, can be made universally available to all. The main message from ERTTP was that “Potentially dramatic improvements to local areas in Ethiopia can be brought about by improving rural access and mobility”²⁴⁰.

8.2.2. Universal Rural Roads Access Program (URRAP)

Based on lessons from experience of ERTTP, the Government of Ethiopia is implementing a nationwide URRAP (funded by Government) as part of RSDP Phase IV: 2011- 2015 to harmonize all rural roads infrastructure development under a single umbrella. URRAP is a flagship innovative programme that sets out to connect all Kebeles by all-weather roads that are affordable and maintainable to provide all-year-round access to meet the needs of communities. ERA provides overall national leadership and coordination of the program, whereas Woreda road offices are institutionally responsible for the management of URRAP roads, with close supervision and support from regional road authorities. Many Woreda road offices are administering contracts of road projects under URRAP, which can be considered as an innovative aspect of the program i.e. building the capacity at lower levels by letting them take responsibility for new roles.

URRAP promotes application of innovation, knowledge and learning. Key elements of URRAP are to establish sustainable road access at an appropriate standard and affordable cost, the inclusion of labour-based approaches, community contributions (labour and cash), increased participation by the private sector, and the preservation of assets through streamlining of sustainable maintenance and management systems, such as implementation of length-man approaches. An example of innovative community fund raising initiative in Oromiya Region is provided in Box 19 below.

The URRAP programme uses a Low Volume Roads manual to guide the design and construction of roads. The five year targets of URRAP are: construction/rehabilitation of 71,523 km of all-weather access roads to maintainable condition; developing and strengthening small and medium scale private enterprises; creating massive employment opportunities; and instituting and strengthening implementation capacity at Woreda level. Achievements by 2014 were quite impressive as follows: 271 consultants and 945 small scale contractors trained/active in the programme; over 4,400 technicians and middle level professionals trained in ERA training centres on material quality, labour based construction, surveying, equipment operation, etc.; capacity has been built in over 500 Woreda Road Offices; and over 300,000 permanent and temporary job opportunities have been created every year. In terms of technology transfer, over 8,000 small and medium capacity equipment (tractors, trailers, towed rollers, towed graders, water tankers, fuel tankers, and pick-ups) have been manufactured or assembled locally.

²⁴⁰ External Assessment of ERTTP (2008) /URRAP Project Document – undated

Box 19: Community Fund Raising Initiative for Low Volume Rural Roads Construction

Fund Raising Initiative by the Community to Support Low Volume Rural Roads Construction

Innovation: The Gollo Odda Woreda in Oromiya Region has used an interesting approach to community fund-raising through a livestock enterprise (fattening and re-sale) in order to increase the value of community donations to support low volume rural roads construction. Road Construction commenced in 2004 and the actual fund raising as contribution of the Community started in 2007 EC.

In the Low Volume Rural Road construction, rural communities are supposed to cover 50 % of the cost. This 50% is divided into two parts, of which half is covered through labor contribution and the other half is made through cash contributions. Cash shortage is prevalent in most Kebeles where rural roads construction takes place. In order to address the problem in a meaningful way, farmers were mobilized to contribute funds according to households' capacity ranging from Birr 100 to 1000. However, on one annual meeting held between the Wereda Council and members of Kebele Administration it was decided to generate more cash than merely household contributions. The meeting agreed on a livestock enterprise, i.e. to buy bulls for fattening at a fair price from the local individuals (each at an average of Birr 8000 to 10,000). Cash was collected whereby all Kebele leaders managed to buy at least 3 to 5 bulls within their respective Kebele. During the survey, Kebele officials revealed that 80 bulls and 10 camels were purchased for fattening. The Wereda Road Committee will resell them to merchants coming from Addis Ababa, Dire Dawa and Harar towns, as well as to exporters of live animals coming from Djibouti. Accordingly, each fattened bull is estimated to be sold at a minimum Birr 17,000 to 18,000, while each fattened camel is to be sold at Birr 25,000 to 30,000. This enterprise is expected to raise about Birr 2.1 million in comparison to the traditional household cash contribution of about Birr 1.1 million. It is expected to cover all costs required by local communities for improvement of rural roads. As a result of this initiative up until 2006 EC about 6 roads of approximately 181 km length were constructed and about 12 Kebeles were connected by all-weather access. The 2007 EC Rural Road Construction Woreda Plan expects to connect about 8 to 10 Kebeles.

Responsiveness to community needs: The innovation is directly responsive to the community needs given that the road infrastructure is to serve the whole community. It has contributed to wellbeing of all people through improved access to health and education services, market, income and skills. Women's needs are particularly addressed due to easy access to health services through the use of ambulances, which has increased the number of mothers delivering in health clinics thus reducing maternal deaths. Further, farmers have easier access to transport to bring in agricultural inputs and to sell agricultural produce.

The innovation is linked to other sectors, such as health, education, agriculture and pastoral development initiatives. It contributes to inclusive job creation, gender equality, empowerment and decision making, especially for women and youth. As such the fund raising strategy for rural roads helps deliver PBS objectives directly and indirectly as stated below:

- Efficient way of bringing more funds to the program, with the bulk of funding from the local rural people
- Technical inputs are provided from the existing Wereda experts
- The innovation contributes to improving physical access thus enabling other PBS service providers to render their services in a more efficient way with increased coverage area.

Replicability and sustainability: The fund raising strategy is replicable in other Weredas, e.g. Gursum and all peripheral Weredas of the Zone. For wider adoption it will demand increased human resources and devotion of experts assigned to Weredas and a conducive administrative environment. It is a local level strategy designed and owned by the communities to increase resources for rural roads improvement.

Survey Data 2015: Case Study of Gollo Odda Wereda, East Hararghe Zone, Oromiya Region

The strategies underpinning the URRAP are firmly embedded into the wider rural development agenda, as well as in the Growth and Transformation Program (GTP, 2010 - 2015). One of the essential pillars of GTP is to enhance expansion and quality of infrastructure development, which aims to reduce the average time taken to the nearest all-weather road (hours) from 3.7 (2009/10) to 1.7 (2014/15); and to reduce the proportion of area, which is further than 5 km from all-weather roads from 64% to 29%. In terms of achievements, the Rural Accessibility Index, RAI²⁴¹ increased from 25% in 2010/11 to 43% in 2012/13; Areas farther than 5 km from all-weather roads reduced from 64% to 46%, whereas areas farther than 2km from all-weather roads reduced from 84% to 73%. Average distance to an all-weather road reduced from 11.3 km (3.8 hrs) to 6.4 km (2.1 hrs). According to the PBS JRIS Aide Memoire PBSIII April 2015, the average travel time taken to reach all-weather roads on foot was reported to be 1.8 hours against a target of 1.6 hours, but this is not disaggregated even to regional level. The current project finance through PBS, in order to capture all the road data by a web-based and GIS enabled system, facilitates easily and correctly measured indexes such as these and also makes disaggregation possible.

As an umbrella programme to URRAP, PBSIII includes a roads sub-sector component of support aimed to contribute to the building of management capacity at Woreda level. Overall the target for PBSIII is a two thirds reduction in the average time needed to reach an all weather road (from 3.5 hours to 1.5 hours) by 2017. It was intended in PBSII to establish 500 Woreda road desks backed with appropriate resources. According to the PBS III PAD (WB 2012c), *the PBS programme has supported the establishment of 500 Woreda roads desks that provide a platform for improved rural transport services. However, it remains unclear whether rural roads desk staff are sufficiently well-trained and resourced to facilitate the efficient and effective use of MDG Fund resources to achieve rural transport results.* Such local institutions need to be continuously strengthened to be able to take fully the responsibility of managing the rural roads in their jurisdictions effectively. In principle, they should take, at minimum, the basic road construction and maintenance training provided by ERA training centers. Notably, ERA provides training for staff at regional and Woreda level almost without any limitation and does not receive any kind of payment for such training, since this is within their mandate to provide capacity building in the roads sector. Essentially, with the commencement of URRAP, most staff at regional and Woreda level have received the basic trainings. In addition, short term training is provided both on the job and off the job, depending on specific needs, and thousands have benefited from such opportunities.

8.2.3. ERA Design Manual for Low Volume Roads (LVR)

Road standards are normally based on traffic volumes, vehicle axle loads, terrain and road function. Ethiopia has been innovative in its approach to extending low-volume access roads²⁴². In Ethiopia, the 2011 ERA Design Manual specifies nine geometric standards covering high traffic volumes (300 to over 10,000 AADT) and lower traffic volumes, i.e. from DC4 (150-300 AADT) to DC1 (below 25 AADT), including also a standard for a 'track'. This allows for appropriate design in line with the intended use/function of a road, available capacities and resources. The ERA Design Manual for LVR is the main document used by URRAP to guide design and all other criteria for rural roads construction/rehabilitation in Ethiopia. The two types of design mostly used under URRAP are DC1, with 4m width of road, and DC2, with 6m width. These are roads carrying an average of less than 75 vehicles per

²⁴¹ In 2005, the Africa Transport Ministers conference endorsed the Rural Access Index (RAI) as an acceptable indicator for monitoring rural roads development as a key contributor to the achievement of MDGs.

²⁴² The Director General of the ERA in the Foreword of Part A notes: *Many innovative practices and unconventional techniques, often developed and proved through years of research, have not found the degree of application and implementation that they should. Opportunities are missed that would provide better and lower cost engineering solutions and more sustainable low volume roads.* <http://www.icafrica.org/knowledge-publications/article/design-manual-for-low-volume-roads-parts-a-g-116/>

day. The LVR approach focuses on extensive use of locally available construction materials meeting the specification requirements, and local capacities (labour resources including small local enterprises and community implementation) in the construction of low volume roads and structures. This Manual focuses particularly on materials such as brick, stone masonry and timber, which usually allow lower cost durable solutions for structure requirements, while also increasing the chances for timely, affordable and sustainable maintenance after improvements phase.

Box 20: ERA Low Volume Roads (LVR) Manual²⁴³

The LVR Manual provides an innovative approach to generating appropriate designs, and arrangements for capacity building, implementation and maintenance of LVR based on local resources (labour, materials, financing), to enable communities to increase their access to all-weather roads and basic services. It is applicable to all roads carrying less than 300 vehicles per day, those that are under URRAP and others, including the community roads that provide the longest road network in Ethiopia. An estimate of the total length of LVR in Ethiopia is 100,000 kms out of which URRAP covers 72,000 kms.

The LVR Manual is comprised of Parts A to F. Parts A, B, C, D and E relates to road upgrading works, Part F relates to Standard Trail Bridges, and Part G relates to maintenance works. The design criteria in the LVR Manual is not definitive as overall site conditions will vary between locations. It provides a guide to designers and adapted according to specific conditions where design is needed.

Outcome: According to AFCAP/ETH/111 Review the LVR Manual has contributed to capacity building and knowledge transfer on low volume road design. This has been by involvement of all key local stakeholders (Roads Authorities, Road Fund, contracting and consulting industries, universities, training schools, and other industry stakeholders) in the preparation of the Manual; their use in the training of individuals involved with designing and implementing the URRAP; and in training of trainers for URRAP. It is estimated that over 3,600 professionals have been given training on labour-based technology and low volume road design using the LVR Manual. The number of consultants and contractors trained and active up to June 2013 was 271 and 944 respectively. The Manual is also being used by local consultants and in some universities and other training centres as a source of best practice on the design and construction of low volume roads. Overall the LVR Manual is a major achievement for Ethiopia in establishing uniform standards for LVR based on sound technical principles.

There is need for a medium to long-term analytical framework for rural transport innovations and outcomes (as a key contributor to the achievement of MDGs and Sustainable Development Goals) in Ethiopia. Since rural transport and rural roads serve as a 'means to an end' (essential element for development of/in other sectors) it is important to enhance multi-sectoral linkages and clarity on shared policy objectives with other complementary sectors like agriculture, health and education in order to optimize the benefits and positive impacts of all sectors (jointly and individually). This should start at policy level in that new rural transport policies and strategies complement and have links to other sectoral policies and strategies. It is particularly important that effective provision of rural transport infrastructure and services requires working closely with those in agriculture and other sectors to attain intended outcomes in related sectors²⁴⁴.

²⁴³ The LVR Manual is freely available to download from the ERA website: www.era.gov.et

²⁴⁴ Banjo, G., H. Gordon and J. Riverson. SSATP Working Paper No. 93 *Rural Transport: Improving its Contribution to Rural Growth and Poverty Reduction in sub-Saharan Africa*, published in 2013, and available at www.ssatp.org. A key feature of the approach explained in this paper is that rural transport should be firmly positioned in a rural development framework, and that rural access infrastructure is prioritized and judged based on its contribution to local agricultural growth. This requires that rural transport policy and strategy is closely linked to agricultural policy and strategy.

In summary ...

The Ethiopian Roads Authority (ERA) has been the source of innovation at the national level, particularly with the Ethiopian Rural Travel and Transport Program (ERTTP), initially piloted in 8 Woredas, to develop appropriate roads using mainly local resources. This led to the nationwide Universal Rural Roads Access Programme (URRAP). This has been backed by the ERA Design Manual for Low Volume Roads, suggesting innovative solutions to appropriate rural road construction and maintenance. URRAP has also built the capacity of many Woreda road offices to administer contracts under URRAP. URRAP promotes application of innovation, knowledge and learning and promotes labour-based approaches and community contributions, developing small and medium scale private enterprises, with impressive results.

Chapter 9

9. Overarching Cross-Cutting issues

9.1. Complementarities Between Sectors

The outstanding principles of decentralized governance of basic service delivery have not consistently been matched by the sectors. The GoE decentralized governance system grants power, authority and resources to the Regions, Woredas and Kebeles in order to deliver basic services. Decentralisation has involved use of the federal block grant, which provides resources to the regional and local (*Woreda*) governments on the basis of a formula-based allocation system that enables them to undertake the activities for which they have been given responsibility, including the delivery of basic social services. Donor support has reinforced the GoE system of decentralisation and been based on the related “SAFE” principles of Sustainability in additionality, Accountability and fairness, Fiduciary standards, and Effectiveness. These have enabled donors to ensure that funds passed through MoFED are used for basic services while applying aid effectiveness principles in using country systems²⁴⁵.

However, sector resources have tended to remain in sector silos, not under BoFED PBS control and potentially undermining potential for local inter-sectoral responses to community priorities and context. Innovations are less likely to be promoted, as this would require front-line service delivery agents to collaborate, which is especially the case for nutrition, involving agriculture, health and education, or in WaSH regarding water purity, hygiene or sanitation and in public health, such as de-worming or addressing harmful practices.

Ethiopia, through its National Nutrition Committee, has recognised the importance of agricultural practice on nutrition and has joined the global Scaling Up Nutrition (SUN) initiative that brings together a range of partners, including private sector and researchers, in a collaborative approach. It is also part of the New Alliance for Food Security and Nutrition. The PSNP safety net programme is being re-designed to have a greater focus on nutrition²⁴⁶. The PSNP programme has led to improved nutrition, which is essential for later educational outcomes²⁴⁷. The Micronutrient Initiative^{MI} has emphasised how nutrition education informs the public about the need to consume supplements or food rich in particular micronutrients and how livelihood promotion programmes can assist households in production activities that enrich their diet with micronutrients.

The effects of investing in mono-cropping, such as maize, in other parts of Africa, can be that nutritional status falls, even as incomes rise, as well as requiring non-organic fertiliser in order to reduce impact on soil fertility. Ethiopia is at the heart of crop genetic diversity, which can be used for enhanced nutrition, supported by the Ethiopian Institute of Biodiversity’s seed bank, with its innovative participatory plant-breeding collaboration with small-holder farmers and rural communities, including women, drawing on their indigenous knowledge. In Ethiopia over 90% of the food crops grown and sold are Farmers’ Varieties²⁴⁸. Crops such as *enset* (the so-called “false banana”) and amaranth are critically important for many Ethiopians. Fermented *enset* helps address iron deficiencies and anaemia, helping pregnant women avoid premature delivery and low birth weight, and at the same time decreasing soil erosion and acting as a

²⁴⁵ For example, see §107 of the DFID Business Case for PBSIII, which is available on the DFID website.

²⁴⁶ Rates of stunting and underweight have decreased over the past decade but remain high with 44 percent of children under five stunted and 29 percent underweight. Lack of dietary diversity and micronutrient-dense food consumption, and problematic child feeding practices contribute to the high rates of child under-nutrition. Only half of infants are exclusively breastfed and introduced complementary foods at the appropriate time, and only 4 percent of young children are receiving a minimal acceptable diet. One quarter of women of reproductive age are undernourished, leaving their children predisposed to low birth weight, short stature, lower resistance to infections, and higher risk of disease and death (See DHS, 2011).

²⁴⁷ See, for example, Yablonski, J. and O’Donnell, M., 2009, *Lasting benefits: the role of cash transfers in tackling child mortality*. Save the Children Fund, London.

²⁴⁸ Tesema Tanto, Institute of Biodiversity Conservation and Research, Addis Ababa: Genetic diversity and on-farm seed system in Ethiopia.

natural fertiliser. Amaranth and other vegetable seedlings are being grown in the crowded Kibera area of Nairobi as part of a seed multiplication programme selling to farmers. Use of the flour of germinated finger-millet (*dagusa*) provides arguably the world's most nutritious weaning food voiding any need for supplements and tef is also one of the most nutritious cereals. Such promotion of high-quality weaning foods and nutrition for pregnant women required close collaboration between health and agriculture, especially at community level between HEWs and DAs.

Where there has been effective inter-sectoral collaboration there have been positive outcomes, as reported in the health section, where it is noted that some places show promising use of mobile technology, for example, Somali Region, Babile Woreda. As a result of silo working and lack of flexibility in sector resource allocations, innovation is more likely to come from the NGO sector, which can be more flexible in programme design and resourcing. The Ethiopian Agricultural Transformation Agency has shown how collaboration and new partnerships can bring new skills to bear in promoting innovation as in its association with the Gates Foundation and IDEO.org in developing mechanized row planters.

Prioritising WaSH interventions will require strong evidence that is credible in the eyes of communities in terms of health outcomes. Communities generally do not understand the impact of worms and poor nutrition on child, especially infant, nutritional status, particularly related to micro-nutrients. In particular, research has shown that the negative effects on cognitive brain development resulting from under-nutrition during pregnancy and the first two years (the “1,000 days” period) is likely to be permanent and irreversible²⁴⁹. Such knowledge could change resource allocations and sequencing of investments if well understood by all officials and communities as they make decisions on resource allocations. Other research has shown the impact on efficiency of household consumption choices, improved health and labour availability, simply from improved nutrition knowledge²⁵⁰. Disease control programmes reduce the incidence of diseases like malaria, measles, diarrhoea and parasitic infections, which impair the body's ability to absorb micronutrients²⁵¹. Other examples where effective cross-sectoral collaboration is required are: school feeding and garden; school health programmes; sanitation and hygiene; innovative use of ICT in quality health and education services, produce markets, livestock disease surveillance, monitoring water point functionality, as well as improved MIS systems; community based monitoring; and health and weather insurance products linked with *Iddirs*. Many of these are being deployed in places, but could be taken to scale and adapted to local contexts. These all point to the need for strong inter-sectoral working if PBS is to be effective and efficient in VfM terms in significantly improving outcomes across the board.

In order to support this focus on key outcomes, there is a need for effective and timely M&E systems that enable correlations between sector indicators to be analysed. This should permit disaggregation to Kebele level where innovations in inter-sectoral collaboration can be tested for impact.

Where research has been carried out with community members as partners, adoption of the evidence is more likely, as has been shown by innovative work in Ethiopia with farmer participatory research. Currently the flow of evidence from research, including PBS outcomes,

²⁴⁹ See the Lancet 2008, accessed online at <http://www.thelancet.com/series/maternal-and-child-undernutrition>. See also the UN initiative on this, set up in April 2012: www.scalingupnutrition.org

²⁵⁰ Emla Fitzsimons, Bansi Malde, Alice Mesnard, Marcos Vera-Hernández: Nutrition, Information, and Household Behavior: Experimental Evidence from Malawi, Institute of Fiscal Studies Working Paper W14/02, January 2014

²⁵¹ The impact of lack of micronutrients is evident. The Micronutrients Initiative on its website offers the following regarding Ethiopia:

Nearly 38% of [Ethiopian](#) children are deficient in life-saving [vitamin A](#).

21% of children under two in [Ethiopia](#) suffer from diarrhoeal disease, which can be deadly.

54% of [Ethiopian](#) households have access to [iodized salt](#). [Iodine deficiency](#) is the leading preventable cause of brain damage.

17% of [Ethiopian](#) women are anaemic. [Iron deficiency](#) anaemia is a serious health issue in Ethiopia.

In 2013, with MI's support [Ethiopia](#) provided an additional 1.4 million pregnant women with [iron](#) and folic acid supplements.

has tended to flow upwards to the federal ministries and to donors²⁵², whereas it needs to be incorporated into public health messaging, social accountability mechanisms and participatory budgeting to ensure maximising value for money in resource allocations at the Woreda and Kebele levels. Knowledge is power and more data needs to be made publicly available as part of increased Financial Transparency and Accountability (FTA) and Social Accountability (ESAP) coherence. Investing in rural roads, which appears, with WaSH, to lose out in PBS expenditure decisions, lacks the support that substantive cost-benefit analysis could provide if appropriate evidence were available²⁵³.

Government should ensure that sectors work effectively in collaboration to deliver hard-to-achieve goals which cannot be delivered by sectors working in silos, particularly nutritional status of under-fives; girls' and women's empowerment; quality educational achievement for all; sustainable livelihoods. Current funding streams through sector ministries do not adequately encourage this and performance related outcome-based funding could be a means to energise such working towards clearly stated targets that cut across sectors. This itself will force technical staff at Woreda and community level to think creatively and work innovatively, releasing staff and financial resources to achieve key outputs that will in turn release additional resources to those that succeed. This can then be reinforced through Annual Statistics Days could publicise success and good practice that has led to such success. This would all form part of a new dynamic in PBS that emphasises triangulated (CBM; MIS; Survey) real-time disaggregated evidence of improved outcomes for all, leaving none behind, and promotes the blossoming of innovative solutions and partnerships that are appropriate to the local context. Innovation and an environment that enables innovation are necessary if rapid poverty reduction is to be achieved by community participation with government and front-line workers, including private sector and civil society working towards shared goals. Innovation will be inevitable in delivery of basic services that are accountable and efficient as well as responsive and effective.

9.2. Inclusive Impact – addressing gender equity and youth unemployment

9.2.1. Gender Equity

Another weakness, resulting from failure to facilitate cross-sectoral complementarities, is that multi-dimensional gender inequality is not consistently addressed. The internationally recognised success of Ethiopia's land registration programme²⁵⁴ has had significant impact on gender equality and women's empowerment, not simply on agricultural production but also on household decision-making and therefore potentially on women's health and girls' education. The reform appears to have reduced transaction costs in the land rental market, making poor female (potential) landlord households more willing to rent out their land and given them tenure security. The impact of Ethiopia's flagship land registration inclusion of women on certificates has been recognized for its contribution to women's agricultural productivity. However, overall the 2011 DHS shows that in Ethiopia, there remains a clear difference between females and males: sole ownership is more common for males, while joint ownership is more common for females²⁵⁵. There are also perverse risks and Brauw & Mueller in 2009 found that "the nascent land certification and registration programs in regions of Ethiopia may potentially promote

²⁵² DFID has been praised in a report of the UK's Cabinet Office – What Works Review of the Evidence in DFID, June 2014 - for the use of evidence by advisers in programme design and spending. It noted less effective transmission of evidence of what works down to country offices and staff. Remarkably, this review, despite DFID's commitment to locally-driven development and empowerment of the poor to participate in their own development, was totally lacking in any sense of empowering citizens with understanding of the evidence of what works. Yet it claims that: *Acknowledging when things aren't working and using this information to feed into future projects is effective behaviour which should be rewarded. Learning about 'what works' – with space for systematic experimentation – will need to be created and rewarded.*

²⁵³ DFID's Business Case for PBS III notes in § 109 that: *Planning bureaux take all these resources into account when allocating FBG funds. In sectors where there are fewer such complementary sources of funds, such as rural roads and water, it may be that there is a greater shortage of non-wage recurrent resources than in other sectors. Establishing that the overall allocation of expenditure is optimal in light of the strategic functional and economic needs of their localities, and rewarding effective and efficient allocations, will be an objective of the Results Enhancement Fund.*

²⁵⁴ See Deininger, K., Augustinus, C., Enemark, S., and Munro-Faure, P., Innovations in Land Rights Recognition, Administration and Governance, World Bank Joint Organizational Discussion Paper 2, 2010

²⁵⁵ See Gable, 2013, p58.

poverty reduction by increasing incentives to migrate”²⁵⁶. Epidemiological social research could be used to identify the links between women’s access to land rights²⁵⁷ and other social indicators. Farming is seen as essentially male-centric²⁵⁸ and a large majority of PBS-funded Agricultural Extension Workers and DAs are male, compounding the problem, which needs to be addressed by training male DAs to respond appropriately to women farmers and increasing women recruited as agricultural extension workers²⁵⁹.

Ethiopia’s Agricultural Transformation Agency (ATA)²⁶⁰ is carrying out a diagnostic study on gender in Ethiopian agriculture, and seeking to increase understanding of gender equality and women empowerment. ATA recognizes the role of women in household agricultural production despite their poorer access to extension, improved seeds and inputs. ICRISAT (Freeman, 2001), drawing on case studies in Zimbabwe and Malawi to compare different Farmer Participatory Research (FPR) practices, found differences between the various approaches in a number of areas. Overall, however, the various methods were not completely distinct, but represented a continuum from traditional research-led, to researcher-led with farmer input, to farmer-led with research input. Significantly, the results indicated that when there are no clear procedures to directly target women farmers they tend to be under-represented, and gender issues are not sufficiently integrated into the research process. The work of ATA, drawing also on innovative approaches that ICRISAT and CIAT are continuing to build, will help Ethiopia develop a Farmer Responsive Extension Service that is gender sensitive in particular.

For young women, the problems that all women farmers face are compounded by expectations that they should marry and cannot start accumulating assets independently, which is at least a possibility for young men through getting work on their own as *abelegnas*, renting and sharecropping plots from their families and others. “The synonymy of ‘farmer’ with ‘male farmer’ in symbolism as well as public and political discourse, and with it the placement of activities that are, at least symbolically, considered key to a farming livelihood such as ploughing, sowing and harvesting under the male domain, mean that women cannot be considered to be farmers by themselves without a husband or a helper. The fact that young unmarried women are denied the same or parallel opportunities for working independently and building an asset base further erodes the possibility of women becoming farmers on their own, even when they are either willing to challenge cultural norms or abide by them and hire a male helping hand. As a result, the only path to a life of farming open to young women remains one that involves marrying a farmer and becoming a farmer’s wife”²⁶¹.

Gable notes that: “***while overall extension services are relatively accessible in Ethiopia, there are differences in access between females and males. Mogues et al (2009) conclude that female groups may be a promising approach to reach women with extension services, in line with examples of success in linking extension agents with female farmers, which circumvents the socially sensitive issue of (male) extension agents providing advice to females one-on-one. However, making agricultural extension demand-driven remains a challenge in Ethiopia***”. Gable goes on to note the problems of making extension services appropriate for women. “***The strong standardization of extension packages, arising from the pronounced top-***

²⁵⁶ de Brauw and Mueller, 2009

²⁵⁷ In relation to women’s land rights, see Teklu, A., Land Registration and Women’s Land Rights in Amhara Region, Ethiopia, R4D Research Report 4, IIED for DFID Nov 2005, which looks at how women’s interests have been addressed and the constraints on their achieving in practice the full intentions of the land laws and policies. Other analysis can be found in Adenew and Abdi, 2005; World Bank Factsheet, 2012; Gella and Tadele, 2014; Romano, 2013

²⁵⁸ See Gella, A. A., and Tadele, G. Gender and Farming in Ethiopia: an exploration of discourses and implications for policy and research, Future Agricultures Working Paper 084, April 2014.

²⁵⁹ The Draft April 2015 Agriculture Tracking Study has one recommendation for the “inclusion of gender based trainings in ATVET curriculum”, but none on recruitment of women DAs, while noting that, despite increasing gender equality in education, only 28% of the DAs in the study Kebeles were women. The MoA’s Second Annual PIF Review of Ethiopia’s Agricultural Sector Policy and Investment Framework (PIF) 2010-2020 only received a paper on “improving integration of gender equality and nutrition into our sector”, reflecting a lack of awareness of the issue of under-investing in women in agriculture.

²⁶⁰ See <http://www.ata.gov.et/>

²⁶¹ See Tadele & Gella, April 2014, page 13. See also Tadele & Gella 2014 (2)

*down nature of public service delivery, makes it difficult to tailor agricultural extension to farmers' needs and is, as such, strongly connected to a lack of relevant information for females from extension services. As described in Box 3, the tasks of females and males within Ethiopian agriculture (production as well as market access) differ (Aregu et al, 2010). Partly as a consequence of division of labor, female preferences for crop varieties differ from that of males. Females opt to produce types or varieties that are mainly used for domestic consumption, whereas males prefer crop varieties that have high market demand and fetch high prices*²⁶².

PBS investment choices are not the same for men and for women. Investments in access to drinking water, have greater significance for women's time availability than for men. The impact of roads and rural transport on women is not identical to that for men, given differences in use of local markets for agricultural produce and household access to health services²⁶³. A 2004 Ethiopia case study on transport noted for one village that: "People in the village frequently travel to the town of Ambesso which is the capital of Degem for the purpose of selling agricultural products and buying consumer goods and farm inputs, attending secondary school and the clinic etc. The mode of transport to the town of Ambesso is walking and it takes about 2 hours (one way). Household members, usually women, walk to and from the town with head and back load to sell agricultural products and buy consumer goods. The total time, and hardship caused by walking to main local town of Ambesso is significant"²⁶⁴.

Much of the services delivered by health extension workers relates to maternal and infant health that impact on women's lives and the positive impact of HEWs on women's lives and health has been significant. It has been noted above how Ethiopia's Health Extension Workers (HEWs) have made a significant contribution to reducing maternal, neonatal and child mortality, but there is a need for appropriate incentive packages and for capacity of the district health offices to provide supervision, monitoring and evaluation to be increased²⁶⁵.

There has been innovation in increasing girls' access to education, often piloted or implemented on behalf of government by NGOs. Girls' access to secondary education remains a major problem. While over 80 per cent of girls nationwide are now enrolled in primary school, only 16% are enrolled in secondary school. The moves towards Child Friendly Schools, reported in the Education chapter, have had a strong emphasis on gender issues and schools that promote CFS claim to be more gender responsive than they were before participating in the initiative. The CFS model is a child-seeking, child-centred, gender-sensitive, inclusive school. There is good evidence of the impact of CFS on increase in enrolment especially for girls.

While the gender implications of PBS investment choices are not always explicit, there is evidence that the innovative principles of the formula behind the Federal Block Grant have resulted in increased inclusion of the poorer regions of Afar, Benishangul-Gumuz, Gambella and Somali, classified as developing. The four developing regions, with 9.3% of the country's population, receive 15% of block grant resources. However, despite noting the importance of gender equality, the 2015 PEFA Report makes no reference to gender budgeting or any other approach to ensuring that policy-based budgeting covers this objective. The World Bank's PBS equity report noted that "much of health spending is positively associated with women's access

²⁶² Gable, 2013, p 61.

²⁶³ See [Resources for Transport Social Impact Assessment](#), DFID 2011, and Duchene, C. *Gender and Transport*, International Transport Forum, 2011, and World Bank 2013 Social Development and Infrastructure: [Making Transport Work for Women and Men](#), which includes a gender assessment of the Ethiopia Rural Road Sector Development Programme. See also Dercon et al 2009 on *The Impact of Agricultural Extension and Roads on Poverty and Consumption Growth in Fifteen Ethiopian Villages*, which found that receiving at least one agricultural extension visit reduces headcount poverty by 9.8 percentage points and increases consumption growth by 7.1 percentage points and access to all-weather roads reduces poverty by 6.9 percentage points and increases consumption growth by 16.3 percentage points.

²⁶⁴ ERA: *Social Benefits in Transport Planning – a case study of Ethiopia*, Final Report, Jan 2004. This theme is repeated for many villages surveyed.

²⁶⁵ See §2.1 above

to services, including contraception, pre-natal care, and assisted child births. Access to these services has a strong impact in reducing maternal mortality. Thus, woreda health spending can also be considered pro-women”²⁶⁶. It also noted that “there is no negative bias against women in education expenditure, the sector where the majority of PBS IGFT funds are spent”²⁶⁷. However, for agriculture, analysis based on a small sample suggests “that extension agents might be preferentially targeting male-owned fields”²⁶⁸.

The 2008 PBS Social Inclusion and Gender Equality Analysis²⁶⁹ identified major differences in access to health and education services depending on residence and on poverty and a 2010 report on Gender and Social Exclusion in Ethiopia identified various social categories that experience differential access to basic services: child labourers, persons with disabilities, female victims of domestic violence, sufferers from HIV/AIDS, older people and pastoralists.²⁷⁰

An excellent example of local government collaboration with civil society to effect inclusion of some of the poorest and most vulnerable comes from Gaiyint, South Gonder Zone, Amhara, where the Beza Community Development Association project has modeled working with the community to identify the most needy families for income generation skills training and early childhood education and health support for their pre-school children. This is providing a means to break the inter-generational cycle of poverty through giving the most vulnerable children a healthy start and preparation for succeeding in their education. Government provides monitoring through the Zonal Women and Youth Affairs office, while BoFED approves the project’s plans and budget.

The ESAP2 Learning Benchmark workshops in 2015, noted that FGD work tends to look at the numbers of socially excluded people, rather than the experience of vulnerable groups, particularly those with multiple disadvantage, such as women with disabilities. Social accountability approaches need to address the underlying causes, not just the symptoms. CSSP “implements diverse tools and approaches like wealth ranking and social mapping that could help us to better identify “the hard to reach”, because we may have overlooked certain groups”²⁷¹. The workshop resolved to link the “gender club” in schools with the “SA club” in order to empower the former.

Greater and more effective use of disaggregated data will enable the centre to closely monitor those whose outcomes against key indicators of health, nutrition, education and livelihoods are the worst and target resources accordingly. Regions should each be required to identify the Woredas and Kebeles that have the poorest outcomes, especially when disaggregated by sex, and to show what is being done to address these. Elements of outcome performance-based funding²⁷² would help to provide the incentives for a demand-driven responsive service provision that meets the needs of women and girls and those in the most remote and hard-to-serve locations. More effective and innovative solutions, in partnership with communities and civil society, would be found which also could prove administratively efficient and cost-effective, rather than resorting to supply-side solutions, which may not show the same level of

²⁶⁶ World Bank. *Improving Basic Services for the Bottom Forty Percent*, 2014 §68 p31

²⁶⁷ Ibid §67.

²⁶⁸ Ibid §69.

²⁶⁹ Hughes, Kerr-Wilson, Mussa and Johnson (2008). ‘*Protection of Basic Services: Social Inclusion and Gender Equality.*’ Social Development Direct. September 2008.

²⁷⁰ Teferra, S. and Gebremehin, L., *Gender and Social Exclusion in Ethiopia*, July 2010

²⁷¹ ESAP2 Learning Benchmark Workshops Feb/March 2015.

²⁷² The PBS III JRIS April 2015 Aide Memoire noted that the proposed follow-on programme after PBS III is the Equitable Access to Basic Services (EBS) Program, for the three years of FY2015-18 would disburse USD 200 million annually in a Program for Results (PforR) that included a focus on “discrepancies in access to basic services among different wealth groups, woredas and between genders” as well as deepening citizens’ engagement through social accountability, grievance redress and financial transparency. This still focuses on supply-driven access issues rather than more radical outcome-based demand-driven responsiveness.

sustainable impact²⁷³. It is vital that there should be good monitoring and independent evaluation of innovations, especially with regard to their impact on gender equality. Despite looking for the gender impacts of innovation, the 2015 Survey data responses were very generic in terms of impact on women.

9.2.2. Promoting Girls

GirlHub-Ethiopia, supported by Nike Foundation and DFID has shown the returns from investing in girls and the impact of programmes that retain girls in school and delay marriage²⁷⁴. To some extent this will be addressed through innovations in improving quality in education, including significant issues such as separate and suitable toilets for girls, early childhood care and development and ensuring that all pupils are literate and numerate after no more than 3 years of early primary, through investing in teachers and teaching assistant to reduce effective pupil teacher ratios in the first 3 years to below 35. In 2008, DFID carried out a detailed unpublished analysis for girls in Malawi, using Education MIS data and existing national survey data to show that the problem with girls' retention through the higher primary and secondary levels stemmed from a failure to achieve literacy in the early years, resulting in dropping out at puberty when still illiterate. The focus on quality in education that PBS is already making and the Malawi analysis recommendations show that quality in early years is critical to girls' retention in education. Other work that promotes successful young women in higher education contributes to behaviour change in families and delaying age of marriage.

Gable provides examples of indicators relating to girls' empowerment, where Ethiopia is better, as expected, or worse than expected, when comparing countries given their income levels (F=Female; M=Male)²⁷⁵:

AREAS WHERE ETHIOPIA IS DOING BETTER THAN EXPECTED FOR ITS INCOME PER CAPITA LEVEL.	AREAS WHERE ETHIOPIA IS DOING AS EXPECTED FOR ITS INCOME PER CAPITA LEVEL.	AREAS WHERE ETHIOPIA IS DOING WORSE THAN EXPECTED FOR ITS INCOME PER CAPITA LEVEL.
Public investments Birth rates, overall Birth rates, adolescents Labor participation, M&F Expenditures by student, Primary Air transport Access to electricity, Urban Parliament seats, F share Wage employment, M&F Women in non-agricultural sectors	GDP per capita growth Overall investments Unemployment, M Service share of GDP Age at first marriage, M&F Contraceptive prevalence Maternal mortality Gross enrolment rates, Primary, M&F Gross enrolment rates, Secondary, M&F Expected years of schooling, M&F Completion rates, Primary, M&F Literacy rates, M Life expectancy, M&F Infant mortality rate, M&F Public health expenditures General infrastructure Major road network Legislators/Sr. officials/Managers, F Professional and technical workers, F Urbanization rate Formal full time positions, F	Private investments Unemployment, F Inflation Governance Exports and imports Access to improved water sources Access to improved sanitation facility Skilled provider at child birth Literacy rates, F Expenditures by student, Secondary Malnutrition, M&F Women receiving prenatal care Mobile phones Internet subscribers Rural roads Access to electricity, Rural Ministerial positions, F share Urban population

²⁷³ For example, see footnote on one supply-side approach, virtualization in §2.1 above.

²⁷⁴ Gable, GirlHub 2013. See also UN Girls' Education Initiative, 2014; J-PAL Policy Briefcase, 2013; Aikman and Rao, 2012; Mwatha and Chenge, 2011; Kairies et al, 2013; Harti, 2009.

²⁷⁵ Gable, GirlHub 2013; Table 9

Vouchers for girls' education and cash transfers, whether conditional or unconditional on education, have clear evidence from Malawi of a range of impact on girls' behaviours – staying on in school; delaying sexual relationships and marriage and having partners of the same age rather than in exchange for sponsorship; reduced levels of HIV infection. The evidence shows that impact is dependent on a minimum value of the cash transfer, rather than its conditionality²⁷⁶.

Gable notes that: *Investing in adolescent girls' education and health care, delaying pregnancy and encouraging agency are direct investments that could be provided for adolescent girls in Ethiopia. However, for these investments to pay off, there must be complementary adjustments in areas related to their ability to turn those investments into productive, income-generating jobs — as girls but even more so as they become women. In order to structure the discussions on returns to investments in adolescent girls, the starting point will be investments in education due to its central role in economic growth as well as in supporting girls, but returns to other investments areas must be addressed as part of the system. This systematic approach will clarify the interaction and causality between investments, as well as their dependence on complementary factors (including other investment areas)*²⁷⁷.

9.2.3. Youth Employment

There was little evidence in the 2015 BDS-CDR Survey Data of PBS impact on youth employment. Opportunities exist for collaboration between PSNP and PBS, in building youth capacity to manage, initially small-scale, infrastructure construction and maintenance. To enable this, there would need to be innovative partnerships with private sector and civil society, particularly from the Diaspora (see §3.6) to provide work experience/ apprenticeships and entrepreneurial skills, linked with the TVET programme (Technical Vocational Education and Training). The TVET Strategy is under the Ministry of Education and if this were brought into the PBS and PSNP nexus, it could become powerful tool in addressing youth unemployment. The experience of building roads with cobblestones in many urban areas has shown how significant private sector enterprises can evolve out of such employment schemes. Although cobblestone roads are not themselves innovative, the youth-led enterprises have emerged are innovative and the Ministry of Urban Development, Housing and Construction (MUDHCo) has produced a manual for community participation in procurement and construction of cobblestone roads²⁷⁸. However, the whole supply chain needs support and regulation to protect young workers and enable them to achieve the maximum from the employment opportunities provided²⁷⁹. In 2013, UN-Habitat awarded MUDHCo a prestigious Scroll of Honour Award for cobblestone roads initiative. The initiative was supported jointly by the German Development Cooperation and the Bill & Melinda Gates Foundation, which is funding cobblestone road production in eight cities throughout. The project is being implemented by MUDHCo in partnership with the German Organisation for International Cooperation (GIZ) and the German Development Bank KfW²⁸⁰. URRAP's investment in labour-based approaches to road construction and its support for small and medium scale private enterprises is one positive contribution to a critical issue for Ethiopia – the skills base and employment prospects of youth.

Youth employment is another area that requires improved M&E, with relevant indicators that can assess the impact of PBS and innovations within it on the livelihoods of youth. Not enough focus is given to providing youth with positive models for becoming young farmers with a future

²⁷⁶ See DFID 2011 on Cash Transfers. For other evidence on cash transfers see Fiszbein and Schady, 2009; Benhassine et al, 2013; Akresh et al, 2013.

²⁷⁷ Gable, GirlHub 2013; page 86

²⁷⁸ See http://www.mwud.gov.et/c/document_library/get_file?uuid=7d6bbe4d-cacb-4ca9-8cec-8c215bf407ed&groupId=10136

²⁷⁹ See articles such as <http://www.aggbusiness.com/sections/quarry-profiles-reports/features/cobblestones-offer-alternative-road-construction-in-ethiopia/> and <http://www.worldbank.org/en/news/feature/2011/10/05/ethiopia-development-project-creates-jobs-transforms-cities>

²⁸⁰ See <http://www.citiesalliance.org/ethiopia-cobblestones>

in the sector. Many of those who do finish high school find it difficult to get started as farmers – lacking assets and land – and young women in particular face negative norms and expectations due to gender discrimination. “The only means of acquiring land that remains open for young people is through intergenerational transfers such as inheritances and temporary transfer of land rights. But according to the accounts of young farmers interviewed, as well as informants from the local land administration office, rates of intergenerational transfers remain very low”²⁸¹. Tadele & Gella conclude that: “Overall, our findings show that education, access to land, asset base, gender and local context are important factors which play significant roles in determining who becomes a farmer and who does not. Education appears to be important in two ways. On the one hand, our findings, as well as the findings of many others, show that education significantly elevates the desire and hope for non-agricultural, urban based, salaried employment. In this regard, the choice of becoming a farmer predominantly remains the choice of those who have little or no education and therefore little or no non-agricultural skills, as they cannot perceive of any other livelihood opportunities open to them. But with increased investment in education (time, effort and resources spent pursuing education), entry into farming in the event of failure in one’s education becomes more difficult. Time, effort and resources spent in education come at the cost of the gradual but accumulative process of asset building which facilitates the relatively smoother transition youth with no education make to young farmerhood. ... From what used to be a largely illiterate society, a new generation is emerging the vast majority of which will be schooled. This should certainly be a cause for celebration, but a danger lurks just beneath and a backlash against rising education vis-à-vis agriculture is already happening or waiting to happen. The impact of being educated, both in terms of its effect on the desirability of a future in farming as well as complicating later entry into farming, is one that needs to be recognised by policymakers and explored further”²⁸².

Since 2009, Government has had a National Employment Policy and Strategy, which includes sections on rural-urban migration; mainstreaming gender in employment generation; and enhancing youth employment²⁸³. However, these are not supported by capacity or budgets. Kibru, referring to Quisumbing & Yohannes (2004) regarding PSNP, notes that: “In order to improve outcomes for women, they recommended careful selection of the type of project (men are more likely to work on infrastructure projects, for example) and allowing flexible schedules/providing day care to enable more female participation. They also emphasize the importance of female involvement in the program planning stages as critical to achieving benefits for women”²⁸⁴. “However, women in Ethiopia still remain at the lower end of a segregated labor market and continue to be concentrated in few often informal occupations, hold positions of little and no authority and receive less payment than men. ... In the urban areas, most women workers are concentrated in the informal economy and are not recognized, registered, regulated or protected under labor legislation and social protection and are therefore not able to enjoy, exercise or defend their fundamental rights”²⁸⁵. Kibru also notes that: “In terms of age composition, unemployment is essentially a youth phenomenon. Youths in urban areas are vulnerable to the problem of unemployment. In the reference year (2005), youth unemployment stood at 28.77% in urban areas²⁸⁶, which is considerably higher than rural youth unemployment (4.08%). However, this masks the fact that in rural areas there is high level of *underemployment*, a phenomenon of not being fully employed or ineffectively employed”²⁸⁷. To address this, government has recognized the role of Micro & Small

²⁸¹ See Tadele & Gella, April 2014

²⁸² Tadele and Gella 2014 page 12

²⁸³ MoLSA, Nov 2009

²⁸⁴ Kibru, M. Employment Challenges in Ethiopia, Addis Ababa University, Sept 2012, page 13

²⁸⁵ Kibru, 2012. page 18

²⁸⁶ Kibru notes that it fell from 31.5% in 2004 to 23.7% in 2011, but also that 80% of employed youth worked in the informal sector, many as unpaid family workers..

²⁸⁷ Kibru, 2012. Page 4

Enterprises (MSEs) in generating employment and established an agency to support their development and expansion. The vocational training programme (TVET) only impacts a very few youth – a 2007 study found that only 2% of youth had been involved in some kind of vocational training²⁸⁸.

In summary ...

Decentralized governance of basic service delivery through PBS has not been matched by all sectors, which have also tended to continue to work in their silos without effective collaboration. Horizontal collaboration is essential for key areas of WaSH, nutrition that includes use of Ethiopia's traditional crops, school feeding, use of ICT, insurance, social accountability and participatory research and monitoring. Achieving gender equality requires greater participation of women in planning and decision-making and equity in access to basic services, assets and outcomes and should mean that PBS is part of a wider investment in girls. Focus on youth employment, especially young women, is extremely weak and vocational training only affects about 2%, although URRAP is an exception.

²⁸⁸ Kibru, 2012, quoting Guarcello and Rosati (2007)

Chapter 10

10. Conclusion - Challenges and Opportunities of Innovation in Ethiopia

The Study on Innovation and Delivery of Services poses challenges as well as presents opportunities for Ethiopia. Innovation is being accepted and is increasingly recognized as fundamental to economic transformation, growth and poverty reduction in Ethiopia. As such, Ethiopia's ability to tap and absorb internal and external innovations that can incorporate new and relevant ideas and products remains critical for effective and responsive basic service delivery within the context of today's globalization and technological demands.

A few suggestive trends are apparent from analysis of the frequency of innovations in each Woreda, as recorded in the survey data collected for Woredas where there was sufficient secondary data available (Annex 4: Tables 9a – 9j). The presence of idiosyncratic innovations rather than simply implementation of national initiatives may appear in the analysis as representing more innovative Woredas. Notwithstanding this caveat, Afar and Amhara appear relatively more innovative than Addis and Tigray. Proximity to Zonal Capital is associated with innovation. Urban areas tend to be less innovative in providing basic services than agro-pastoral and pastoralist areas. This could mean that the urban poor who depend on basic services may not be receiving services that respond to their particular needs in a context where overall services are strong. In rural areas, there appears to be possibly more innovation in delivering basic services in Woredas where there are a higher percentage of food insecure households. Analysis of the data may be indicating that innovation in basic service delivery does not just arise spontaneously and survive, it must be cultivated.

10.1. Challenges

Within today's context, the introduction, promotion, acceptance, adoption, adaptation and application of innovations in Ethiopia and taking them to scale could encounter a number of challenges that might discourage and deter well intentioned actions by development actors. These include:

- Understanding the varied cultural norms and traditions of Ethiopia
- The presumption that formally trained experts from outside always know better than communities themselves²⁸⁹
- Persuading communities to accept new ideas and embrace change
- Tenacious hold to earlier innovations that may have outlived their usefulness and application
- Lack of motivation and incentives needed to boost morale of staff who promote innovation at the Woreda level and to reduce their perceived risk of doing things differently
- Weak institutional capacity for implementation and monitoring of programmes having a focus on outcomes rather than inputs and enabling higher level evaluation of programme design and coherence, within and beyond PBS
- Early stages of Social Accountability, Transparency and Community Participation

²⁸⁹ Some of the most innovative farmers are those in Konso, adopting new crops and adapting these to their highly productive systems. Over a decade ago, agricultural experts in Konso Special Woreda in SNNP, realised that farmers' use of integrated agro-forestry crop-livestock system with micro-ecological multiple-cropping planting, dry-stone terracing, water conservation/irrigation and use of stone mulching produced higher yields than accepted agricultural extension practice – author's experience. "The terrace system and multi-cropping system has a long tradition and this knowledge can be of great use in other areas. The use of multipurpose trees and small-scale irrigation could be an important contribution of Konso to the future development of the country and should be adopted elsewhere" Wiebke Forche: Case Study – the agricultural system of the Konso in south-western Ethiopia Published 2003 online: FWU Water Resources Publications 2003:1, University of Siegen, Germany
http://fwu.fb10.uni-siegen.de/bkd/FWU_WRP.htm

10.2. Opportunities

At the same time Ethiopia abounds with opportunities for promoting new ideas and innovations. At a general level, these include:

- Harnessing innovation by a range of actors in basic service delivery which can play a catalytic role in improving access and quality in order to address vulnerabilities and contribute to poverty reduction in the country
- Integrating rural service delivery innovations that encompass a more holistic approach with a view towards encouraging human capital development, social well-being and rural economic growth stimulation.
- Innovating and utilizing resources more efficiently within an open and cooperative approach that encompasses the social sector public agencies across different levels, the private sector and more essentially citizens.

10.3. Conclusion

Ethiopia stands to gain from the unique opportunities available to it, to strengthen its innovative base in service delivery to create better products, processes and technologies and to take these to scale. But it cannot be more of business as usual. Supply-driven initiatives and top-down protocols have proved successful in delivering improved outcomes from a low base in health, education and WaSH. From the current higher base, the agenda moves towards leaving no-one out, for which progress will be dependent on innovations that address local context, and to raising quality. Incentive structures designed to reinforce delivering standard inputs will not incentivize creative and innovative response to the nuanced demands of communities in a complex environment nor to improving the quality of services and outputs. Accountability structures can raise efficiency, but too much control will stifle flexibility and sensitivity to context, which is what responsive services require. Improvements are now required at the margins to ensure inclusion of all. There are potentially trade-offs to be addressed between efficiency and effectiveness. For basic service delivery to be effective, it must be responsive to the demands of communities and all sectors within them, including women and youth, those with disabilities and the elderly and frail, those with least assets and the most vulnerable livelihoods. Future programmes that will look more to 'quality' and responsiveness of services will, by definition, need the support, deep understanding and commitment of communities. Radical innovation will be required to deliver effective 'expanded inclusion' of groups such as those with disabilities, the elderly and pockets of urban poor 'hidden' within burgeoning cities such as Addis, without compromising both quality and efficiency. Training, along the lines offered by BSDTCC (Box 3), will be essential if future service delivery is to be fit for purpose.

The follow-on to PBS III offers an opportunity to re-think priorities in the design and governance of basic service delivery. The incentives for responsive and effective basic services will come from strengthened social accountability structures, complementing Financial Transparency & Accountability systems and working with service providers and managers. A strong triangulated (CBM, MIS and survey) system of timely management for results, publicly available, increasingly enabled by ICT and focusing on disaggregated indicators of outcomes, will provide incentives for cross-sectoral collaboration at the community level and new ways of doing things. This could be backed by an element of performance funding to Woredas against a handful of indicators of a focus on those currently being missed, such as girls achieving recognised educational qualifications and nutritional status of under-fives. Without these changes, innovation will be still-born and progress towards poverty reduction, equity and opportunity will be limited as front-line workers play safe, putting their careers first, and avoid taking risks for the sake of achieving transformation. Ethiopia's PBS may be at a cross-roads if it chooses to trust the ingenuity and commitment of its people to achieving change that benefits all.

In summary ...

There are challenges for innovations being promoted, but also opportunities. They are a critical element for today's agenda focusing on quality and leaving no-one out, requiring services that are responsive to local context and need. Innovation in basic service delivery does not just arise spontaneously and survive, it must be cultivated. The challenge is how to promote such innovation.

Chapter 11

11. Recommendations

11.1. Overall

1. Government should create the overall enabling environment in which innovation can flourish, providing for multiple actors together achieving rapid transformation in poverty reduction and inclusion. The enabling environment should cover a range of financing, contracting, licensing and standard-setting functions that can release resources and direct effort towards national goals. It will require appropriate in-service training in community-led development (e.g. see §1.6; §3.5.3; §4.2.1 and §3.8).
2. The follow on to PBS III should have a strong emphasis on achieving outcomes for all²⁹⁰ and comparing programme impact across the diversity of the country, which will require flexible and innovative local solutions to overcoming constraints (see §1.6; §1/7; §3.3; §3.5.3; §3.7 and §10 and also Recommendation 11.2.12 below). This could be promoted through an element of outcome performance-based funding as an incentive to Regions and Woredas in addition to the resource allocation model²⁹¹ (§2.1). Focusing on outcomes and inequalities and recognising achievements in addressing these will provide an incentive for innovation and improved and responsive service delivery.
3. As part of the focus on outcomes, PBS should ensure far greater inter-sectoral collaboration and resourcing to innovatively address critical areas such as infant nutrition (the first 1,000 days) which affects all future development potential; de-worming and prevention of diarrhoea and malaria; rights of women and girls to health, education and livelihoods, with extension services and rural transport designed from their perspective (§9).
4. Innovators and innovations in basic service delivery should be recognised and publicised to encourage creative solutions to Ethiopia's pressing needs in promoting basic services (see 3.1.1; §3.1.2; §4.2.9.1; §6.3.5; §6.4.7.1).
5. An Innovation Promotion Strategy should be developed to support and promote local level innovation.
6. Government should increase its range of partnerships to encourage innovation in service delivery, including creative support for shared risk through innovative health and agricultural insurance products for the poor that limit the impact of covariant risks (*Many in and across all sectors e.g. §2.1; §2.2.2; §2.5; §3.1.1; §3.6; §4.2.2; §5.3.1.2; §5.3.1.6; §6.3.6; §7.2.2; and on insurance §4.2.5 ; §6.1.1*)
7. Place real-time outcome-focused and triangulated M&E at the centre of PBS in order to increase efficiency and accountability, effectiveness and responsiveness of basic service delivery and consider using DHIS software adapted to at least overall PBS monitoring requirements (§3.7).
8. Evidence needs to flow more freely between research and communities as well as to policy-makers and between communities in terms of PBS indicators, which should be

²⁹⁰ This goes significantly further than the current proposals for the EBSP Program for Results partial focus on equality of access, which is itself a positive move forward from PBS III and will require innovations to achieve

²⁹¹ Taking account of the caveats noted in §2.1

publicly available and timely, in order that they can learn from each other about what works and is possible (§3.7; §9).

9. As part of evidence-based assessment of achieving programme goals, an independent evaluation capability could be created at the centre under the Office of the Prime Minister in order to provide robust independent evaluations of programmes across the sectors (§3.7).

11.2. Recommendations relating to Governance in Basic Service Delivery

1. Take to scale some of the national mechanisms for Social Participation and communal work in order to increase delivery capacity at Kebele, community and facility levels and address the constraints of capacity building in relation to promoting implementation capacity; developing the institutional ability to build and manage partnerships; strengthening transparency and accountability, including on budgets, and use of citizen report cards as part of public participation in evaluating service delivery; performance incentives of recognition and salary and non-salary incentives for working in difficult environments; institutionalising the building of capacity at Woreda level; encouraging acceptance and adaptation of innovation (§3.1.1).
2. Starting with the Development Team, explore and develop attractive incentives to bolster effective service delivery, based on evidence of targeted incentives that work, without perverse outcomes - such as public recognition, hardship allowances, training opportunities and fast-track career mechanisms, performance bonuses and responsibility allowances (§ 3.1.2).
3. In order to consolidate decentralized management, there is a need to strengthen Sectoral Cooperation and Synergy of PBS through PBS Coordinators in BoFEDs at Regional and Woreda level. As part of ensuring more effective collaboration at Woreda level and below in PBS III COPCU could establish a system of monitoring and assessing of *Kaizen* and *Yelowitbudin* for wider application and going to scale (§3.2).
4. To ensure the strengthening of the vertical and horizontal linkages for effectiveness of the delivery of decentralized basic services, design and develop a special on-the-job training package for BoFED and PBS Coordinators at the regional and Woreda levels, covering all technical, financial and management aspects of PBS work, including developing understanding of sector perspectives on cost-benefit analysis of achieving specific sector outcomes; training to cover working with beneficiaries (§3.3).
5. Review the Joint Action Plans to ensure that effective Woreda budget allocation is linked closely to Social Accountability and is supported by a strong monitoring and reporting mechanism; Strengthen linkages between social accountability and the Financial Transparency & Accountability (FTA) tool (§3.4.1).
6. Assess traditional Ethiopian community participation mechanisms and practices with the aim of organizing them in an appropriate form and design training packages on them for dissemination to practitioners and beneficiaries in order to understand, appreciate and apply them more effectively and take them to scale (§3.4.2).
7. Resolve GRM management constraints and access at the Kebele level and provide training on GRM for Woreda officials. Ensure improved harmonization between GRM and the Ethiopian Institution of the Ombudsman (§3.4.3).
8. As part of enhancing PFM reform, create a special training package targeting officials in weaker Woredas in order to build the capacity for stronger financial reporting (§3.5.1).

9. Woreda mandates and the capacity to fulfil these needs to be better articulated in order to focus on achieving the best possible outcomes in their context, including selecting, adopting and adapting relevant innovations that will achieve improved outcomes. The focus on outcomes should be supported by performance agreements and by community participation in formulating programmes and budgets as well as improving accountability and responsiveness of sector service providers (§3.5.3).
10. As part of establishing and implementing priority areas for financial reform, include simplifying regulations, maintaining a professional cadre of procurement staff, improving budget execution reports, developing robust internal controls and strengthening and empowering independent oversight and publicising budgets and expenditures (§3.5.3 and §3.5.4).
11. As a new concept, an appropriate monitoring and assessment system for a Diaspora PBS Partnership will need to be designed to determine what attributable contribution the partnership could make to PBS and what incentives could be employed to attract the Ethiopia Diaspora to become engaged in participating in the programme (§3.6).
12. Special attention needs to be directed to improving the quality of Data Collection and Analysis, especially qualitative research and community-based monitoring, and placing triangulated data (MIS; Surveys; CBM) focused on outcomes and inequalities at the centre of programme design and implementation. In particular, create within CBDSD a special support capacity for qualitative and participatory data collection and for general data analysis, targeting relevant institutions and consultancy firms, in all fields across the broad spectrum of the Ethiopian economic, social, management and financial sectors to achieve a more reliable and accessible data and information depository nationally (§3.7; §2.2; §3.1.1 and recommendations 11.1.1, 11.2.1 & 11.2.9).

11.3. Recommendations for Removing Constraints in the Health Sector

1. Continue to expand the current **high political commitment** to MNCH and other health sector priorities and consider a highly public and transparent accountability mechanism for tracking progress, like the Ghana Atlas of Birth, which tracks commitments and achievements²⁹². Such an approach would be highly feasible through the HEP and could support a greater focus on poorer performing areas. It also builds on Ethiopia's participation in regional commitments and efforts, such as the Maputo Plan of Action, the Campaign on Accelerated Reduction of Maternal Mortality in Africa (CARMMA), and the African Union Summit Declaration 2010 for Actions on Maternal, Newborn and Child Health (§4.2.1).
2. Capitalize on the good reputation of Ethiopia in achieving impressive progress towards attaining the MDGs²⁹³ and address remaining weaknesses identified, for example, **incentive packages for health workers** with a stronger link between compensation and performance, and **building capacity of the district health offices** to provide supervision, monitoring, and evaluation, as well as developing their skills in leadership, innovation and coordination²⁹⁴. This will help address remaining gaps in coverage and scale up good experiences even further (§4.2.1).

²⁹² [The White Ribbon Alliance, 2012](#)

²⁹³ [PMNCH, 2014](#)

²⁹⁴ [Punam Chuhan-Pole, 2011](#)

3. Capitalize on the HEWs presence in communities to **track maternal deaths** more accurately and enable timely responses through linking with the Maternal Death Surveillance and Review (MDSR) system to improve quality of care and maternal and newborn health outcomes, exploring collaborative efforts with the formal transport sector (§4.2.2).
4. Tackle **distance barriers** in a comprehensive manner with strong community engagement and mobilization, addressing transport challenges, community response systems and the quality of maternity waiting homes as a complete package (§4.2.3; §4.2.4).
5. Consider further **expansion of CBHI schemes**, bearing in mind (i) their limitation in scope if not set in a wider regulatory framework of solidarity between schemes and links to safety net programming, and (ii) the need to embed them in a wider and more comprehensive health financing framework, while also recognising the role and value of community financing mechanisms in the overall national financing system (§2.1 and §4.2.2).
6. Build on the positive experiences in working with **adolescent girls** to expand their access to health and nutrition services and other opportunities, using the learning from the Lancet 2013 nutrition series and linking with other related sectors (for example, education and agriculture), using the HDA as an effective mechanism to reach young people (§4.2.6).
7. Capitalize on the ongoing **mobile technology** revolution to improve health data collection using the HEWs to extend reach to rural areas and building on good experiences with PATH (§4.2.7).
8. Aim to **eliminate NTDs** by learning from experiences from other countries and building on home achievements, for example, by expanding the progress achieved in controlling Onchocerciasis through greater community-driven treatment with HEWs and improved coordination across all NTDs (4.2.8).
9. Consider implementing elements of **results or performance-based financing**, with serious consideration of the pitfalls and attention to the strengths of the Ethiopian health system, which could facilitate a higher level of ownership and adaptation to the local context (§4.2.9.1).
10. Develop a universal **community-based monitoring and reporting system**, using the HEWs and linking to the Health Management Information System. This sub-system should be embedded in the overall decentralized local government monitoring system to facilitate inter-sectoral coordination (§4.2.9.2).
11. Consider inclusion, or scaling up considerably where already existing, of the **described technical innovations** (chlorine delivery through dispensers, primary therapeutic centres for treatment of malnutrition, insecticide-treated bednets for malaria prevention, the package of maternal and neonatal resources) where funding and technical support for implementation, if required, are available (§4.3).

12. Finally, it should be noted that Ethiopia has made tremendous progress in improving health outcomes for its population and therefore, in addition to these recommendations, should also keep on doing more of what it is already doing well and what is obviously working. The extent and pace of further scale-up will depend largely on the speed of further implementation of the HEP, since many recommendations relate to the HEWs and their support network of primary health care facilities and district managers. Improvements in capacity and skills of each set of actors will have mutually beneficial effects and promote holistic and comprehensive development. The other major factor in scaling up is the level of resources available and their prioritisation to focus on the most critical and cost-effective interventions.

11.4. Recommendations for the Education Sector

1. Provide innovative opportunities to improve quality by (a) channelling resources (teaching and learning materials) direct to schools; and (b) strengthening local capacity for managing quality improvement interventions. As part of prioritizing the quality of education through GEQIP, resources could be channelled to augment school fees for increasing inclusion: (i) enhancing the ABE programs; (ii) targeting pastoralists (mobile schools, boarding schools and hostels etc); (iii) arranging special programmes for over-age children; (iv) enhancing the special needs components of education (§5.3.1.1).
2. ABE should focus on quality improvement and delivering learning outcomes. Provide results-based funding to Woredas against evidence of learning outcomes that can be utilised at facility level through public-private partnerships that encourage innovative solutions, which will be measured by their results. In the short run, (a) commission a comprehensive stakeholder analysis to determine commitment on scaling up ABE innovations and improving the quality of ABE; (b) strengthen the ABE-related data base and information systems, including evidence of cost and benefit, at various levels; and (c) agree/enforce a basic minimum level of physical and material inputs for ABE (§5.3.1.2).
3. Single-sex boarding schools should be used as part of an overall strategy of inclusive education (§5.3.1.3).
4. School Feeding, covered from public resources, should be made a central part of Ethiopia's strategy for education retention and quality. Partnerships between MoE and MoA and with the local level private sector for purchase of local produce and employing local women as cooks will add further value to this intervention. MoE should provide the regulatory framework for local level purchase that allows for innovation within parameters of cost, nutritional value and food health and safety standards (§5.3.1.4).
5. Since teacher quality is key to improving quality and learning in schools, it is recommended that Ethiopia strengthens the use of ICT for continuous professional development (CPD) of teachers and objective evaluation of teacher performance (§5.3.1.5).

6. The lessons of the capacity building initiatives of BESO, already mainstreamed, should be reviewed and resourced and applied effectively in the developing regional states (§5.3.3.1).
7. CFS should be made an integral part of the teacher-training programme, with regional universities and other teacher training institutions integrating the principles of CFS in the training of new teachers. The methodology developed by the Commonwealth of Learning could be utilized (§5.3.3.2).
8. NGOs should be encouraged by MoE to focus on the Early Childhood Care & Education (ECCE) sub-sector, together with the Child-to-Child Approach for School Readiness Programme (CtCSR) to make a difference particularly for children from the poorest households (§5.3.3.3 and §5.3.3.4).

11.5. Recommendations for the Agriculture Sector

1. Investing in building the capacities of and information flow between the three categories (of farmer, researcher and extension worker) is crucial for effective delivery of services in agriculture; but especially of the DAs through recruitment of more women, in-service training, better remuneration, provision of vehicles and mobile telephones. The FTCs are excellent channels for MoARD and ATA to introduce more transferable practices from research centres based in Ethiopia and from other countries that can be adapted and adopted in appropriate agro-ecological zones of Ethiopia (§6.3).
2. Together with better remuneration, incentives, recognition or better service conditions should be extended to the DAs (§6.3).
3. For local level natural resource management to progress, the capacity, funds and human resources of Woreda and Kebele offices for this need to be strengthened. The incorporation of natural resource management into the programmes of the Farmer Field Schools and Pastoral Field Schools should be extended to cover all the country. At the national level, laws and policies that protect the natural resources and environment should continue to be enacted all Woredas (§6.4.1.1 and §6.4.3).
4. Promote ox-ploughing, zero tillage and integrated farming, in areas where they are not known, since these are beneficial and easy to implement if applied to similar Regions with the same agro-climatic conditions as those in which they are currently practiced (See 6.4.2.1).
5. The simplified technology of use of water jars (*jokk* and *yezeyt meyazya goma*) for more effective seed broadcasting can be easily copied by other smallholder farmers, while the widespread success and acceptability of row planting for almost all crops is becoming a new cultural practice that can be extended to Woredas where it is not yet being practiced (See 6.4.2.2).
6. There is good evidence that multiple cropping as a result of establishing an irrigation system is cost-effective, replicable and scalable. This should be promoted as it can bring returns to money invested (See 6.4.2.3).

7. Unlike local cooperatives, which often focus on supplies, Farmer Service Centres (FSCs) combine entrepreneurship, supply of inputs, advice and information. Such a one-stop service is new in Ethiopia and has been successful and acceptable in Oromia. Given seed money, these should be taken to scale and implemented in all Woredas (§6.4.3.1).
8. Studies have indicated that, generally, Pastoral and Farmer Training Centres (P/FTCs) lack facilities to make them successful and effective venues for the transfer of information and knowledge to the farmers. As a key facility in the process of extension, they should be given the requisite facilities in order enhance the effectiveness of the DAs (§6.4.3.2).
9. The innovation of promoting an Urban Agriculture Policy is still in its infancy in Ethiopia. Given the advantages noted (6.4.4) interest in urban agriculture will continue to grow. While currently still confined to Addis Ababa City, adoption and implementation of an Urban Agriculture Policy can be extended to all cities in the country (§6.4.4).
10. Fodder crops can be grown in almost all parts of Ethiopia. As the country continues to settle pastoralists and as it seeks to develop its dairy industry, the need for fodder crops will increase. Their promotion should be taught in P/FTCs and seedlings supplied through FSCs (§6.4.5).
11. Artificial Insemination (AI) is a relatively new practice in Ethiopia and requires skilled persons to carry it out. As the national goal is to improve its dairy industry, there is need to expand this service by training more persons in the technique of AI, so that this service can be extended to all parts of the country (§6.4.6.1).
12. The Participatory Livestock Disease Surveillance system in Somali Region is easy to organize, especially since the pastoralists understand its benefits. It is low cost and effective and can easily be extended to other pastoral Woredas in the country (§6.4.6.2).
13. The agricultural extension service needs to address the special and unique needs of women in agriculture, through the design of the curriculum of extension education, together with affirmative action in the enrolment of females at extension education institutes, and creatively designing ways for male DAs to improve their communication with women (§6.3.3 and §6.3.4).
14. The problem of landlessness for rural youth needs to be addressed, together with promotion of and investment in small-scale farming enterprises, which could attract the youth and reduce the pressure on them to migrate to towns (§6.4.7.2; §6.1.1; §6.1.2).

11.6. Recommendations for the WaSH Sector

15. Continue to engage communities strongly in achieving the water and sanitation goals of OWNPP and CLTSH and IUSH and promote innovative partnerships to deliver the investment, training and maintenance of facilities (§7.2.1 and Boxes 14 & 17).
16. Promote and scale up relevant WaSH innovations (such as water point mapping, water safety planning, managing for results, etc.), with a focus on community participation and diverse and innovative partnerships, within the overall framework of IWRM, in order to strengthen community-based water resource management that is appropriate to local social and environmental conditions and ensure that proven Innovations permeate and inform the National WaSH Policy.

17. Make safe drinking water and improved hygiene a central part of child friendly schools, by providing all schools with separate boys' and girls' toilet facilities located in different parts of the school compound, including girls' urinals as per Malawian girls' design, and providing girls with a rest room and sanitary pads (§5.3.3.2 & §7.2.3)

11.7. Recommendation for Rural Roads Sector

1. Establish a medium to long-term analytical framework for rural transport innovations and outcomes in Ethiopia. The framework should seek to enhance multi-sectoral linkages and clarity on shared policy objectives with other complementary sectors like agriculture, health and education in order to optimize the benefits and positive impacts of all sectors (jointly and individually). The framework should include outcome level indicators across the sectors for which rural transport is a critical contributing factor (§8.2.1 & §8.2.3).

12. Annex 1: Identified Innovations

12.1. Selected Governance for Service Delivery Innovations in Ethiopia

NO	INNOVATION	THEME	RATIONALE FOR SELECTION
1	<i>Kaizen</i> (Mechanism for boosting provision of services)	Management Decentralization	Catalyst for increased/improved service delivery
2	<i>Yelowitbudin</i> (Change Team for reform and strengthening performance)	Management Decentralization	Ensures change, reform and strengthening of service delivery system
3	Financial Transparency and Accountability	Financial Decentralization	A measure and check on Performance and Accountability of Financial Management System
4	Local Budget	Financial Decentralization	Vehicle for delivery of decentralized financial management
5	Capacity Building for Decentralized Service Delivery (CBDSD)	Capacity	Ensures training, transfer of knowledge and building skills, expertise and experience to create an effective and efficient manpower for service delivery
6	<i>Konoba</i> (Participatory Communal Work)	Participation	Promotes practice and spirit of cooperative communal self-help work that contributes to uplifting of the community
7	<i>Gemgema</i> (Consultative& Advisory Community Forum)	Participation	Promotes traditional system of consultations and joint decision-making that is binding on members and benefits the community
8	Collaboration with Diaspora	Partnership	Attracts and unleashes the rich manpower and assets resources of the Diaspora to contribute to local development at woreda level
9	Ethiopian Social Accountability Programme (ESAP)	Social Accountability	Ensures a mechanism representing something close to a social contract between the Government and its

			citizens/community for service delivery and development
10	Grievance & Redress Mechanism (GRM)	Social Accountability	guarantees justice and fairness to even the disadvantaged and helpless members of society

12.2. Selected Health Innovations in Ethiopia

NO	INNOVATION	THEME	RATIONALE FOR SELECTION
1	Maternal & Child Health Focus	Policy Clarity on continuum of care	Internally coherent policies on maternal health; Provider performance standards; Local solutions to major bottlenecks
2	Health Extension Programme & Health Development Army	Institutionalization of Primary Health Care	Engagement of communities at household level in own health care
3	Traditional and Modern Ambulances	Health Access	Local solutions to transport for maternal health
4	Maternity Waiting Centres	Health Access	Strong community links and cultural acceptance; Being able to identify women at risk of complications; Availability of timely and adequate obstetric care.
5	Community-based health insurance	Health Access	Increased access to quality services at time of need
6	Improving Health of Adolescent Girls	Health Access	Vulnerable girls receive appropriate services without discrimination
7	Mobile Phone reporting of malaria	M&E for responsive service delivery	Surveillance assistants involved in achieving timely responsive service
8	Integrated Approach to Neglected Tropical	Quality Service	NTDs tend to affect the poorest and most

	Diseases (NTDs)		vulnerable
9	Performance Incentives	Results Focus	Incentives enable services to meet needs of hard to reach and high-risk groups
10	Community-Based Monitoring (CBM)	Delivery of Responsive Quality services	Service providers respond to community demands and priorities, improving quality, efficiency and changing outcomes
11	Free delivery of Chlorine for water protection	Quality preventive service	Reduction of diarrhoea and water-borne disease
12	Primary Therapeutic Centre	Health Access	Prompt use of oral rehydration for diarrhoea and nutrient supplements
13	Insecticide-Treated Nets (ITNs)	Preventive Service	Effective malaria prevention, especially for children
14	Package of maternal and neo-natal resources	Quality Service	10 simple innovations that reduce risk and complications

12.3. Selected Agriculture Innovations in Ethiopia

NO	INNOVATION	THEME	RATIONALE FOR SELECTION
1	Multiple cropping per year	Water and Irrigation	Introducing an irrigation system , be it from wells or harnessed small streams, has increased yields, increased the types of crops to be grown and brought about multiple cropping per year
2	Row Planting	Sowing and Planting	Planting in rows has eased weeding and harvesting work, thus saving time. It also has made it possible to have the optimum population of plants per unit area
3	Farmer Service Centers	Partnership and Capacity	One stop resource center which provides all the resource needs of the farmer
4	Farmer and Pastoral Training Centers	Capacity	Foci for acquisition of new skills, knowledge and advice and of inter4action

			with the Development Agents
5	Introduction of the growing of fodder crops	Pastures and Fodder Crops	Integral part of the transformation of pastoralists to agro-pastoralists and of the practice of zero grazing ('cut and carry')
6	Adegy Mekala	Food security and Early Warning	Disaster preparedness. The integration of traditional forecasting system with modern early warning system, in both crop and livestock production.
7	Livestock improvement	Quality	Use of artificial insemination in improving the quality of local breeds with semen from high quality breeds
8	Community participation in disease surveillance and search	Animal Disease Control	Effective and integral part of the livestock disease, reporting system, thus prompting control and preventive measures

12.4. Selected Education Innovations in Ethiopia

NO	INNOVATION	THEME	RATIONALE FOR SELECTION
1	School Fee Abolition	Access	Significant impact. Could be used further to enhance equity
2	Alternative Basic Education (ABE)	Access	Significant Impact. High potential to be adapted for the hard to reach groups (such as the pastoralists)
3	Early Childhood Development (zero class; school readiness etc)	Access (plus quality)	High potential for (a) access enhancement (b) quality improvement and (c) equity reduction.
4	Child Friendly School Initiative (CFS)	Access (plus quality)	High potential for quality improvement and gender disparity reduction.
5	Boarding School System for Orphans and children of pastoralists	Access	High potential for disparity reduction
6	Decentralized Financial Management and Resource Flow	Management Decentralization	Significant Impact. High potential for deepening school management
7	Basic Education System Overhaul (BESO)	Management Decentralization	Significant Impact. High potential for capacity building and promotion of girls education.

8	ICT in Education	Delivery and quality enhancement	Potential for (a) reaching the hard to reach population (b) improving quality and (c) provision of relevant market skills for youth employment.
9	NGO Partnerships	Partnerships	Potential for assisting the Woredas to coordinate the various sectors inputs and ensuring quality delivery of and monitoring.
10	School Feeding/School Health	Access and Quality	Impact in improving access and participation of poor children. Has great possibilities for inter-sectoral collaboration.

12.5. Key Innovations in WaSH

- Community Led Total Sanitation
- Household Point-of-use Water Treatment;
- School Water, Sanitation and Hygiene Education Programmes;
- Integrated Water Resources Management;
- Integrated Multi-Partner Action Plan;
- Water Mapping
- Water Bottleneck Analysis Tool (W-BAT)
- Water equity analysis;
- Water quality analysis;
- Water conservation technologies and practice;
- Aquifer monitoring and Aquifer recharge (sand dams, sub-surface dams, transfer of surplus river water to ground storage during wet season, etc.);
- PPP utility management and Block/Community management of urban and rural water supply;

12.6. Selected Rural Roads Innovations in Ethiopia

SNNP Region

Delivery Innovation: Use of rural household labour for lower level road construction and maintenance, including structures to support the community in getting extra revenue. Setting up community participation forums and structures on infrastructural constructions and also encouragement to setting up income collection strategies from the community for different infrastructural constructions like roads and electricity. Also individuals with better wealth participate in provision of machinery, trucks and finance for woreda development activities.

Delivery Innovation: In lower level of construction, encouraging involvement of micro teams (አነስተኛ እና ጥቃቅን ማህበራት) and providing training to the group members how to construct rural roads, small bridges and water-ways behind the roads.

Oromiya Region

Delivery Innovation: There are community contributions, particularly in Rural Roads construction. In construction of low-volume rural roads, the share of the community is 50% matched by the government share of 50%. For the share of the community, half is being covered through labour, while half is through financial contributions. These have enhanced service delivery significantly.

Goderea woreda

The road office implemented a new design of bridge, of pipe type, using iron, sand and cement. Light vehicles like motor bicycle and *bajaj* three-wheeler are now serving the people. The roads are built with close supervision of ERA and the quality of the roads is protected.

Teltelle woreda

“We have gone over 18% coverage of rural roads through URRAP Project. There are two things noteworthy regarding rural roads development.

(i) One is community participation in clearing and earth-work that used to be done by community up to 50% but was not effective due to peoples’ reluctance to engage in road construction. Then the responsibility was taken over by government contractors, which were so costly. Then we decided to take the responsibility to run clearing and earth-work in road construction in our woreda in the year 2006 EC (2013/14). We rented machineries and used our own sector experts to construct the road. As a result we saved government money - 11 million birr in the construction of 19 kms at two sites that is a big difference in cost.

(ii) The second best practice of this woreda is community initiatives. Residents of three villages of about 6,000 people, designed and excavated high mountains that were not tried before by either URRAP, our office or the federal government. People of both sexes and different age levels were participating in the road construction, which covers about 56 kms and have finished the very difficult part of the work. Young males majorly participate in the physical work, while the old and experienced ones advise on the ways/design of construction. The females engage household businesses and feed the people on construction. Their activity has been visited by zonal and regional officers. The visitors were surprised by their commitment to have road access. We used to travel to their villages through SNNPRS region for more than 250 kms. The distance is now shortened to some 56 kms. The difference is significant. As a result of their determination we can reach them with basic services, which were so difficult before because of the distance. Hereafter, responding to the needs of the people living there will be simple. Administrative and developmental activities were so difficult before because of the distance.”

(iii) Another innovation is design for watershed management that is always included in the design of a road. What I can call different and bold here is **integrating forest management and road-side watershed development**. We work with forest development department in this regard. At time of seedlings plantation, we provide the common land, which has mutual benefit – watershed management and forest development.

12.7. International Health Innovations relevant to Ethiopia

Additional information on innovations in the health sector potentially applicable in Ethiopia includes the following:

12.7.1. Free delivery of chlorine through dispensers at water sources to prevent diarrhoea

- *The innovation:* Free delivery of chlorine through dispensers at water sources to prevent diarrhoea.
- *The objectives:* The most cost-effective methods of reducing diarrhoea focus on cleaning water to break the transmission of diarrheal disease. Though the technology exists to deliver uncontaminated, chlorinated water to households through pipes, such methods are usually prohibitively expensive in the developing world, and policymakers should consider more cost-effective options. Point-of-use chlorination, where households add disinfectant after water has been collected from the source, kills germs and also avoids the problem of re-contamination during transport and storage. One of the most cost effective ways to reduce diarrhoea is via free delivery of chlorine through dispensers at water sources.
- *The impact:* Source dispensers, in combination with paid community promoters, increased chlorine usage by 57 percentage points in communities in Kenya, and prevented an estimated 494 diarrheal incidents per \$1,000 spent. The actual cost of this intervention is likely to be even lower if the program were scaled up, as the cost of producing dispensers will fall when mass produced and increased dispenser density will reduce chlorine distribution costs. It is possible to achieve slightly higher cost-effectiveness with unpaid promoters, but there is considerably lower take-up of chlorination.

12.7.2. Primary therapeutic centre for immediate oral rehydration therapy to treat diarrhoea and malnutrition

- *The innovation:* Primary therapeutic centres for immediate oral rehydration therapy to treat diarrhoea and malnutrition providing patients with a treatment of sugar, salt, and water in conjunction with zinc supplements, is used in the most extreme cases of diarrhoea and malnutrition.
- *The objectives:* Burundi successfully launched the Mamans Lumières program, a community health worker initiative meant to educate mothers about nutrition. The program, led by local mothers who have raised well-nourished children, gather mothers to teach them about nutritional cooking and balanced diets. This community-based initiative has continued to expand with promising results in the form of weight gains and vitamin A supplements. It is combined with setting up of primary therapeutic centres for immediate oral rehydration therapy.
- *The impact:* Between 2000 and 2007 alone, vitamin A supplement coverage increased from 38 % to 96% in mothers and children. Burundi's efforts have had a dramatic impact on reducing the social and economic consequences of malnutrition within the country. Upon realizing that undernutrition was responsible for 15% of annual DALYs lost, the country calculated its economic losses. In Burundi's case, this loss in Disability-Adjusted Life Years accounted for an additional 2-3% loss in the country's GDP. Implementing the strategies described above, however, have had a noteworthy impact on economic improvement. Preventing a single low birth weight baby through programs like Mamans Lumières has saved Burundi an average of \$580 per child. In addition, by reducing malnutrition, Burundi has also increased its available workforce. Children who receive proper nutrition through Burundi's new initiatives within the first 1,000 days of life are especially able to continue receiving an education and become productive members of society.

12.7.3. Insecticide-treated nets

- *The innovation:* Insecticide-treated nets (ITNs) are the most prominent malaria preventive measure for large-scale deployment in highly endemic areas.
- *The objectives:* To assess the impact of insecticide-treated bed nets or curtains on mortality, malarial illness (life-threatening and mild), malaria parasitaemia, anaemia, and spleen rates.
- *The impact:* Insecticide-treated nets can reduce deaths in children by one fifth and episodes of malaria by half.

12.7.4. Package of maternal and neo-natal resources:

Backpack Plus for health workers; non-pneumatic anti-shock garment for post-partum haemorrhage; magnesium sulphate for eclampsia; neo-natal resuscitation curriculum; Chlorhexadine for umbilical cord care; Bubble Continuous Positive Airways Pressure; Kit Yamoyo anti-diarrhoeal medicine packaged to fit over CocaCola bottles; Phone Oximeter (mobile phone-based blood oxygen monitoring); Rotovac vaccine against rotavirus; zinc treatment for diarrhoea; pneumonia treatment at Health Centres/Posts.

<http://www.path.org/innovations2015/>

- *The innovation:* these ten technical resources/inventions were identified as the top ten recent innovations in maternal, newborn and child health (MNCH). The objectives and impact are described briefly for each one. They should be included in MNCH programs where feasible.

12.7.4.1. Backpack Plus

a toolkit to empower health workers. The Backpack PLUS Toolkit is a set of solutions aimed at empowering and supporting CHWs, widely recognized to being a crucial resource for achieving the Millennium Development Goals (MDGs) related to health. It includes key drugs and supplies used by CHWs as well as plans for “soft” elements, such as training and access to supervisors. For some people, the only link to the health system may be through CHWs: often unpaid volunteers who work at the ‘last mile’ of health delivery. When deployed well, CHWs can reduce child mortality in communities by 25 percent or more. <http://unicefstories.org/model/chwbackpackplus/>

12.7.4.2. The non-pneumatic anti-shock garment

reduces the impact of post-partum haemorrhage. Postpartum haemorrhage kills more new mothers than any other cause—an estimated 71,800 annually. The anti-shock garment originally conceived by NASA for use in space—can slow excessive bleeding after childbirth and stabilize the mother until she can be treated at an emergency care facility. The garment resembles a wetsuit that can be wrapped around the mother’s lower body and abdomen to direct blood to key organs. Clinical trials by UCSF found a 50 percent decrease in deaths from severe obstetric haemorrhage when the anti-shock garment was used at primary care facilities.

<http://www.path.org/projects/antishock-garment.php>

12.7.4.3. Magnesium sulphate for eclampsia

costs less than a dollar per dose and is the most effective drug to prevent and treat life-threatening convulsions among women with severe preeclampsia and eclampsia—pregnancy-related conditions that claim about 63,000 women’s lives each year.

<http://www.everywomaneverychild.org/component/content/article/1-about/304-magnesium-sulfate-mgso4--product-profile->

12.7.4.4. **Sayana Press**

A contraceptive that comes packaged and pre-filled with a one dose injection system called Uniject. Sayana Press has the potential to improve injectable contraceptive access by increasing the ease, safety, and reach of non-clinic delivery through means such as community-based distribution and social marketing. While Sayana Press is currently not labelled for self-injection, in the longer term, this product may also offer women more control over their use of contraception through home or self-injection. <http://sites.path.org/rh/recent-reproductive-health-projects/sayanapress/>

12.7.4.5. **Helping Babies Breathe**

Although not technically an invention, the program trains one million “birth attendants” to keep babies breathing after they are born, despite the birthing conditions. The program, which reduced newborn mortality by as much as 47 percent in Tanzania, uses innovative teaching tools—including [Laerdal's NeoNatalie newborn simulator](#)—to arm health workers with simple supplies and knowledge needed to safely deliver babies in any setting. <http://www.helpingbabiesbreathe.org/>

12.7.4.6. **Chlorhexidine**

a low-cost antiseptic, prevents deadly infections that enter an infant's body through a newly cut umbilical cord. Few other interventions have as much promise to rapidly reduce newborn deaths at an affordable price—less than \$1 per dose. This year, 7.1% chlorhexidine digluconate was added to the WHO Model List of Essential Medicines for Children, but regulatory and manufacturing hurdles remain. The Chlorhexidine Working Group, an international consortium led by PATH, is taking steps to improve access and help avert many of the hundreds of thousands of deaths caused by neonatal infection each year. https://www.youtube.com/watch?v=RHg9kc1UAQs&list=UUK8hF_5j4QP1ImohdpD6KMg

12.7.4.7. **Bubble CPAP**

- 11) This airway device forces oxygen down babies' lungs to save them from severe respiratory diseases. More than half of premature babies struggle to breathe, contributing to the fact that premature birth is the leading cause of newborn death. A [bubble Continuous Positive Airway Pressure device](#) can save lives by gently flowing pressurized air into babies' lungs, but the \$6,000 price tag is too expensive in low-income settings. Using an aquarium pump to deliver air and a water bottle to relieve pressure, Rice University researchers developed a \$400 version that significantly improved survival rates among newborns in Malawi. <http://borgenproject.org/tag/medical-equipment/>

12.7.4.8. **Kit Yamoyo**

This medical kit contains anti-diarrheal medicine that is packaged to fit over Coca-Cola bottles. Zinc and oral rehydration solution (ORS) are proven, affordable treatments, yet diarrhoea still kills nearly 600,000 children annually. In rural areas, it's often easier to find a bottle of Coca-Cola than these lifesaving medicines. ColaLife developed Kit Yamoyo to bundle and deliver zinc and ORS to African children by piggybacking on the beverage company's delivery system and local social marketing. The kit contains zinc, ORS, and soap, and the packaging serves multiple purposes: a measuring guide, a mixing and storage device, and a cup. <http://www.colalife.org/>

12.7.4.9. **Phone Oximeter**

The mobile phone-based monitoring system is able to report blood oxygen levels for healthcare workers in areas without proper health facilities. The device assists in the diagnosis and treatment of pre-eclampsia and pneumonia. Using a low-cost sensor powered by a mobile phone to measure blood

oxygen levels and then displaying informed advice for diagnosis and treatment, this device can help save mothers and children. <http://www2.lgtmedical.com/products/phone-oximeter/>

12.7.4.10. Rotovac

The vaccine prevents rotavirus related diarrhoea. Rotavirus is the top cause of deadly diarrhoea in developing countries, and this year, an affordable new vaccine demonstrated its ability to protect children from the disease. [ROTAVAC®](http://www2.lgtmedical.com/products/phone-oximeter/) was developed by a cross-sector partnership led by the Government of India and could save thousands of children each year at a cost of about \$1 a dose if licensed and made widely available. <http://www.defeatdd.org/rotavac-clinical-trial-results>

12.8. International Education Innovations that could be adopted in Ethiopia

12.8.1. Access Driven Innovations

12.8.1.1. School Mapping and Micro-planning

School mapping (SM), which originated in France, is a normative approach to the micro-planning of school locations. The objective is to provide technical input into educational micro-planning (school, district, regional) for the purpose of increasing the rational utilization of educational resources. SM is also used to investigate and ensure the efficient and equitable distribution of resources within and between schools systems when large scale reform or significant expansion of an educational system takes place.

School mapping exercises have been tried in many countries. There is evidence from Tanzania suggesting that school mapping process could impact positively on educational development (Galabawa, Agu, and Miyazawa, 2002). In the districts examined by an impact study, it contributed to increased enrollment and improved efficiency in the utilization of resources. There is good evidence on increased enrollment, decreased dropout. The impacts associated with school mapping extend beyond education to include improved efficiency in the utilization of resources. There is suggestive evidence that school mapping could build capacity in terms of human resources development as well as generation of good quality information for planning and decision making. The key question is: can school mapping/GIS methodology be a cost-effective instrument to plan and target the social services for the poor?

12.8.1.2. Conditional/Unconditional Cash Transfer Programs (CCTs & UCTs)

Conditional Cash Transfer Programs (CCTs) are cash transfer programs with strings attached. They are designed to provide cash to poor families in exchange for family investments in human capital principally sending children to school and family members attending regular health clinic visits. CCTs aim to both alleviate current poverty conditions by providing monetary assistance to poor families and to reduce the probability of poverty in the next generation by increasing human capital investment of children today. Benefits are generally provided to the mother/female head of the household, motivated by previous economic studies that suggested that resources controlled by females have larger impacts on child well-being than those controlled by males.

A Malawi Cash Transfer scheme transferred money directly to girls and tested the relative impact of conditionality and found that it was the value of the transfer rather than the conditionality that affected girl's behavior including school attendance, once no longer

dependent on finding “sugar-daddy” patrons. DFID’s Cash Transfer Literature Review notes that: “Substantial management capacity is needed to run CCTs. The evidence around whether the addition of conditionality results in better programme performance than would have been achieved with an unconditional transfer is inconclusive (See Fiszbein, A. and Schady, N., 2009, pp. 155-160 for a review of the available evidence). Unlike CCTs, however, UCTs do not require governments to monitor and enforce conditions, with the additional strain that this would place on severely constrained government capacity. ... Decisions on conditionality should therefore be considered carefully and based on what is feasible and appropriate for a particular context. In practice, attaching conditions to transfers may have less to do with gains in effectiveness and more to do with the political economy of introducing and sustaining tax-financed programmes that transfer income to the poor” (DFID 2011, pp 49-51).

There is good evidence of significant impacts on school enrollment in the initial years of program operation. Magnitudes of program effects range for the Latin American countries from 2 to 13 percentage points and for countries outside the region, from 11.1 to 31.3 percentage points (WB, 2009). The study from Malawi shows significant impact of cash transfers on learning achievement (Baird, McIntosh, and Ozler, 2011). The magnitudes of the impacts are increases of 0.14 standard deviations on English achievement and 0.12 on math achievement tests (using Trends in International Math and Science Study TIMSS questions).

Ethiopia could successfully implement UCTs for reasons of cost efficiency as the implementation of CCTs will be saved from the usual dependence on capacity to manage the programs. The country could think of further incentivizing the process by adding more money if the children were in the secondary school than in primary school and genderizing it if it was a girl who went to school. The payments could be presented as ‘compensation’ to the family for the wages lost when their child went to school instead of working.

12.8.1.3. School Voucher Programs

School vouchers are a kind of incentive program that provides payments to parents and/or students (or directly to the school on the parents’/students’ behalf) to cover the cost of school attendance at a private or public school. The objective is to foster school competition and generate quality improvement by providing parents and students with funds to effectively demand for good education for their children and choose which school to send their children. Chile provides a very good example/case of a nationwide school voucher program. The program was introduced along with decentralization reforms by Augusto Pinochet’s military government in 1981.

Bravo, Mukhopadhyay, and Todd (2010) study of the effects of Chile’s school voucher reform found that it: (i) increased high school (grades 9-12) graduation rates by 3.6 percentage and the percentage completing at least two years of college by 2.6 percentage points; (ii) individuals from poor and non-poor backgrounds on average experienced similar schooling attainment gains; (iii) increased lifetime utility and modestly reduced earnings inequality.

12.8.1.4. Food for Education (FFE) Programs

Many children globally do not attend and participate in schooling, in part because of hunger or malnutrition. The objective is to increase the participation of children in schooling by providing school meals. The conventional wisdom is that school meals bring more children into school, keep them coming back each day and make it easier for them to learn. FFE programs have been advocated to increase school enrollment, school attendance, and performance in school by World Food Program (WFP) and the US Department of Agriculture (USDA). FFE programs

typically involve: (a) school feeding programs (SFP) and/or (b) take home rations (THR) for student enrollment and regular attendance (often defined as 85% of the school days in a time interval, such as a month). Typically FFE programs attempt to target poorer families through means testing or through targeting schools attended primarily by children from poorer families. The US government and WFP have operated such programs for more than four decades. The implementation experiences of these programs have been studied. The followings are the main findings: (i) enrollment effects were positive; (ii) attendance rates increased after the feeding began; (iii) students receiving meals concentrated better demonstrated improved attitudes toward learning, comprehended subject matter faster and were more energetic (USDA, 2004; Alderman, Gilligan, and Lehrer, 2010, 2008)

There is good evidence on the program effects on enrollment and attendance. The evidence on effect on learning is suggestive “improved attitudes towards learning”. What we need to know is how the program will be sustained. That is to say why many governments avoid taking it up irrespective of the huge successes in getting children to school. How can food for education be designed and implemented in ways that are beneficial to the societies in both the short and long terms.

12.8.1.5. School-Based Health Programmes

Poor health may limit school participation, especially in developing countries. Intestinal helminthes (such as hookworm, roundworm, whipworm and schistosomiasis) affect a quarter of the world’s population, and are particularly prevalent among school age children. The objective is to improve school participation and learning through low cost school health interventions such as deworming and iron and vitamin supplements. Moderate to severe worm infections can also lead to iron deficiency anemia, protein energy malnutrition, and undernutrition. Available low-cost, single dose oral therapies can reduce hookworm, roundworm, and schistosomiasis infections by 99 percent and the World Health Organization (WHO) has endorsed mass-school based deworming programs in areas with high helminthes infections.

There is good evidence on the impact of the program on school participation and cost-effectiveness. School health interventions have been found to have some great and cost-effective impacts on education. Studies have shown that: (i) deworming programme led to a 7.5 percent average gain in primary school participation and a reduction in absenteeism of at least 25 percent in treatment schools; (ii) iron supplementation, deworming, Vitamin A supplements given to 2-6 year school pre-school children (an intervention that costs only \$1.70 per child per year) resulted to a sharp increase of 5.8 percent in pre-school participation rates (Kremer and Miguel, 2003).

12.8.2. Efficiency Driven Innovations

12.8.2.1. School-Based Management

Education systems are extremely demanding of the managerial, technical and financial capacity of governments and, thus, as a service, education is too complex to be efficiently produced and distributed in a centralized fashion. There is a trend toward increasing autonomy, devolving responsibility and encouraging responsiveness to local needs, all with the objective of raising performance levels. The argument in favour of decentralized decision making in schools is that it fosters demand at the local level and gives voice and power to local stakeholders and consequently strengthens the short route of accountability. The objective is to improve school performance by strengthening the short accountability framework of school

based management.

There are many strategies/innovations on how to do the SBM. Ethiopia's Kebele, school cluster, experiences lays the context for improvement/strengthening. Other variants of lessons that could be utilized/adopted and adapted may include: (a) community school management in Nepal; (b) NGO management of school in Pakistan; (c) School Committee management of schools (Central America, Gambia, Senegal etc); (d) School quality management Support Program in Mexico; (e) Extra Teacher Support project in Kenya; (e) teacher performance and posting incentives

There is good evidence of the impact of SBM on school participation. Several studies show that School Based Management (SBM) led to reduction in repetition rates, failure rates, and to a lesser degree, dropout rates (Di Gropello and Marshall, 2005; Skoufias and Shapiro, 2006). Improvements in student performance have been reported as a result of financial decentralization policies in some Asian countries, but such improvements were usually of small magnitude (UNESCO, 2012).

12.8.2.2. School Level Report Card Programs

School-level report card interventions come very close to the notion of creating and generating information that can be used by parents to make better choices and can empower them to participate more effectively in school management or lobby local governments for action. The objective is to increase parental knowledge about the quality of instruction in schools and raise parent's voice in school matters at the school council.

Some of the developing countries that have tried this innovation include: (i) Brazil (the state of Parana) experimented with school report cards between 1999 and 2002 to increase parental knowledge about the quality of instruction in schools and raise parents voice in school matters at the school council (Winkler, 2005); (ii) In 2004, the Civic Engagement for Education Reform in Central America (CERCA) began implementing a school-level report card that combines information reporting with a proactive participatory approach to school priority setting (Florez, Chesterfield and Siri, 2006); (iii) In Kano State, Nigeria, communities received school report cards that included basic information about their schools (Winkler and Herstein, 2005); (iv) Another experience in six northern regions of Namibia of school self assessment system involved parents and school councils in the writing of their own report cards and school improvement plans (Gillies, 2004).

These interventions impacted positively on school processes. The Brazil Paraná experiment increased the voice of parents in policy debates about education (Winkler, 2005) and also acted as a management tool at the school level. The anecdotal reports on CERCA project showed that compared with nonparticipating schools with similar profiles, participating schools experienced higher involvement of community of community members in school activities (Florez, Chesterfield, and Siri, 2006). With respect to the Kano, Nigeria experiment, anecdotal reports indicate that information increased transparency in the management of the system also helped strengthen accountability links between the communities and schools. The school self-assessment initiative in Namibia succeeded in mobilizing parents, communities and schools to be participate in the management of their schools.

There is good evidence on the effects of the school cards program in improving voice of parents and communities in school management. However, there is no evidence of the impact of school cards in the improvement of learning. There are very few (if any) rigorous evaluations of these experiments. What is important to know is the impact of these experiments on schooling and in particular learning. They have great potentials as they are simple, practical

and could be cost-effective.

12.8.2.3. Public Expenditure and Input Tracking System

One other approach by which information has been used to increase accountability is through the public resource tracking. Leaks in the flow of funds or in-kind resources –such that little reaches front-line service providers have been documented in many settings (World Bank, 2003). Publicly disseminating school specific information on what resources to expect –thereby mobilizing communities to monitor the resource distribution –has been tried as an approach in reducing leaks. One good example is The Philippines Textbook Count 1-2-3 program instituted to combat corruption in the textbook supplies (Leung, 2005). Another example is the Uganda Newspaper Campaign around the Capitation Grants for schools. The information campaign involved publishing budget flows to districts, including amounts and dates in national newspapers –including local language editions. Monitoring of the districts by the central government was also strengthened.

There is good evidence that the interventions improved transparency, efficiency and saved costs. By 2005, all textbooks produced were delivered (compared with an estimated loss of 40 percent in 2001, textbook prices were reduced, and quality standards reportedly improved. The Ugandan News paper campaign has been credited with (a) increasing the share of public spending allocated to schools that actually reached schools from 20 percent in 1995 to around 80 percent in 2001 (Reinikka and Svensson, 2005) (b) improving total enrollment in schools where expenditure shares increased (Reinikka and Svensson, 2005) (c) and students in areas with high exposure to newspaper circulation scored better in the Primary Leaving Exam than students in the districts with less exposure (Bjorkman, 2006).

12.8.3. Quality Improvement Driven Innovations

12.8.3.1. Student Performance-Based Incentive (PBI) Programs

Over the last decade, there has been substantial interest in improving the performance of schools by providing financial incentives for better performance. Three innovations examined here are: (a) Israeli Cash-incentive program implemented in 40 high schools randomly selected which offered all students within the selected treatment schools incentives for progressing from tenth to eleventh grade, eleventh to twelfth grade, and for passing the Bagrut exam ; (b) Merit scholarship program for girls implemented in two districts of Kenya in which scholarships were awarded to the top scoring 15% of sixth-grade girls on standardized achievement tests and included paying of school fees and a transfer for school supplies to girls' parents; and (c) Mexican incentive program to align learning incentives (ALI) (Behrman et al, 2012).

The results show that: (a) the Israeli Cash Incentive program increased Bagrut passing rates by 6-8 percentage points (Angrist and Lavy, 2009); (b) Merit Scholarship Programs for Girls raised achievement by 0.2 standard deviations and both student and teacher school attendance increased in program schools (Kremer, Miguel and Thornton, 2009); (b) Align Learning Incentives produced significant and large impacts on math test scores by 0.6 standard deviations in the third program year for the cohort entering high school in 2008-9 (Behrman, et al, 2012).

12.8.3.2. Test-Based School Rankings

Ranking of schools based on test scores, as an accountability measure, originated largely in

the United States, some developing countries have tried to use this approach. Chile has a long –standing history of publishing average test scores by school in 1988, the National System for Measuring the Quality of Education (SIMCE) was established and, since the mid-1990s, its results have been widely disseminated, in part through newspaper listings of schools' rankings. The objective is to improve school quality by stimulating competition between schools through school ranking. The logic was that a ranking of schools, along with linking school funding to the number of students at each school, would stimulate competition that would, in turn, improve school quality.

Since 1992, the Brazilian state of Ceara has publicly rewarded the best performing schools with its New Millennium School Prize (Brooke, 2005). All schools in the state are ranked according to the new average performance of their fourth- and eighth-grade students in Math and Portuguese standardized tests. While awards are given to both school personnel and the best performing students, the main stated goal is to promote public recognition of high performing schools. Since 2000, the state of Rio de Janeiro emulated this approach with its New School Program (Brooke, 2005). Longitudinal data on students' test scores in Math and Portuguese and on students' characteristics are used to construct a measure of individual value-added performance, conditional on observable indicators and all these have seen general improvement. DFID funded in Malawi a School Maintenance competition awarding the Best Kept School in each District and in the country as a whole, rewarded with the building of a teacher's house and other rewards for the community (DFID, 2010).

There is suggestive evidence ranking and competition between schools impacts positively on schools putting more effort to do well. What we need to know is whether targeting efforts on test-scores would not make teachers and school authorities to neglect other schooling domains.

12.8.3.3. Remedial Education programs

Many developing countries have substantial numbers of educated, unemployed young people who could be cheaply hired to provide supplemental or alternative instruction in schools. Pratham, an Indian NGO, implemented a remedial education program in 1994 that now reaches over 200,000 children in twenty cities. Motivated by the belief that children often drop out of school because they fall behind and feel lost in class, the program hires young women from the communities to provide remedial education in government schools. These women, the "Balsakhis," have the equivalent of a high school degree and are from the slum communities in which the schools are located. The Balsakhis teach children who have reached grade 2, 3, or 4 but have not mastered the basic grade 1 competencies. Children identified as lagging behind are pulled out of the regular classroom for two hours a day to receive the remedial instruction (See Banerjee, Duflo and Linden, 2005)

The implementation of the program has met with good results. After two years the program increased student test scores by 0.39 standard deviations on average. Most importantly, the gains were largest for children at the bottom of the distribution: those in the bottom third gained 0.6 standard deviations after two years. The educational impact of the program, combined with the data on the costs of teachers, suggests that hiring remedial education teachers from the community (at a cost of one or two dollars per child per year) appears to be twelve to sixteen times more cost-effective than hiring new teachers (Kremer, 2006).

There is good evidence on the impact of the program on learning; and very importantly on the schooling and learning of children from low socio-economic background. There is also good evidence on the cost-effectiveness of the program. What we need to know is how the program could be adapted in a different context.

12.8.3.4. 900 Schools Program of Positive Discrimination

The program inaugurated in Chile (in 1990) adopts the positive discrimination principle, through which a set of special measures were implemented to support the improvement of learning results in the 10% of primary schools with worst results (Cox, 2004). The program does the followings: (i) supports teachers and students particularly of the first four grades of primary education, with learning materials for language and Mathematics; (ii) develops teachers workshops in every school on both subjects; (iii) implements in every participant school a learning workshop for the pupils with more difficulties –in learning or in the affective domain, who in extra-curricular time are tutored by a monitor from the community, who is paid and trained by the program. The schools participate in the program for three years, and those which improve their learning results as measured by the national evaluation system (SIMCE) leave the program and start to participate in the universal programs of school and teachers' support of the Ministry of Education.

The program had positive impact on the results of the schools. The improvement of results in both subject-areas in the P.900 schools is sustained along the decade and greater than in the rest of the schools. The growth means a shortening of the gap that historically separated the social groups attending these schools of the country (Cox, 2004). More generally, the programme confirmed the effectiveness of compensatory strategies. The program has good evidence on its impact to learning and in enhancing of equity. What we need to know is the cost-effectiveness of the program implementation.

12.8.3.5. NGO-State Partnerships and Quality of Education

As part of the international efforts to addressing primary education there have increasingly been calls to expand governance and educational resources by fostering partnership between governments and NGOs to address quality issues at the local level more effectively (Draxler, 2008). The partnership between Pratham (an Indian NGO) and the state governments of Uttar Pradesh (UP) and Himachal Pradesh (HP) in Northern India is reflective of this call and trend. This is a strategy involves NGO (Pratham)-state collaboration for the delivery of public services. Pratham created and implemented state-specific quality improvement programs in an effort to improve quality and raise the learning achievements of marginalized students in government schools.

Two of Pratham's collaborative programs with the states are Nai Disha and Adhaar. Adhaar aimed to eradicate illiteracy and innumeracy among children at the lowest learning levels in HP and to improve the math and reading skills of children in grades 2-5. Nai Disha, focused on increasing the reading, comprehension, and arithmetic learning levels of children in grade 1 and 2 across the state of UP, with a strong focus on the weakest students (Betrorelli and Brar, 2012)

The collaboration between Pratham and the two states –UP and HP-in India produced huge successes. Between 2006 and 2008, the NGO trained over 140,000 teachers, mobilized more than 97,000 community volunteers and engaged over 2.5 million students in 55,613 schools in UP and HP (Heyman and Cassola, 2012). The Nai Disha quality initiative improved learning achievement among children at the lowest learning levels. In the pilot year, the percentage of grade 1 students in participating schools who were unable to recognize letters and basic words, and the percentage that could not recognize numbers from 1 to 20, both dropped by close to 50 percentage points. The initiative also produced a nearly 20 percentage point increase in the number of grade 2 students who could read basic stories and a nearly 30

percentage point increase in the number of children who could add or subtract with numbers ranging from 1 to 100 in its pilot year

Assessing strength of Evidence

There is good evidence that the partnership between Pratham (NGO) and the state governments of UP and HP produced significant education outcomes in access, efficiency and quality. In terms of pedagogy, training, organization and assessment and results, this partnership seems to me to be a model on how other developing countries with the complexities of India should emulate. Very importantly, Pratham has now implemented its quality education initiative in 21 out of 28 states in India, allowing it to work with and reach millions of children across the country.

12.8.3.6. One Laptop per child computer (OLPC)

Educators in the 21st century are increasingly realizing that students entering the classroom today are much different from those who have come before. Today's students are demanding a change in the classroom because of their ability to gather information faster than any previous generation (Sheskey, 2010). Understanding the concept of the *digital native* and the *digital immigrant* (Prensky, 2005/2006) will help us understand the modern student's engagement with technology. The famous "One Laptop per Child" project, (OLPC) by Nicholas Negroponte of MIT Media Lab which is bringing inexpensive laptops to disadvantaged students around the globe is an innovation that puts the challenge and opportunities of learning in the hands of students. It enables the students to be engaged in the searching process

The OLPC initiative has latterly found itself continuing to be one of the most substantial –and certainly most visible –global educational technology projects of recent times (Selwyn, 2013). The programme is fast being adopted in many countries and lauded as an example of innovative international development –to the point of calls "for the OLPC program to be designated by the UN as a new Millennium development Goal". (Tabb, 2008: P.337)

According to the CEO of Google, Eric Schmidt: "Search is so highly personal that searching is empowering for humans like nothing else; it is about self-empowerment; it is antithesis of being told or taught. It is empowering individuals to do what they think best with the information they want.....Search is the ultimate expression of the power of the individual; using a computer, looking at the world, and finding exactly what they want, everyone is different when it comes to that (Friedman, 2005, p.156). Use of computers to improve learning outcomes, with each child able to set his or her own pace through the program, was tested in India by Banerjee et al, Aug 2007. There is suggestive evidence on the impact of the program in liberating learning. The program has not been very rigorously evaluated; but common sense suggests there could be huge potentials.

13. Annex 2: Bibliography

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14. Annex 3: Woreda Sampling Frame Formula and Numbers and Records

14.1. Woreda Selection Criteria

The following methodology was applied for choosing the 78 Woredas that will be visited during the innovations study. The steps were as follows – where a Woreda is already selected in an earlier step take the next highest/lowest depending on the step criteria:

1. List all Woredas in Ethiopia, grouped by Region, Zone and population (as in 2007 Census).
2. Allocate 78 Woredas to Regions using “probability proportional to sample size” and treating Harar and Dire Dawa together. That is, Regions with larger populations will get a higher number of Woredas out of the 78 to be studied.
3. Now select the Woredas that will be visited in each Region. Suppose Region A (eg Oromia) has a total of Z Woredas from which Y (out of the 78) is the number of Woredas to be visited in this particular Region, then select the Y Woredas from Z total by ensuring the following criteria:
 - i) Include the Zone capital nearest the Regional capital
 - ii) Include the Woreda in that Zone furthest from that Zone capital
 - iii) Include furthest Zone capital from the Regional capital
 - iv) Include furthest Woreda in the Zone from that Zone capital
 - v) Include the Woreda with the highest number of **formally employed people per capita** (proxy for economic performance)²⁹⁵
 - vi) Include the Woreda with the lowest number of formally employed people per capita (proxy for GDP)
 - vii) Include the Woreda with the highest access to primary education in terms of primary Gross Enrolment Ratio (GER)
 - viii) Include the Woreda with the lowest access to primary education in terms of primary Gross Enrolment Ratio (GER)
 - ix) Include Woreda with highest % of population with improved source of drinking water
 - x) Include Woreda with lowest % of population with improved drinking water
 - xi) Include woreda with highest % of children vaccinated against measles
 - xii) Include woreda with lowest % of children vaccinated against measles
 - xiii) Include woreda with highest percentage of births delivered with trained assistants
 - xiv) Include woreda with lowest percentage of births delivered with trained assistants
 - xv) Include at least one PSNP Woreda in each Region
 - xvi) Include at least one non-PSNP Woreda in each Region
 - xvii) Include up to 3 Woreda not selected above that are reputed in the Regional meeting to have significant innovations
 - xviii) If necessary, repeat steps (v) on with the next highest/lowest until have the number of Woredas determined for that Region.

14.2. Table 4: Proposed sample size and kind of activities by Region and number of Woredas

Region	Number of Woredas	Region level Key informants	Woreda level Key Informants	Woreda FGD	Total Activities
Tigray	10	20	70	110	200
Afar	5	20	35	55	110
Amhara	18	20	126	198	344
Oromia	25	20	175	275	470
Somali	7	20	49	77	146

²⁹⁵ Based on population census data, calculate the number formally employed divided by the total population for that Woreda

Benishangul-Gumuz	4	20	28	44	92
SNNPR	14	20	98	154	272
Gambella	3	20	21	33	74
Harari / Diredawa	3	20	21	33	74
Addis Ababa	7	20	49	77	146
Total	96	200	672	1056	1928

14.3. Woreda Sample

The Woredas selected according to the criteria are listed below, together with the availability of secondary data and the number of sector Summaries, mostly just KIIs with Bureau heads. These wider discussions at Woreda level were intended to identify innovations to be followed up in the field in order to complete the Proforma on Innovations

14.4. Table 5: Distribution of Data Collection Interview Summaries

(not including FGDs)

Level	Secondary Data Set	Agriculture	Health	WaSH	Rural Roads	Education	Governance / Finance
10 Regions	5	10	8	2	1	10	9
96 Woreda	56	88	96	8	9	95	93

14.5. Table 6: Sample Woredas and Innovation Summaries

(mostly KII with Bureau Heads)

No.	Region	Woreda	Available Data Secondary	Sector Summaries Produced					
				Agriculture	Health	WaSH	Rural Roads	Education	Governance/Finance
1	Addis Ababa	Addis Ababa Regional		Y	Y			Y	Y
2		AKAKI KALITY Woreda 2		Y	Y			Y	Y
3		AKAKI KALITY Woreda 7		Y	Y			Y	Y
4		ARADA Woreda 1		Y	Y			Y	Y
5		ARADA Woreda 4		Y	Y			Y	Y
6		BOLE Woreda 13		Y	Y			Y	Y
7		KIRKOS Woreda 2	y	Y	Y			Y	Y
8		KIRKOS Woreda 8		Y	Y			Y	Y
9	Afar	Afar Regional	y	Y	Y			Y	Y
10		Afambo	y	Y	Y			Y	Y
11		Burea Madaitu		Y	Y			Y	Y

12		Konaba	y	Y	Y	Y		Y	Y
13		Awash Fentale	y	Y	Y	Y		Y	Y
14		Asayta	y	Y	Y			Y	Y
15		Amhara Regional		Y	Y			Y	
16		Bahir Dar Zuria		Y	Y			Y	
17		Banja	y	Y	Y			Y	Y
18		Bati	y	Y	Y			Y	Y
19		Berheret	y	Y	Y			Y	Y
20		Dawa Chefe	y	Y	Y			Y	Y
21		Debreberhan	y	Y	Y			Y	Y
22		Farta		Y	Y			Y	Y
23		Fogera	y	Y	Y			Y	Y
24		Gozamin	y	Y	Y			Y	Y
25		Gubalafto	y	Y	Y			Y	Y
26		Guanguwa	y	Y	Y			Y	Y
27		Jilla Tumuga	y	Y	Y			Y	Y
28		Kallu		Y	Y			Y	Y
29		Kemisie	y	Y	Y			Y	Y
30		Menz Lalo	y	Y	Y			Y	Y
31		Menz Mama	y	Y	Y			Y	Y
32		Minjar	y	Y	Y			Y	Y
33		Simada	y	Y	Y			Y	Y
34		Benishangul Regional	y	Y	Y	Y		Y	Y
35		Guba		Y	Y			Y	Y
36		Mandura		AEW FGD	Y			Y	Y
37		Pawea	y	Y	Y			Y	Y
38		Yaso	y	Y	Y			Y	Y
39		Gambela Regional	y	Y				Y	Y
40		Abobo	y	Y	Y			Y	Y
41		Abol-Gambella	y	Y	Y			Y	Y
42		Godere	y	Y	Y			Y	Y
43		SNNP Regional	y	Y	Y	Y	Y	Y	Y
44		Arba Minch Town	y	Y	Y			Y	Y
45		Dale-Wereda	y	Y	Y			Y	Y
46		Damot Gale	y	Y	Y			Y	Y
47		Durame		Y	Y			Y	Y
48		Hawassa Zuria		Y	Y			Y	Y
49		Meinit Goldya	y	Y	Y			Y	Y
50		Meinit Shasha	y	Y	Y			Y	Y
51		Mizan Aman		Y	Y	Y	Y	Y	Y
52		Nyangatom	y	Y	Y			Y	Y
53		Sodo Zuria	y	Y	Y			Y	Y
54		Sorro		Y	Y			Y	Y
55		South Ari	y	Y	Y			Y	Y
56		West Abaya		Y	Y			Y	Y
57		Wondo Genet	y	Y	Y			Y	Y
58		Oromiya Regional		Y	Y			Y	
59		Adaa		Y	Y			Y	Y
60		Adama		Y	Y			Y	Y
61		Adama Town		Y	Y			Y	Y
62		Arsi Negelle		Y	Y			Y	Y

63		Batu	y	Y	Y			Y	Y
64		Bedele			Y	Y		Y	Y
65		Bedesa Town	y	Y	Y			Y	Y
66		Begi		Y	Y			Y	Y
67		Dandi	y	Y	Y		Y	Y	Y
68		Dawwe Kachan		Y	Y	Y	Y	Y	Y
69		Dembidolo		Y	Y			Y	Y
70		Dugda		Y	Y			Y	Y
71		Gola Oda	y	Y	Y			Y	Y
72		Gursum	y	Y	Y			Y	Y
73		Guto Gida	y	Y	Y		Y	Y	Y
74		Haranna Buluk		Y	Y	Y	Y	Y	Y
75		Harro Limmu		Y	Y			Y	Y
76		Horo Guduru	y	Y	Y			Y	Y
77		Jaldu	y	Y	Y		Y	Y	Y
78		Mako		Y	Y			Y	Y
79		Mieso	y	Y	Y			Y	Y
80		Miyo		Y	Y	Y	Y	Y	Y
81		Nejo		Y	Y			Y	Y
82		Teltelle		Y	Y	Y	Y	Y	Y
83		Yabello		Y	Y			Y	Y
84	Tigray	Tigray Regional	y	Y	Y			Y	Y
85		Abiy Adi	y		Y			Y	Y
86		Adigrat	Y		Y			Y	Y
87		Alamata	y		Y			Y	Y
88		Atsbi	y	Y	Y			Y	Y
89		Korem Town	y		Y			Y	Y
90		Lalay Machew	y	Y	Y			Y	Y
91		Semen Mekele Town	Y		Y			Y	Y
92		Shiraro Town	Y		Y			Y	Y
93		Werie Leke	Y	Y	Y			Y	Y
94		Wukro Town	Y		Y			Y	Y
95	Somali	Somali Regional		Y	Y			Y	Y
96		Awbere		Y	Y			Y	Y
97		Babile Woreda		Y	Y			Y	Y
98		Erer Woreda	Y	Y	Y			Y	Y
99		Gursum Woreda	Y	Y	Y			Y	Y
100		Jijiga Wereda	Y	Y	Y			Y	Y
101		Kebri Beyah		Y	Y			Y	Y
102		Shinile		Y	Y			Y	Y
103	Harari-DireDawa	Harari Regional		Y				Y	Y
104		Harari - Hakim		Y	Y		Y	Y	
105		Dire Dawa		Y	Y			Y	
106		Dire Tayara		Y	Y				
			Secondary Data	Agriculture	Health	WaSH	Rural Roads	Education	

	TOTALS	REGIONS 10	5	10	8	2	1	10	9
		WOREDA 96	56	88	96	8	9	95	93

14.6. Table 7: Distribution of Innovation Proforma

Region	having any proformaWoredas	Name of Innovation	Potentially useful for scaling up	Real Innovation	Minimal Proforma	Partial Proforma	Profrma Capable of Analysis	Complete Proforma including impact	Agriculture	Health	WASH	Rural Roads	Education	Governance/Finance	Multi-sector	Total Proforma submitted by BDS-CDR
Addis Ababa	3/7 Woredas	Total	2	2	4	4	6	0	7	1	3	0	1	0	2	14
Afar	5/5 Woredas	Total	0	0	5	0	0	0	1	0	2	0	0	0	2	5
Amhara	18/18 Woredas	Total	19	27	41	7	2	0	8	14	3	0	16	12	1	54
Benishangul	4/5 Woredas	Total	0	0	5	2	0	0	3	1	1	0	1	0	1	7
Gambella	3/3 Woredas	Total	6	6	23	4	1	0	10	6	2	1	3	5	1	28
Harari-Diredawa	2/3 Woredas	Total	10	7	2	2	5	2	4	0	0	0	4	3	0	11
Oromia	5/24 Woredas	Total	2	4	3	1	2	0	2	0	0	1	2	0	1	5
SNNP	1/14 Woredas	Total	2	0	12	2	0	0	1	6	0	0	6	0	1	14
Somali	7/7 Woredas	Total	2	0	9	0	0	0	1	3	0	0	5	0	0	9
Tigray	7/10 Woredas	Total	3	2	3	3	1	0	2	2	0	0	1	2	0	7

Overall	55/96 Woredas	Total	46	48	107	25	17	2	39	33	11	2	39	22	9	154

14.7. Table 8: Named Innovations in Proforma

			upPotentially useful for scaling	Real Innovation
Region	Woreda	Name of Innovation		
Addis Ababa	Regional	Hybrid Cows		
Addis Ababa	Regional	Management of Stray Urban Dogs		
Addis Ababa	Regional	Urban Agriculture Policy	1	1
Addis Ababa	Regional	Regulation of Meat Products		
Addis Ababa	Regional	Planning Major WASH Investment		
Addis Ababa	Regional	Modified Information Desk		
Addis Ababa	Regional	National Health Development Army		
Addis Ababa	Regional	Youth Volunteers Beyond Borders	1	1
Addis Ababa	Regional	<i>Sub-Total</i>	2	2
Addis Ababa	Akaki Kality #1	Effective Micro-Organism Animal Feed		
Addis Ababa	Akaki Kality #1	<i>Sub-Total</i>	0	0
Addis Ababa	Arada #1	Vertical Poultry Cage Stacks		
Addis Ababa	Arada #1	Expanding Off-site Sewage Disposal		
Addis Ababa	Arada #1	Modified Off-site Sewage Disposal		
Addis Ababa	Arada #1	National School Feeding Programme		
Addis Ababa	Arada #1	<i>Sub-Total</i>	0	0
Addis Ababa	Arada #4	Vegetable Growing in Sacks		
Addis Ababa	Arada #4	<i>Sub-Total</i>	0	0
Addis Ababa	3/7 Woredas	Total	2	2
Afar	Afambo	Community Participatory Financial Accountability		
Afar	Afambo	sub-Total	0	0
Afar	Asayta	Hybrid Livestock and Improved Feeds		
Afar	Asayta	sub-Total	0	0
Afar	Awash	Community-led Total Sanitation & Hygiene		
Afar	Awash	sub-Total	0	0
Afar	Burea Mudaitu	Multi-village water supply		
Afar	Burea Mudaitu	sub-Total	0	0
Afar	Konaba	Resettlement in villages		
Afar	Konaba	sub-Total	0	0
Afar	5/5 Woredas	Total	0	0
Amhara	Regional	training teachers of blind & adapting books into Braille	1	1
Amhara	Regional	one-day enrolment campaign - partnership	1	1
Amhara	Regional	Radio education and use of flash discs	1	1
Amhara	Regional	Reading corner in primary schools	1	1
Amhara	Regional	Teacher recognition incentive using schools festival	1	1

Amhara	Regional	School charity club to support poor children		
Amhara	Regional	School drama clubs		
Amhara	Regional	1to5 Parents Groups promoting school enrolment		
Amhara	Regional	Community participation in water point site selection		
Amhara	Regional	Construction in stone and training stone masons		
Amhara	Regional	sub-Total	5	5
Amhara	Bahrdar Zurya	Adoption of BBM for cultivating clay soil	1	1
Amhara	Bahrdar Zurya	Adoption of modified Top-bar Bee-hives	1	1
Amhara	Bahrdar Zurya	Project Proposal for funding ICT in schools		
Amhara	Bahrdar Zurya	Mariam meshegnet ceremony - delivery in facility	1	1
Amhara	Bahrdar Zurya	HEWs giving ITNs free to mothers		
Amhara	Bahrdar Zurya	National Health Extension Programme		
Amhara	Bahrdar Zurya	Community Health Insurance		1
Amhara	Bahrdar Zurya	Long-term contraceptive for women		
Amhara	Bahrdar Zurya	Modified local stretcher "Traditional Ambulance"		
Amhara	Bahrdar Zurya	Working with Influential Individuals for Behaviour Change		
Amhara	Bahrdar Zurya	sub-Total	3	4
Amhara	Banja	Training in planning and M&E		
Amhara	Banja	Training on budgeting		
Amhara	Banja	Training on Inspection & Auditing		
Amhara	Banja	Training on Project management and monitoring		
Amhara	Banja	sub-Total	0	0
Amhara	Bati	Sports Matches to address seasonal absenteeism		1
Amhara	Bati	sub-Total	0	1
Amhara	Berhet	One parent One book - library donations		1
Amhara	Berhet	sub-Total	0	1
Amhara	Debrebirhan	Local design and materials for bathrooms		
Amhara	Debrebirhan	Drainage of water-logged fields		
Amhara	Debrebirhan	Household vegetable production by F, using <i>shera</i>	1	1
Amhara	Debrebirhan	Public ranking of farmers' productivity as an incentive	1	1
Amhara	Debrebirhan	sub-Total	2	2
Amhara	Dewa Chefa	DayOne Class One - prompt start of school year		1
Amhara	Dewa Chefa	sub-Total	0	1
Amhara	Fartah	Working with Influential Individuals for Behaviour Change		
Amhara	Fartah	National Health Extension Programme		
Amhara	Fartah	Community Health Insurance		1
Amhara	Fartah	Long-term contraceptive for women		
Amhara	Fartah	Mobilising all - watershed management / erosion control		1
Amhara	Fartah	sub-Total	0	2
Amhara	Fogera	Community Based Health Insurance with ID cards	1	1
Amhara	Fogera	Financial Transparency & Accountability Programme		
Amhara	Fogera	Social Accountability Programme		
Amhara	Fogera	sub-Total	1	1
Amhara	Gozamin	Drainage of marshy areas		

Amhara	Gozamin	sub-Total	0	0
Amhara	Guanguwa	Training on Planning & Budgeting		
Amhara	Guanguwa	sub-Total	0	0
Amhara	Gubalafto	BoFED Focal Person for each sector office	1	1
Amhara	Gubalafto	Public Display of Budgets	1	1
Amhara	Gubalafto	Coffee ceremony for HIV messaging to staff	1	1
Amhara	Gubalafto	Training for Public Financial Management		
Amhara	Gubalafto	sub-Total	3	3
Amhara	Jille Tumuga	Special Exams to check class teacher assessments	1	1
Amhara	Jille Tumuga	sub-Total	1	1
Amhara	Kalu	Community Based Health Insurance with ID cards		1
Amhara	Kalu	Preparing Holes for storing water for horticulture	1	1
Amhara	Kalu	sub-Total	1	2
Amhara	Kemisie	Floral decoration - recycling plastic water containers	1	1
Amhara	Kemisie	sub-Total	1	1
Amhara	Menz Mam Midr	Mobile English dictionary	1	1
Amhara	Menz Mam Midr	sub-Total	1	1
Amhara	Menz Lalo Midr	Opening satellite school for just 8 students	1	1
Amhara	Menz Lalo Midr	sub-Total	1	1
Amhara	Minjar Shenkora	School renting out shops for income		1
Amhara	Minjar Shenkora	sub-Total	0	1
Amhara	Simada	Training for Public Financial Management		
Amhara	Simada	Training on Project management and monitoring		
Amhara	Simada	sub-Total	0	0
Amhara	18/18 Woredas	Total	19	27
Amhara	Regional	training teachers of blind & adapting books into Braille	1	1
Amhara	Regional	one-day enrolment campaign - partnership	1	1
Amhara	Regional	Radio education and use of flash discs	1	1
Amhara	Regional	Reading corner in primary schools	1	1
Amhara	Regional	Teacher recognition incentive using schools festival	1	1
Amhara	Regional	School charity club to support poor children		
Amhara	Regional	School drama clubs		
Amhara	Regional	1to5 Parents Groups promoting school enrolment		
Amhara	Regional	Community participation in water point site selection		
Amhara	Regional	Construction in stone and training stone masons		
Amhara	Regional	sub-Total	5	5
Amhara	Bahrdar Zurya	Adoption of BBM for cultivating clay soil	1	1
Amhara	Bahrdar Zurya	Adoption of modified Top-bar Bee-hives	1	1
Amhara	Bahrdar Zurya	Project Proposal for funding ICT in schools		

Amhara	Bahrdar Zurya	Mariam meshegnet ceremony - delivery in facility	1	1
Amhara	Bahrdar Zurya	HEWs giving ITNs free to mothers		
Amhara	Bahrdar Zurya	National Health Extension Programme		
Amhara	Bahrdar Zurya	Community Health Insurance		1
Amhara	Bahrdar Zurya	Long-term contraceptive for women		
Amhara	Bahrdar Zurya	Modified local stretcher "Traditional Ambulance"		
Amhara	Bahrdar Zurya	Working with Influential Individuals for Behaviour Change		
Amhara	Bahrdar Zurya	sub-Total	3	4
Amhara	Banja	Training in planning and M&E		
Amhara	Banja	Training on budgeting		
Amhara	Banja	Training on Inspection & Auditing		
Amhara	Banja	Training on Project management and monitoring		
Amhara	Banja	sub-Total	0	0
Amhara	Bati	Sports Matches to address seasonal absenteeism		1
Amhara	Bati	sub-Total	0	1
Amhara	Berhet	One parent One book - library donations		1
Amhara	Berhet	sub-Total	0	1
Amhara	Debrebirhan	Local design and materials for bathrooms		
Amhara	Debrebirhan	Drainage of water-logged fields		
Amhara	Debrebirhan	Household vegetable production by F, using <i>shera</i>	1	1
Amhara	Debrebirhan	Public ranking of farmers' productivity as an incentive	1	1
Amhara	Debrebirhan	sub-Total	2	2
Amhara	Dewa Chefa	DayOne Class One - prompt start of school year		1
Amhara	Dewa Chefa	sub-Total	0	1
Amhara	Fartah	Working with Influential Individuals for Behaviour Change		
Amhara	Fartah	National Health Extension Programme		
Amhara	Fartah	Community Health Insurance		1
Amhara	Fartah	Long-term contraceptive for women		
Amhara	Fartah	Mobilising all - watershed management / erosion control		1
Amhara	Fartah	sub-Total	0	2
Amhara	Fogera	Community Based Health Insurance with ID cards	1	1
Amhara	Fogera	Financial Transparency & Accountability Programme		
Amhara	Fogera	Social Accountability Programme		
Amhara	Fogera	sub-Total	1	1

Amhara	Gozamin	Drainage of marshy areas		
Amhara	Gozamin	sub-Total	0	0
Amhara	Guanguwa	Training on Planning & Budgeting		
Amhara	Guanguwa	sub-Total	0	0
Amhara	Gubalafto	BoFED Focal Person for each sector office	1	1
Amhara	Gubalafto	Public Display of Budgets	1	1
Amhara	Gubalafto	Coffee ceremony for HIV messaging to staff	1	1
Amhara	Gubalafto	Training for Public Financial Management		
Amhara	Gubalafto	sub-Total	3	3
Amhara	Jille Tumuga	Special Exams to check class teacher assessments	1	1
Amhara	Jille Tumuga	sub-Total	1	1
Amhara	Kalu	Community Based Health Insurance with ID cards		1
Amhara	Kalu	Preparing Holes for storing water for horticulture	1	1
Amhara	Kalu	sub-Total	1	2
Amhara	Kemisie	Floral decoration - recycling plastic water containers	1	1
Amhara	Kemisie	sub-Total	1	1
Amhara	Menz Mam Midr	Mobile English dictionary	1	1
Amhara	Menz Mam Midr	sub-Total	1	1
Amhara	Menz Lalo Midr	Opening satellite school for just 8 students	1	1
Amhara	Menz Lalo Midr	sub-Total	1	1
Amhara	Minjar Shenkora	School renting out shops for income		1
Amhara	Minjar Shenkora	sub-Total	0	1
Amhara	Simada	Training for Public Financial Management		
Amhara	Simada	Training on Project management and monitoring		
Amhara	Simada	sub-Total	0	0
Amhara	18/18 Woredas	Total	19	27
Benishangul	Guba	Free 24hour ambulance service for pregnant women		
Benishangul	Guba	Community contributions/management of school buildings		
Benishangul	Guba	Promoting and recognising defecation-free status		
Benishangul	Guba	Villagisation		
Benishangul	Guba	sub-Total	0	0
Benishangul	Mandura	Introducing ox & donkey ploughing - new to region		
Benishangul	Mandura	sub-Total	0	0

Benishangul	Pawea	One farmer's hand-dug well for irrigation		
Benishangul	Pawea	Cooperative farmer installation of raised pipe irrigation		
Benishangul	Pawea	sub-Total	0	0
Benishangul	Yaso			
Benishangul	Yaso	sub-Total		
Benishangul	4/5 Woredas	Total	0	0
Gambella	Regional	Communal Toilets from government budget		
Gambella	Regional	HIV awareness-raising		
Gambella	Regional	Hygiene & family planning promotion		
Gambella	Regional	New-born care		
Gambella	Regional	Winter cropping on flood plain		
Gambella	Regional	Training HEWs		
Gambella	Regional	Financial Management training		
Gambella	Regional	Planning Training		
Gambella	Regional	Cattle trough at water points	1	1
Gambella	Regional	sub-Total	1	1
Gambella	Abobo	Material incentives for girls retention in school		
Gambella	Abobo	Aforestation for erosion control		
Gambella	Abobo	Cluster of satellite schools around one resource school		
Gambella	Abobo	Promoting defecation-free kebeles		
Gambella	Abobo	Improved traditional storage for maize	1	1
Gambella	Abobo	Nucleus Health Centre		
Gambella	Abobo	Row planting of rice and sesame		
Gambella	Abobo	Satellite schools		
Gambella	Abobo	Financial Management training		
Gambella	Abobo	Villagisation		
Gambella	Abobo	sub-Total	1	1
Gambella	Abobo	Introduction of modern beehives	1	1
Gambella	Abobo	Animal Vaccination		
Gambella	Abobo	sub-Total	1	1
Gambella	Godere	Introducing women to small livestock production	1	1
Gambella	Godere	Artificial insemination for hybrids and increased production		
Gambella	Godere	Awareness raising on local taxation for infrastructure		
Gambella	Godere	Family Health Folders (from MoH)	1	1
Gambella	Godere	1to5 outreach for tax collection	1	1
Gambella	Godere	Pipe-type bridges for low cost rural roads		
Gambella	Godere	Introduction of modern beehives		
Gambella	Godere	sub-Total	3	3
Gambella	3/3 Woredas	Total	6	6
Harari-Diredawa	Diredawa	Constructing ponds for fish farming & irrigation	1	
Harari-Diredawa	Diredawa	Dissemination of budget, including printing on T-shirts	1	1
Harari-Diredawa	Diredawa	Mobile banking & credit service through Cooperative	1	1
Harari-Diredawa	Diredawa	Participatory Education & Livelihood Support - rural girls	1	1
Harari-Diredawa	Diredawa	Standardising teaching, exams thro Excel automation	1	1
Harari-Diredawa	Diredawa	11 steps for budget transparency & allocation	1	1

Diredawa				
Harari-Diredawa	Diredawa	Increasing business tax transparency and collection	1	1
Harari-Diredawa	Diredawa	Female student hostel	1	
Harari-Diredawa	Diredawa	Temporary canvas schools for flood victim families		
Harari-Diredawa	Diredawa	sub-Total	8	6
Harari-Diredawa	Harare	Use of waste water for household key-hole garden - F	1	1
Harari-Diredawa	Harare	Sediment storage dam for soil conservation & irrigation	1	
Harari-Diredawa	Harare	sub-Total	2	1
Harari-Diredawa	2/3 Woredas	Total	10	7
Oromia	Gollo Oda	Livestock enterprise fundraising for rural roads		1
Oromia	Gollo Oda	Sub-Total	0	1
Oromia	Gursum	Girl innovator - TV antenna; rat poison; butter tester	1	1
Oromia	Gursum	Sub-Total	1	1
Oromia	Mieso	Communal cluster cropping for ease of input access		
Oromia	Mieso	Radio antenna for schools from local materials		1
Oromia	Mieso	Sub-Total	0	1
Oromia	Oda Bultu	Teacher innovator - satellite dish; school alarm		
Oromia	Oda Bultu	Sub-Total	0	0
Oromia	Zway Dugda	Integrated poultry, fish and vegetable farm	1	1
Oromia	Zway Dugda	Sub-Total	1	1
Oromia	5/24 Woredas	Total	2	4
SNNP	Regional	Integrated campaign against child labour trafficking;	1	
SNNP	Regional	Exam correction technology		
SNNP	Regional	Government vehicle fuel controlling formula		
SNNP	Regional	Boarding schools for pastoralists leading to govt jobs		
SNNP	Regional	Voluntary fostering of HIV orphans	1	
SNNP	Regional	Community Conversations against harmful practices/HIV		
SNNP	Regional	eHMIS (electronic health MIS)		
SNNP	Regional	electronic Integrated Disease Surveillance & Response		
SNNP	Regional	Grain Bank for HIV orphans		
SNNP	Regional	Facility fees for health services		
SNNP	Regional	Health Development Army		
SNNP	Regional	Accommodation for mothers awaiting delivery		
SNNP	Regional	Personal hygiene room and supplies for girls		
SNNP	Regional	sub-Total	2	0
SNNP	Hawass Zurya	reforestation and soil/water conservation		
SNNP	Hawass Zurya	sub-Total	0	0
SNNP	1/14 Woreda	Total	2	0

Somali	Regional	Campaigns against harmful practices		
Somali	Regional	Mobile library on donkey or camel; mobile schools	1	
Somali	Regional	sub-Total	1	0
Somali	Awbere	Mobile schools for pastoralists; distance ABE teacher training	1	
Somali	Awbere	Incentives for HEWs & TBAs		
Somali	Awbere	sub-Total	1	0
Somali	Babile	Mobile schools for pastoralists; distance ABE teacher training		
Somali	Babile	sub-Total	0	0
Somali	Erer	Incentives for midwives following safe delivery		
Somali	Erer	sub-Total	0	0
Somali	Gursume	All repeat of regional practice: sub-Total	0	0
Somali	Jigjiga	Adult education/awareness in <i>chate</i> coffee ceremony		
Somali	Jigjiga	sub-Total	0	0
Somali	Shinile	Incentives & awareness raising for girls attending school		
Somali	Shinile	Training women farmers & vaccine for F livestock		
Somali	Shinile	sub-Total	0	0
Somali	Kebre Beyah	All repeat of regional practice: sub-Total	0	0
Somali	7/7 Woredas	Total	2	0
Tigray	Abyi Adi	Sanitary napkins for girls in school	1	1
Tigray	Abyi Adi	sub-Total	1	1
Tigray	Adigrat	Locally modified Neonatal Intensive Care Unit	1	
Tigray	Adigrat	sub-Total	1	0
Tigray	Alamata	Income generating skills training for sex workers		
Tigray	Alamata	sub-Total	0	0
Tigray	Atsbi	Modified Bench Terracing		
Tigray	Atsbi	sub-Total	0	0
Tigray	Semen Mekele	Modified charcoal/clay mix fuel - F innovator/entrepreneur	1	1
Tigray	Semen Mekele	sub-Total	1	1
Tigray	Shiraro	Community Self-assessment of business tax bands		
Tigray	Shiraro	sub-Total	0	0
Tigray	Were Lehe	<i>Kaizen</i> system for revenue collection		
Tigray	Were Lehe	sub-Total	0	0
Tigray	7/10 Woredas	Total	3	2

14.8. Innovation Proforma Master

Proforma for Innovation Listing and Characterisation

(700 words maximum - in addition to the 500 words of blank pro-forma, if using word count):

This Proforma should be used for every sector (see §4) and completed in soft copy so that space expands to allow for appropriate entries within the limits prescribed. Expanded versions in hard copy, with sufficient space for each section, may be used in the field, but must then be converted into soft copy. For simple listing at Regional level, only sections 1-5 should be completed, with the brief description limited to a maximum of 50 words.

1. *Name of the innovation:*
2. *Identification information:*
 - a. *Location or area: Kebele, Woreda, Region*
 - b. *GPS coordinates of location of innovation (decimal degrees) where appropriate*
 - c. *Photo if possible*
 - d. *Website if possible*
 - e. *Weblink to Relevant Press/Newspaper cutting*
 - f. *Weblink to Evaluation or Brochure or other formal summary*
 - g. *Name and e-mail/phone details of innovator or manager*
 - h. *Approximate year of introduction*
3. *Type (Technical/Delivery/Governance) (Briefly describe if it can be classified into more than one of these):*
4. *Sector (Agriculture/WASH/Health/Roads and Infrastructure/Education):*
5. *Brief Description (250 words maximum):*

including

- a. *Describing the problem that the innovation seeks to address:*
- b. *Describing the situation now*
6. *Comments on Scale, Location(s) and Duration of Innovation (20 words maximum):*
 - a. *Facility- (school/community/health facility/other):*
 - b. *Kebeles, if limited to one or a few:*
 - c. *Woredas, if limited to one or a few:*
 - d. *Zone &/or Region:*
 - e. *National:*
7. *Comments on Assessment of Impact (approx up to 25 words each: Total 250 words maximum) on:*
 - a. *Access - Reach and Coverage- how many Kebeles, Woredas etc reached? How many people reached?*
 - b. *How is this innovation responsive to community needs? Who identified the need? Which community needs are better addressed or what services are better delivered to whom?*
 - c. *Inclusion and Addressing inequity, including between social categories and between Regions/Woredas/Kebeles. What special categories of households or individuals are especially included as a result?*
 - d. *Reducing differentials between women and men:*

- e. *Quality – In what ways is this an example of meeting recognised standards of child friendly schools and education; or of safe water; of improved sanitation/hygiene; of safe health care; of sustainable agriculture; of maintainable infrastructure?:*
 - f. *Wellbeing²⁹⁶ of all:*
 - g. *Impact on a key indicator²⁹⁷ Which key indicators are being impacted on? Is any relevant data collected?:*
 - h. *Replicability and Potential to go to scale in similar Woreda or nationally e.g. where does the innovator think it could be used?:*
 - i. *For wider adoption, will it demand increased human or financial resources, be resource neutral or result in saving staff time or finance; or a combination (e.g. reduced human resources with increased capital cost)?*
 - j. *Increasing PBS coherence and performance – how has the innovation helped deliver PBS objectives?:*
 - k. *Indirect benefits (e.g. job creation, especially youth; gender equality; empowerment & inclusion in decision-making, especially women and youth):*
 - l. *Resilience to climatic shocks (if relevant) and ensuring environmental sustainability:*
 - m. *Sustainability in terms of human and financial resources i.e. within existing government staffing/budgets or requiring increased resources?*
8. *Value for Money (Efficiency) – cost-benefit (40 words maximum) Who is providing the bulk of funding for this innovation? Who is providing technical and other inputs? What is the benefit to the PBS &/or to the beneficiaries? Does it cost more than a previous provision or has this been achieved by diverting resources from another service?. Is the data available to assess the unit costs and benefits of an innovation or what is required to be collected by the service delivery institution to enable such analysis to be completed in future?*
 9. *Does this reduce time or financial costs of beneficiaries e.g. in reduction or reimbursal of travel costs or fees? Explain (20 words maximum):*
 10. *Supporting Evidence (evaluation report; measured impact e.g. on incomes, health or education outcomes; publicity report or briefing) (50 words maximum):*
 11. *Name and (E-mail) Contact Details of Person recording/reporting the innovation:*

²⁹⁶ Wellbeing will be taken to cover: people's material living standards (income, expenditure, housing conditions); health; education and skills; work (not just employment but the quality of people's working lives); leisure time and individual relationships; subjective well-being (emotions, life satisfaction and sense of security and of meaning and purpose).

²⁹⁷ Female Primary Completion Rate; Maternal Deaths per 1,000 population; Births attended by skilled health personnel; Percentage population below the poverty line; Population with access within 0.5km (urban) or 1.5km (rural) to functioning potable water supply; Major cereal/pulse food crop Quintal per hectare; Average distance to nearest all-weather road; children vaccinated against measles.

14.9. Survey Instrument – Guidelines for Woreda Meetings

The Survey instrument is itself 58 pages long and forms a separate Annex²⁹⁸. It was reviewed by key stakeholders and finally approved by MoFED PBS Secretariat at the end of November 2015 before Data Collectors could go to the field. A revised version was used for KIIs but with the same structure and contents. The responses to all FGDs and KIIs in a particular Woreda were intended to result in Woreda sector Summaries, drawing on all related responses across the FGDs and KIIs in the one Woreda.

14.10. Examples of Innovation and Categories

Data Collectors were given in advance the following examples of innovation and their categorisation as part of training discussions using case studies:

14.10.1. Technical Innovation Training Examples

(some like sanitation or water treatment might cover all the below)

- a. Service design - what comprises the basic service
- b. Quality standards and Protocols e.g. ante-natal; curriculum; ERA Design Manual for low-volume roads²⁹⁹ and use of drift slabs (see Part E); water point access; and shift from centrally driven protocols to comprehensive and participatory barrier identification strategy and locally relevant solutions
- c. Resources (e.g. materials for roads, watsan, textbooks, nurse-midwives; agric inputs)
- d. Training e.g. assistant midwife training; classroom assistants; water point engineers & maintenance; road engineers and technicians;
- e. Institutionalised farmer/stakeholder participatory research
- f. Savings and micro-insurance resilience
- g. Skills training and adaptation in water harvesting, storage and management

14.10.2. Delivery Innovation Training Examples

- a. Who delivers: Public Private Partnerships; Communities and community-based organisations; private contractors / SMEs; semi-skilled; capacity building of local government
- b. How delivered and overcoming logistical problems in delivery e.g. mobile ante-natal clinics; birth attendance; immunisation days; use of ICT
- c. Access e.g. for nomadic pastoralists, for urban poor, for those with disabilities
- d. Labour based technology (employment intensive); or recruitment & training of semi-skilled locals

14.10.3. Governance Innovation Training Examples

- a. Accountability and measurement of desired outcomes
- b. Transparency e.g. publication of facility and Woreda budgets
- c. Fiduciary responsibility
- d. Responsiveness e.g. to remote and marginalised communities
- e. Decentralisation of planning, budgeting, resource deployment, implementation and monitoring, with community involvement/participation
- f. Results based planning with outcome focus

²⁹⁸ Available from AfDB or ACTS Consultancy

²⁹⁹ The Director General of the ERA in the Foreword of Part A notes: *Many innovative practices and unconventional techniques, often developed and proved through years of research, have not found the degree of application and implementation that they should. Opportunities are missed that would provide better and lower cost engineering solutions and more sustainable low volume roads.* <http://www.icafrica.org/knowledge-publications/article/design-manual-for-low-volume-roads-parts-a-g-116/>

- g. Incentives (i) for service provider behaviour change; (ii) for beneficiary access, including social cash transfers; (iii) for community-led initiatives
- h. Partnerships e.g. with CSOs and religious institutions and SMEs in piloting innovation and with private sector and foundations in innovative funding arrangements
- i. Financing/resourcing innovations, including public private partnerships, community contributions and decentralized budgets
- j. Use of Special Funds: Federal Block Grant; Local Investment Grant; basic health services complementary health commodities component
- k. Gender equality &/or equity, women's empowerment and participation at all stages of service delivery and take-up e.g. women involved in feeder road design or watsan design and other infrastructure such as small-scale irrigation and electrification
- l. Community participation in democratic processes with ensured respect for human rights

15. Annex 4: Frequency of Innovations Against Woreda Characteristics

Nvivo Generated Tables, where Secondary Data provided for 45 Woredas³⁰⁰

Woreda Characteristic	Number of Innovations recorded for NVivo analysis of Survey Data			TOTAL Woredas With secondary data available	Possible Trend
	High: 11 or more	Medium 3-10;	Low 0-2;		
Table 9a: Region					Afar and Amhara appear relatively more innovative than Addis and Tigray
Addis Ababa	0	3	4	7	
Afar	5	0	0	5	
Amhara	4	1	1	6	
DireDawa-Harar	0	1	0	1	
Gambella	0	1	2	3	
Harari	1	0	1	2	
Oromia	1	0	2	3	
SNNP	0	0	1	1	
Somali	3	2	2	7	
Tigray	0	0	10	10	
TOTAL	14	8	23	45	
Table 9b: Distance from Zonal Capital					Proximity to Zonal Capital ~ innovation
Close: 0-19km	5	6	13	24	
Medium: 20-69km	3	2	3	8	
Far: 70-99km	3	0	2	5	
Remote: 100km or more	3	0	5	8	
TOTAL	14	8	23	45	
Table 9c: Terrain					Presence or absence of mountainous terrain has no association with innovation
Mountainous	3	0	7	10	
Not mountainous	10	7	8	25	
Insufficient data	1	1	8	10	
TOTAL	14	8	23	45	
Table 9d: Predominant Livelihood Type³⁰¹					Urban areas tend to be less innovative in providing basic services than agro-pastoral and pastoralist areas
Urban	0	3	10	13	
Agricultural	1	0	0	1	
Agro-Pastoral	7	2	2	11	
Pastoral	5	3	4	12	
Insufficient data (rural)	1	0	7	8	
TOTAL	14	8	23	45	

³⁰⁰ Possible trends cannot be validated statistically as data was not available for all characteristics and for less than half the Woredas in the sample frame. Withing the limitations of the primary data provided for analysis, these tables have been produced with the help of Kuziwa Chimunda of Development Data.

³⁰¹ Combination of the following: (i) Population: Urban: 75-100% urban; Semi-Urban: 30-74%; Rural: 0-29%. (ii) Crop Production in tonnes: Low: 0-9,999; Average: 10,000-39,999; High: Over 40,000. (iii) Livestock: Low: < 999 head; Medium: 1,000 -14,999 head; High: Over 15,000. BahirDar is strictly Urban and agricultural and Jijiga is strictly semi-urban and agro-pastoral.

Table 9e: Drought-prone with PSNP					Presence or absence of drought-prone PSNP conditions has no association with innovation
Yes	8	4	8	20	
No	5	1	3	9	
Data not available	1	3	12	16	
TOTAL	14	8	23	45	
Table 9f: Percentage of food insecure Households:					There appears to be possibly more innovation in delivering basic services in Woredas where there are a higher percentage of food insecure households
No: <5%;	0	0	6	6	
Slightly: 6-19%;	1	1	1	3	
Significantly: 20-49%;	4	3	5	12	
Highly: 50% +	6	1	1	8	
No data	3	3	10	16	
TOTAL	14	8	23	45	
Table 9g: Woredas where there is an operating Iddir involving over 20% of households					There appears to be no clear association in the level of innovations in delivering basic services in Woredas where strong Iddirs are operating
Yes	5	6	10	21	
No	8	2	12	22	
Insufficient data	1	0	1	2	
TOTAL	14	8	23	45	
Table 9h: % Percentage of Births Delivered in health facility:					The level of reported innovations across all sectors is not associated with Woredas showing high percentages of deliveries in health facilities
High: >75%;	1	1	12	14	
Medium: 25-74%;	9	1	4	14	
Low: <25%	4	5	5	14	
No data	0	1	2	3	
TOTAL	14	8	23	45	
Table 9i: Progression to secondary education:					Insufficient data to assess any trend
High: >80%;	0	2	1	3	
Medium: 50-79%;	0	0	4	4	
Low: 20-49%;	3	1	5	9	
Very Low: <20%	3	0	3	6	
Insufficient data	8	5	10	23	
TOTAL	14	8	23	45	
Table 9j: PBS social Accountability (ESAP) programme exists					ESAP is operating in the majority of Woredas for which there is secondary data available, but there is no strong trend in relation to innovation in basic service delivery
Yes	9	7	19	35	
No	5	1	3	9	
Not known	0	0	1	1	
TOTAL	14	8	23	45	

16. Annex 5: Terms of Reference

African Development Bank

ETHIOPIA FLAGSHIP STUDY, “INNOVATION IN DELIVERY OF BETTER BASIC SERVICES; CHALLENGES AND OPPORTUNITIES FOR ETHIOPIA”.

1.0 Context

1.1 Ethiopia’s commitment to eradicate poverty through pro-poor expenditures to promote inclusive growth and tackle inequalities has resulted in substantial progress in access to social basic services and significant gains in social indicators. This continued strategic drive is stipulated in the government’s development agenda under the Growth and Transformation Plan (GTP) 2010/11 – 2014/15 which ascribes strong focus to improving the quality of public services particularly investments in infrastructure, social and human development sectors to help achieve MDGs. While Ethiopia’s efforts of expanding access to decentralized social basic services have achieved impressive results, attaining the MDGs will require further substantial investments as the unmet gaps³⁰² in service delivery are still significant and access by vulnerable groups and in some geographical areas are limited. Notwithstanding, the delivery of quality decentralized basic services against the backdrop of restricted public budgets, geographic remoteness and demographic shifts presents a unique challenge to Ethiopia. This warrants the need to expand services and improve the quality and efficiency of services through improved resource allocation and innovative approaches.

1.2 Innovation is increasingly recognized as fundamental to economic transformation, growth and poverty reduction. As such, Ethiopia’s ability to tap and absorb innovative capacities both internally and externally to accelerate new and relevant ideas and products remains critical to basic service delivery within the context of today’s globalization and technological demands. Harnessing innovation in basic service delivery can play a catalytic role in improving its access and quality to help curb vulnerabilities and curtail extreme poverty in Ethiopia. More importantly, integrating rural service delivery innovations should encompass a more holistic approach with a view towards encouraging human capital development, social well-being and rural economic growth stimulation. There are real opportunities for Ethiopia to innovate and utilize resources more efficiently within an open and co-creative approach that encompasses the social sector public agencies across different levels, private sector and more essentially citizens. Ethiopia thus gains to strengthen its innovative base in service delivery to create better and effective products, processes and technologies.

2.0 Task Description

2.1 Given the context, the African Development Bank in collaboration with the Government of Ethiopia and World Bank seeks to undertake the study on “Innovation in Delivery of Better Basic Services; Challenges and Opportunities for Ethiopia”, to support efforts in expanding access and improving quality of basic services. The study is expected to generate relevant knowledge to strengthen and deepen Ethiopia’s innovation in the provision of decentralized social basic services to make it more responsive, effective thereby ensuring value for money, enhancing quality and increasing opportunities for inclusive growth.

2.2 Accordingly, the research consultancy firms will undertake in-depth assessment of decentralized delivery of basic social services with particular focus on innovation in five sectors

³⁰² For instance, general literacy rates remains very low at 36% and completion rates for second cycle education is 46% with only 38.4% of certified teachers at primary level. In addition the health sector continues to battle with significant challenges of maternal and child health care. Only 10% of births are delivered by skilled health workers. Food insecurity is also pervasive arising from inter alia climatic effects. Moreover, limited capacities have stifled government’s efforts in attaining quality in basic social service delivery.

including education, health, agriculture, water and sanitation and rural roads³⁰³. The diagnostic study basically aims at reviewing the dynamics and methodologies of approach to service delivery and identifying devised and driven innovative initiatives in response to Ethiopia's fast evolving rural environments. Furthermore, the study is expected to unearth how innovative mechanisms can be strengthened and deepened to foster the implementation of policies in the social sectors for better outcomes on service delivery. Additionally, the study is expected to review the necessary enabling environment that will promote quality basic service delivery in the identified sectors, at the local level which will inter alia help improve private sector development; make service providers and public agencies more responsive, effective and efficient; promote voice and accountability thereby promoting value for money, reduced vulnerabilities and opportunities for inclusive growth. The critical deliverables for undertaking this study will be an inception report and a finalized draft Flagship report duly approved by the Government of Ethiopia and AfDB's management.

3.0 Scope and Objectives of study

3.1 The flagship study is aimed at leveraging innovation to foster quality and accessible basic services to all citizens in Ethiopia. The study is expected to identify innovative approaches to promote greater results for quality and efficient basic service delivery particularly at the decentralized level, while ensuring sustainability.

The study has the following specific objectives:

- a. Provide an overview of approaches to the delivery of basic social services in Ethiopia with particular focus in five key sectors including education, health, agriculture, water and sanitation and rural roads:-Trends and recent service improvements.
- b. Analyze the performance of delivery of decentralized basic services in the five key sectors³⁰⁴ and taking stock of existing bottlenecks, innovations and opportunities in the following areas;
 - Policy and regulatory framework
 - Institutional arrangement, management and capacity
 - Tools and mechanisms for delivery
 - Participation and citizens engagement
 - Collaborative partnerships
 - Employment creation.
- c. Assess and examine how/what innovative approaches in decentralized delivery of basic social services can be strengthened and deepened. This objective seeks to explore:
 - Promising and potential innovations to be stimulated/ scaled-up in key sectors to foster accessibility and quality of provision of decentralized basic social services to all citizens;
 - Opportunities for service delivery mutual strategies to enhance citizens' value and the effective utilization of service providers.

³⁰³ Per Ethiopia's priority.

³⁰⁴ Per Ethiopia's areas of focus

- Innovative collaborative partnerships between government agencies (public social service providers) and the private sector and key institutions that will enhance the delivery of basic services.
 - Necessary reforms that will create an enabling environment to promote efficiency in the delivery of decentralized basic services.
 - Innovative financing mechanism for delivery of decentralized basic services.
- d. Diagnose innovative schemes in service delivery that could create jobs for the youth.
- e. Recommend detailed actions (and where necessary policies) crucial to promote innovation in the delivery of decentralized basic services.

4.0 Management of the Assignment

Due to funding arrangements, the study will have two components, which will be managed separately.

Component 1: Data collection and organization phase.

Component 2: Data analysis, interpretation, report writing, and presentation phase.

To successfully deliver on the aforementioned objectives, the overall assignment will be technically guided jointly by Government of Ethiopia (MoFED) and Development partners and administratively managed by the Government of Ethiopia and the African Development Bank (AfDB) respectively.

For component 1 – data collection and organization MoFED (Channel One Programs Co-ordination Unit—COPCU) with budget earmarked from the Promotion of Basic Services (PBS III) programme fund, recruits a national data collection firm that collects, organizes, and collates field data as per the requirements of the analysis TOR. COPCU will be responsible to contract administration as well as coordination with the five basic service sectors i.e Ministry of Agriculture (MoA), Ministry of Health (MoH), Ministry of Education (MoE), Ministry of Water and Energy (MoWE), and Ethiopian Roads Authority (ERA).

For component 2 – data analysis and report write up. AfDB will be responsible for recruiting and managing the consultants in consultation with MoFED. For both components additional technical assistance and follow-up will be provided by Development Partners including the World Bank through the joint Management for Results (M4R) Working Group of the PBS program with DPs deploying additional international and national technical staffs, when necessary. The regional and Woreda counterparts of the above mentioned public bodies also play an important role in providing inputs and facilitating the study. The study will also be enriched by comments from the relevant ministries and other non-PBS development partners.

5.0. Component 2- Data analysis, interpretation, report writing, and presentation phase.

5.1. Major Expected Deliverables

- I. Inception Report:** The Consultant shall prepare an inception report proposing the approach methodology and detailed timeframes for the data analysis, interpretation and writing of the flagship report. MoFED, MfR group of the PBS program and AfDB will provide feedback on the Draft Inception report which will be finalized based on the feedback.
- II. Background Papers:** The Consultant will produce background papers on research undertaken on thematic areas to inform flagship report.
- III. Draft Report and Presentation on Findings:** the Consultant will prepare a draft report. The report is proposed to be presented in three parts under specific themes. The details will be expounded (concept Note) upon further discussions with successful firm. The Consultant is also expected to make a presentation at the validation workshop/meeting for key stakeholders in order to get feedback on the draft report. MoFED and the joint MfR group of the PBS will be responsible for coordinating the organization of the workshop/meeting as well as feedback from DPs on the draft report.
- IV. Final Report:** the Consultants will prepare and submit a final report taking in to account comments of reviewers.

5.2. Scope of Work

The approach to be adopted by the study will include inter alia:

- a. **Desk review:** The consultants will undertake desk research involving a review of existing literature and collection of all relevant studies and materials. The firm will also hold close discussions with MoFED and AfDB to confirm activities to be undertaken and which are priority for the GoE and the Bank.
- b. **Field work:** The consultants will identify data requirement for analysis to clearly specify qualitative and quantitative data needs.

This will entail activities which are not limited to:

- I. Contributing to defining data requirements for analysis. Data collection will be under separate contract arrangement covered by the Government of Ethiopia and the World Bank. The design of questionnaires and interview guides for the data collection phase will be done in close liaison with the data analysis/report write up Consultant (firm) team leader
- II. Country missions to Ethiopia to undertake extensive consultations with government ministries and agencies at federal, regions, woreda, communities, Civil Society Organizations, development partners, social research institutions etc. on the afore-mentioned issues and also to validate the findings.

- III. In-depth analysis of the basic service delivery in the identified social sectors, assessing appropriate innovations, opportunities, and bottlenecks, encompassing those relating to decentralized public service delivery organization arrangement and management; accountability and voice; and diversified opportunities for private sector participation aimed at broadening the innovative base in delivery of basic services to promote efficiency and competitiveness. The activities will also include determining which sectors and innovative approaches would have comparative advantage in promoting job creation.
- IV. Review of the current policy and regulatory framework in the identified sectors with a view of assessing its responsiveness to innovative mechanisms for service delivery, conduciveness to private sector engagement, citizens participation and efficiency of service providers. The activities will also entail proposing appropriate policy and regulation that will improve the enabling environment to boost collaborative partnerships and avenues for innovation in the delivery of decentralized basic services. In addition, the exercise will estimate the cost requirement needed to create an enabling environment and the probable financing options for scaling up of quality and accessible decentralized delivery of basic services through innovative schemes.
- V. A detailed proposed actions and policies needed to develop innovation in the supply and demand responses of decentralized basic services will also be undertaken. The study will also identify the necessary actions to remove any existing constraints to supporting new as well as expanding existing viable innovations in basic service delivery in Ethiopia.
- VI. Report drafting, validation and finalization.

5.3. Required Qualification and Experience of the Data analysis, interpretation, report writing, and presentation Firm

The consultancy firm will be responsible for research advice and analysis and report consolidation and finalization of the report. Conditions of Agreement with the firm will incorporate collaboration with the firm responsible for data collection engaged by World Bank/GoE. The consultancy firm should as minimum criteria possess the following characteristics:

- A globally recognized think-tank institution with proven track record of social research in the field of human capital development particularly in social basic service delivery;
- Demonstrated knowledge of major strategic and public policy developments for poverty reduction particularly in social sectors including health, education, agriculture and social protection;
- Solid experience in operational research essentially in the areas of development policies and strategies in human development and implementation on the ground;
- Knowledge and Experience in sustainable innovative approaches to quality and inclusive service delivery products, network governance and usability knowledge management.
- Experience of managing large scale complex social research programmes in developing countries involving international and national researchers
- Established track record of undertaking operational research in education, health, Water supply, agriculture, and rural roads sectors.

- Experience of understanding diverse perspectives and developing practical and sustainable solutions, which accommodate a number of these perspectives, especially the perspective of the poorest and most marginalized.
- Ability to apply both qualitative and quantitative methodologies to assess and compare innovation in service delivery at community, and local government levels.
- Experience and strong capability in developing tailored policy-influencing materials
- Analytical research experience in Sub-Saharan Africa particularly in the social sector (Familiarity with Ethiopia is preferred).
- Excellent communication skills
- Excellent inter-personal skills, including facilitation, communication and negotiation skills
- Excellent management skills

Accordingly, the key personnel for the assignment shall at least comprise the following:

(a) *Team Leader*

- A minimum of Masters' Degree in Economics, Socioeconomic fields, economics and development economics, development evaluation and management or relevant fields, with not less than 10 years of experience.
- Demonstrated knowledge of major strategic and public policy developments for poverty reduction particularly in social sectors including health, education, agriculture and social protection;
- Experience of managing large scale complex social research programmes in developing countries involving international and national researchers
- Knowledge and Experience in sustainable innovative approaches to quality and inclusive service delivery products, network governance and usability knowledge management
- Solid experience in operational research essentially in the areas of development policies and strategies in human development and implementation on the ground;
- Strong analytical skills.
- Excellent inter-personal skills, including facilitation, communication and negotiation skills
- Excellent written, communication and management skills

(ii) *Socio-Economist/Development Economist and Research Experts*

- At least Masters' Degree in social development, development economics, rural development or relevant field with not less than 5 years of experience. Ability to apply both qualitative and quantitative methodologies to assess and compare innovation in service delivery at community, and local government levels.

- Experience of understanding diverse perspectives and developing practical and sustainable solutions, which accommodate a number of these perspectives, especially the perspective of the poorest and most marginalized.
- Strong analytical skills.
- Excellent written communication skills

(iii) *Sector Experts*

- At least Masters' Degree in Rural Development or one of the sector areas (Education, health, Water, Agriculture or Rural roads) or relevant field with not less than 5 years of experience.
- Established track record of undertaking operational research in any of the following sectors education, health, Water supply, agriculture, and rural roads.
- Knowledge and Experience in sustainable innovative approaches to quality and inclusive service delivery products, network governance and usability knowledge management.
- Ability to apply both qualitative and quantitative methodologies to assess and compare innovation in service delivery at community, and local government levels.
- Strong analytical skills.
- Excellent written communication skills.

5.3. Proposed Work Schedule of the Study

Activity	Month					
	1	2	3	4	5	6
Country consultations						
Defining data requirements ³⁰⁵						
Inception report						
Analysis						
Draft report						
Submission of initial draft report						
Report validation and review						
Submission of final report						

³⁰⁵ In liaison with data collection consultant

17. Annex 6: Team Composition

ACTS Consultancy (ACTS), The Bassiouni Group (TBG) and Health Partners International (HPI) formed the PBS Innovations Analysis Consortium delivering the Analysis Component 2 of the ToRs. The Data Collection Component 1 of the ToRs was delivered by BDS Center for Development Research (BDS-CDR).

ACTS Consultancy specializes in social policy advice to governments and development partners, with a focus on accountability and responsiveness to the poor. It provides a wide range of international development consultancy services, with a focus on Africa and South Asia, in the fields of social development and conflict reduction, particularly addressing social inclusion and social policy. ACTS Consultancy puts individuals, particularly the poor and marginalised or those with disabilities and women and girls among all these, at the centre of their own development, action and contribution to growth. See www.acts-consultancy.com

The Bassiouni Group (TBG) provides consulting and trade and investment solutions and helps global organizations to solve complex strategic issues, manage global challenges, seize opportunities and maximize performance. Led by cross-functional specialists from the Corporate, Political, Diplomatic and International Development sectors, it leverages a Global Network of more than 400 experts. The Bassiouni Group's client base includes leading international development agencies, governments, global corporations and SME businesses across multiple sectors. It has undertaken a number of projects for UN agencies, international institutions, governments and global corporations. The Bassiouni Group has been tasked with advising senior leadership/management teams and guiding middle-level managers towards improved performance and service delivery. See www.bassiounigroup.com

Health Partners International (HPI) is a partnership of skilled and experienced professionals, with a track record in strengthening local capacity and systems, providing high quality technical services for the health sector. Their capacity to collaborate with local partners and stakeholders to find practical solutions to the challenges of health systems, often in difficult environments, will help ensure sustainable health care is available for all, especially the poor. HPI's has managed several large-scale programmes in strengthening health systems, maternal and child health, routine immunization, women's health and adolescent health in Northern Nigeria; piloting of a results-based financing programme in Northern Uganda with the private not-for-profit sector; modeling a demand-side maternal health programme in Zambia through an innovative community engagement approach; and a long-standing history of supporting organizational management and reform of health services as part of major initiatives in Africa, in particular the enabling environment for gender and social equity and to achieve results for girls and women. See www.healthpartners-int.co.uk

BDS Center for Development Research (BDS-CDR) is a private consulting firm contributing to the enhancement of the multifaceted efforts of the Ethiopian government and its national and international partners to develop Ethiopia. It was founded in 2008 by a group of Ethiopian professionals and their associates with rich experience in university teaching and practical research. Since then, BDS-CDR has been actively engaged in providing professional consultancy services in the area of development to numerous national and international clients. During the six years of consultancy, BDS-CDR has contributed to the development of research and to its practical application in the solution of social problems. See www.bdscdr.com

Key Personnel:

ACTS provided **Dr Dennis Pain**, the Innovations Analysis Consortium Team Leader, a Social Policy expert with 30 years' international development, research and teaching experience,

including as Senior Social Development Adviser with DFID, including in Ethiopia, and Director of ACTS Consultancy Ltd; **Dr Memmenasha Haile-Giorgis**, the “Education & Youth” Expert, based in Ethiopia, whose work on marginalised youth in poor urban areas has been used by government in the design of programmes in the UK; **Tom Thomas**, the “Decentralized Community Participation & Partnerships” Expert and CEO of the India-based Praxis Institute for Participatory Practices, a global leader in this area, working with governments and civil society; **Camilla Lema**, Rural Roads Expert and one of Africa’s leading rural roads engineers who has worked across Africa as Senior Transport Specialist with the Sub-Saharan Africa Transport Program (SSATP) at the World Bank; and **Tendayi Kureya**, Statistician and CEO of Development Data, based in Zimbabwe, which provides technical support in data for development.

TBG provided **Dr David Bassiouni**, the “Institutional Arrangement, Management & Capacity” Adviser and CEO of the Bassiouni Group, who in a distinguished career held many senior positions in the Sudan Government, including Regional Minister of Agriculture before joining the UN where he was the first-ever Humanitarian Coordinator and the UNICEF Representative in seven countries, including Ethiopia; **Dr Augustine Agu**, the Education Expert, an academic former lecturer and teacher trainer, with over 20 year in senior positions in UNICEF, mostly as head of Education Section in countries across Africa, including Ethiopia; **Prof Peter Tingwa**, the “Agriculture and Food Security” Expert, a member of TBG’s Advisory Council with a distinguished career in Agriculture (education, research, planning and implementation), Peace Operations and Higher Education, mostly across Africa; and **Brendan Doyle**, the “Rural Water Supply” Expert, former Senior Global Adviser (Water, Sanitation and Environment) with UNICEF and consultant to many bilateral and multi-national agencies.

HPI provided **Dr Paula Quigley**, Principal Health Adviser and Partner at Health Partners International and a medical doctor with over 25 years of international experience in health programme design, management, implementation and evaluation.

The BDS-CDR Data Collection Team was led by **Dr Tadele Ferede**, an Applied Economist and Assistant Professor of Economics and Associate Dean for Graduate Programs at Addis Abba University, with wide experience as a consultant to many international agencies; **Dr Jemal Aliy Hassen**, a Public Health Specialist and Director of Health Information Systems at Tulane International, Ethiopia; and **Dr Workneh Negatu**, Associate Professor of Agricultural Economics & Development Studies at Addis Ababa University; and coordinated at different times by Samuel Urkato, Hareg Adamu and Eden Fenta.