

URAdapt

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



INTERIM TECHNICAL REPORT (3) - OVERVIEW

Project Name:	Managing Water at the Urban-Rural Interface: The key to climate change resilient cities (URAdapt)
IDRC Grant Number:	105869-001
Research Institution:	International Water Management Institute (IWMI) Country partners: CSIR Water Research Institute, Ghana and Addis Abeba University, Ethiopia
Project Location:	Accra, Ghana and Addis Abeba, Ethiopia
Research Team Members:	Dr. Liqa Raschid-Sally (IWMI) Dr. Semu Moges (Addis Abeba University, Ethiopia) Mr. Geremew Sahilu (Addis Abeba University, Ethiopia) Dr Alebel Bayrau (Ethiopian Development Research Institute) Dr. Barnabas Amisigo (Water Research Institute/ Council for Scientific and Industrial Research, Ghana) Mr. Daniël Jozua van Rooijen (IWMI) [for part of the reporting period] Ms. Maija Hirvonen (Project Officer IWMI) [for part of the reporting period] Mr Edmund Kyei Akoto-Danso
Reporting Period:	01 August 2010 -30 Jan 2011 (Months 13– 18)
Date of Submission:	March 21, 2011

INTERIM TECHNICAL REPORT (3) - OVERVIEW	1
1. CHAPTER 1 - SYNTHESIS	3
2 CHAPTER 2 – RESEARCH PROBLEM.....	4
2.1 Project rationale and research problem.....	4
2.2 Project objectives.....	4
2.3 Evolution of project concept.....	5
2.4 Vulnerability analyses	6
3 CHAPTER 3 – SUMMARY OF RESEARCH FINDINGS	7
3.1 Summary of research findings	7
3.2 Progress towards objectives – Work Package 1	7
3.3 Progress towards objectives – Work Package 2	10
4 CHAPTER 4 – PROJECT IMPLEMENTATION AND MANAGEMENT ISSUES	13
4.1 Project implementation	13
4.2 Project management.....	13
5 CHAPTER 5 – PROJECT OUTPUTS AND DISSEMINATION.....	15
5.1 Information sharing and dissemination.....	15
5.2 Knowledge creation	15
5.3 Training	15
5.4 Research outputs	15
6 CHAPTER 6 – CAPACITY BUILDING	16
6.1 Short-term training	16
6.2 Fellowships.....	16
6.3 Student supervision	16
6.4 Capacity building of stakeholders.....	16
CHAPTER 7 – OUTCOMES AND IMPACT.....	17

7. CHAPTER 8 – RECOMMENDATIONS..... 18

1. CHAPTER 1 - SYNTHESIS

This third interim technical report details the activities that have taken place between months 13 and 18 of the project (1 August 2010 – 30 Jan 2011).

The third project period has been a period of consolidation - updating the existing information bases and gathering new information. Both stakeholder platforms are functional though the Accra platform appears to have stronger presence of stakeholders during meetings. In Accra the first Consultative Group meeting was also organised to discuss strategic directions and what influences climate change may have on economic growth and development for Africa and for Ghana. In this period there is a sense of platform members being familiar with the project and welcoming project meetings. Using existing collaboration with the University of Wageningen, exchange students have combined data collection useful to the project with their own MSc thesis.

The empirical research on climate downscaling, is nearly complete in both countries, though Accra is a bit slower due to a later start. In both countries, understanding the institutional environment of climate related activities continues and a good understanding of urban water resources management is emerging. The modelling of urban water scenarios has been slow in Accra because of the departure of the team member doing the modelling and his replacement by another who had to become familiar with the modeling.

In terms of the process of participatory planning which would result in identifying and validating adaptation responses, one important requirement is that we need the evidence that is being generated by the project as the basis for the discussion. Participants are clearly interested in the outcomes. The other requirement is facilitation for joint reflection. The first step for this activity is being planned within the next 6 month activities to initiate this process and to arrive at an understanding about scenario analysis and joint action planning.

2 CHAPTER 2 – RESEARCH PROBLEM

2.1 Project rationale and research problem

The original project rationale and research problem remain valid. There is increasing acceptance for the research problem, partly thanks to project advocacy at various fora. The holistic approach to problem solving is clearly taking root at the platform level. The interconnectivity concept between upstream and downstream areas, which results in alterations in both water quality and quantity, and the aggravating effect of climate change on this, is now firmly embedded in platform thinking. There is broader acceptance that strategies to build climate change resilience in urban water sectors in Africa must adopt a vision that recognises the dependence of urban centres on outlying rural areas, particularly where these supply water and food for cities. Simultaneously, resilience strategies must account for the relationships between multiple water-use sectors.

The URAdapt project looks beyond water resources management for rural agriculture, and contributes to filling the gaps in knowledge about the consequences of climate change for urban water supply, wastewater disposal and flooding, by examining the impacts of climatic and demographic changes on urban water and wastewater management in Accra, Ghana and Addis Ababa, Ethiopia. These sites exemplify problems typical to developing cities in sub-Saharan Africa. Simultaneously the project establishes the links both hydrological and institutional between urban and rural water use and its interdependencies in the context of hydrological basins within which cities are located.

2.2 Project objectives

The project will provide decision support for authorities to manage the urban water cycle in the face of climate change and urbanization. The project has enrolled city authorities and representatives of vulnerable communities – including women’s groups – in the respective cities into a science-based interactive dialogue. This will allow stakeholders to discuss the consequences of, and develop response strategies at various levels to, the changing circumstances.

URAdapt is structured as two mutually reinforcing work packages: a multi-stakeholder platform for learning, reflection, feedback, strategy development and evaluation (work package 1; WP1); and an analytical research process, which includes various types of studies and modelling (climate change, hydrological, socio-economic) (work package 2; WP2). The analytical research process will assist in identifying solutions for discussion at the platform. These will reflect various combinations of water supply and allocation options, demand management, water-saving sanitation solutions, as well as water reclamation and reuse for agriculture. The resultant adaptation strategies will take into account technical, socio-economic and environmental factors, and the platform will identify institutional roles and responsibilities for the process of adaptation.

The specific objectives of the project are to:

1. Develop a shared understanding amongst multiple stakeholders of climate change and its effects on water management at the urban-rural interface.

2. Using scenarios, to generate new knowledge on the upstream and downstream implications of urban water demand, and of resulting wastewater generation, as well as on water investment needs.
3. Prepare, in participation with city stakeholders and for the benefit of the most vulnerable groups, a strategic action plan for adapting to climate change based on improved water resource management

2.3 Evolution of project concept

At its core, the project concept remains unchanged. Since the last interim technical report, the project team continues to gain insights into the types of stakeholder engagement that will support the overall project objectives. Analytical research activities have been designed with clearer focus as a result of the understanding and feedback from continued platform meetings. There is cross learning through comparison which is shared with the project teams in the two countries. Methodologies and research approaches are shared with the eventual goal of establishing a policy-oriented evidence-base.

In Accra, and Addis the project identity is crystallising and platforms in both countries are keenly interested in project outputs. In both instances though with some internal changes, both city authorities are strongly committed to the platform activities. The project continues to respond to the respective city and national demands through the feedback provided by the research to Strategic action platform (Re-SAP) meetings.

There are clear complementarities between URAdapt, and its CCAA sister project in Accra, 'Climate Change and Human Health in Accra, Ghana', and ties continue to exist between the two projects through the attendance of key persons from the project, on our platform. However more intimate interactions have not emerged. In the meantime, the project has given importance to vulnerability analysis and has identified vulnerable pockets from a water sanitation and flood perspective in Accra. A local partner from the platform will participate in the vulnerability assessment. It is possible that one of the communities chosen for the assessment might be where our sister project is operating.

In terms of WP1, there have been no major changes in terms of its structure, and the Research into Strategic Action Platform (Re-SAP) remains the main channel for engagement with stakeholders. Its composition and objectives remain the same (see more details in interim reports 1 and 2). In Accra, the smaller Consultative Group which emerged from the Re-SAP with the expectation that they would help steer the project towards strategic directions, had a successful inception meeting which the members found to be stimulating after an initial slow take-off (minutes in annexe 1). In Accra the 3rd Re-SAP meeting took place during this reporting period (minutes in annexe 2). For Addis the meeting took place just after this reporting period and will be described in the next report with the minutes.

Targeted policy engagement has been slow after the initial impetus, as it was felt by project teams in both countries that research findings were needed to consolidate this type of interaction.

In terms of WP2 in Accra, the research continues to be focused on climate change downscaling, hydrological modelling in the Densu and Volta Basins, and water allocation and flood modelling both in the Densu Basin and in the city of Accra. The climate downscaling is still incomplete as two basins have to be considered for this activity – the Densu and the Volta both of which supply water to the

city, so changes in water availability at the level of both basins is essential. However the preliminary hydrological outputs are already being produced and serving for setting up the hydro model.

In Addis Ababa, during the reporting period, various research studies defined in discussion with the platform were undertaken by MSc students of the University of Addis. Thus both research and capacity building took place as the students were supervised by various members of the research team. Besides climate downscaling, these covered Climate impact, and landuse change (increase in built envt) on water resources availability in the reservoirs, climate impact on extreme hydrological events and consequences for the Akaki, Flood vulnerability, and assessing impacts of downstream water quality and flooding on farmers, impact on the dynamics of urban-rural interactions particularly in relation to water needs of surrounding areas, climate change and water management, and climate change and institutions. Some of this research involved establishing the baseline of information.

2.4 Vulnerability analyses

The importance of understanding and framing the concept of city vulnerability was mentioned in the previous report. In this reporting period, the project team refined their understanding on urban vulnerability mapping, and developed a vulnerability assessment framework, this was used to identify areas in the city that are most vulnerable from a water supply, sanitation and flooding perspective. These areas will be further studied in the next reporting period.

In Addis preliminary work on farmers downstream of the city who are using water from the river that is polluted by city discharges and the impact of CC on this activity and how they are adapting to these changes, has fed into developing a wider research study to address vulnerability in Addis. This has been supported by the assessment framework.

3 CHAPTER 3 – SUMMARY OF RESEARCH FINDINGS

3.1 Summary of research findings

This chapter details the progress that has been made on the individual project activities during the reporting period. For WP1, the project has held the inception meeting of the Consultative Group, and the 3rd Re-SAP platform meeting in Accra. Re-SAP 3 in Addis is complete at the time of preparation of this report but will be reported in the next reporting period.

With WP 2 both Accra and Addis are steadily progressing on the climate downscaling and results are being fed into hydrological models to understand flooding and resource availability. In Accra work is slightly slower than in Addis, but models have been calibrated.

The urban water balance modelling activity has been slowed down due to the departure of one team member who was in charge of this component. However the training he provided in Addis has served an immediate purpose of preparing a student to undertake this research under the supervision of our partner in Addis. In Accra a new team member has been selected to continue the work.

3.2 Progress towards objectives – Work Package 1

The Gantt chart below indicates the overall work-plan for WP1. The percentages in the boxes indicate the extent to which individual activities have been finalised (with all activities expected to be 100% complete by the end of the project).

Time	Project Year	Year One				Year Two				Year Three		Status
	Project Quarter	1	2	3	4	5	6	7	8	9	10	
	Calendar Month	Aug-Oct	Nov-Jan	Feb-Apr	May-Jul	Aug-Oct	Nov-Jan	Feb-Apr	May-Jul	Aug-Oct	Nov-Jan	
	Calendar Year	2009	2009-10	2010	2010	2010	10-11	2011	2011	2011	2011-12	

Work Package One: Research-Policy Platform

1.1	Institutional analysis, stakeholder identification, project partner meeting	50%	50%									100%
1.2	Initial stakeholder consultations & setting up of platform and/or expanding existing one	50%	50%									100%
1.3	1 st platform meeting, analysis and agreement on impact pathway and M&E system		50%	50%								100%
1.4	Platform meetings to review progress				25%							50%
1.5	Present scenario results to nat. policy and decision makers & develop recommendations											
1.6	Capacity building of staff from partner institutions & research-policy platform		5% in both cities	5% in both cities	10% in both cities	20% in both cities	10%					50%

1.7	Developing strategies for urban resilience												
-----	--	--	--	--	--	--	--	--	--	--	--	--	--

Activity 1.4 Platform meetings to review progress

Accra: URAdapt held its third Re-SAP meeting in Accra on January 18th 2011. The meeting was well-attended by stakeholders (a total of 31 participants were present). Representation was similar to the previous time with those who could not attend, honestly regretting their inability to do so.

The platform received an update on progress with climate downscaling and hydrological modelling. Since the previous platform gathering, the team was partway through downscaling and some explanations and preliminary findings were presented. The lack of continuous data sets at the meteorological services was a major limitation. The hydrological models had been set up and were being calibrated. Collecting the secondary data for this purpose was proving slightly difficult but not insurmountable. The concept of basin water resource vulnerability index was explained and how this would be calculated for the Densu basin. This vulnerability index is critical for the basin which was 37.7%, which means that the probability of water scarcity was 20-40%. A value >40% would indicate severe water scarcity. On the other hand, the other basin serving Accra, the Volta had a vulnerability index of only 3.5%. He provided various other insights from modeling which would influence the types of responses possible. Such information is generally not available for planning decisions, so it is clear that the evidence base being generated will be very useful.

In addition, the project team had invited a DFID Advisor to the government, to make a presentation on climate change and development to provide insights to the project on how future development directions should be incorporated into research design. He touched upon the policy environment and governance issues relating to climate adaptation in Ghana and also made the links to urban development and provided examples of initiatives from cities in Asia.

The importance of participatory monitoring and evaluation having been recognised, the project team had introduced outcome mapping to the platform members at the 1st Re-SAP meeting. This was not very well understood at the time and it was decided to give it a rest and take it up at a later date. This was done during the 3rd Re-SAP meeting. Though an attempt was made to rank the progress markers, it was suggested by the platform members that this could be done at a later date. It is clear that explaining and undertaking outcome mapping with groups who are unfamiliar with it requires time and effort and expert facilitation. The project team did not labour the point, but learnt from the experience that it should not force the issue. However compared to the first time, there seemed to be an increased understanding on the part of the members.

Discussions were animated and were both wide-ranging and pertinent. It was clear that platform members were keenly interested in the outcomes and were assimilating the information provided. This augurs well for the strategic planning for adaptation, envisaged later.

See annexe 1 for the minutes of the 3rd Re-SAP meeting

The inception meeting of the Consultative Group for Accra also took place during this reporting period. The Group was formed following the inception meeting of the Research into Strategic Action Platform (Re-SAP) in Accra. The project team envisioned that group members would contribute strategic insights that would allow the project to respond to the issue of water, climate change and cities. The inception meeting focused on characterising the institutional contexts in which action on

climate change is expected to take place in the future. Consultative Group members sought to identify key evolutionary trends at the levels of problem-framings, policies and organisations in Ghana. These insights are expected to feed into the design of urban development scenarios, formulation of strategic recommendations for adaptation, and investments, and the design of research uptake activities for the project. It was intended that important insights from these meetings if any could be captured and condensed into pamphlets. The details of the discussion are in the minutes in annexe 2.

Addis: In this reporting period the focus was on carrying out the research and the project partners were busy supervising students. The 3rd Re-SAP meeting for Addis took place in February and will be reported in the next reporting period.

The second CCAA Advisory Board meeting took place in Addis, on 9 and 10 Nov 2010, with the second day devoted to interactions with project team members and key stakeholders (see minutes in annexe 3). Unfortunately due to the timing of the meeting which coincided with important government events, many stakeholders from the platform who promised to attend could not do so. The Board was therefore unable to interact with a good cross section of the platform members. The project team however presented the project concepts, and the evolution and how we intend achieving impacts. Some important issues raised were the mainstreaming of gender, the formats to be used for presenting outputs in order to utilise different media for impact, and the other policy impact pathways that could be adopted, notably involving important government officials and how this can be successfully achieved given their various commitments. It was later reported to the project leader that the board had been concerned about stakeholder engagement. This matter was raised by the project leader at subsequent meetings with her team and with the Re-SAP stakeholder platform. The result has been a renewal of commitment from the platform and the setting up of a subcommittee to help organise a policy round table (more on this in the next reporting period).

Activity 1.6 Capacity building of staff from partner institutions & research-policy platform

During the platform meetings stakeholders continue to be sensitised to both the technical and non-technical aspects of the project. Besides developing an understanding on climate downscaling, and hydrological and water allocation modelling, which is not necessarily the usual knowledge to which many of the SH on the platform are exposed; the systems approach to defining a problem and seeking solutions, broadens their perspectives.

In Nov 2011 a five day PAR workshop was organised in Accra by IDRC, for project teams members. The project leader utilised the opportunity to invite 2 team members from Addis to participate (only one of whom was able to attend due to extenuating circumstances); and had 3 members of her Accra team as well, besides herself. The workshop was extremely useful for team members as they gained a better understanding of the concepts of PAR and were better equipped at the end of the workshop to analyse the PAR process elements within their own project. The workshop also raised questions on how to undertake PAR in a more systematic manner at a policy level. Since the workshop the project team is more conscious about applying PAR approaches, but there is still a concern whether there is more to be done. The project leader is presently preparing a short brief that analyses the activities that would correspond to PAR in the process, in order to obtain more clarity. This will be shared with the IDRC program officer responsible for this project.

3.3 Progress towards objectives – Work Package 2

The Gantt chart below indicates the overall workplan for WP2. The percentages in the boxes indicate the extent to which individual activities have been finalised (with all activities expected to be 100% complete by the end of the project). During the current reporting period, the project was expected to complete the inventory of available climatic and hydrological models, and to decide on model use; to define the main scenario types; begin climate change downscaling; begin the collection of demographic and urban water systems data; develop the VENSIM model; and begin data analysis and modelling of scenarios.

Time	Project Year	Year One				Year Two				Year Three		Status
	Project Quarter	1	2	3	4	5	6	7	8	9	10	
	Calendar Month	Aug-Oct	Nov-Jan	Feb-Apr	May-Jul	Aug-Oct	Nov-Jan	Feb-Apr	May-Jul	Aug-Oct	Nov-Jan	
	Calendar Year	2009	2009-10	2010	2010	2010	10-11	2011	2011	2011	2011-12	

Work Package Two: Analytical Research

2.1	Inventory of available climatic and hydrologic models (properties and usefulness). Decide on model use.		50%	50%								100%
2.2	Define main scenario types.			30% (in both Accra and Addis)		30% Accra and Addis						60%
2.3	Data collection: climatic data generated from downscaled climate scenario results			20% (Addis) 10% (Accra)	30% (Addis) 20% (Accra)	25% Addis 30% Accra						75% (Addis) 60% (Accra)
2.4	Data collection: demographic data and urban water system			30% (Addis) 20% (Accra)	30% (Addis) 20% (Accra)							75% (Addis) 50% (Accra)
2.5	VENSIM model development			30% (Addis + Accra)	30% (Addis) + Accra)	15% Addis						75% (Addis) 60% (Accra)
2.6	Data analysis and modelling of scenarios				10% Accra and Addis	10% Accra 30% Addis						20% Accra 40% Addis
2.7	Generating and incorporating feedback from platform											
2.8	Finalize scenarios in collaboration with stakeholders											

Activity 2.1 Inventory of available climate and hydrological models; decide on model use

This activity is complete. Models will only be modified if needed.

Activity 2.2 Define main scenario types

The project team envisions applying the outputs of selected IPCC scenarios, to various combinations of scenarios of urban development in the cities of interest, agricultural development in corresponding catchments, which would in turn account for different scenarios of urban and rural water demands, wastewater generation, urban runoff and water allocations. At both sites, baseline information is being gathered and validated during platform meetings. The project team will complement this with document reviews, and screen eventual data ahead of scenario generation.

Whilst the decision on which IPCC scenarios to use has been made, defining the right urban development scenarios is still under discussion. Urban development scenarios used in the preliminary application of the VENSIM model without superimposing CC, have to be further refined as interactions with key stakeholders bring up new information. Some of the water demand scenarios and the wastewater generations scenarios are being reviewed.

Activity 2.3 Data collection: climatic data generated from downscaling

In Accra, the project team has started generating results as expected. They will be complete by end March 2011. About 60% of the work is completed.

In Addis Ababa, a preliminary round of climate change downscaling has been completed. This yielded data on a 50 km² grid. A second round to generate data on a 10 km² grid is nearly complete. Nearly 75% of the work is completed.

Activity 2.4 Data collection: demographic data and urban water system

Accra: not much progress was made as the new person was familiarising himself with the project. But things are on track now.

In **Addis Ababa**, the project team completed baseline data collection. Students from the Addis Ababa University have been collecting and analysing information. The list of research topics is in Annexe 4 – this list is a work in progress as we are modifying the outputs expected depending on the data availability and the discussions at the platform meetings. These topics were selected after discussions with the stakeholder platform and were subsequently confirmed by them. Presentation of findings at the platform meetings allows us to validate them, sometimes suggestions are given for additional information. Data collection was facilitated by a letter prepared by the city manager. No major challenges in obtaining information, but for some types of data such as water quality data the reliability is questionable.

Activity 2.5 VENSIM model development

In Accra: as indicated above progress has been slow.

In Addis Ababa, preliminary model set-up is complete and some urban development scenarios have been studied as part of the PhD thesis. Additionally students from the Addis Ababa University based on their training have added to the model, and are testing the modifications.

Activity 2.6 Data analysis and modelling of scenarios

This activity will evolve out of the outputs of activity 2.5, as well as discussions with stakeholders.

Overall we note that progress in Accra in relation to WP 2 is slower than in Addis. In part this is due to the fact that (a) identifying the Accra climate downscaling modeller took time whereas the Addis modeller was part of the core project team, (b) the project team lost a member who was responsible for the urban water balance modelling. This gap was filled by the team member who is a modeller in Addis with the help of university students. In Accra, this gap has now been filled with a young researcher who needed to get familiar with it, which delayed progress, (c) In Accra, on the modelling side given the nature of the problem, an additional modelling activity on water allocation is being undertaken which is still ongoing and (d) the main partner in Addis is the University which has numerous masters students easily available to undertake the research. In Accra, the partner is a research institute with limited access to students and research support staff. This has slowed the research activity comparatively.

3.4 Project implementation

In terms of project design and implementation, the first interim technical report considered the disciplinary orientation of the project; research partnerships; the involvement of research users, ultimate beneficiaries or their representatives in further defining and/ or implementing the project; as well as gender issues. The second interim technical report highlighted measures taken to engage with stakeholders – in particular, various types of policy- and decision-makers. The period also coincided with activities linked to drafting of national policies in Accra to which the project team contributed. In the 2nd interim report, a brief description was also provided of our preliminary understanding about the main organisations and institutional arrangements for dealing with climate change.

As the project progresses a better understanding of the institutional and governance mechanisms for responding to climate change; is emerging, and as stakeholders feel committed and participate more actively, they are more forthcoming in their suggestions. The positive responses of stakeholders when they are invited to a platform meeting supports this conclusion. The Metropolitan Administration in Accra continues to show commitment by sending a big delegation to the platform meetings. In Addis the commitment of the different city state departments is proven through the active participation of high ranking members or their representatives. In both cities the Environmental Protection Authorities are clearly critical players in the climate change arena, and these agencies are kept closely engaged.

As was explained in the earlier report, the complexity of the institutional context in which URAdapt works in both Ghana and Ethiopia has made the project team aware of the need for deeper and more comprehensive ‘climate change and hydro-institutional mapping’. This has been undertaken partially in Ethiopia but is still to be done in Ghana. A mapping exercise undertaken on a recently finished project in Accra, has provided useful information already, on some water sector institutions but a more complete mapping is being undertaken. The extent to which individual sector Ministries, Departments and Agencies (MDAs) have drafted their own strategies to address climate change, needs to be investigated as well in both countries/cities. It must be re-iterated here that the project now has excellent contacts with stakeholders to undertake such a study comprehensively.

3.5 Project management

Project Administration by the host organisation (IWMI) is functioning smoothly with support given for financial management from the centre’s headquarters.

With respect to the planned meetings, the 3rd Re-SAP meetings in both countries were only held at the beginning of 2011 as there were too many other activities and meetings beyond the control of the project towards the end of the year. As it is often the same stakeholders who participate at different meetings, care has to be taken about the meeting dates to avoid overlap.

Staffing changes occurred during the reporting period with the departure of 2 team members who were part-time on the project. One full time staff member has replaced them. However for other specific technical inputs we will be utilising consultants. Additional staff will come on board as and when needed.

Project management and administration support from IDRC has been very good, and the project officer and his administrative assistant provide support in a timely manner.

With respect to project spending, there is still some variance in the project expenditure statement but nothing of concern. Launching of some of the studies was delayed till a better understanding of the project environment was achieved. These studies are now being carried out and contracts are being prepared.

4 CHAPTER 5 – PROJECT OUTPUTS AND DISSEMINATION

4.1 Information sharing and dissemination

Apart from the website as a tool for sharing information, being kept updated, and contact being maintained with stakeholders, dissemination has been limited during this reporting period. This is seen as somewhat of a weakness and has been remarked also by stakeholders on the Addis platform. In Accra, it is felt that the platform is now very stable, and members can be used as ambassadors for the project.

One Accra Consultative Group meeting and the 3rd Re-SAP meeting in Accra was held during the reporting period. The 3rd Re-SAP meeting in Addis was held just after the reporting period. Research findings were shared at the Re-SAP meeting.

4.2 Knowledge creation

See chapter 3 for a description of progress to date.

4.3 Training

See chapter 6

4.4 Research outputs

See the annexes for reports of the consultative group and platform meetings. These, along with the presentations that were given at the meetings, are also available on the project website (<http://uradapt.iwmi.org>).

A project publication strategy is under reflection.

5 CHAPTER 6 – CAPACITY BUILDING

5.1 Short-term training

A five day PAR training workshop was organised by IDRC in Accra where one project team member from Addis and 3 from Accra, besides the project leader participated. Please see section 3.2 which provides a brief description.

No other project related short term training took place during this period.

5.2 Fellowships

[N/A]

5.3 Student supervision

The project partners in Addis have been supervising MSc students from Addis University undertaking project research on the research topics mentioned previously. Additionally they co-supervised a student from the University of Wageningen, Mr Tadesse Sinshaw, who undertook research relating to the flooding impacts on urban farming and livelihoods. This MSc report is presently under preparation.

The team leader supervised the work of a student intern, Ms Marij Swartz, who did a study in Accra on vulnerability mapping to identify groups subject to poor water supply and sanitation conditions and urban flooding.

5.4 Capacity building of stakeholders

Section 3.2 described the capacity building that took place during the Re-SAP meetings in the cities.

6 CHAPTER 7 – OUTCOMES AND IMPACT

As per the ‘Outcome Mapping’ diagram in the proposal, and the comments on outcomes made in the last interim report (2), the 3 outcomes listed then have not changed substantially.

Outcome 1: Based on all the knowledge inputs that the project is providing to platform members, platform partners are becoming better able to understand and evaluate vulnerability to climate change, especially in relation to the urban water cycle. The value of the project concept and the systems analysis approach being applied to understand CC impacts on cities within the basin context, is being better recognised and appreciated.

Outcome 2: Active exchange and learning between researchers, vulnerable groups and policy advisors . After every Re-SAP meeting, stakeholders have verbally indicated their satisfaction on the knowledge sharing and learning that is taking place and this continues. It appears as if they look forward to the interactions and discussions on the platform, since these are also well structured and managed. The structure of the workshops which plan for one or two knowledge related/capacity building theme, contributes towards this. In particular our main partners WRI and AAU in the 2 countries have indicated appreciation of the participatory nature of project implementation, and the great multidisciplinary learning experience that they are getting as a result of the project. .

Outcome 3: Policy making processes within the two countries are much better aware of the project intentions and types of evidence that will be generated. This continues to hold true.

Outcome and impact stories need to be captured later in the project.

7 CHAPTER 8 – RECOMMENDATIONS

The main recommendation at this juncture is that the project improves its communication further, and finds ways of encouraging partners to visit the website for information. Stakeholder engagement has to be evaluated to see if the project is on track. Some reflection is also needed on how to prepare the platform members for applying scenario analysis approaches, prioritising adaptation responses and undertaking joint strategic agenda setting.