



9th Annual WASH-WRM Multi-Stakeholder Forum

“Resourcing and Increasing Commitment for the One WASH and WRM Programmes”



Conference Proceedings

June 12-13, 2018.

Hilton Hotel, Addis Ababa.

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1. OBJECTIVE AND AIM OF WASH-WRM MSF 9

The 9th Multi Stakeholder Forum, also the First Joint WASH-WRM Multi Stakeholder Forum aimed to track progresses on WASH and Water Resources Management development programmes and projects and highlighting and establishing linkages between the two sectors. Overall the MSF 9 was to contribute to the achievement of the ambitious goals of the Ethiopian GTP II. Furthermore, the Forum is a platform for the dialogue on policy issues and strategies and it generates consensus and commitment and sets priority actions for the year ahead in both WASH and WRM.



View of Forum Participants, Addis Ababa, June 2018- Photo credit - Serawit Atnafu/WaterAid

2. PARTICIPANTS

The forum attracted over 300 participants. The participants included national, regional and local government officials, UN agencies' representatives, development partners, civil society organizations, private sector, academia and the media.

3. BACKGROUND OF WASH-WRM MSF

The annual MSF is the largest forum of its kind in the world and the most important WASH sector and WRM sector -from now (2018) on- event in Ethiopia. The first WASH MSF was conducted in 2006 under the auspices of the European Union Water Initiative for WASH sector coordination. The Government Ethiopia's WASH organizations (Water, Health, Education and Finance) took over the WASH sector coordination process from the joint donor-government led committee in 2009. Since then the Ministry of Water, Irrigation and Electricity (MoWIE) has led the National

WASH Steering Committee and governed the WASH sector coordination and development in Ethiopia.

4. SIGNIFICANT PROGRESS MADE BEFORE MSF 9

- Water Resources Management (WRM) has joined WASH leading to the 9th MSF becoming the First Joint WASH-WRM MSF
- One WASH Phase I reviewed
- One WASH Phase 2 Programme Document drafted and the Phase 2 aligned with SDG goals The government has taken the initiative to revitalize a joint Government-Donor water sector working group
- The Water Sector Working Groups are enabling all development actors involved in the WASH and WRM sector to come together and create a common platform for discussion and aligning their efforts
- The Joint Technical Review (JTR) in Water Resources Management conducted. WRM JTR is a new initiative and supports government initiatives, strategies and programs in the area of Water Resource Management.
- The Government of Ethiopia, with development partners and civil societies, has strengthened WASH service delivery, enabling environment, and knowledge management to increase the number of people having access to sustainable WASH services.
- The Government of Ethiopia has integrated humanitarian and development aid together to ensure that areas prone to drought and flooding are provided with innovative, climate resilient and sustainable deep groundwater multiple village water supply schemes.
- The Government of Ethiopia, together with development partners, is investing substantial resources to map the hydro-geological conditions, hydro-economic perspectives and groundwater-potential in the drought prone areas using remote sensing to detect deep groundwater.
- The Government of Ethiopia is in the final steps to establish a robust monitoring and evaluation framework that will monitor the One WASH programme and report against the SDG indicators.

5. OPENING SESSION OF MSF 9



Dr. Eng. Silesh Bekele minister of MOWIE addressing the Forum - Photo credit - Serawit Atnafu/WaterAid

The 9th WASH-WRM Multi Stakeholder Forum (MSF) took place from June 12-13, 2018 at Hilton Hotel, Addis Ababa. Water Resources Management (WRM) joined WASH and the event for the first time with two new ministries joining existing stakeholders: The Ministry of Agriculture & Livestock Resources (MoALR) and the Ministry of Environment, Forest & Climate Change (MoEFCC). Two important things took place in the MSF for the first time in its history; a) the Minister of MoWIE, Dr Eng Seleshi Bekele, not only made an opening speech, but also presented the WASH and WRM sector situation using power point and b) the MoWIE State Minister, Dr. Eng. Negash Wagesho, facilitated the opening and closing session of the Forum.



Dr Eng. Negash Wagesho, state minister of MOWIE addressing the forum, Addis Ababa, June 2018 Photo Credit - Serawit Atnafu/WaterAid

The Forum was addressed in person by Dr Eng. Negash Wagesho , state minister of MOWIE, Mrs Gellian Melesoupo, Co-Chair of Water Sector Working Group and UNICEF representative to Ethiopia, Ato Kare Chawicha, state Minister of MoEFCC.

The addresses of Bethlehem Mengistu, Chair of Water & Sanitation Forum and WaterAid Country Director was read through her representative Ato Manaye Siyoun. Dr Kebede Worku, State Minister of MoH, Dr Kaba Urgessa, state Minister of MoALR address were also read through their representatives.



Manaye Siyoun - representative of WaterAid Ethiopia Country Director Bethlehem Mengistu, addressing the forum, Addis Ababa, June 2018 Photo Credit - Serawit Atnafu/WaterAid

In an opening address **Ato Manaye** said that the WASH sector in Ethiopia has shown an encouraging progress in creating access for water supply and sanitation services, thanks to the increasing commitment of the government and the combined effort of the various development partners, and user communities. With the One WaSH National Program (OWNP) Document

revision and the SDG commitments, the efforts in the sector are expected to gain additional momentum in a more integrated and harmonized manner so that the unserved community will enjoy their rights. She called for systemic approach (sector monitoring, coordination, financing, evidence based planning, and accountability), development of water supply service delivery models that fit the country's current context (rural & peri-urban), strengthening and establishment of functional and accountable coordination structures at all levels among sector ministries and bureaus, and prioritization of improved sanitation services.



Mrs. Gellian Melesoupo -UNICEF Ethiopia representative, addressing the forum, Addis Ababa, June 2018 Photo Credit - Serawit Atnafu/WaterAid

Mrs Melesoupo said in her address that Ethiopia is a model country in WASH and water management. She said that One WASH is the largest WASH program of its kind globally, and she stressed that it would be impossible to work together without coordination – a recurring theme during the two-day forum. Rapidly growing cities were presenting new challenges, and while most schools and health facilities had water supplies, sanitation remained a challenge. The WASH sector needed strong equity, by prioritizing marginalized communities, she stressed.

H.E. Dr Kebede, also speaking through a representative, said that missed opportunities in the past to invest in resilience had led to costly emergency spending. As we approach our tasks today, let us remember the millions of children who suffer from the impact of lack of water, sanitation and personal hygiene, he said, adding that our results will be measured not in money invested but in lives saved and lives improved.

H.E. Dr Kaba Urgessa, through his address read by a representative, reminded participants that rain-fed Ethiopia is actually a water insecure country. Water has to be seen as a cross cutting resource to integrate intersectoral planning; effective water resource development contributes to agricultural development, industrialization, and job creation. Agriculture, which accounted for 40% of GDP and 75% of employment, consumes the most water, at 80%. Because of poor technology choice and practices, most irrigation schemes are either non-functional or functioning sub-optimally, with 5% of arable land in the country irrigated. He also called for coordination among partners to achieve sustainable growth in agriculture. He called for strengthening cross sectoral work in WRM, a burning agenda, and expressed his Ministry's readiness to fully participate in the WRM, to ensure success of the WRM working group.

H.E. Ato Kare Chawicha, state Minister of MoEFCC, expressed happiness that his Ministry had become part of MSF. He recalled that Ethiopia has enough water resources to serve its development endeavors and those of countries in the lower basin areas. He called for sustainable management and use of water resource and water sheds. He also called for coordination among development partners to tackle multidimensional challenges.

HE Dr Engineer Seleshi Bekele made history by being the first sitting Minister to make not only an opening speech but also a power point presentation. His presentation was on *Ethiopian WASH Sector Strategy and SDGs*.

“Your presence in such impressive numbers speaks to the relevance of the work and mandate of the ONE WaSH Coordination Office and the Water Sector Working Group,” he said. He told participants that linking WaSH to WRM would enable to overcome barriers to achieving water supply, sanitation and hygiene, ensuring water security for all and achieving the ambitious targets in GTP II and SDGs. He congratulated two new ministries, MoALR and MoEFCC that have joined the forum for the first time. Since MSF8 held in March 2017, there have been a number of key developments

- OWNPN document revised to ensure that phase 2 is aligned with SDG targets
- The water sector working group has enabled all development partners in the WASH sector to come together, creating a common platform for discussion and alignment of plans
- The Joint Technical Review, first of its kind, was fundamental for the development of strategies and programs in the area of water resource management.

“Let’s make sure we work together to have sustainable access to clean water and sanitation for all,” he said and declared the MSF 9 official open. He continued with his presentation on the subject of “*Resourcing and Increasing Commitment for the One WASH and WRM Programmes*”. He discussed the global and national context of water resources, where he stated that because of rising population, Ethiopia is already in the water poverty category. The real picture, he said, was contrary to the image created by the description of Ethiopia as the water tower of Africa. He discussed the 17 SDG goals and Ethiopia’s GTP and WaSH progresses. He also discussed Financing Partnership & Integration, including domestic resource mobilization; public, private and household financing; and sustainability.

6. PRESS CONFERENCE



Representatives of MoH, MOWIE, UNICEF and WaterAid (left to right) addressing the media, Addis Ababa, June 2018 Photo Credit - Serawit Atnafu/WaterAid

The keynote speeches and opening were followed by a press conference. Mrs Melesoupo and Dr Seleshi made opening statements for the journalists followed by Q&A.

Gellian Melisoupo, UNICEF representatives representing the development partners

I am here in my capacity to represent the development partners on the Water Sector Working Group. We feel honored to have this opportunity to be here with the government celebrating the MSF. Just to look at the really incredible achievements of the One WASH program between 2013 and 2017 - 18.7 million new people have got access to water, and 38,000 new water infrastructures have been built during this period. Over 1,175 schools and 1,187 health facilities have now received WASH services through the consolidated WASH account. I think a very exciting message for you to know for Ethiopia is that the One WASH national program is the largest of its kind globally. It is a model for the rest of the world, and I know that the minister and the Ministry of Water are getting a lot of enquiries from other countries to learn from the success of what has been achieved here in Ethiopia. As UNICEF we have the largest WASH program in the world here in Ethiopia. We have supported the One WASH Program, and we will very much continue to support One WASH phase 2. Just to highlight a couple of issues that I raised in my speech is that in this next phase we really need to be focusing our attention on the urban poor to really deliver quality WASH services in the country's rapidly growing towns and cities. The sector also needs to prioritize water and sanitation in schools and health facilities. This is really very key, particularly to provide support for girls for menstrual hygiene management. Finally the whole issue of sanitation is an area I know is going to be big focus in the upcoming second phase, but also to note that 1.1 million people are no longer open defecating, and this reduction has been from 44% of the population to 29%. This is from the 1990's. This is a huge reduction, and the biggest reduction globally. But just to say we will all be very much focusing on improving safe sanitation in this next phase of the One WASH.

Dr Eng. Seleshi, Minister of Water, Irrigation and Electricity, summed up in Amharic what Mrs Melesoupo said, with some further elaborations. He told journalists that the aim was rural water access of 25lts per person within 30 minutes' walk or one kilometer distance. The target for urban water access is 40 to 100lt of piped water per person. The water supply achievement in GTP II is 68% until the 10th month of this fiscal year, expected to reach 73% by the end of the year. It is expected to reach 83% by the end of GTP II in 2020. Sanitation activities include reducing open defecation, and promoting hand washing with soap and construction of household latrines. There will also be activities to clean up rivers and other water bodies. He told the journalists that One WASH is the only one of its kind a highly coordinated program. Federal and regional government bodies, development partners, and CSOs work together in One WASH with common plan, common financing and common implementation. We work in One WASH to realize our objectives through the 2030 SDG plan or through GTP III & IV. You have seen many stakeholders in the conference hall. On the government side various ministries work together – MoFEC, MoH, MoE, MoWIE, and now with the inclusion of Water Resource Management, two new ministries have joined, MoALR and MoEFCC. Our new flagship program is climate resilient program, which we are working on to find lasting solution to water supply problems in drought prone areas. This will be achieved through drilling deep boreholes and damming rivers and using these resources to provide clean water to settlement areas using pipes that extend many kilometres so that both the people and livestock will be beneficiaries. In general, the MSF evaluates the works that are undertaken and determines what is to be done next so that the One WASH program succeeds.



Ato Dagnew Tadesse (MoH), Dr Eng. Seleshi, (MoWIE), Mrs Melesoupo (UNICEF), and Ato Manaye Seyoum (WaterAid) responding to questions from journalists

Mrs Melesoupo, Dr Seleshi, Ato Dagnew Tadesse (MoH) and Ato Manaye Seyoum (WaterAid) entertained questions from journalists, giving more detailed responses on issues such as water quality, access to latrines and support from development partners.

7. EXHIBITION

Following the opening session of the Joint WASH-WRM MSF, participants went on to visit the exhibition organized at the same venue. Exhibitors included WaterAid, Basin Authorities (Awash Basin Authority, Rift Valley Lakes Basin Authority, and Abay Basin Authority), JSI, Care Ethiopia, PSI, World Vision, IRC, UNICEF and private sector. Most were displaying communication materials, while PSI had in addition two kinds of plastic made latrine seats with self-closing flaps to prevent flies.



Dr. Eng. Silesh Bekele and other participants of the forum visiting the displays of intervention publications of organizations in the WASH sector, Addis Ababa, June 2018 - Photo credit Serawit Atnafu/WaterAid

8. SUMMARIES OF THEMATIC STREAM S1: WRM PRESENTATIONS AND DISCUSSIONS

This session was chaired by H.E. State Minister Abraham Adugna (MoWIE) and co-chaired by 2030 WRG. It entertained six presentations and discussions. The first was a preliminary draft of *National Integrated Water Resource Management Program*, presented by Dr Tena Alamirew and Dr. Tewodros Negash. The second, *Hydro-economic Analysis Report for Ethiopia*, was presented by Ato Biruk Habtemariam, from the National Planning Commission, and Mr. Bryn Vadheim, consultant from Vivid Economics.

8.1 SUMMARIES OF PRESENTATIONS ON NIWRM PROGRAM & HYDRO-ECONOMIC ANALYSIS FOR ETHIOPIA

Dr Tena said that water and aquatic sources in Ethiopia were facing quantity and quality degradation. He expounded water management issues by water source, such as rivers and ground water. The National Integrated WRM Program (NIWRMP) will propose about 10 implementable activities for what he identified as low flying threats. The program's main objective is to identify needs and programmable actions within the seven WRM priority/hotspot areas identified by the WRM-Sub Group. This was tackled by the next presentation.

Dr Tewodros Negash followed Dr Tena's presentation with a presentation on *Water Charge and Scheme Sustainability & Groundwater Legislation* issues. He addressed the underlying principles, such as water being an economic good. He discussed major gaps identified in field missions: surface and groundwater resources are not well defined and assessed; and there is lack of accurate information on water allocation and use. He then discussed proposed programmable actions in many areas, such as data management, institutional capacity, water quality and more.

The next presentation was *Hydro-economic Analysis report for Ethiopia*. Mr. Bryn Vadheim said in his presentation that water demand is set to increase dramatically and Ethiopia's basins will become reliant on groundwater, given projected growth targets because of which water stress indicators are very high. The crucial *meher* growing months will be impacted the most. This calls for mapping of factors of resilience, which allows us to identify and understand stress and to propose solutions for it. The situation calls for the public sector, the private sector, and CSOs to enhance dialogues on sustainable water resource management.

8.2 SUMMARIES OF QUESTIONS & COMMENTS ON NIWRM PROGRAM & HYDRO-ECONOMIC ANALYSIS FOR ETHIOPIA

H.E. Abraha Adugna, State Minister of MoWIE, chair of the session, told the participants that all the presentations were draft documents, which needed comments and ideas from the participants as that is the reason they were presented, and opened the floor for discussion. He reminded participants that NIWRM issues were largely governance issues, with political, economic and social dimensions.

The first speaker commented that functionality of projects was not addressed by any of the presentations. Lessons from the past must be captured. Failed projects need to be lessons for the future he stressed. He also asked what lessons were learned from large investments in ground water exploration by federal and regional governments.

The second speaker urged the presenters to go beyond water and assess other environmental factors as water is dependent on, for instance, forest and other ecological factors.

Another speaker said that there are ongoing activities on drying water sources, so that their water level could improve. He asked the presenters if they had considered such endeavours.

Another participant asked what the relevance of the modelling exercise in hydro-economic analysis was, whether it is to show the water balance or to show economic value of water over time. He also asked whether the water charge schemes were basin specific, which he believes should be the case. He also said that there are researches which say there will be more water by 2030, and asked how such studies could be harmonized.

Dr. Tesfamichael Gebreyohannes, Water Resource Bureau Head of Tigray region, asked how deeply the problems have been studied, and challenged why the analyses are made with the future in mind when water stress was already an issue in places like Tigray. He asked findings about current levels of water stress. “When I see the maps, they indicate about the entire nation, but it is difficult to get detailed data to produce such kind of grid map, there is a question of reliability of the data. Did you talk with the regional bureaus of water? Instead of producing such large-scale analysis, I prefer demand oriented and basin-based assessment to respond to the societal demands,” Dr Tesfamichael said. He also expressed interest to know the procedures followed and the people involved in the process.

There was also a question about the availability of regulation for water charge and about attitudes of communities towards water charge.

Another participant appreciated the basin-based approach to water charges. Regions now know the distribution of water resources in their regions; basin authorities can also help mapping these places. He urged MoWIE to push for the establishment of other basin authorities in the country apart from the three basins found in the country.

But, the regional governments have to be involved in the process of both assessments as well as water charge process as the MoWIE has no jurisdiction in the regions. Therefore, he questioned how regional governments could be engaged in the whole process beginning from the inception of the idea.

Another asked how long the hydro economic analysis took and if the water stress forecast for 2030 was made with a consideration of the current status quo. He also asked what kind and amount of data have been utilized to do the projection. What indicators the researcher used to reach at the presented results was also a point of concern.

8.3 SUMMARIES OF PRESENTERS’ RESPONSES ON NIWRM PROGRAM & HYDRO-ECONOMIC ANALYSIS FOR ETHIOPIA

Answering to questions and comments on the hydro-economic analysis, Mr. Vadheim said that the objective of the hydro-economic analysis is twofold, to provide a baseline data both to the National Planning Commission and other ministries and to identify particular opportunities to address issues through different projects. The 2030 projection is not certain and there are opportunities to reverse it, he added. The analysis is a work in progress to be finalized in July. It will be presented at a workshop and get published by the NPC.

Mr. Vadheim admitted that wetness in the basins will increase. The derived water stress is expected to come from increasing demand not from decrease in supply. In terms of the maps, he said they were prepared based on data from CSA reports and other sources. In the case of absent data, international published sources were used.

The chair of the session indicated that there will be discussions with the NPC, as it is the owner of the project. He also said that the main sources of data should have been the MoALR and the National Meteorological Agency, not CSA.

Dr. Tena and Dr. Tewodros entertained questions and comments on the NIWRM and water charge.

Functionality of existing infrastructure will be considered in the development of irrigation schemes. Regarding other environmental factors that contributed to water resources, they said basin authorities were already working on them through catchment management. Water coming from catchments would be considered.

They also mentioned that there were initiatives to form basin authorities for Tekeze, Wabi Shebelle and Omo Gibe rivers. There needs to be regulative frameworks that define the relations between the regional governments and basin authorities.

The chair H.E. State Minister of MoWIE, Dr. Abraham indicated that there needs to be policy modifications to be made to fit the growth of the country and it is imperative that overlapping mandates among institutions like the MoALR, MoWIE and other institutions as well as basin and regional authorities' integrations. The national water policy is more than 17 years old and it needs improvement, he added. The Ministry is also working with basin authorities to create cooperation with different bodies working in the water sector.

Dr. Tewodros said that past experiences were used to develop the current recommendations. As the WRM covers diverse areas, water shed management is considered along with demand and supply. Legislations were also evaluated to identify gaps, but legislations alone do not guarantee effective water resource management, he stressed.

Another speaker questioned the successfulness of the country's water management policy while the country's irrigation in Awash basin is still 45 percent, the same as 20 years ago.

8.4 SUMMARIES OF PRESENTATIONS ON WATER ABSTRACTION/USE & TREATED WASTEWATER CHARGE DEVELOPMENT PROJECT, AND PAYMENT FOR ECOSYSTEM SERVICES (PES) IN ETHIOPIA: ROAD MAP

The first one was Water Abstraction/Use and Treated Wastewater Charge Development Project for Awash Basin presented by Dr. Geremew Sahlu, Director EIWR/AAU.

It is important to study the Awash basin as it covers 1/10th of the country's area, with 15 million people living in the basin and 35% of the urban population located in the basin; it is home to 60% of national industry. The presentation highlighted the clash of authority and jurisdiction between the basin and the regional states that it runs through, even though basins do not depend on political boundary but on hydrological boundaries.

Water charge relies on the principle that if one abstracts water from the environment, there should be payments made because of that, but the consideration is determining the amount of charge and the mechanism of the payment, whether it should be made mandatory or voluntary, and if it is better to make the payments fixed or variable.

Payment for Ecosystem Services (PES) in Ethiopia: Road Map, by Ato Abdeta Debela, MoEFCC. The ministry is designing and initiating payment for ecosystem services and the final document for this is scheduled to be presented on July 2, 2018. It aims to provide all the actions required to design and implement PES at the national level. PES is being piloted in four regions in the country. In the PES people pay for the benefits gained from the ecosystem, and the payment will provide additional economic efficiency to the economy. A revenue of 86 million dollars is expected from PES, which in turn can be invested in environmental protection.

8.5 SUMMARIES OF QUESTIONS & COMMENTS ON WATER ABSTRACTION/USE & TREATED WASTEWATER CHARGE DEVELOPMENT PROJECT, AND PAYMENT FOR ECOSYSTEM SERVICES (PES) IN ETHIOPIA: ROAD MAP

The chair of the session, Dr. Abraham, indicated that there will be water tariff and pricing which will help balance the discharge the upstream users create on the downstream users. There are also plans to introduce charges for hydropower usages, too.

There are experiences of water tariffing in Amhara, Tigray and Awash but, there needs to be a standardized tariff for the basins and its implementations will be carried out in cooperation with the regional governments, he said.

Water charge should begin soon, said one participant, and another added that interviews have shown large scale users in farms have expressed willingness to pay more for water. Lessons should be learned from the failed water fund, which could not recover costs. Another suggested learning from international experiences, such as from South Africa, which varied charges based on uses; people who grew eucalyptus trees, for example, are charged higher in South Africa. It was also suggested to charge irrigation schemes higher, as they consumed a lot of water and to introduce water use efficiency technology. The lessons of such experiences could be exported from the Awash basin to other basins. The current charge rate of 3 birr/1000 m³ of water has to change, it was also suggested.

Dr. Tena Alamirew said that water charge can be used as an economic and financial incentive to attract investment, but hydropower activities should be the subject of PES as there is some kind of ecosystem service they get.

It was also suggested to involve regional governments in the development and implementation of such projects, noting the lack of the involvement of regional states in the studies presented.

Dr Tena expressed concern with regard to waste water charge, in that industries tend to discharge water at different levels of treatment, which should be considered. He also said that it is easy to make regulations at national level but effecting them in the regions is difficult. Water tariff being a subset of PES, one comment from the audience was how the mandates of basin authorities and regional states could be coordinated or integrated.

Other questions included how to include in water charge high value uses of water for entertainment, and how upstream users can be rewarded by downstream users for their

conservation endeavours. It was also asked if transboundary water charge can be levied on Sudan and Egypt for the conservation work done by Ethiopian farmers.

8.6 SUMMARIES OF PRESENTERS' RESPONSES ON WATER ABSTRACTION/USE & TREATED WASTEWATER CHARGE DEVELOPMENT PROJECT, AND PAYMENT FOR ECOSYSTEM SERVICES (PES) IN ETHIOPIA: ROAD MAP

Dr. Geremew replied that a water charge mechanism is being developed for hydropower. Entertainment values, such as visiting lakes or navigation, will also be charged. People have to pay even if they do not abstract, but the estimation can be different.

There is a team dedicated to the legal and practical aspects of the relationship between regional and basin authorities, he explained. They have made recommendations for how the two will operate. But, as there is no basin that exists only in one political region, it needs consideration of policy change.

Dr. Geremew explained that the failed water fund was considered in the water charge schemes under development. It also required further study, he said, whether climate change or abstraction are the reason for people's complaint that they are getting less water.

Some of the field visits that they have conducted also indicated that there is willingness to raise water charges. But, there are different views regarding the amount. But, as waste water discharge is illegal, it should not be included in the water charge, he suggested. Charge for treated waste water is being developed and releasing untreated waste water is punishable by law. We are not developing cost for someone who is releasing waste to the environment, he said.

In principle, charges are basin based as there are different cases for each basin. That was the reason for the change from the initial desire to develop a national charge.

Ato Abdeta Debella replying for questions on the PES, said that the study will include abstraction and other issues.

8.7 SUMMARIES OF PRESENTATIONS ON CAPACITY BUILDING IN WATER RESOURCES MANAGEMENT: PRACTICAL EXPERIENCE FROM EWTI AND TRANSFORMATIONAL AGENDA FOR IRRIGATION DEVELOPMENT

Wednesday's third parallel session entertained two presentations in the WRM thematic stream. The first was *Capacity Building in Water Resources Management: Practical Experience from Ethiopian Water Technology Institute (EWTI)*, by Ato Zewdu Seifu, EWTI director.

Ato Zewdu stated that capacity building has three elements: creating an enabling environment with appropriate policy and legal framework, institutional development - community participation and strengthening public private partnership, human resource development and strengthening technical and managerial system. The institute has trained 3,500 experts since its establishment with collaborative efforts between JICA and the MoWIE and it provides 13 short term training courses. It also conducts researches both by in-house experts and commissioned researchers. The institute also provides specialized laboratory tests. It is also a laboratory and a training centre in water management and irrigation.

The second presentation of the day was *Transformational Agenda for Irrigation Development, by Seyoum Getachew from MoALR/Ethiopian Agricultural Transformation Agency*. Seyoum indicated that the objective of the transformational agenda is to create access to irrigation water. They do this by identifying water resource potential and promoting sustainable irrigation development. ATA works with the MoWIE to achieve water access to smallholder farmers. ATA also works to strengthen services for irrigation/drainage development and supply chains for related technologies. The council of ministers has approved tax exemption for irrigation-based equipment which will be leveraged for the success of the initiative.

The ATA is also working on shallow ground water assessment, for which it is doing mapping.

8.8 SUMMARIES OF QUESTIONS ON CAPACITY BUILDING IN WATER RESOURCES MANAGEMENT: PRACTICAL EXPERIENCE FROM EWTI AND TRANSFORMATIONAL AGENDA FOR IRRIGATION DEVELOPMENT

A participant from Arba Minch University encouraged EWTI to partner with it, and regarding the laboratory EWTI is developing, he said physical modelling labs were lacking in the country. ATA's work on shallow ground waters was also challenged, as these sources are not reliable for sustainable irrigation. The presenters were also asked if there were any plans to deal with ground water, whose supply is threatened by climate change.

A question was also raised as to how knowledge and information can be institutionalized in the face of high turnover of institutional leadership. The ATA was also asked to validate the focus of the transformational agenda of agriculture on irrigation, as the transformation agenda was more than that, including such issues as land tenure. It was also asked how the irrigation management system the ATA is developing aligns with MoALR's sustainable land management system.

A comment was also made to EWTI that alongside building a new laboratory should be considered efforts to recruit and retain appropriate staff, which are bigger challenges. EWTI was also encouraged to develop thematic research areas, especially as there are complaints about research in the water sector.

8.9 SUMMARIES OF PRESENTERS' RESPONSES ON CAPACITY BUILDING IN WATER RESOURCES MANAGEMENT: PRACTICAL EXPERIENCE FROM EWTI AND TRANSFORMATIONAL AGENDA FOR IRRIGATION DEVELOPMENT

Regarding questions posed to EWTI, Zewdu said that his institute is working to improve relations with other partners, such as Arba Minch University; that it is training its own staff and planning to recruit more, even as it is working on its salary scale. To deal with the issue of institutionalizing knowledge and information, EWTI is setting up a Resource Management Centre for all researches, which has to be approved by MoWIE.

Teshome Beyene, the co-chair from 2030 WRG, WB, stressed that if IT systems are implemented to store and share resources, knowledge would not be lost. He also asked whether EWTI's labs are intended only for teaching or other purposes, too.

He also asked how EWTI's laboratory and research works with those of the Ethiopian Conformity Assessment, as the latter does a lot of research on water quality and biological researches.

Answering to questions posed to ATA, Ato Seyoum said that the Agency also works on surface waters. The mapping endeavour, however, aims to locate shallow ground water resources of the country. Issues related to using them will be addressed when the time comes to use them, he added. Activities could speed up, he said, if MoWIE and MoALR collaborated.

9. SUMMARIES OF THEMATIC STREAM S2: WASH PRESENTATIONS AND DISCUSSIONS

The second thematic stream heard a total of six presentations, which were presented in three sets over two days. The session was chaired by H.E. Dr Eng Negash Wagesho, State Minister of MoWIE and co-chaired by DFID.

9.1 SUMMARY OF PRESENTATION ON OWNPHASE II OUTLINE

The consultants reported that they had undertaken three main tasks:

- Review Phase I OWNPHASE II and Formulate Recommendation for Phase II
- Review and Update OWNPHASE II main document
- Design a strategic action plan based on GTP II plan for the period 2018-2020+

They discussed the water supply and sanitation & hygiene objectives the government aimed to achieve in the short term (until 2020) through the integration of water, health, education and finance sectors and through the harmonization and alignment of the activities of partners. The consultants proposed 14 short term and 4 long term strategy recommendations for Phase 2 (2018-2020) of OWNPHASE II and beyond. Below are the questions and comments they entertained from participants.

9.2 SUMMARY OF QUESTIONS AND COMMENTS ON OWNPHASE II OUTLINE

Who is the owner of the document? That was a question raised both on day 1 and 2 of the forum.

Participants also asked questions such as how the strengthening of Monitoring & Evaluation would be materialized and what sort of changes there would be to improve private sector participation and encouraging investment in construction.

The consultants were asked to give more information on the challenges and lessons learned from Phase I at operational level in terms of utilizing available resources, explaining the performance variations among regions.

Recommendations have to go beyond a simple do this, do that; they also have to include elements of how to do those things.

A call was made to capture WASH interventions made by several NGOs with impacts on One WaSH targets, as only few were included. The NGO issue has been frequently raised, one participant said, suggesting that it may need to be addressed through institutional arrangement and accountability framework, so they can plan together and budget together and report to a single body; that would also create opportunity to evaluate their performances. One way to do that would

be to find a mechanism to create a link with WASH when NGOs sign agreements with the Ministry of Finance & Economic Cooperation. How alignment of National WaSH Inventory 2 and One WaSH 2 could be achieved was also another question. One wanted to understand why zonal coordination was sought when regional coordination was not in place.

Various participants raised issues related to inclusion, with particular emphasis on persons with disability, refugees and gender. One participant asked if “ministries” were responsible for meeting the WaSH needs of refugees and stressed that Refuge WaSH needed to be explained more.

A question was also raised to examine Number of Schemes Vs Cost; schemes could change from low technology to high technology, and cost could depend on a variety of issues. Another participant suggested the inclusion of unit cost of technology so that it would be clear how the final budget was arrived at. They were also asked to explain more about the kind of technology mix and the kind of services expected from those technologies in the plan.

The plan has recommended rehabilitation, but a systemic approach is required to deal with non-functionality.

Self-financing comes first in the policy in the urban context, said this participant from MoWIE, followed by cost recovery, but there is no reference to self-financing in the presentation. If the financial sector would be involved in enabling self-financing and setting up a credit system to help One WaSH endeavours was also raised. A participant also asked for clarification on community contribution – there is community contribution in rural areas amounting to 10 – 15% but in urban areas cost recovery using tariffs is the norm. Is the tariff in urban areas the same as the 15% community contribution, asked this participant.

It was also mentioned that GTP 3 & 4 needed to be addressed as there is now international agreement to which the government is committed to meet the SDG targets by 2030. One WaSH focus seemed to dwell largely on GTP 2 and 2020. A recommendation was made to align GTP 2 indicators with SDG indicators in the short term in order to be able to track both GTP 2 and SDG progresses, or it would be difficult to achieve SDGs.

Phase 2 has only 3 years, but we are making huge plans with huge investments. Have you considered the reality on the ground in your document? Based on the assessment of Phase 1, there should be realistic plans, it was suggested.

Ethiopia is lagging behind in urban sanitation. A huge amount of finance is required for construction and other investment in the sanitation area, but what One WaSH is proposing is a small amount of finance. One WaSH needs to give more attention to this area, a participant noted. What is the reason you proposed 340 million for this one and for water supply?

A question was also raised why Climate Resilient WASH, the fifth element, was missing from the targets, which were only four in the presentation.

A suggestion was made to develop a masterplan for the program, and to set aside budget for that.

A question was raised if the WASH steering committee would be revised for the Phase 2, especially regarding its mandate to make decisions for operation in the regions.

One challenge in Phase 1 was lack of enforcement for coordination. Any plans to change that in Phase 2?

Elaboration was also sought on the recommended strategic approach: WASH Sector Reform, the participant asking whether it implied privatization.

9.3 SUMMARY OF RESPONSES ON OWNPHASE II OUTLINE

All WASH stakeholders are the owners of the document, the consultants said regarding ownership.

Some of the questions are comments, which will be considered when the draft is finalized, they responded. MoWIE is working a lot to improve M&E; they want to use mobile phones and other tech to achieve real-time reports from the source. The Ministry might also seek to form M&E Directorate, like MoH has done, because there is a lot of data to be collected and analysed. MoWIE is the centre of WASH reporting; therefore, it is good exercise to improve M&E.

There are one million refugees, which the government tries to make feel at home. They are within the community and sharing the community's resources. So they must be considered if we want to avail adequate sustainable water supply for all. UNICEF has developed a model – public utility based service delivery model. It is interesting that there is some kind of methodology developed for refugee.

Gender and disability issues are fully covered in our report, although we did not mention it. Many things have added to the initial document to improve it including disability, gender mainstreaming, MHM.

Innovative financing – in sanitation marketing, for example, financial institutions and the private sector have to come to the centre; for example, microfinance institutions and micro and small scale enterprises. There also has to be a horizontal coordination to access financial resources, which we have included in the document.

In the MSF we advocate the inclusion of reports from all WASH stakeholders, as there are many activities that are not reported. One Plan, One Budget, One report – that is One WASH, so we have to harmonize activities of all stakeholders. NGO's were not very much part of the picture in Phase 1, and emphasis has to be given for them to come to the centre in Phase 2 in order to exploit their huge resources, particularly their human resources and the methods they have developed. The One WASH coordination office can consolidate all efforts.

The consultants said in response to comments that they had only tried to review and update GTP II plans. They would consider GTP 3 & 4 in their final report to align it with SDG targets, they assured participants. They also added, however, that they were in a dilemma whether they had to address just the two remaining years of Phase 2 or continue to cover the SDG period. Decision would be made later on after discussion with UNICEF, MoWIE and others. But they added that SDGs would not be achieved just because there are budgets and organizations; they also need commitment and focus.

They expounded the process they followed saying that the full plan was shared with regions. They found in this process that the number of schemes proposed by regions were high, which led them to make some revisions with the remaining time frame and the target population in mind. They also used GTP II and NGO estimates to come up with an average technology cost per person, such as for hand pumps. They did this in two scenarios: one, all technology as proposed by the regions

plus revised unit cost and average population per scheme, and scenario two, with technology mix ratio (focusing on resilience and sustainability).

FUNDING: They used in their work the contribution framework (funding for the activities) proposed by the GTP II document: 16% from community, 49% from government, and 35% from NGO and CSO.

A new approach has been suggested to complement the health extension and CLTSH programmes with Community participation, especially for behaviour change. That approach is called community-cantered approach, where community members are expected to be highly empowered and involved. We can use the manual developed for that, the consultants said.

The consultants said that the fifth component was probably their fault, and it probably had to be included in their program.

There were challenges and lessons learned at operational level from phase 1, and some of the recommendations for Phase 2 were meant to address those issues. These included recommendations related to capacity building and monitoring and evaluation.

Regarding suggestion to include the “how” elements in the “to-do” recommendations, the consultants admitted that missing the “how” element was always an issue, but that they had used a three-pronged approach to address it: what is the problem, why is the problem there and how could the problem be overcome. They would integrate the “how” part well in their document, they promised.

Regarding urban utility, so far the focus was on rehabilitation, to reduce non-revenue water. The other one is management capacity of the utility; it needs to be scaled up, it should be a joint-venture approach. Later on it can be transferred to local institutions.

The facilitator, W/ro Marta, said that what was required at the end of the day was a document that was better than the first program document. “For that we have a joint responsibility - the consultants or the stakeholders and the client itself. The client has to clarify some of the things for the consultant – say for example the timeline issue. The coordination office should do that. From their side there are two things. First, the main change is the fifth pillar. We have to see all the physical and financial planning for the five pillars, she said. Second, we have to come out of the conventional way of financing. As clearly said by Ato Nuredin, we have only government, donor and community. We have to see other options such as self-financing, the private sector and others. Other than that, the coordination office has to share the document and we have to give feedbacks including for organizations like Centre for Disability. Everyone has to get their draft. I hope the coordination office will take this assignment. I hope at the end of the day we have a sound document which will be the basis for the next implementation, W/ro Marta said.

9.4 SUMMARIES OF PRESENTATIONS ON BUILDING CLIMATE RESILIENT WASH – THE TECHNOLOGY SIDE, AND COWASH AND WATERAID INCLUSIVE WASH EXPERIENCE IN ETHIOPIA



Dr. Seifu Kebede from AAU, presenting on Building climate resilience in WASH - the Technology side, Addis Ababa, June 2018 - Photo credit Serawit Atnafu/WaterAid

Building climate resilience in WASH, the technology side, by Dr Seifu Kebede.

Dr Seifu explored evidences in climate resilience of WASH technologies, examined the three characteristics of WASH in MDG, and discussed ways of building resilience in water schemes in highland and arid environments and the whereabouts of vulnerable aquifers, schemes and people.

COWASH and WaterAid Inclusive WASH Experience in Ethiopia by Dr. Abebe Yehualawork.

Dr Abebe discussed the “what” and “why” of inclusive WASH and who benefitted from it, as well as ways of making WASH more inclusive. Inclusion recognizes disability as a reality, he said, adding that it was not an act of charity but an issue of right for persons with disability. Inclusion cannot be realized without accessibility, he said. He presented results achieved through COWASH III including the inclusion of disability in monitoring and reporting frameworks as well as the production of training materials in local languages.



Dr. Abebe Yehualawork from AAU presenting COWASH and WaterAid Inclusive WASH Experience in Ethiopia, Addis Ababa, June 2018 – Photo Credit, Serawit Atnafu/WaterAid

9.5 SUMMARIES OF QUESTIONS ON BUILDING CLIMATE RESILIENT WASH – THE TECHNOLOGY SIDE, AND COWASH AND WATERAID INCLUSIVE WASH EXPERIENCE IN ETHIOPIA

To Dr Seifu. The parameters related to resilience, such as rainfall, catchment size, household etc, are also true for other normal rural schemes as well, because when you select site, you consider how that scheme will be sustainable. He was asked to expound how independently and differently these components (parameters?) were considered, differing from other urban and rural components?

1. As a take-away from the forum, an increased participation of the academia was stressed by a participant.
2. He was asked for recommendations to address the paradox of places like the rift valley, which have plenty of water but suffer from water famine. Dr Seifu was asked to clarify issues related to low land areas, as the study indicated only highland and arid areas. Based on the evidence of his study, he was also asked if it were possible to ensure that shallow and deep wells would not go dry after the digging. He was also asked if we knew anything about the recharge potential of Ethiopia's ground water. He was also asked to say more about the availability of skilled manpower and materials required to detect underground water after this study.
3. To Dr Abebe. There is no subsidy for sanitation in Ethiopia; everything has to be covered by households. In some cases there are people with disabilities or old age that need some kind of support. If we want an improved sanitation in the household for example, if we want ODF communities, we will need everybody to use an improved sanitation. Will there be a targeted subsidy for these people?

9.6 SUMMARIES OF RESPONSES ON BUILDING CLIMATE RESILIENT WASH – THE TECHNOLOGY SIDE, AND COWASH AND WATERAID INCLUSIVE WASH EXPERIENCE IN ETHIOPIA

Dr Seifu: Regarding the question of applicability of evidences, particularly schemes' responses to rainfall variation, that is specifically for highland areas. Pertaining to the rift valley, the water quality, salinity is an issue. What we can do in that environment, where the water level is deeper and the quality poor, depends on how we prioritize our investment. If cost is an issue, then we do x, if resilience is an issue, we do y, if something else is the issue, we do z. But how do we sequence our activities? In the rift valley environment one of the things that could be done and what is proven successful is water transfer from highlands to low lands using multi-community schemes. It worked in some places and failed in others. It is not a panacea, so we do not immediately opt for it. There are social, environmental and other reasons why these kinds of technologies may not directly apply. If we know the reasons for their failure, then we can successfully apply multi-community schemes by bringing in water from the highland environments. Desalination, defluoridation, these are also feasible, but we need to look into unit cost of these investments. There has been a study to determine the unit cost of water from multi-community schemes, and it has been found that the unit cost in the first is much cheaper. But there are some other reasons for which multi-community schemes may not be feasible.

Currently we are working with the MoWIE on deep ground water survey, which is part of the engagement of the academia. I would say in the past the water sector was the domain of the policy

makers and development partners. Academic institutions were not in the picture. Today so many of the presentations come from the academic environment. It is encouraging to see these three corners connecting, and we will see more of it in the future.

How to guarantee that deep wells in arid areas will not fail after drilling? There are so many social, engineering and hydrogeological reasons why boreholes fail. It relates to design, the materials used, it relates to hydrogeology, and the management of water points. So many reasons why water schemes fail. And these are embedded in climate resilience and sometimes difficult to identify unless we do an in-depth study. There is an ongoing study on 50 boreholes in Ethiopia, as to why they failed.

Regarding availability of skilled manpower to do deep ground water investigation, there are regions in highlands where we do not need highly skilled manpower from international sources. There are regions in Ethiopia where local capacity even at national level is not sufficient to do the mapping, identification of the hydrogeological environment. We need international investment and knowledge transfer. But most of the regions can be handled by local capacity.

The ground water potential issue – there is data, there is information and there is knowledge. The amount of data we have, research by international partners and local universities, has not been converted into information in the water sector. We could have much information if we do the conversion.

Dr Abebe. It is true that the two projects can exploit the experiences of the MoH. In order to start inclusion of people in COWASH 3, the project has developed a guideline. One of the documents used in the preparation of this guideline is the HSTP, which itself has considered disability issue. By the time this guideline is presented in the form of training, all implementers will be aware of the issues, policies and legal framework that promote disability issues not only in WASH but also in health and other public sector areas.

Regarding open defecation, yes, open defecation severely affects PWDS, especially those with orthopaedic problems. OD occurs not only in open spaces but also in toilets. So the solution is not only to give support for PWDs on how to avoid dangers of open defecation. There are two solutions. First, we have to make toilets and other sanitation areas accessible for mobility. Our toilets are not made considering the spatial needs of people with physical disability or wheel chair users. PWDS also need more water in the context of Ethiopia, according to WaterAid assessment. Because people use their hands for mobility, they need more water to clean themselves. The other one is to educate people to avoid using open defecation. If there is no OD, PWDs will no longer be affected. Our custom must change not only about disability but also about using toilets and other sanitation areas properly.

9.7 SUMMARIES OF COMMENT BY DR NEGASH ON BUILDING CLIMATE RESILIENT WASH – THE TECHNOLOGY SIDE, AND COWASH AND WATERAID INCLUSIVE WASH EXPERIENCE IN ETHIOPIA

The two presentations have given wide-ranging options for us to look into, especially on ground water component and inclusive One WASH. Some of the issues raised by participants are outstanding, especially the demarcation between surface water and ground water. This is tough even for technical people, but we can differentiate between the two. When we have a very closed watershed, where there is no interaction between ground and surface water, rainfall amount which

recharges deep ground water remains there. But when there is interaction with surface water, usually during the dry season, the rivers flow continuously – that comes from the ground. But we have to really differentiate which part of the watershed contributes continuously to the running river, and which part of the water shed remains as ground water reserve in the closed watershed. That requires further analysis. Development partners could help in doing the research.

In the case of the Rift Valley, in 2030 most of our river basins, including Abay, Awash, Rift Valley, will suffer from extremely high water stress. This is arrived at using climate projection results, input data from GTP and SDG targets. It requires a big attention.

There is sufficient amount of water in the Rift Valley, but the water quality is poor in terms of iron and fluoride. What we have been practicing is low household or small community based defluoridation. Defluoridation may serve some, but when we come to large scale interventions, the investment cost is much higher. So we have to look into options – whether to transport water from adjacent catchment, or going for such expensive water treatment technologies, or look into deep water beyond 500ms. So far we have been harnessing water from the top 350m level. What if we go deep down? Will the water quality be similar to what we find at surface level? These kind of issues must be considered in the future to find some scientific solutions.

Regarding inclusive WASH, Dr Abebe has sufficiently addressed some of the issue. Now it has come to the attention of WASH communities. Whenever we plan, design, invest, we always account for inclusion.

9.8 SUMMARIES OF PRESENTATIONS ON ADAPTATION OF TECHNOLOGY TO CLIMATE CHANGE & GTP II AND ON RESOURCING WASH

Adaptation of Technology to Climate Change & GTP II, By Habab Taifour.

Habab started her presentation by elaborating the environmental, social and economic changes expected as a result of climate change and during the GTP II period. She went on to discuss the spectrum of water storage and associated technology options and considerations for choosing appropriate technologies. Technology is only part of the solution, she said, and discussed challenges related to information, institutional capacity and coordination and investments.

Resourcing WASH, By Jorge Alvarez-Sala. Alvarez-Sala discussed objectives of the One WASH program and the results achieved after four years of implementation. He showed a breakdown of the utilization of WASH funds by subsector, the lion's share going to water supply. He discussed funding status for phase 1 and 2, and discussed ways around the significant funding gap that existed for phase 2.

9.9 SUMMARIES OF QUESTIONS & COMMENTS ON ADAPTATION OF TECHNOLOGY TO CLIMATE CHANGE & GTP II AND ON RESOURCING WASH

Regarding funding gap, Jorge said that there was none in phase 1, but a participant mentioned MoFEC info that there was a 30% funding gap until recently. It was also indicated in Jorge's presentation that total funding required for Phase 2 was 5.9 billion dollars, while the participant said that only climate resilient WASH would require 5.5 billion dollars, and asked him for clarifications about funding.

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Clarification was also asked about ways of increasing financing for the mentioned One WASH budget.

Regarding water storage, a participant said the previous day he had heard a thousand litres per person storage capacity. The GTP II goals are 25lt/person/day, which means 40 days of supply. How do we balance that? Are we to prioritize ground water supply or prioritize climate resilience? Or are we going to prioritize to reach 25lt/day?

To Habab, what portion of finance that is sought goes to knowledge management, and how much of the money goes to maintaining functionality of exiting schemes?

9.10 SUMMARIES OF RESPONSES ON ADAPTATION OF TECHNOLOGY TO CLIMATE CHANGE & GTP II AND ON RESOURCING WASH

Jorge. Financial data about WASH is very difficult to get, often mixed with irrigation and electricity. It is also difficult to get data from implementing partners. So the numbers are estimates. But over the past two years UNICEF is trying to analyse data provided by partners. Jorge said that he believed that now the estimates were getting close to the reality. As to funding gap in phase 1, there was not. But we have to be cautious, he reminded. Data from development partners, activities by NGOS and other actors might not be properly captured in the past, although it represents one-third of the investment in the sector. This is a significant amount of money not properly captured in the consolidated One WASH report. Other reason may be funding allocated by regions contribute to the One WASH national program, although it is out of the CWA. Regarding knowledge management, I don't have the data. May be the consultant working on Phase 2 may answer that question, he said. Regarding the question on funding, there has to be a radical change in funding if one is to achieve the SDG's by 2030. ODA is not the solution. There are two alternatives proposed by the World Bank and UNICEF. One is on private sector investment – the country needs to establish an enabling environment for the private sector. The other is domestic resource mobilization – tariffs, transfers and taxes.

Climate resilient WASH is a seven-year five-billion-dollar program. MOFEC has confirmed commitment for 50% from treasury already. Government is proactively working to mobilize resources from donors. Ministry has approached China and Denmark, both of which are interested to put in some money to co-finance CR-WASH.

Regarding funding gap, we have actually achieved in 4 years what we set out to achieve in 7 years, Jorge said. He added, it looks like we may have mobilized more resources than we planned and achieved more work than we planned.

Regarding resource mobilization, innovative financing, and private sector investment, one of the key bottlenecks in financing utilities was tariff setting. In Afar the Regional Water Bureau spends 200,000USD in water tracking. UNICEF discussed with them about tariff setting. The Water Bureau said the community is too poor, so the tariff should not be full cost recovery. He said his personal opinion is if we start with a very low tariff, that is not full cost recovery for a new utility, communities are going to get used to this low tariff. For new water structures, let's be very serious on the business plan, he stressed.

Habab. Regarding water storage, Habab reacted that when we think about storage, we need to think about it in spectrum, not just large dams. Watershed management is also a form of storage. The government spends a lot of money on water shed management, some of which could be used for storage – an issue related to conjunctive use.

Ethiopia could learn from the experiences of countries like Brazil and Peru, Habab said, where commercial financing is supporting the sector. The government is using loans to leverage the sector, and that loan could be used to support the private sector to involve in the WASH sector.

PPPs can also be a very good instrument where large volumes of supply or waste water are involved; the government can put in some guarantee here in the form of 30 to 40% premium.

9.11 SUMMARIES OF FEEDBACK ON PRESENTATIONS FROM WRM, WASH, AND HYGIENE & ENVIRONMENTAL HEALTH PARALLEL SESSIONS

We have to push for proper census and MIS in urban areas, as the population is growing very fast.

1. For water resource team: what is the difference between water charge and ecosystem charge? For sanitation team, while we are addressing the WASH needs of existing facilities, we also have to plan for new health centres and schools that are opening all the time, to avoid having to deal with the situation at a later time.
2. There has to be a legally mandated body to coordinate the various works undertaken by different bodies. We have strategies for everything, but they are tough to implement, because our coordination sometimes is more competitive.
3. For WASH team. Because of the limited capacity of WASHCOs, water scheme non-functionality is growing. It is good to have community ownership, but our approach should not be always the same. Maybe we can arrange for a group of schemes to be managed together. The establishment of water board in rural areas as it is done in urban areas could help to bring in educated and better personnel to the management.
4. CSOs have financial and human resources, they have good M&E, they will be useful for One WASH, so we should consider that.
5. In sanitation and hygiene, we have a household-centred program. When we add CLTSH, it will include communities. Communities need to participate in the planning and implementation. We are not using communities.
6. Improved latrine coverage is very low. To accelerate that and to achieve GTP2, we are trying to implement sanitation marketing and improve the supply side. Can we improve latrine coverage Using SME's; Can we bring to us large scale manufacturers to achieve GTP 2?
7. How do we know about sanitation in urban areas – do we have information about challenges, bottleneck, do we have data. Master planning is very important. This was an output from bottleneck analysis.
8. WASH requires information for decision making. Then how can we guarantee that information passes from WRM to WASH sector. There should be budget for knowledge management. WASH finance currently goes to infrastructure development.
9. In Kenya, communities hire engineers to organize private suppliers. To make such contracts financially feasible, the number of schemes has to be sufficiently large, so that the engineers can make money out of it. The WASHCO approach may not work in some cases.
10. How included are very poor people in urban areas (urban slums) in our policies?
11. We need to work on increasing the engagement of the private sector in WASH?
12. A lot of stakeholders are joining the WASH stream. Work has to be done to increase their contributions not just participation.

13. There is big emphasis for water in urban areas, but for sanitation even in Addis Ababa, the structure itself is not good.
14. Another speaker raised concern about different studies that projected that Lake Abijatta is going to disappear between the years 2021 and 2028 and asked for viewpoints regarding the finding.
15. Recommendations should go beyond tasks and show how they can be achieved.
16. We should present best practices and success stories on such platforms.

9.12 SUMMARIES RESPONSES FROM PARALLEL SESSION GROUP REPRESENTATIVES

The Hygiene and Environmental Health session had discussed that the water producer cannot also be the regulator. But at the Ministry of Health there is a legally established body, Food, Medicine & Health Care Authority. Its mandate includes regulating water quality.

1. MoH is also working on microfinance institutions. When sanitation marketing enterprises are established, they get loans from MFIs. Such enterprises have been established in 202 woredas.
2. Coordination problems begin from the top. There are things in Addis Ababa which MOH and MoWIE can do together if they were properly coordinated; but they have all become burdens of MoH. For example, the 100-million-dollar waste treatment plant. There are industries in Addis Ababa; there are garages. If the MoH and MoWIE were coordinated, we could have developed better design for this plant. So when we talk about coordination problem, at least we must fulfil our responsibility.
3. DAGNEW. Sanitation is beyond latrines; it incorporates solid and liquid waste, personal hygiene, vector control. There are components that are not being addressed by MoH or others. Sanitation is the starting point for communicable and non-communicable diseases.
4. DR NEGASH. Related to growing urbanization, it is a challenge. Even rural areas are growing and resources are limited. When we look for a strategy that could address such emerging challenges, there is not quick solution. We need connecting to financing institutions, banks and MFIs. We are now well prepared to undertake the WASH inventory. It will happen in the next three or four months. Water charge and ecosystem charge, both are okay for me. Ecosystem charge requires me to pay if I use raw materials and I affect the environment. It is common in tanneries, textiles, coffee bean processing. They have to pay to recover the environment.
5. Dr Negash. When service delivery institutions are established, they have to consider all issues, water, improved latrines, from the beginning. The same at health centres. But the often neglect. MoWIE wants to work along with MoE, MoALR, MoEFCC, even though there are so many mandates that overlap. Integration requires integrity, so that we will not mark boundaries.
6. Ground water source exploration requires state of the art knowledge and resources. Development partners like UNICEF are showing keen in this area, so they may scale up their activities.
7. Non-functionality rate is high, but it is not because of the WASHCOs. If we monitor, evaluate and capacitate the WASHCOs, they can do better. There are WASHCOs in a small village in SNNP that have 3 million birr in the bank. So we have to look into ourselves

- instead of pointing our fingers at others. For example, in Tigray they have water experts at kebele level. There are water engineering graduates everywhere. Why don't we hire them?
8. The question about Lake Abijata, it is not just this lake. By 2030 all major river basins in Ethiopia will be under high to extreme water stress.
 9. Comments about community participation, irrigation masterplan, these are very sound comments.

10. UNDERTAKINGS

FOREWORD

The Government of Ethiopia hosted for the first time a Joint WASH - WRM Multi Stakeholder Forum, at the Hilton Hotel in Addis Ababa, under the theme “Resourcing and Increasing Commitments to One WASH and WRM programs” on June 12-13, 2018. The two days event focused on the linkages between WASH and WRM, conveying more than 300 participants including national, regional and local government officials, UN agencies representatives, development partners, civil society, private sector and academia.

The purpose of the MSF-9 was to track progresses and share experiences of different ongoing WASH projects and programmes. It established clear linkage between WASH and Water Resource Management where these interlinked two components of water are to achieve ambitious goals set in the GTP II. The forum functioned as a national platform for different dialogue on policy and strategy issues and it looked to generate consensus, align resources and gain commitments from the sector stakeholders and it set priority actions for the year ahead in both sectors. The Forum successfully raised the awareness of WASH and WRM achievements, possible area of cooperation, experience and shared concerns on existing challenges among stakeholders and the public.

The major findings and recommendations of this Forum will be reported at the High-level Political Forum on Sustainable Development Agenda to be held in July in New York. The agreed upon undertakings together with Ethiopia's commitment to achieve SDG goals by 2030 will be highlighted in the upcoming high-level political forum.

Ethiopia's sector-wide and multi-sectoral approach in WASH has been highly recognized internationally. This recognition comes from the Ethiopia's ambitious drive to modernize the way water services are delivered to all, how everybody's health situation is improved, how education is effectively and efficiently delivered to all and how finance is efficiently managed and channelled for implementation and management on WASH services.

Following the success of sector-wide and multi-sectoral approach in WASH, MoWIE in collaboration with the Ministry of Environment, Forest and Climate change and the Ministry of Agriculture and Livestock Resource as well as development partners is developing a high impact National Integrated Water Resources Management Program. The program is expected to bring different stakeholders together to enhance their support in improving water resources management in the country that enable climate-responsive planning and development, ensuring water resource availability and optimisation of social, economic and environmental benefits.

The deliberation emphasized increased coordination within WASH and between the WASH and WRM as an important milestone to achieve water security in Ethiopia. It has also recognized successful OWNPs serve as an example in shaping the WRM agenda. Ethiopia's MDG achievement in water supply was underscored as a substantial achievement and regarded as one of the fastest rates of open defecation reduction in the world are the examples how Ethiopia demonstrates to the rest of the world its capacity to rapidly improve WASH services.

The Government of Ethiopia together with its development partners is highly committed to finance and promote integrated, proper and sustainable use of water and sanitation with clear rules and regulations for both the needy institutions and its people. Therefore, the following document outlines the main undertakings agreed by the WASH and WRM stakeholders for 2018/2019 or 2011 Ethiopian Fiscal Year.

HIGH LEVEL WASH AND WRM UNDERTAKINGS:

High level undertakings are the actions which require ministerial level collaboration, decisions and actions with other high-level government sectors and bodies and are beyond of WASH and WRM sector stakeholders' implementation mandate.

1. Conduct critical review of the current water policy and strategy, and accelerate the revision process by involving key stakeholders at all levels and incorporate inclusive policy directions that can address the current and future water resources management challenges in the country.
2. The finance need of the water supply sector implementation is increasing as the water solutions have to respond to the high-tech technology solutions to solve the water supply as per the GTP II and SDG requirements and standards. Therefore, the water financing need to increase from the current financial status in order to achieve the set targets.
3. It has been mutually concluded that private sector inputs and capacity in water supply sector implementation need to be increased. The present enabling environment does not support this development. Therefore, establish enabling environment for the private sector to build its capacity to response high level technical water supply solutions in Ethiopia has a paramount importance. The major components of this development are:
 - Build capacities of local private sector for design and construction consultants through various interventions such as joint-ventures that promote knowledge transfers.
 - Establish tax free importation for deep ground water drilling machines. More robust certification of contractor capacities.
 - Establish tax free importation for solar panels, water pumps, treatment units, and other relevant water technologies.
 - Give priority to companies involved in the import of critical water and sanitation equipment and materials to get access to foreign currency.
 - Assess the viability and legal framework for private sector to manage water utilities and to outsource processes.
4. The planning of the creation of an independent water supply regulatory body for Ethiopia has been ongoing for long time. The need for such kind of regulatory body is increasing. Therefore, it is to establish clear concrete strategic milestones for the establishment of the

regulatory agency and implement all required legal structure for its establishment in the coming 12 months.

5. Strengthen the consultation and engagement of the three key WRM- related Ministries (Ministry of Water Irrigation and Electricity (MoWIE), Ministry of Agriculture and Livestock Resource (MoALR), Ministry of Federal and Pastoralist Affairs (MoFPA) and Ministry of Environment, Forest and Climate Change (MoEFCC)) and sign Memorandum of Understanding (MOU) between them. The objective of this MOU is to jointly work on WRM, by enhancing coordination between the three ministries in addressing key challenges related to WRM. The aim is to start the MOU with the three ministries and involve other relevant ministries such as Ministry of Industry (MoI) and Ministry of Urban Development and Construction (MoUDC). It is expected that the coordination will be replicated through signing MOUs at basin/and sub basin level between the Basin Authorities (BAs) and concerned regional bureaus.
6. Endorsement of the mandate study for Integrated Water Resources Management (IWRM) by Basin High Council (BHC) and agree on concrete actions to improve overlapping mandates and institutional disagreements.
 - Clarifying roles/ mandates of BAs and regional bureaus and establish a mechanism to bridge the gap and minimize disagreements on water cycle (water abstraction, use and discharge).
 - Clarifying roles/ mandates of MoWIE and MoALR on small and large scale irrigation schemes management and craft a smooth transition between infrastructural development and sustainable management with the aim to strengthen the high level cooperation on agricultural transformational agenda.
 - Clarifying roles/ mandates of Ministry of Health (MoH), MoWIE, MoI, MoALR and MoEFCC on water quality control and clarify the understanding of the enforcement mechanisms. Also the roles of the BAs and Bureaus (Water Bureau and Environmental Bureau) should be taken into consideration and clarified.

GENERAL OR MORE TECHNICAL UNDERTAKINGS:

WATER SUPPLY

The water sector is going through its sectoral reforms in the coming years as the water scarcity in Ethiopia is becoming more and more reality and the demand for the efficiency of water supply service is increasing. There is a big challenge to keep the existing ageing water infrastructure functional. In order to address these key challenges, the following undertakings will be implemented during the coming year:

1. Climate Resilient Water Safety Planning (CR-WSP) Strategy and Guideline have been endorsed some years back. But its implementation is still only in pilot phase and the strategy and guideline is not fully implemented. Same time the requirements for more reliable and safe water supply is increasing. The CR-WSP process includes also catchment management and this is clear link between the planned WRM Program in the implementation of CR-WSP. Therefore, upscale the implementation of the Climate-Resilient Water Safety Planning to each new water supply project and selected old most vulnerable and top priority water supplies in rural and urban areas for the climate resilient

water safety planning process. Prepare the assessment report of the benefits of well implemented CR-WSP projects.

2. The last National Water Inventory was conducted 7 years ago. The water supply database has not been fully updated since then. Therefore, conduct the comprehensive and inclusive National Water Inventory and establish robust water database and data management system to Ethiopia as well as the system for its annual updating.
3. Climate Resilient WASH project focusing to the drought and flood prone areas of Ethiopia has been under development for some time and financing for its implementation has already been partly agreed. Therefore, it is now time to launch inclusive CR-WASH Program under OWNPs to deliver sustainable water to the most-needy people in Ethiopia. This program is also closely linked with the WRM Program and therefore close coordination and links to this program are to be established. Implementation mechanisms should also be fine-tuned to distinguish between activities under Rural WASH and Urban WASH.
4. The number of rural water supply systems in Ethiopia is rapidly growing and aging. Therefore, the Rural Water Supply Operation and Maintenance (O&M) Strategic Framework, the rural public utility model and related O&M manuals have been prepared and endorsed to guide woredas to keep rural water supply functional. It is therefore time to finalize the printing and dissemination of these Manuals to all regions, zones and woredas and create lasting awareness and capacity at all levels from region to woredas for the implementation of organized, resourced and well managed inclusive rural water supply operation and maintenance system.
5. In urban areas the domestic waste water is an increasing problem. Central and decentralized waste water treatment solutions have been piloted in selected urban areas but still most of the urban domestic waste water is flowing untreated to the rivers causing many kinds of problems downstream. The experiences of the used solutions need to be evaluated, analysed and shared among stakeholders in order to establish clear inclusive guideline for all urban centres. Options beyond reticulated sewerage- Inclusive sanitation that include options for onsite treatment and full supply chain to develop safe transport, treatment, disposal and reuse

HYGIENE AND ENVIRONMENTAL HEALTH

There are several new and updated Hygiene and Environmental Health (HEH) related documents developed by the Ministry of Health to guide the regions in hygiene and environmental health implementation. However, these documents are not widely available and not well understood by the implementing bodies and decision makers. Therefore, the health undertaking is focusing this year to the awareness creation as follows:

1. It has been learned that there is very little awareness of the existing new hygiene and environmental health related strategies and guidelines although these have been available in the sector already for some time. The implementation of guidelines in practice at the grass-root level is still not yet taking place. Therefore, it is to create in-depth awareness and knowledge of all hygiene and environmental health strategies, plans, guidelines, standards and manuals by cascading this awareness creation to all levels from the region

to zones, woredas, kebeles, health centres, health posts and schools as well as voluntary organizations working on hygiene and environmental health. This is to guarantee that all implementers understand the hygiene and environmental health principles, practicalities and implementation details in a same way so that they can facilitate the inclusive HEH implementation.

2. Although the delivery of information in Ethiopia is more and more digitalized at grass root level the meaning and power of printed documents is still reality due to the poor internet accessibility. Therefore, it is to ensure that these documents are physically found and used in each health office from the region to the health post.
3. Most of the existing sanitation facilities, especially in rural households, are still sub-standard, non-inclusive and hardly providing the required hygienic protection against diseases. Strategies, guidelines and establishment of private enterprises to deliver improved sanitation facilities to the public have been piloted and tested. It is now time to scale up in the delivery of the standard and inclusive sanitation facilities by increasing the private sector contribution and participation in the implementation of improved hygiene and sanitation facilities at household level so that these services are available for all households and for all users in Ethiopia. In order to scale up the improved sanitation adequate seed money (revolving fund) for sanitation marketing enterprises shall established and manual for its use shall be prepared.
4. In order to achieve permanent open defecation free status in the woredas the hygiene and sanitation availability and use only in some institutions and all households is not enough. It is therefore needed to publish and standardize the design and construction manuals for inclusive public and communal toilets to be used all over the country. Also there is a need to put in place clear measures for O&M of these public services. This also includes that awareness creation of these designs and training of contractors for good quality standard construction.
5. The hygiene and environmental health sector has been suffering on the non-availability of accurate and inclusive data. In order to measure the progress of the environmental health strategy implementation a baseline data has to established and evidence-based planning at all levels to be initiated. This also requires the preparation of a baseline data collection guideline to be used by all Health Extension Workers and Health Staff at all levels.
6. Number of rural and other big and small towns should be established for exemplary hygiene and environmental health implementation transformation woredas in pastoral, agrarian and urban areas. These woredas will be learning centres to scale up the hygiene and environmental health later on to all rural and urban woredas in Ethiopia.
7. Establish robust monitoring system to monitor the implementation of urban sanitation and hygiene. This monitoring system should ensure that solid waste, liquid waste, faecal sludge management, behavioural change and communication, advocacy have been done and that the impact to the reduction of WASH related diseases is taking place.

INSTITUTIONAL WASH

Ministry of Education has developed School WASH (SWASH) Strategy and SWASH Guideline for schools in Ethiopia and the ministry is in a process to develop the SWASH design, construction and management manual to guide the practical WASH facility implementation with standard quality and proper operation and maintenance of all WASH facilities.

The SWASH undertakings in this coming year will focus on SWASH awareness creation from region to zone, woreda and school and increased finance in the SWASH sector. Therefore, the SWASH undertakings in this year are:

1. Complete the inclusive construction and design manual for schools, print it and distribute to all regions, zones, woredas and schools
2. Create awareness and understanding of SWASH principles and operational details by cascading the awareness in the practical use of strategies, guidelines and manuals to all regional, zonal, woreda, kebele and school level practitioners and implementers.
3. Establish country-wide, coordinated, inclusive, well managed, standardized and monitored SWASH implementation at each school by implementing the SWASH as a package (water, sanitation and MHM investments, hygiene education and operation and maintenance of the facilities).
4. Train private sector (contractors, women and men) to implement inclusive SWASH infrastructure as per the construction manual standards.
5. Increase SWASH finance by allocating more funds for SWASH from GEQIP, recurrent and capital budgets and use this as a leverage to gain additional donor financing to the sector.

WASH CROSSCUTTING UNDERTAKING

- The development, led by the National WASH Coordination Office, of inclusive WASH guidelines and training materials as well as the capacity building and awareness creation of inclusive WASH at all levels has been actively and progressively ongoing during the past year. In order to include the concept of equity and inclusiveness into all WASH related activities of all One WASH Programs and Projects, there is a need to develop Strategy for Equity and Inclusion in WASH with special focus on people with disabilities. The established Equity and Inclusion Task Force and to-be established platforms led by the Government will take the responsibility for the development and its awareness creation of this greatly needed strategy.
- The current financing gaps to achieve SDGs are huge. Therefore, development of sustainable financing strategy to achieve the SDG and GTP targets focusing on conventional and non-conventional sources like private sector, self-financing and other domestic sources is needed.

WATER RESOURCES MANAGEMENT

1. Finalize the National Integrated Water Resources Management Program (NIWRMP) with clear financeable high priority transformational interventions and undertake consolidation at all levels (Government institutions, Development Partners (DPs) and Private sector) for its successful implementation.

- Establish a national coordination and dialogue platform for water resources management- across ministries (federal level), basins and sectorial level. Lead continuous dialogues to enhance coordination to ultimately close water demand-supply gap by addressing knowledge and capacity gaps.
 - Identify initial financing for NIWRM by engaging key Development Partners (DPs) and allocating seed money from the government)
 - Increase the involvement of the private sector in financing projects and implementing the NIWRMP.
 - Improve the linkage between the NIWRM and climate resilient water intervention and other interventions implemented by other sectors (e.g. sustainable land management – MoALR).
2. Strengthen the planning, implementation and monitoring capacity of BAs: For a decentralized integrated water resources management, MOWIE has established three basin authorities (Abbay, AWASH and Rift Valley Lakes). These BAs are at different stage of basin strategic plan preparation and implementation. Support to translate these plans into actions is needed and for BA's to take a leading role in stakeholder consultations and prioritization of investments. Technical and financial resource is required to build their capacity in the following areas.
- Identify key water resource management hotspots and hope-spots and contribute towards informed investment on water resource (natural resource).
 - Provide financial and technical support to enhance strategic stakeholder engagement to influence planning and management of water resources in the basin and to implement activities as per the Basin Plan.
 - Establishing information Management system (data collection, data base creation, data analysis, and dissemination) and create public domain information that can be easily accessible across various sectors that utilize water resources for productive use.
 - Reinforce the supervision and monitoring capacity BAs (staff, equipment, software, etc) at selected hotspot areas.
3. Strengthen the basin incubators at MoWIE so that at least three basin desks (Tekeze and Mereb; Omo-Gibe and Wabi Shebelle) are established and well capacitated with clear TOR, draft regulation, and human resources, and start to undertake the necessary initial assessments to understand the basins.
4. Endorse the national smallholder irrigation and drainage strategy and develop a separate national strategy focused on commercial irrigation to guide that segment of the sub-sector and ensure strong alignment and coordination between smallholder and commercial irrigation development.
5. Assess the existing water user association guideline and the institutional arrangement for its application and accordingly address the bottlenecks.
6. Harmonize and coordinate the Payment for Ecosystem Services road map preparation at MoEFCC and the water charge Water abstraction/Use and Treated Wastewater Charge study at MoWIE/ AWASH Basin Authority/.

MONITORING AND EVALUATION OF THE UNDERTAKINGS:

Following the MSF 9 a core working group will be established from key stakeholders to work on detailed plan of action with clear roles and responsibilities and present it to the concerned bodies.

The implementation will be monitored and evaluated by Water Sector Working Sub Groups (WASH and WRM). The review will be undertaken six months from the date of the MSF 9 and a brief report on the progress of each undertaking will be shared to all concerned bodies.

11. CLOSING REMARKS BY DR NEGASH

The government, development partners, all are striving towards water supply and sanitation investment; but the effort requires more attention. Financing urban water supply and sanitation through commercialization or outsourcing some of the activities to the private sector, these are some of the most important issues. There has to be a shift from reactive to proactive approach.

The other is data quality. We have important data at woreda, zone and region level. But we have not derived key information from them.

The other is institutional capacity strengthening at all levels. Technical capacity in terms of design, in terms of operation and maintenance, in terms of project evaluation and monitoring, is very low.

Coming to the issue of financing WASH, Jorge has raised very interesting points. Some of them might work in the urban context. But in Afar, or when you go down to a very poor rural area, I also have reservations. The government or development partners must intervene. The users too should contribute, but the extent to which they contribute must be minimal.