URAdapt

Managing Water at the Urban-Rural Interface: The key to climate change resilient cities

REPORT

URAdapt Addis Ababa Third Re-SAP Meeting.

Thursday and Friday, February 25-26,

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ILRI Library, Addis Ababa, Ethiopia

1. Background and Objectives

The Third Re-SAP meeting of the URAdapt project in Addis Ababa, was a two day meeting on 25 and 26 February 2011. The first day was devoted to meeting with the stakeholder platform, whilst the second was reserved for a field visit to better understand the ground situation and the vulnerabilities of communities.

The main objectives of Re-SAP 3 workshop were to

- present consolidated information about the baseline situation with regard to Urban Water Supply and Wastewater Management considering Urban / Rural Linkages (Upstream/Downstream)
- Present results of completed and ongoing research projects and get feedback from Re-SAP members.
- Discuss on the way forward to the last phase of the research through group discussion based on guiding questions
- Show the actual situation of vulnerable communities on site to create an understanding on the extent of the problems.
- Consolidate the workshop results at project team level and outline the road map for the completion of activities of the research projects.

Initial planning involved the development of a concept note for the workshop (annexe 1). A detail discussion was subsequently held between the project leader (PL) and members of the Addis Team on the research agenda prior to the workshop. The PL was updated on progress and presented with a brief update on the Water and wastewater baseline report. She requested confirmation that the sources of data used for this were substantiated, and reflected on how the project would integrate the dimension of Federation and water management. The discrepancy between official figures and field data, on area under wastewater irrigation was 6-7 times in favour the latter. The new institutional arrangements for managing water between the Oromiya and Addis governments was also discussed and would be better researched as part of the institutional study.

The second activity was a field visit to vulnerable areas around little Akaki river represented by wastewater farms and their irrigation structures, and the farmers, within Addis Ababa and rural areas in the downstream areas of Akaki river. The workshop schedule and list of participants is attached in annexes 2 and 3.

The Project Leader also met subsequently with Mr Gebru Jember Program Officer of the Climate Change Forum for Ethiopia, a civil society initiated network with NGO participation, to bridge the gap between

government and non-government organisations, and provide a mechanism for monitoring. Details of the discussion are in annexe 4.

2. Opening Session

The opening remarks were made by project team leader, Dr Liqa Raschid-Sally. She recalled the overall objective of the URAdapt project, which is to reduce the vulnerability of cities to climate change through strategic actions for more integrated and improved urban water and wastewater management. She briefly explained the specific objectives of the project to remind the platform meetings. She then reviewed the objectives of the Re-SAP 3 meeting:

- introducing consolidated information about the baseline situation with regard to Urban Water Supply and Wastewater Management considering Urban / Rural Linkage (Upstream/Downstream)
- Present results of completed and ongoing research projects and get feedback Re-SAP members.
- Discuss on the way forward to the last phase of the research through group discussion based on guiding questions
- Show the actual situation of vulnerable communities on site to create an understanding on the extent of the problems.
- Consolidate the workshop results at project team level and outline the road map for the completion activities of the research projects.

She also briefly explained the three main activities of the meeting: presentations on the first day with a discussion on the expected project outputs, followed by a field visit on the second day.

She outlined the main Stakeholder engagement related activities for the year as being to organise 2 meetings – one of the platform and the other for a policy round table meetings where mid-term results would be presented and discussed for feedback both from the platform members and later from the policy advisory level.

She remarked on the absence of some of the original members on the platform. Mr Wondimu had moved up in his responsibilities within the government, which would definitely have positive fallout for the platform. However, at the platform level, he would have to be replaced, which would involve further rounds of engagement and information sharing with the new member. This was the negative side of members moving out of the platform. She remarked on other changes of membership on the platform though the overall composition remained the same. She spoke of the progress made in the research studies, since the large meeting, which would be presented later. Additionally it was time to reflect as individuals about how the information being generated by the project with the help of the platform, could be used within the different organisations represented on the platform, and identify any gaps.

After a brief round of presentations to bring new participants on board, she ended by requesting an open discussion and critical review of the extent of stakeholder involvement and engagement on the platform. She encouraged an interactive discussion on who else was needed on the platform, from

which it was clear that the environmental Protection Agency was a key player (particularly in its role as focal point), who should be present. The presence of the Meteorological Department was also requested.

3. Presentation and discussions

Dr Semu Moges briefly talked about the different activities of the workshop and the different topics to be presented in the workshop. The presentations were organized as follows:

1. Introductory Presentation on Status of Project both in Addis and Accra
2. Results of baseline survey/consolidated presentation on baseline situation of water supply and wastewater situation of Addis and its surrounding
3. Waste water and climate impacts on irrigated agriculture
4. Impact of climate change on water availability and extreme flows

A brief presentation on the first topic, which focussed mainly on URAdapt project overview, was made by Dr Liqa Raschid-Sally. Mr Geremew Sahilu followed with a presentation on the baseline situation pertaining to water supply and wastewater management in the city of Addis and its surroundings, including an overview of the institutional arrangements. A regional planning process has been initiated, to encourage coordination between the Oromiya region and the government of Addis. An integrated regional development plans for Addis and the surrounding cities was expected to be an output of the process. The place and role of federalism and the manner in which this could be accounted for in adaptation plans was questioned. The representatives from AAWSA were able to provide updated data on the numbers presented in the baseline, and some interesting problems faced by the agency relating to selection of wastewater treatment options were discussed which highlighted the need for more access to knowledge and technical advice by the agency. In Addis presently only 7% of the population was connected to sewers and the AAWSA had a long term sewer development masterplan to improve on the situation.

Mr Taddesse Sinshaw, an M.Sc student at Waginigen University in the Netherlands made the presentation on wastewater and irrigated agriculture was. It mainly focused on the socioeconomic and environmental impact of wastewater generated from Addis Ababa on the farming communities downstream of the city and the potential aggravation of the situation due to climate change. A key finding from participatory analysis with farmers was that there was more frequent flooding and a larger number of livestock deaths, compared to the past. Contamination of grazing land and reduction in yields and quality of milk were noted. The participants raised different important points including the health impact from the consumption of the vegetables produced using the wastewater, the livelihood effect for the downstream community as well as the administrative and organizational structures towards addressing the problems since the responsible agents for discharging the wastewater are located in Addis Ababa administrative but the effects are shown on the people who are administered by the neighbouring Oromiya regional state. Mr Geremew briefly discussed the present situation on the coordinated effort between the two administrative regions towards addressing the problem. He said that the two regions have already established a steering committee with technical people, and

suggested that a more detailed investigation on the impacts and the consequences of climate change, and farmer adaptation, be undertaken.

The impact of climate change on water availability and extreme flows was presented by Dr Semu Moges. A rapid overview of climate change concepts and definitions and models was presented as a reminder to previous sessions on the same subject, where it was concluded that climate change impacts are recognisable on a global, regional and local scale for Ethiopia. A further analysis of the impacts at the level of the city was then presented, in relation to the different catchments and sub-catchments within which the city is located with their drainage networks. This was a prelude to understanding the impacts of climate change on water availability and flooding in the city. The presentation on flood vulnerability was made by Mr Tesfaye, an MSc student at Addis Ababa University. A review of historical data of flood occurrences supplemented by other watershed parameters, was used to study water availability in the Akaki and extreme flow distributions.

The implications of the research were as follows:

1. ***For water supply availability***
    - *In terms of overall availability water from Akaki River, the supply is likely to be more*
    - *In terms seasonal water availability, it is likely to be more in Kiremt and Autumn Season*
    - *However this doesn't mean the availability will be adequate to the city as other demand driving forces are extra-ordinarily groining*
2. ***For Extreme hydrological Events***
    - *In terms of the recurrence of extreme events it was expected that relatively small floods may be more frequent in 2030s while occurrence of high floods is likely to be more frequent in 2090s*
    - *More likely urban flooding – street flooding due to increased rainfall and paved areas*
    - *Need to modify urban infrastructure design criteriato accommodate these new findings*
3. ***Socio-economic***
    - *Enhanced rainfall in the usually drier autumn period means the impact of pollution will be higher at the downstream areas, causing concern to farmers regarding livestock death, and decreased crop yields and quality*

The first day ended with group discussions on policy engagement, and how best to organise a policy round table discussion for maximum impact; and planning for the next Re-Sap meeting. The participants proposed that for maximum impact it is essential that key policy makers were engaged through one to one or smaller group meetings first before the event to prepare them and increase their interest. A subcommittee of platform members agreed to brainstorm on this and move the suggestion forward. For the next Re-SAP 4 meeting and policy round table, mid-July was proposed and the meeting would be held for two days. The first day will be for consolidating information from the research studies, and identifying adaptation responses, through discussions at the platform level; followed by the policy round table where these preliminary recommendations would be critically discussed.

4. Field visit

The field visit was made on day two of the workshop and many of the platform members participated. As outlined in the concept note, the main objective was to familiarise the platform on the issues under discussion through real life examples. The area visited was the middle stream and downstream side of little Akaki river. The focus was on the pollution impacts on farmers using the river water for irrigated vegetable production, and how these might be exacerbated by climate change impacts. During the field visit, the group could see the different farms and the irrigation structures as well as the pollution level of the river water. The group could also visualize the different tributaries of the river especially those from factory and slaughter house bringing wastes into the main river. Though a visit to the Aba Samuel lake was in the schedule of the field visit, the group could not see the lake due to shortage of time. The overall impression of the participants was that the visit had been an eye-opener to many of them, allowing them to better appreciate the findings, and participate more effectively in the discussions at the platform level.

Annexe 1 : Concept Note for Addis Re-SAP 3 and field visit
Annexe 2 : Workshop agenda
Annexe 3: List of participants
Annexe 4: Discussion with Mr Gebru of CCFE

Annexe 1

URAdapt RESEARCH PROJECT
CONCEPT NOTE
RESEARCH AND STRATEGIC ACTION PLATFORM THREE (Re-SAP 3)

1. Introduction

Managing Water in the Urban-Rural Interface - the key to climate change resilient cities (URAdapt) is a research project that is being carried out in two cities in Africa – Accra/Ghana in West and Addis Ababa/Ethiopia in East Africa. The project is initiated by International Water Management Institution (IWMI) Accra. The Research in Addis is being carried out in partnership with the Civil Engineering Department of Faculty of Technology of Addis Ababa University.

The overall objective of URAdapt is **to reduce the vulnerability of cities to climate change through strategic actions for more integrated and improved urban water and wastewater management**

The specific objectives of the project are to:

- use scenarios to develop a shared understanding of climate change and its effects on water management at the urban rural interface amongst multiple stakeholders.
- use scenarios to generate new knowledge on the upstream and downstream implications of urban water demand; resulting wastewater generation; and associated water investments needs.
- prepare, in participation with city stakeholders and for the benefit of the most vulnerable groups, a strategic action plan for adapting to climate through improved water resource management.

In order to carry out the research and achieve the envisaged objectives, relevant primary and secondary data have to be collected from various institutions and grassroots and vulnerable communities based on the framework presented hereunder.

The research ensures the active participation of all stakeholders through Research and Strategic Action Platform (Re-SAP). Until now two Re-SAPs an Inception workshop and 2nd one were held in April and August 2010. Re-SAP 3 is the third workshop.

2. Objective

The objectives of Re-SAP 3 are:

- introducing consolidated information about the baseline situation with regard to Urban Water Supply and Wastewater Management considering Urban / Rural Linkage (Upstream/Downstream)
- Present results of completed and ongoing research projects and get feedback Re-SAP members.
- Discuss on the way forward to the last phase of the research through group discussion based on guiding questions
- Show the actual situation of vulnerable communities on site to create an understanding on the extent of the problems.

- Consolidate the workshop results at project team level and outline the road map for the completion activities of the research projects.

3. Activities

There are three major activities to be carried during and after the Re-SAP.

3.1 Presentations

- Introductory Presentation on Status of Project both in Addis and Accra
- Consolidated presentation on baseline situation of water supply and wastewater situation of Addis and its surrounding
- Waste water irrigation and climate change
- Urban/Rural Water Dynamics
- Flood vulnerability
- Wastewater Management Options
- Impact of Built Environment on Water Resource Availability
- Impact of Climate Change on the Hydrology of Akaki River

3.2 Field Visit

- Field visit to vulnerable communities in Addis Ababa and the downstream side of little and big Akaki Rivers and in the mid-section of Akaki River focusing on people using wastewater for irrigation.

- A visit to Aba Samuel dam may also be included if time is sufficient (Details to be prepared)

3.3 Post Workshop Project Team Discussion

Discussion at project team shall focus on:

- Scenario Development
- Policy, Institutional aspects and vulnerability
- Completing ongoing researches
- Dissemination of results / Publication planning/

4. Expected Output

- Baseline outputs of the water supply and waste water condition of Addis Ababa
- Impacts of climate change on water availability and extreme flow
- Report that includes the way forward based on stakeholders recommendation /Workshop and field visit/
- Road Map to the second half of the research project based on post workshop project team discussion

Annexe 2

URAdapt Re-SAP 3 workshop agenda
Date: February 25-26, 2011
Venue: IWMI (ILRI Premises)

Day 1 : Workshop presentation and discussion

Time	Item	**Speaker**	**Remarks**	**Chair**
8.30 – 9.00	Arrival and registration of participants			
9.00 – 9.15	Opening & welcome	Project Leader URAdapt	Dr. Liqa Raschid-Sally	
9.15 – 9.30	Program Introduction	Project Coordinator	Dr. Semu A. Moges	
9.30 – 9:45	URAdapt project Overview	Dr. Liqa Raschid-Sally		
9:45 – 10:00	**Questions and Discussion**			
10:00 – 10:20	***Coffee & tea break***			
10.20 – 11.00	Baseline Survey:	Ato Geremew		Dr Liqa
11.00 – 11.30	**Questions and Discussion**			
11:30 – 12.00	Waste Water and irrigated Agriculture	Ato Tadesse Sinshaw		Dr Liqa
12.00 – 12.30	**Questions and Discussion**			
12.45 – 14.00	***Lunch + Networking***			
14.00 – 14:30	Impact of Climate Change on Water Availability and extreme flows	Semu Moges		Dr Liqa
14.30 – 15.00	***Questions and discussion***			
15:00 – 15:30	***Coffee & tea break***			
15:30 – 16:30	Discussion and way forward Logistics of field visit			Dr. Alebel

Annexe 3

List of Participants

NO	NAME	POSITION	ORGANIZATION
1	Gosaye Fanta	Director, Water Resourcearch & Dev.	Ministry of Water and Energy - Department of research coordination
2	Biruk Kebede	Hydrologiy Expert	Ministry of Water and Energy
3	Ayana Kelbesa		Oromiya Water, Mines and Energy Bureau
4	Engida Mengistu	Auditor	Addis Ababa Women & Children Affair office
5	Fekadu Lebecha	Head Resource Management	Oromiya Water , Mine and Energy Bureau
6	Gebru Jember	Programme Officer	Climate Change Forum Ethiopia
7	Kaleab Habtemichael Mamo	Water Resource Engineer	Ministry of Water and Energy
8	Mesikir Tesfaye	Urban Environment & Energy Coordinator	Forum for Environment
9	Tamiru Gedefa Wami	Urban Water Supply & Sanitation P. Coordinator	Ministry of Water and Energy - Water Supply and Sanitation Directorate
10	Hunde Amente	Water supply and sanitation expert	Sebeta Awas Woreda Water, Mine and Energy office
11	Gemechis Tilahun		Addis Ababa Water & Sewerage Authority
12	Behailu Shimeles	Head, Katchment mgt. & water quality service	Addis Ababa Water & Sewerage Authority
13	Abayneh Alemu	MSC Student	Addis Ababa University
14	Geremew Sahlu	Lecturer/Researcher	Addis Ababa University
15	Liqa Raschid Sally (Dr.)	Senior Researcher	IWMI - GHANA
16	Tesfaye Kebede	Ass. Lecturer & MSc Student	Addis Ababa University
17	Alebel Bayrau, PhD		Ethiopian Development Research Institute
18	Semu Moges (Dr.)		Addis Ababa University Department of Civil Engineering
19	Tadesse Animaw Singshaw	Researcher	Wageningen University

Annexe 4

Discussion with Mr Gebru Jember, Program Officer of the Climate Change Forum, Ethiopia

The discussion took place on the 26 Feb after the field visit in which he participated. He explained that the forum was a civil society initiated network with NGO participation, to bridge the gap between government and non-government organisations, and provide a mechanism for coordination and monitoring. The network had been initiated 3 years ago as a means of coordinating the scattered Climate Change related activities initiated by various international organisations. At the time the EPA was the focal point for the Kyoto Protocol, and the Meterological Department was responsible for the UNFCC, with inadequate coordination between them. Nor was there one single organisation repository of information on the different activities.

Oxfam had initiated a national discussion spearheaded by the State Minister for Agriculture who also remained as a founding member of the forum. The Forum prepared the 1st National Forum on climate change, which was hosted by Oxfam and opened by the Prime Minister (who chairs the African Group at the Global discussions). 2 years later the Forum was set up as an independent entity.

In terms of on-going initiatives, the Agriculture Sector, is looking into climate risk management and sector specific climate mainstreaming.

The forum had prepared the background document on the National Climate Policy/Strategy for the Cancun discussions.

A catalogue of CC related projects had been prepared by a German university. The Forum jointly with the World Bank had prepared the Draft National CC Strategy, which was being further developed by DFID. The National Climate Change Commission has been set up under the EPA (is this right?).

At the end of the discussion it was agreed that Gebru who is a member of the URAdapt platform would be able to help us identify the right policy advisors or politicians and get them on board, because of the contacts that has through the Forum. We might even organise the URAdapt policy round table as a joint initiative with the CCF-E.