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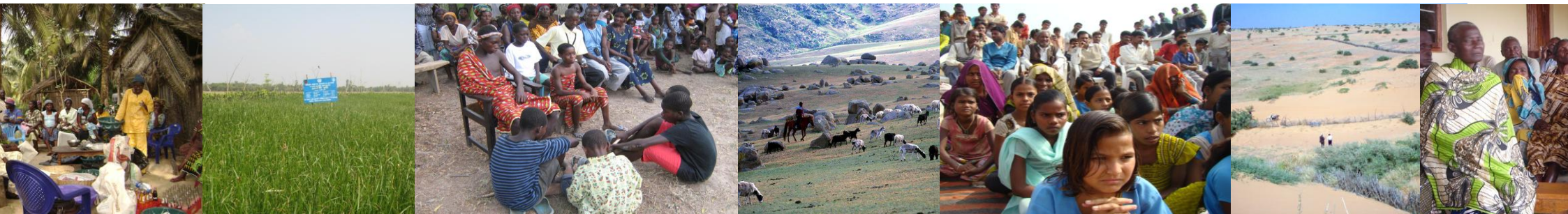
ACCCA

Advancing Capacity to Support Climate Change Adaptation

Advancing Capacity to support Climate Change Adaptation (ACCCA)

Final Project Report

September 2009





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United Nations Institute for Training and Research

ACCCA

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Final Project Report





UNITAR Climate Change Programme 2009

The activities of the ACCCA project were funded by the generous support of the institutions below.



Schweizerische Eidgenossenschaft
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The UNITAR Climate Change Programme – CCP

The mission of the CCP is to enhance the capacity of regional centers of excellence in developing countries to assist their stakeholders and to improve the participation of developing countries in the UNFCCC process and implementation.

The activities of the CCP are continuously supported by the generous contributions of the institutions below.



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Description of the Action

Name of beneficiary of grant contract: UNITAR CCP

Reporting period: January 2006 – June 2009

Name and title of the Contact person: Mamadou Diakhité, Manager

Target countries and region: This action is multi-regional, targeting countries and regions in Asia and Africa. Fourteen pilot actions have been chosen for implementation, nine in Africa and five in Asia. Target countries and/or regions are listed on pages 12 and 13.

Name of partners in the Action:

- **Climate System Analysis Group (CSAG), University of Cape Town**

Cape Town, South Africa

- **Environnement et Développement du Tiers Monde (ENDA)**

Dakar, Senegal

- **International global change SysTem for Analysis, Research and Training Secretariat (START)**

Washington, DC, USA

- **Southeast Asia START Regional Centre (SEA-START RC)**

Bangkok, Thailand

- **Stockholm Environment Institute (SEI Oxford)**

Oxford, United Kingdom

- **Temperate East Asia START Regional Centre/ Institute of Atmospheric Physics (TEA-START - IAP)**

Beijing, China

Title of the Action: Advancing Capacity to support Climate Change Adaptation (ACCCA)

Contract number: AIDCO/ENV/2005/108388TPS

Executive Summary

The need to create and strengthen capacity and knowledge to address the impacts of climate change is recognized as a major challenge in developing countries, especially when it comes to assessing how a changing climate will affect livelihoods. Further exacerbating the situation is sometimes the lack of climate data, leading to the imperative need to enable decision-makers to translate and integrate this climate information into tangible programs of actions.

Seven main activities were defined in the ACCCA project: develop a protocol for pilot actions; issue a call for proposal, evaluate and select pilot projects; execute pilot actions; support them through technical assistance and training; outreach to catalyze regional and international cooperation; manage, monitor and evaluate the action; and plan follow-up actions.

The overall ACCCA project brought together stakeholders who included, government officials, researchers, local communities, and scientists from 10 developing countries in Africa and Asia, to interact and engage in efforts that enable and support making effective adaptation decisions, reduce vulnerability to climate and environmental changes, whilst promoting sustainable development. Under the project, fourteen Pilot Actions were selected to identify adaptation options in several sectors, where the impacts of climate change are affecting community livelihoods and ecosystems. This final report is a summarized overview of the activities and results of the Pilot Action Teams, the challenges they encountered, including some recommendations for sustaining the ACCCA results.

Three main activities were undertaken within the projects which included: raising awareness about the risks from climate change, enhancing knowledge and skills to address these risks and finally identifying adaptation options that counter these climate change risks. These activities were supported by historical, real-time data and traditional knowledge. The former data was provided by climate science models and meteorological departments and the latter from the local communities.

As the project concludes, all pilot projects have: collected baseline data on the impacts of climate change, identified vulnerabilities within the communities, developed risk communication methods and strategies, and finally listed adaptation options and recommendations ready for implementation. The stakeholders have also benefited from seminars and training workshops enabling them to understand climate science and its implications in the decision making and planning process. The climate science team also gained an increased understanding of how to better communicate climate science using means that the community leaders and decision-makers can apply.

In the final evaluation of the ACCCA project, the teams agreed that whilst the project had been successful at increasing awareness, the adaptation strategies identified, need to be implemented and equally important, the outputs need to be disseminated and shared with a wider audience. In addition, guidelines to mainstream adaptation in development policies could be published and, based on ACCCA findings, there is potential for the elaboration of an adaptation academy.

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ANNEXES: see list on next page

Annexes on the CD (or Internet)

A. COUNTRY REPORTS

- | | |
|---|--|
| I. Bangladesh | a. Final report with ppt. presentation and project poster
b. Climate Change Science support report |
| II. Ghana- Afram Plains | a. Final report with ppt. presentation and project poster
b. Way forward - Proposition for a joint health program Kenya-Ghana using the preventive measures identified in ACCCA. |
| III. Ghana- Ashanty and Northern Regions | a. Final report with ppt. presentation
b. CC science report on vulnerability to Guinea worm and malaria |
| IV. India | Final report and project poster |
| V. Kenya- Malaria | a. Final report and project poster
b. “ <i>Shading by Napier grass reduces malaria vector larvae in natural habitats in Western Kenya highlands. Mosquito control through habitat modification.</i> ” (to be published) by the Kenya Medical Research Institute, Center for Global Health Research; the School of Public Health, Moi University, Department of Epidemiology and Nutrition; Wageningen, The Netherlands, funded by the Dioraphte Foundation (NL). This scientific team used the pilot action as a vector to dialogue with the pilot action team.
c. Ppt. presentation on Napier grass against malaria
d. Way forward - Proposition for a joint health program Kenya-Ghana using the preventive measures identified in ACCCA. |
| VI. Kenya- Drylands | a. Final report with ppt. presentation and project poster
b. Way Forward, a two pages proposition |
| VII. Malawi | Final report and project poster |

VIII. Mali	a. Final report with ppt. presentation and project poster b. Field visit report. The objective of the visit was to provide Technical Assistance on Activities for the identification of communications materials that allow the pilot communities to achieve the maximum benefit from the use of the Water Evaluation and Planning (WEAP) system deployed as part of the NCAP project. The technical assistance focused on efforts to translate technical models into a form accessible by members of the target communities. This report highlights some of outputs from the field visit and outlines some steps forward for the ACCCA project. Done by SEI.
IX. Mongolia	a. Final report with ppt. presentation and a 2 page 'Final products' reporting project presentations with selected publications, as well as project poster. The report contains a 3 page draft proposal for follow-up: <i>Draft proposal for demonstration sites of pastoral socio-ecological systems to climate change adaptation in Mongolia.</i> b. Way forward, a 4 pages proposition
X. Nepal	a. Final report and poster project b. Nepal country wide vulnerability assessment to climate change (can also be found on weAdapt http://wikiadapt.org/index.php?title=Nepal_baseline_vulnerability_assessment_and_social_indices) c. Nepal baseline vulnerability maps and graphics
XI. Niger and Tunis	Final report with ppt. presentation
XII. Nigeria	Final report with ppt. presentation
XIII. Philippines	a. Final report with ppt. presentation b. Complete progress report (December 2007) on Mainstreaming Climate Change Adaptation in Watershed Management and Upland Farming in the Philippines, by F Pulhin and R. Lasco (65 pages)
XIV. Tanzania	Final report with ppt. presentation

B. PARTNERS REPORTS

- I. Climate change science team and risk communication report
- II. SEA-SART report on Asian projects
- III. a. SEI Identifying Climate Vulnerability Exposure – Preliminary Guidance (2007)
- III. b. SEI synthesis report
- IV. START report on Ghana, Mongolia and Kenya
- V. a. ENDA Risk communications on Climate Change and Vulnerability – Preliminary Guidance (2007)
- V. b. ENDA field visits report to the Afram Plains, Tanzania and Nigeria (2008)
- V. Power point presentations (START, CSAG, SEI, ENDA)

C. WORKSHOP REPORTS

- I. Inception workshop, Ouagadougou, January 2007 + **video**
- II. Technical assistance workshop for the Africa pilot actions, Cape Town, October 2007
- III. Workshop for Asian pilot actions, Bangkok, August 2008 (I and II) + **video**
- IV. Climate science workshop, Cape Town, April 2008

D. LETTERS OF AGREEMENT FOR EACH COUNTRY AND EACH ORGANIZATION

E. OUTREACH MATERIALS

- I. Kenya dry lands** *Video* – “Livelihoods under climate variability and change” (You Tube)
- II. Malawi** *Video* – Malawi: Farmers become filmmakers
(<http://www.youtube.com/watch?v=WxScWzI3Rrg&feature=Playlist&p=73D398F50E67A1B6&index=18>)
- III. Mongolia** *Video* - Education TV broadcast (in Mongolian)
Video - Risk communication for pastoral community (in Mongolian)
- IV. Philippines** *Climate change magazine* - A guide to understanding climate variability and climate change
Video- “Heeding the Cries of the Skies” (<http://www.acccaproject.org/accca/?q=node/15>)
- V. SEI** *Google earth layer* – Advancing Capacity for Climate Change Adaptation (ACCCA) Layer
(on the homepage of <http://weadapt.org>)
- VI. UNITAR** *Video* – ACCCA presentation
Video - Final workshop
Brochure – Summaries of Fourteen Pilot Actions (June 2007)
Brochure – Description of Fourteen Pilot Actions (June 2009)

F. KNOWLEDGE MANAGEMENT ACCCA PLATFORM

- I. *Everything you need to know about the ACCCA platform*, user’s guide of the ACCCA platform and knowledgebase on the Internet.
- II. On-line newsletters and project updates (<http://www.acccaproject.org/accca/?q=node/4>)

Acronyms

ACCCA	Advancing Capacity for Climate Change Adaptation	SEI	Stockholm Environment Institute
AIAAC	Assessment of Impacts and Adaptations to Climate Change	TEA-START	Temperate East Asia - SysTem for Analysis Research and Training
CBDP	Community-Based Disaster Preparedness	UNEP	United Nations Environment Programme
CC	Climate Change	UNFCCC	United Nations Framework Convention on Climate Change Convention
CDMP	Comprehensive Disaster Management Programme	UNITAR	United Nations Institute for Training and Research
CSAG-UCT	Climate System Analysis Group – University of Cape Town	WEAP	Water Evaluation And Planning
ENDA-TM	Environnement et Développement du Tiers-Monde		
GEF	Global Environment Facility		
GIS	Geographic Information Systems		
MEA	Multilateral Environment Agreement		
NCAP	Netherlands Climate Assistance Programme		
SEA-START	Southeast Asia - SysTem for Analysis Research and Training		

Introduction

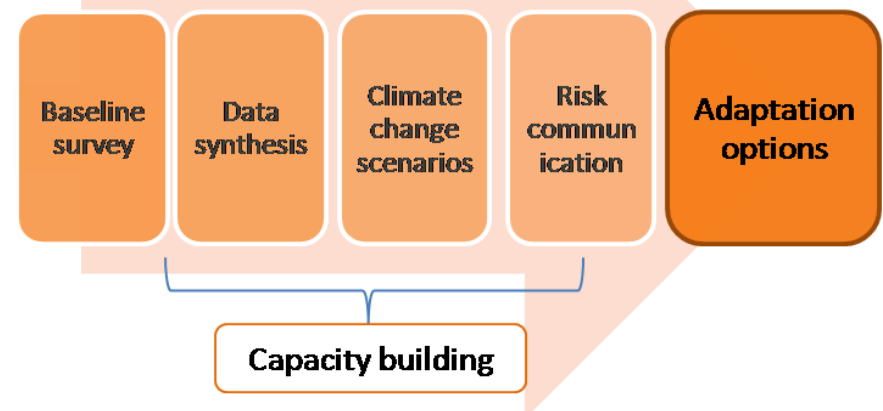
It is widely accepted that the developing world will be subject to an extreme and unpredictable climate that will affect weather patterns, the impacts of which will slow development, as these economies rely heavily on climate supported livelihoods. A previous UNEP/GEF funded project, called Assessment of Impacts and Adaptations to Climate Change (AIACC), identified the lack of scientific knowledge and understanding of climate risks as being a major impediment for developing countries to address the impacts from climate change and variability. The ACCCA Project therefore sought to address this need to understand scientific knowledge and climate science by bringing together local/national stakeholders to engage with scientists, to share and learn about climate change impacts and to identify adaptation actions by:

- identifying and prioritizing climate risks of targeted stakeholders and identify the climate-influenced decisions that they face;
- assessing available knowledge about risks and adaptation opportunities, as well as synthesizing the knowledge in terms that are directly relevant to stakeholder concerns and decision-making needs;
- exchanging and communicating information about climate risks and adaptation options with stakeholders;
- working with stakeholders to develop recommendations for climate change adaptation and promoting their adoption; and

- identifying critical knowledge gaps that hinder effective adaptation decisions and designing new assessment activities which generate new knowledge to fill these gaps.

This final report is a detailed review of the implementation of the activities undertaken by the ACCCA Pilot Action Teams to engage all stakeholders, raise awareness about climate change, identify adaptation options and build/or develop capacity for climate change adaptation. The report highlights the methodology used and actions of the teams in their diversity, to arrive at common objectives. The ACCCA results, lessons learned and challenges are of value, for all who are seeking to undertake adaptation activities and indeed provide a foundation for others to learn from and replicate.

The ACCCA Methodology



Background

In 2006, a call for proposals for the ACCCA project received 274 applicants and each applicant was invited to submit a proposal. The proposals for the pilot actions were evaluated based upon:

- their usefulness for climate change adaptation decision-making;
- relevance for poverty alleviation and sustainable development;
- involvement of stakeholders;
- consistency with national priorities;
- appropriate and feasible methods; and
- qualifications and capabilities of the project team.

Out of the 247 applications received, a total of 14 Pilot Actions were selected, nine from Africa and five from Asia. Each projects focus area is described on pages 14 and 15.

The project period

The project period was originally 32 months but an extension of 6 months was granted to allow the Pilot Actions Teams to complete and document their activities, bringing the total duration of the project to 38 months.

The project management and organization

The initiative was coordinated and managed by the United Nations Institute for Training and Research (UNITAR) and implemented by the Stockholm Environment Institute (Oxford, UK office), the University of

Cape Town (Cape Town, South Africa), the several Global Change SysTem for Analysis Research and Training (START) offices and ENDA TM.

Regional implementation committees, for Africa and for Asia were organized; they managed training and technical assistance to support implementation of the pilot actions in their respective regions, including monitoring the performance of the pilot actions. The regional implementation team for Africa was composed of ENDA, CSAG-UCT and the regional implementation team for Asia was composed of TEA-START, SEA-START.



Project Title	Sector	Project Focus
NEPAL Application of community-based adaptation measures to weather related disasters in Western Nepal: Preparation for the potential climate change signal	Human health Disaster management	Promote the concept of collective disaster insurance as an adaptation option that can minimize weather related disasters, and also to establish through Community Based Disaster Preparedness (CBDP) Units, schemes that support community resilience following weather related disasters.
MONGOLIA Policy framework for adaptation strategies of the Mongolian rangelands to climate change at multiple scales	Dry land Pastoralism	Develop adaptation strategies for the Pastoral communities in the Mongolian rangelands that reduce poverty and support sustainable development, and that can be applied in similar ecological regions.
INDIA Promoting Integration of Adaptation Strategies into Developmental Policies by Effectively Communicating Climate Risks and Adaptation Measures	Responsive Water Management	Develop risk communication products that raise awareness and improve the understanding of all stakeholders about the scientific, social and policy issues governing the climate change adaptation process, at the district level in India.
PHILIPPINES Mainstreaming Climate Change Adaptation in Watershed Management and Upland Farming	Responsive Water Management	Promote adaptation options for upland farmers in watersheds at the national level in the Philippines, by generating information on climate change adaptation options that are useful for decision-makers and national policy-makers.
BANGLADESH Participatory Climate Risk Assessment and Development of Local Adaptation Action Plans	Mainstreaming Climate Change into Sustainable Development	Develop and test community-driven adaptation plans of action that facilitate the mainstreaming of climate change adaptation options into the national sustainable development planning process.

Project Title	Sector	Project Focus
NIGERIA Community-led climate adaptation programme for sustainable livelihoods in coastal areas of South-western Nigeria	Fisheries Livelihoods	Enhance the capacity of fishing households and communities in Nigeria's low-lying southwest coastal region to effectively adapt to the increasing impacts of climate change by addressing local climate risks and promoting indigenous coping strategies that lead to poverty alleviation.
GHANA –Food security Food security and adaptation to climate change in the Afram Plains of Ghana	Food Security Livelihoods	Understand local community perceptions about climate change and its impacts on their livelihoods, in order to design climate change adaptation strategies that address food security, livelihood sustainability and lead to poverty reduction strategies.
MALI Climate adaptation from the bottom up: Collaboration	Responsive Water Management	Develop specific recommendations and climate change adaptation strategies for water management for local communities in Mali.
TUNISIA/NIGER An analysis of adaptation strategies to climate variability in arid, semi-arid and sub-humid dry regions	Dry land Agriculture	Analyze and share successful experiences with regards to climate variability in two arid areas in the north (Tunisia) and south (Niger) of the Sahelian zone and evaluate the possibilities to extrapolate their experiences to other regions with similar agro-climates.
MALAWI Audiovisual Tools for Community-Based Adaptation: Bridging the Meteorological Service and the Red Cross's work	Health - Disaster Management	Strengthen capacity for climate change adaptation in rural Malawi through the development, testing and dissemination of audiovisual tools.
KENYA –Dry lands Livelihoods under climate variability and change: An analysis of the adaptive capacity of rural poor to water scarcity in Kenya's dry lands	Dry land Agriculture	Strengthen the capacity of dryland communities in Kenya to cope with climate variability, through research that shows the relationships between water harvesting, vulnerability reductions, adaptive capacity, and poverty reduction and that can serve as lessons for other communities.
KENYA -Malaria Strengthening community-based adaptation to climate-sensitive malaria in Kakamega or Kericho District, Western Kenya highlands	Human Health Disaster Management	Enable active collaboration among six key stakeholder groups: the subsistence farming community at risk, health service providers, NGOs, environmental health scientists, government health policy makers and donors so as to develop a plan for sustainable malaria adaptation.
TANZANIA Adaptation Strategies and Challenges Associated with Climate and Ecological Changes to the Lake Victoria Community	Fisheries Livelihoods	Assess and evaluate sustainable adaptation alternatives for the fishing communities of the Lake Victoria region, in order to restore food and income generation supporting activities.
GHANA -Health Capacity Development and Adaptation to Climate Change on Human Health Vulnerability in Ghana	Health Disaster Management	Build the capacity for community and health practitioners to handle pre-disaster prevention and implementation of sustainable adaptation options that reduce Climate Change impacts on human health.

Activities of UNITAR CCP

UNITAR CCP had the responsibility to conduct seven activities.

Activity one: develop a protocol for pilot actions

As mentioned in the second interim report, the Project Implementation Committee (PIC) decided in 2006 that a common protocol would not be developed for all pilot actions, as was reported on in the first Interim Report. Instead, the PIC decided to follow an innovative approach, developed under the leadership of SEI, to:

- Focus the call for pilot actions on a set of key criteria, including risk communication and working with local stakeholders;
- Provide an entry point to the range of methodologies appropriate to the final pilot actions at the inception workshop;
- Develop 'good practices' with the teams themselves, learning from each other rather than following a prescribed protocol; and
- Use a platform of modules, guidance, case studies and common data bases to support the teams in critical areas.

This approach was implemented in close cooperation with all project partners and pilot actions teams. Activity 1 was thereon entirely merged with Activity 4.

Activity two: issue a call for proposal, evaluate and select pilot projects

This activity was completed and is fully described in the First Interim report that you can find on the CD with the Annexes.

Activity three: execute pilot actions

The pilot actions have been successfully executed in the different project sites. The chapter “Outputs of the Pilot Action Teams” gives a good overview of the pilot actions activities. More details on each pilot action can be found in the Countries Final Reports annex on the CD.

Activity four: support them through technical assistance and training

The UNITAR CCP has organized several training workshops and technical assistance activities as planned in the project document. The main actions are listed in a chronological order.

1. The **Project Inception Workshop** took place in Ouagadougou, attended by 40 participants (January 2007).
2. Two **Technical Meetings on Tools and Methods development** were organized in Geneva (April 2007) and Oxford (June 2007), for the partners members of the Global and Regional Implementation Committee.
3. A **Technical Assistance Workshop** for the African ACCCA Pilot Action Teams was organized in Cape Town (October 2007) with 13 participants.
4. A **Training of Trainers workshop** on Climate Change Science was organized targeting the ACCCA Technical backstopping teams and several pilot action project managers which took place in Cape Town (April 2008).

5. A **Technical Assistance Workshop** was also organized for the Asian ACCCA pilot action teams in Bangkok (June 2008), it was attended by 11 participants representing all the teams.

6. And finally, the **Closing Workshop** took place in Bonn (June 2009) attended by 25 participants.

All the workshop reports can be found in the Annexes; several videos of the trainings are available on the website www.acccaproject.org.

Under ACCCA, some supporting material was also produced to assist pilot actions, as well as a new version of the guide for the users of the ACCCA platform (see Annexes). Many face-to-face sessions and field visits were carried out in 2007 and 2008, as described in the Second Interim Report (see Annexes).

Activity five: outreach to catalyze regional and international cooperation

This activity was threefold: development and maintenance of a website, participation in important regional and international meetings to share information about the action and preparation of a synthesis report of the action.

The website has been continuously uploaded with relevant document on different adaptation themes, with the outputs of the pilot action teams, as well as with pictures and videos produced by the ACCCA teams. The database is now strong on the content side and the layout has been modernized in order to facilitate the use of the website.

In 2007, European Development Days were held from November 7th to 9th in Lisbon, Portugal. Three ACCCA pilot actions were invited to present their initiatives in a side event organized by Technical Center for

Agricultural and Rural Cooperation (CTA) called "Voices from the Field". This event was a great opportunity for UNITAR and its partners to promote the ACCCA project as well as to contribute to the discussion concerning how development policies can adapt to a shifting climate and how effective decisions about adaptation strategies can be made in agriculture, forestry, and fisheries.

UNITAR CCP provided an overview of the ACCCA project, highlighting that the purpose of bringing together stakeholders and members of the scientific community in developing countries was in order to enable and support effective adaptation decisions to reduce vulnerability to climate and environmental changes. The UNITAR presentation was followed by the presentations of the three principal investigators from the Nigeria, Mali and Malawi pilot actions. All three stressed the importance of assisting their respective countries in adapting to climate change.

In addition to this networking, the pilot action teams developed a good network that is partly represented on page 25 and 26.

Activity six: manage, monitor and evaluate the action

The ACCCA monitoring was backed-up by technical assistance. This technical support was composed of pilot monitoring teams which provided jointly implementation assistance. Each lead project partner bore the responsibility to coordinate the monitoring and evaluation process, the main tasks being: contacting the teams regularly to discuss progress and provide guidance; organize/coordinate field visits; ensure that the Monthly Journals were updated on the ACCCA platform; review and validate interim/final reports; and contribute to the final evaluation and to the elaboration of lessons learned.

A Climate Change Science team and a Risk Communication team collaborated closely with the monitoring individual, especially to review the reports and contribute to the final evaluation and to the lessons learned. Indeed, as discussed and agreed in Bali (COP) specific support on climate change science/information/analysis and risk communication should be provided to the Pilot actions. Therefore targeted cross-institutional teams were set-up and served all the teams in close coordination with the monitoring teams.

The **Climate Change Science team** provided technical and scientific support to the pilot actions to finalize their projects from a climate change science analysis perspective.

The **Risk Communication team** helped all the projects on the subject of risk assessment and risk communication.

The team leaders made sure that the pilot action teams liaised closely with the monitoring teams and responded to assistance requests in the area of climate change analysis for every pilot action. This support included: facilitate the access to relevant data, develop guidance materials when necessary, participate as resource persons in training workshops when necessary, contribute to field visits and validate relevant outputs from the pilot action teams.

Activity seven: plan follow-up actions

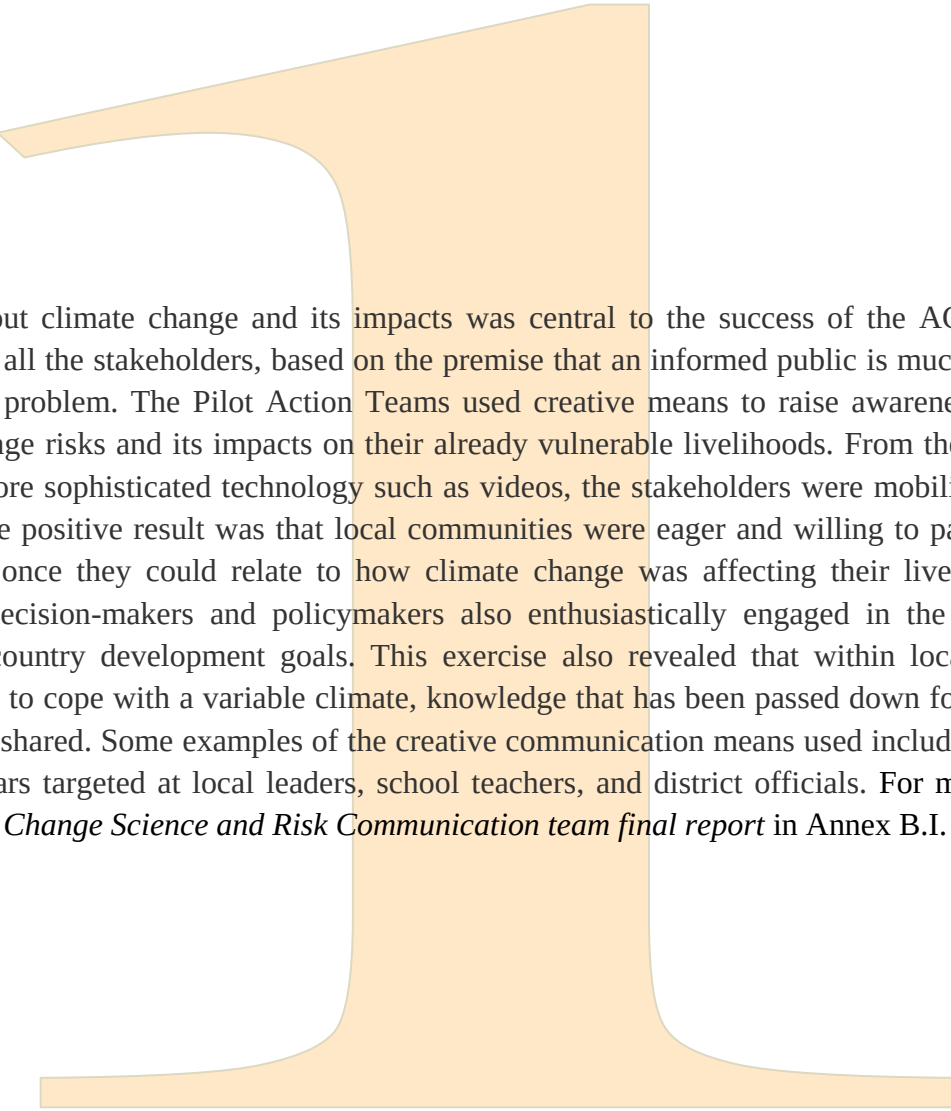
Guidelines for future actions are found in the *Looking Forward* chapter and some propositions from the countries can be found in the annexes.

Outputs of the Pilot Action Teams

The ACCCA project was implemented in a thorough approach by the various project teams; it generated many outputs that can be categorized in five types:

1. **Risk communication products**, designed to raise awareness and support adaptation decisions were developed, tested, and disseminated within local communities and for decision-makers.
2. **Knowledge enhancement and capacity building** of the participating organizations and individuals through the use of various learning-by-doing, approaches.
3. **Establishment of sustainable partnerships and strengthening of formed networks** of stakeholders and scientific organizations for continued cooperation in responding to climate and environmental risks.
4. **Recommendations for adaptation projects** and integration of adaptation plans into development, environment and resource policies and programs are available and will be promoted by each pilot action to be reflected in National Communications. For a detailed view of the projects and the adaptation possibilities they envisage, see the CD in Annex with the country and partners reports.
5. **Identification of critical knowledge gaps** that impede effective adaptation decisions and documented plans for new collaborations of stakeholder and scientific organizations that target the identified gaps.

Risk communication products



Raising awareness about climate change and its impacts was central to the success of the ACCCA project and quite essential to engaging all the stakeholders, based on the premise that an informed public is much easier to mobilize into acting on a pressing problem. The Pilot Action Teams used creative means to raise awareness and inform the local communities about climate change risks and its impacts on their already vulnerable livelihoods. From the use of dramatic means such as theatre, to the use of more sophisticated technology such as videos, the stakeholders were mobilized and informed about the severity of the situation. The positive result was that local communities were eager and willing to participate and commit to identifying adaptation options, once they could relate to how climate change was affecting their livelihoods, with their own experience. Furthermore, the decision-makers and policymakers also enthusiastically engaged in the discussions on how to integrate climate change into country development goals. This exercise also revealed that within local communities there is considerable knowledge on how to cope with a variable climate, knowledge that has been passed down for generations and which the local communities willingly shared. Some examples of the creative communication means used include radio bulletins, posters and leaflets, theatre, and seminars targeted at local leaders, school teachers, and district officials. For more information on risk communication, see the *Climate Change Science and Risk Communication team final report* in Annex B.I.

Written risk communication products



The **Philippine's** pilot action team created leaflets and the Climate Change Magazine that were popularized for easy understanding of climate change for a non-technical audience. Prior to their production, the communication materials were pre-tested to ensure that the language used was appropriate. The Climate Change Magazine was produced in English and translated into the local language to ensure that more people received and understood the messages. In **Bangladesh**, the pilot action team developed texts on climate change adaptation in Bangla which will be included in textbooks for the 6th and 7th grade (see picture). Revising their old textbooks, allowed young students to grasp the main issues about climate and disaster. In almost every Pilot Action Team, leaflets, brochures (e.g., on the link between climate change and malaria in **Kenya**) and/or posters as a medium for risk communication were developed. The pilot action in **Nigeria** obtained several articles in local or national newspapers.

Seminars and workshops



The projects also used surveys to assess the information needs and knowledge gaps within the local communities, information that was useful to designing the right risk communication messages, as well as identifying training needs. The project teams often organized workshops or seminars to communicate to local and regional stakeholders about climate change and its risks. In the Northern and Ashanti part of **Ghana** (see picture), for example, the team leader organized a training workshop to train community leaders about how to conduct outreach activities that encourage local communities to adopt and mainstream traditional practices that improve the community coping capacity to climate change. In **Tanzania**, the team used the already existing platforms, such as Village meetings to organize district leaders dialogue workshops to reach out to the stakeholders as largely as possible. The **Nepalese** team used the awareness raising meetings for communicating climate change risks as well as introducing the insurance scheme and responding community concerns.

Theatre, musical presentations and radio



In **Ghana**, school children enacted plays to sensitize community members about climate change and its impact. A video of the plays was also reproduced and will be made available to other communities, in order to reach out to the population at a larger scale. In **Mali**, a musical presentation was enacted in collaboration with the National College of the Arts of Massabla. The students and director prepared an awareness raising campaign using local dance and music in the style of oral communication, using local instruments that are very popular and typical of the region. The purpose of this strategy was to raise concern and draw attention to climate change issues. Radio bulletins were done in the Afram plains of Ghana (rural radio) as well as in Tunisia and Niger to also raise awareness. The **Mongolian** and **Ghanaian** pilot actions benefited from national TV coverage. The pilot action in **India** developed a communication campaign using street plays and community exercises, as shown by the picture.

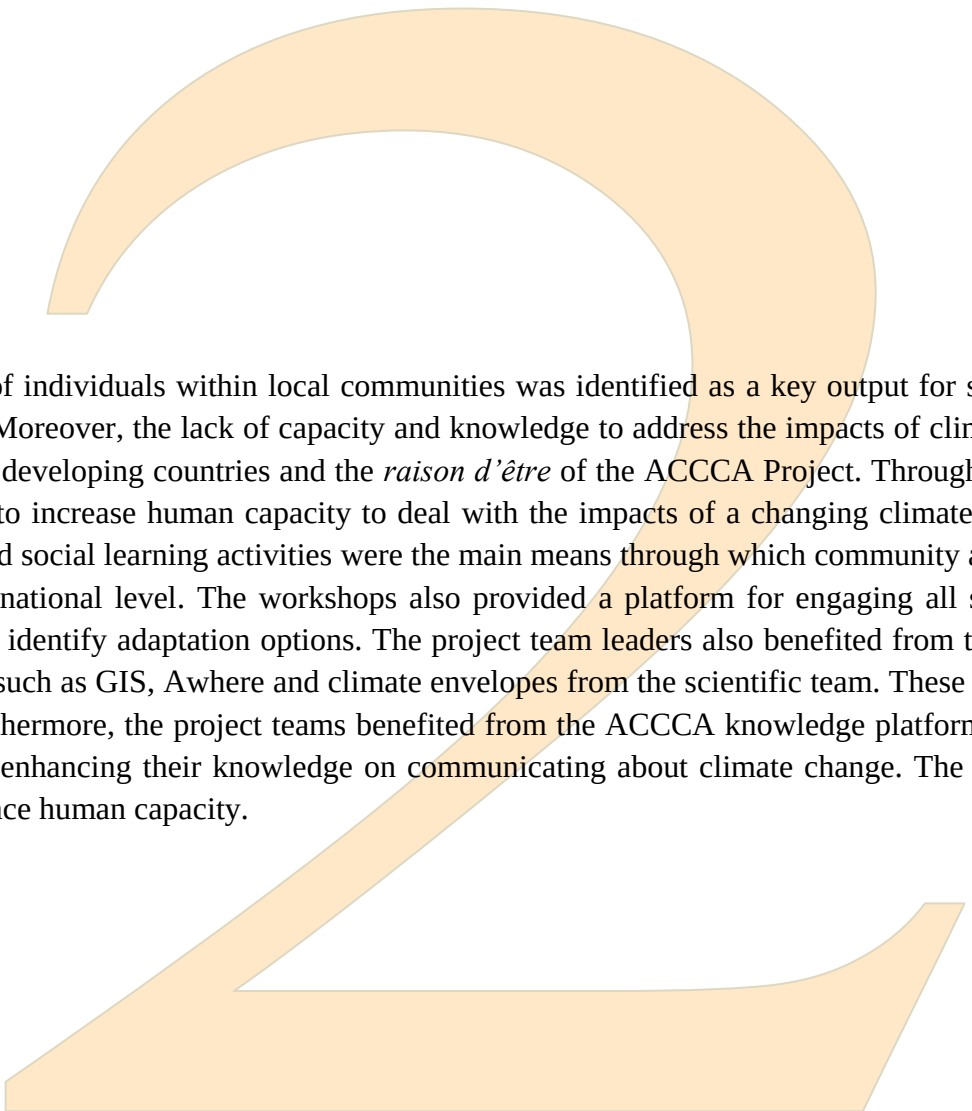
Video



In **Malawi**, the “Farmer Filmmakers”, a group of sixteen Mphunga villagers, produced a short film on adaptation options that was shown to other neighboring communities at a screening organized by the Red Cross (see picture). The feedback from the video screening showed that the use of fellow farmers was an effective way to transmit adaptation messages, shown by the overwhelming attention received from fellow villagers, when they recognized that local farmers just like them were transmitting the messages.

The team from **Nigeria** also produced a video named “The Trail of a Storm Surge”, featuring narratives of community members on the impact of a storm surge event in 2008. This video targeted mainly the decision-makers and planners at a national and regional level and was presented during workshops at the Lagos State Climate Change Summit. In the **Philippines**, “Heeding the Cries of the Skies”, a very didactic documentary explained climate change and the role of human activities, featured farmers, researchers and local governments, as well as a Dr Rosa Perez and Dr Rex Cruz, Nobel prizes of 2007.

Enhancing Human Capacities



Enhancing the capacity of individuals within local communities was identified as a key output for sustaining the project work and ensuring continuation. Moreover, the lack of capacity and knowledge to address the impacts of climate change has been identified as a major challenge in developing countries and the *raison d'être* of the ACCCA Project. Through the transfer of knowledge and skills, each project team sought to increase human capacity to deal with the impacts of a changing climate on the vulnerable community. Training workshops, seminars and social learning activities were the main means through which community and stakeholder knowledge was enhanced, both at the local and national level. The workshops also provided a platform for engaging all stakeholders and disseminating information that enabled them to identify adaptation options. The project team leaders also benefited from training on tools for developing future climate change scenarios, such as GIS, Awhere and climate envelopes from the scientific team. These tools are useful for establishing the local adaptation context. Furthermore, the project teams benefited from the ACCCA knowledge platform, which allowed them to share lessons and experiences, further enhancing their knowledge on communicating about climate change. The following paragraphs highlight the different means used to enhance human capacity.

Workshops



In **Mongolia**, a national workshop was organized for 65 participants and included representatives from Ministry of Food and Agriculture, Ministry of Nature and Environment, Ministry of Foreign Affairs, local administrative, local herders, scientists and graduate students. During the workshop, adaptation options were outlined and policy recommendations made. In **Tanzania**, the workshop was held on improving livelihoods in partnership with a local NGO, Family Poverty Elimination (FAPOEL), which has been interacting with the local fishing communities for more than five years on improving their livelihoods. In **Tunisia and Niger**, workshops were also used to share the project findings and the methodology used to validate viable adaptation projects.

Training workshops



In **Nigeria**, two Community Climate and Livelihood Forums (CCLF) were organized, one to address health education programs and the other, a livelihood diversification training workshop that included post harvest fisheries (see picture). In **Ghana's** Afram Plains, training was given to the Pilot Action team on how to use the Awhere software to create future climate scenarios that are essential for adaptation planning. In the **Philippines**, a workshop was organized to inform watershed and local stakeholders how climate change will impact on watershed resources and upland agriculture. Finally, in **Nepal**, a representative team of the community received training on how to successfully implement climate change awareness campaigns. The local Red Cross bodies also received training on how to use the Weather Climate Information Dissemination (WCID) scheme to enhance interaction between National Metrological Service of Nepal and the vulnerable community of Putalibazaar Municipality and suburbs.

Seminars and Forums



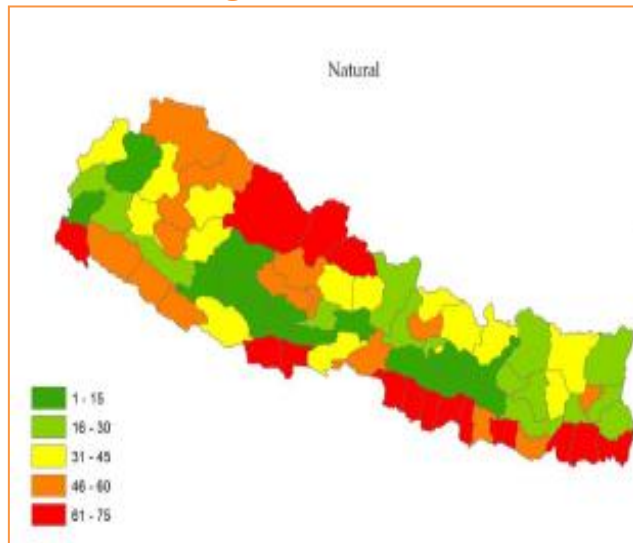
In **Ghana** a seminar of 120 participants that included community leaders, traditional leaders and stakeholders from university and the district assembly was held to inform participants how the increasing malaria epidemics were linked to climate change. These participants were further trained to be trainers of trainers in anticipation that a multiplier-effect would lead to the training of over 200,000 people in the district. Other stakeholders trained in the organized workshop included; Ministries of Health, Science, Education, Food and Agriculture, as well as the Environmental Protection Agency of Ghana, representatives from the National Disaster Management Organization, District Chief Executives, Regional Water and Sanitation, Ghana Health Service, environmental companies (e.g. Zoom Lion), etc. In **Bangladesh** (see picture), a seminar was organized to disseminate the research findings following the field test of adaptation options and the assessment of the efficacy of the options. A document on lessons learned was then prepared and will be shared with various local and national stakeholders

Social learning activities



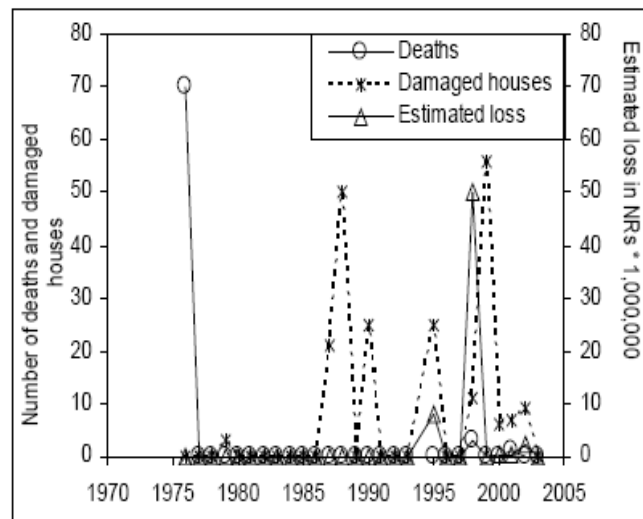
In **Mali**, a simple household method for water filtration, using cotton cloth to prevent bacteria induced water borne diseases, was introduced to the communities. Women were brought together and taught how the technique can be used at home. In **Kenya**, site-specific guidelines and information tools on water harvesting techniques were developed for use by farmers, extension agents and development specialists. In **Nigeria**, about 85 participants were provided with the skills for producing fish meal and fish feed. Fish meal production from fish discards and fish trashes are an abundant waste from fish processing and flood accidents but can provide an alternative income generating source for the women, while reducing the losses that are incurred during the flood periods. Soap making workshops were also organized (see picture). The activity was planned based on a needs assessment of skills for the women of the community to complement their fish processing and marketing activities.

Climate change science tools



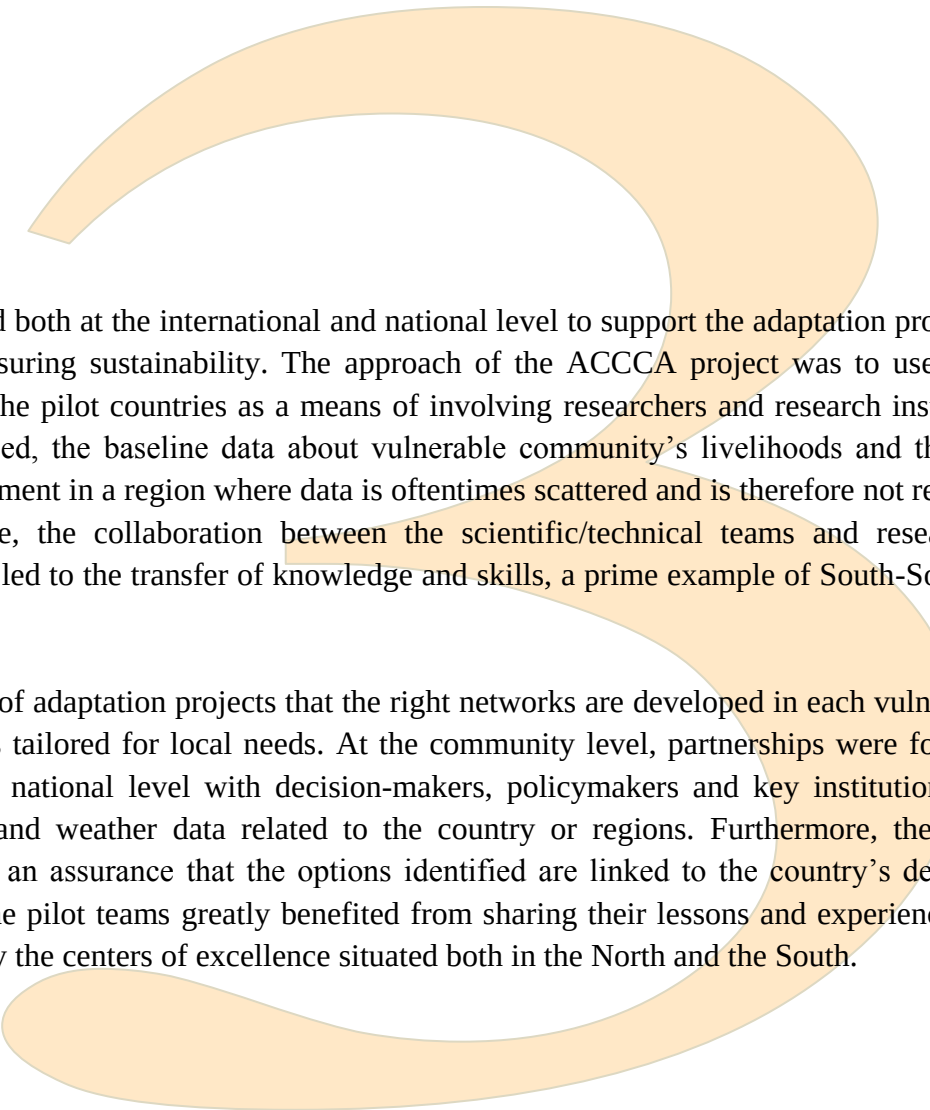
The technical support teams and the pilot action teams entered in the process of co-learning on how to analyze and clearly communicate relevant climate information and risk. Through this process, teams within the pilot actions improved their capacity to integrate climate information and communicate risk to local communities and policy-makers.

The project team leaders benefited from trainings on tools and methods in order to properly assess a community's risk. A special emphasis was therefore made on the dissemination of tools and data that would facilitate access and analysis of vulnerability and climate information in a systematic way. The geographic information system tools included the **Climate Change Explorer** (CCE) which synthesizes information from ensemble simulations in an envelope analysis to determine the potential distribution of future climate change and the **AWhere Spatial Information System** that helps non-specialists to integrate climate data in the decision making. For specific examples of climate change science, such as surveys, maps (see illustration) and models, one can refer to the Annexes.



In **Nepal**, in addition to a complete micro-insurance framework (see annex A.X.b) for which they modeled disaster loss trends (see graph) as well as natural disasters maps (see annex A.X.c), the pilot action created baseline vulnerability maps, like in Mali and Tanzania. In the **Philippines**, the pilot action team worked out a detailed survey on climate variability and extremes experienced in the project sites (see annex A.XII). With these informations, the team was able to determine the impact of climate variability on crop yields, farm income, domestic income, soil and health in some regions of the Philippines. The **Mongolian** team decided to develop the climate change science on rangeland ecosystems. They conducted a socio-economic vulnerability assessment that was used to build adaptation strategies. In its final report (see annex A.IX.a.), where all the information is, the team was able to give policy adaptation recommendations, backed-up by climate change scenarios for 2020, 2050 and 2100, as well as development scenarios concerning the herders.

Establish sustainable partnerships



Partnerships were formed both at the international and national level to support the adaptation process and will be useful for sharing lessons and ensuring sustainability. The approach of the ACCCA project was to use universities and research centers located within the pilot countries as a means of involving researchers and research institutions in the South, also custodians of country data. Indeed, the baseline data about vulnerable community's livelihoods and their coping strategies now available is a remarkable achievement in a region where data is oftentimes scattered and is therefore not readily available for making informed decisions. Furthermore, the collaboration between the scientific/technical teams and research institutes during the workshops greatly enhanced and led to the transfer of knowledge and skills, a prime example of South-South cooperation as well as North-South collaboration.

It is fundamental for the success of adaptation projects that the right networks are developed in each vulnerable community in order to promote appropriate measures tailored for local needs. At the community level, partnerships were formed with the village and community leaders while at the national level with decision-makers, policymakers and key institutions such as meteorological societies that store all climate and weather data related to the country or regions. Furthermore, the inclusion of government institutions such as ministries is an assurance that the options identified are linked to the country's development agenda. At the regional or international level, the pilot teams greatly benefited from sharing their lessons and experiences and from the scientific and technical support provided by the centers of excellence situated both in the North and the South.

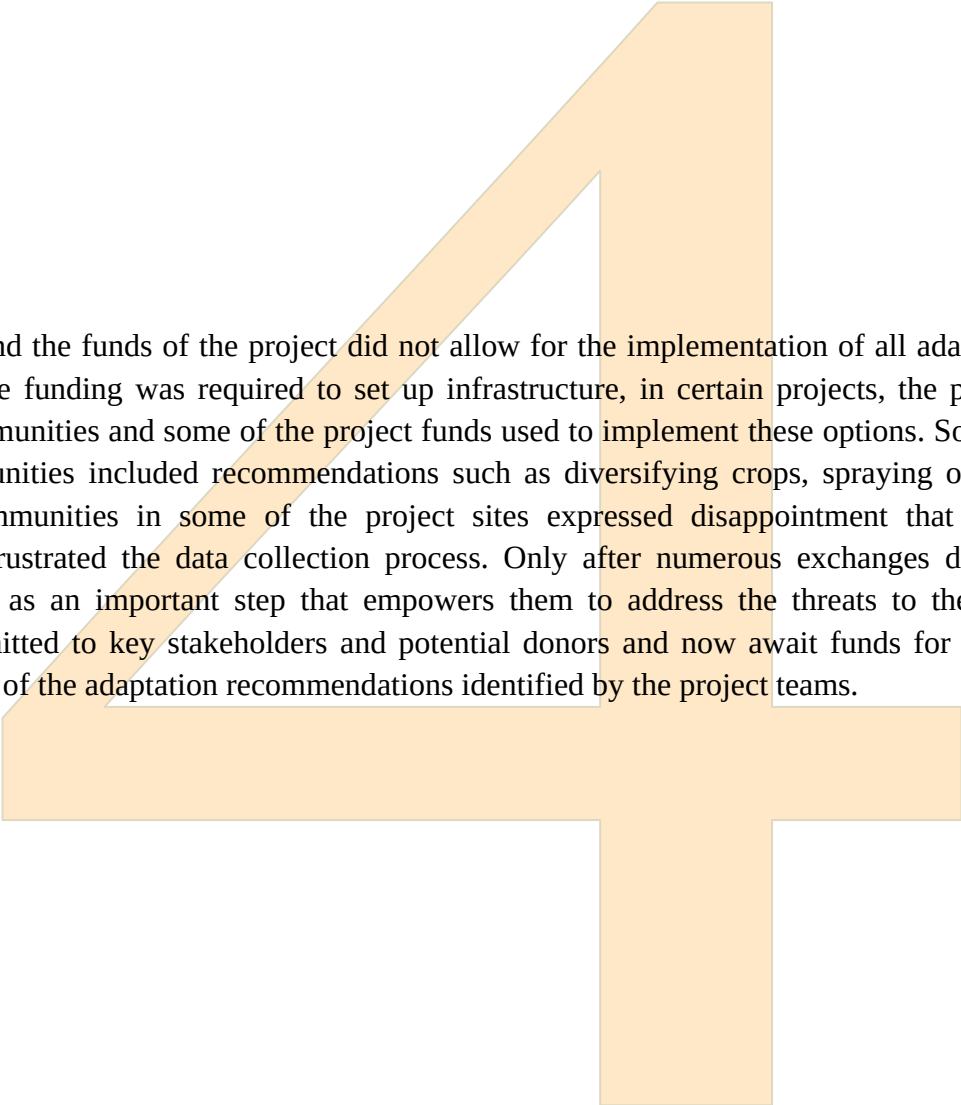


This diagram puts forward part of the ACCCA network established in nine countries. For a matter of clarity, all the institutions rallied to the ACCCA project couldn't be shown on the graphic, as the networking has been very extensive in the project.

The network brings together different entities, such as:

-  Governmental institutions
-  Universities
Research centers
-  International organizations
-  NGOs
-  Private sector entities
Civil society initiatives

Recommendations for Adaptation

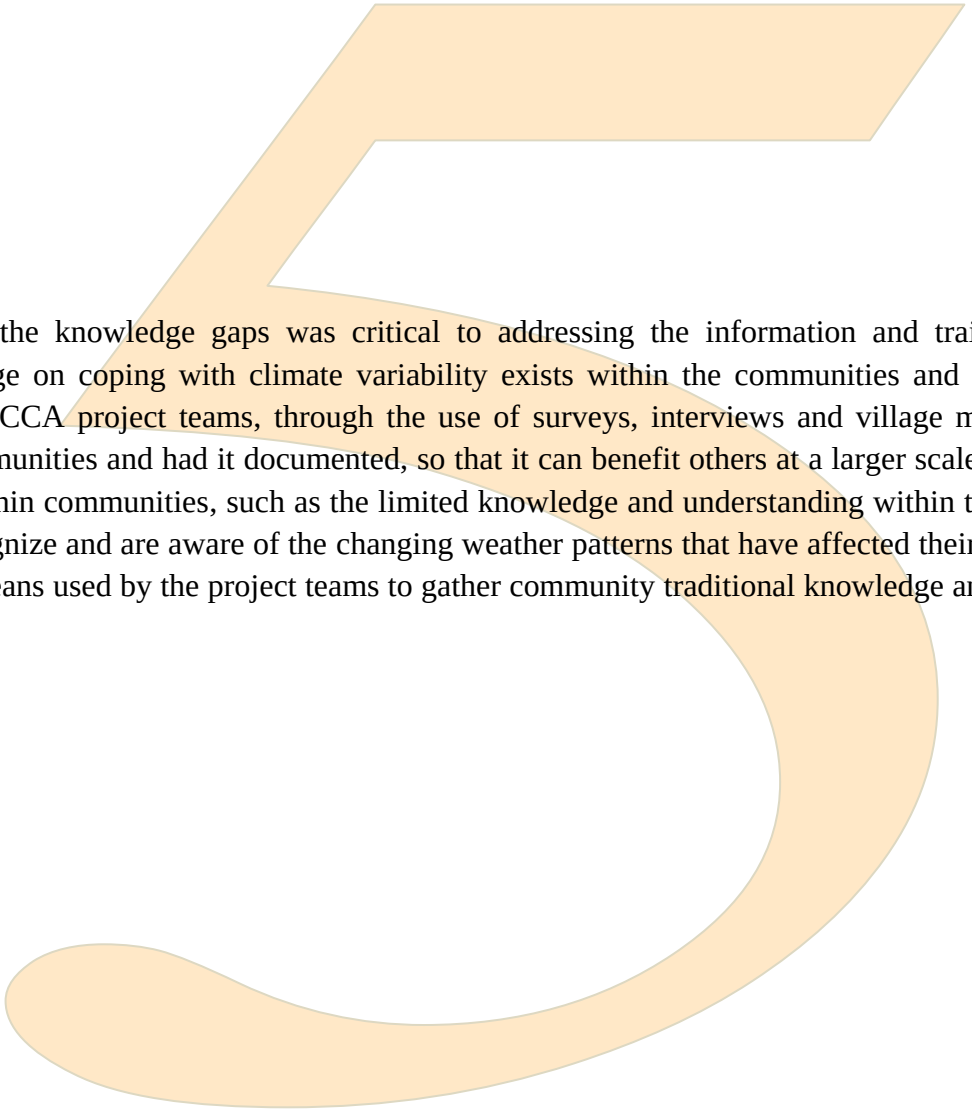


Although the scope and the funds of the project did not allow for the implementation of all adaptation options identified, mainly because considerable funding was required to set up infrastructure, in certain projects, the proposed adaptation options were adopted by the communities and some of the project funds used to implement these options. Some of the adaptation possibilities quickly adopted by the communities included recommendations such as diversifying crops, spraying of households to prevent malaria, among many others. The communities in some of the project sites expressed disappointment that no solutions were immediately forthcoming and this almost frustrated the data collection process. Only after numerous exchanges did they recognize the benefit of identifying adaptation options, as an important step that empowers them to address the threats to their livelihoods. These adaptation proposals have also been submitted to key stakeholders and potential donors and now await funds for their actual implementation. The following table highlights some of the adaptation recommendations identified by the project teams.

Pilot Action	Examples of proposed adaptation options and actions
Nigeria	The activity of soap making was planned, based on a participatory needs assessment of vocational skills for the women folk to complement their fish processing and marketing activities. Also, practical demonstrations on fish handling/smoking, fish meal production and fish feed production were given to one hundred fisher folks, mostly women beneficiaries, of the pilot communities. These activities allow completing their incomes generated from fish processing and marketing activities.
Ghana Afram Plains	Some of the adaptation options identified include: cultivate crops on uplands, off-season vegetables along rivers, maize during the minor season, vegetables right after floods. Also communities were encouraged to plant early in the season, store food for emergencies, create channels or gutters to improve drainage in farms and houses, and build homes on high lands and block/brick houses with concrete foundation.
Mali	Build infrastructure such as irrigation canals in Segou and rehabilitate the village canal. Install solar pumps to provide access to portable water in Kiban and Massabla.
Tunisia/Niger	Local communities and regional partners in the observatories expressed the need to implement climate change adaptation strategies identified during the ACCCA project.
Malawi	Six adaptation options were identified in Malawi from the diversification of crops to encourage farmers to plant more beans, cassava rice and other crops so as to be less dependant on maize, using irrigation farms, rearing ducks versus chickens as ducks can swim during floods inspired by an idea from women in Bangladesh. Also using elephant grass to contain running water that causes erosion and using flood alert systems to inform and prepare households for an oncoming flood.
Kenya -Dry lands	The local communities acknowledged the need to conserve water and 55% expressed need for a water reservoir, and growing of draught resistant crops, sinking bore holes and water recycling All the respondents were in agreement on the need to take up measures individually and collectively to address the problem of water shortage with all of them indicating that re-forestation should be the first priority. Over 89% of respondents felt that the burning of charcoal should be outlawed to conserve the forests and 73% expressed the need to construct dams to harvest the runoff and use this water during the dry spell.
Kenya –Malaria	The planting of Napier grass along water ways reduces the breeding of mosquitoes and is also a source of fodder for the livestock in Emuhaya. The spraying of household was also identified as another effective means for reducing the incidence of malaria and the community was encouraged to frequently test for the presence of malaria parasites especially among children.

Pilot action	Example s of proposed adaptation options and actions
Tanzania	The Tanzanian final report (annex A.XIV) explores adaptation potential for agriculture, livestock production, fish farming, water quality & scarcity and energy sources, such as biogas. The use of new crop varieties and the encouragement of fish farming practices are amongst the suggested adaptations strategies, including the introduction of irrigation schemes around the lake and alternative water sources, such as deep wells.
Ghana-Health	Abating of dam water which involves the use of chemicals to make dam water wholesome for drinking has been identified as a means to reduce guinea worm infection. Furthermore, Soka Pumps fitted with filters have been put in the various dams to prevent the people from walking in the water and contaminating it. Finally rain water harvesting has been recommended and architects are supposed to be tasked to make the basement of every house to be served with a water tank.
Nepal	Promoting insurance schemes/methods has been identified as a means to counter weather disaster risk reduction. The Ministry of Home Affairs of Nepal is currently assessing possible insurance schemes for the community. For more information, see annex A.X.b.
Mongolia	A brochure of the selected adaptation options was published and improved following a national discussion. Synergies of climate change adaptation strategies were elaborated with other government policy, with the “National program to combat desertification” and “Pasture use law” for different ecological zones. Water and riparian ecosystem management, pasture management restoring cultural landscapes (sum consolidation is one mechanism), diversification of income and transformation of some herders into farmers are critical components of the Climate Change adaptation strategy. The Mongolian team reached the target to give serious adaptation policy recommendations to the national authorities (see annex A.IX.c).
India	The actions will target three vulnerable population groups – the farmers, the women and the rural artisans. They will provide them with solutions, necessary capacity building and innovative financing methods for reducing vulnerability.
Philippines	The proposed adaptation strategies depend on the climatic events: during El Niño, the season is monitored and local communities are warned about oncoming floods. During a prolonged dry season, irrigation and water impounding are encouraged. Finally, during La Niña, when pests and diseases increase, pesticides usage was among the proposed option.
Bangladesh	The pilot action team implemented no less than nine adaptation strategies after conducting a multi-criteria analysis of climate change adaptation options (see annex A.I.a). The suggested adaptation options in water logged areas were hydroponics, duck rearing, ring-based vegetable cultivation and charu (fish trapper) making and in saline prone areas, adaptation processes were mat weaving by reed, reed cultivation, crab cultivation, sheep rearing and kewara cultivation.

Identification of critical knowledge gaps



The identification of the knowledge gaps was critical to addressing the information and training needs of all stakeholders. Traditional knowledge on coping with climate variability exists within the communities and has been passed on through the generations. The ACCCA project teams, through the use of surveys, interviews and village meetings, collected this historical knowledge from the local communities and had it documented, so that it can benefit others at a larger scale. This process enabled the teams to identify knowledge gaps within communities, such as the limited knowledge and understanding within the community of climate change even though communities recognize and are aware of the changing weather patterns that have affected their livelihoods. The following table is an example of the various means used by the project teams to gather community traditional knowledge and how this information was then used.

Pilot Actions	Knowledge gaps identification means
Nigeria	In depth interviews with key informants, survey, gender based focus groups, discussions, participatory livelihood/climate vulnerability exposure exercise helped to put forward the knowledge gaps in some Nigerian communities.
Ghana	A cognitive assessment of risk and adaptation was done amongst community focus groups. The survey was done separately for youth, men and women. Historical matrices were solicited from village elders in order to identify periods of food shortage and causes of food insecurity.
Mali	Insights from the range of threats posed by climate change related to water management were used by a scientific organization to develop simulation models in three communities using the WEAP system developed by SEI to assess the physical effectiveness of the adaptation actions. The results of the analysis will be published in a report that will be shared with the global climate community.
Malawi	The results of an assessment showed that whereas the communities attributed the frequent occurrence of disasters to climate change, the communication systems and the use of climate prediction for adaptation was very weak among subsistence farmers. The participatory video was therefore one way of involving the community to identify adaptation options.
Kenya- Drylands	A scoping study done in November 2006 identified critical research gaps with respect to adaptation of dryland households to climate variability and change. Case studies were done to review the coping strategies and site specific guidelines and information tools on adaptation to climate change. Suitable water harvesting techniques were developed for farmers, extension agents and development specialists.
Kenya- Health	Data and pool knowledge were acquired to complement the existing researches. It created a contextualized systems model of climate-sensitive malaria in Emuhaya and Kericho including the identification of hotspots and unstable areas prone to epidemics. An assessment of the existing capacity among stakeholders on the implications of climate-change on malaria was also conducted.
Tanzania	The information gathered from the local communities about the impact of climate change and the climate data from 52 meteorological stations found in the lake Victoria basin enabled the suggestion of new adaptation strategies and crop varieties, as well as the encouragement of fish farming practices, introducing irrigation schemes and alternative water sources such as deep wells.
Ghana- Health	A comprehensive survey on the incidence of malaria was carried out in all 88 communities of Kwabre district of the Ashanti region to assess their knowledge about climate change and the link to malaria and its prevention. The results showed that a link between the increased cases of guinea worm and malaria to the increased rainy season was made by the people interrogated. Outreach materials such as posters were then produced to raise awareness among the community.
Nepal	Information about how climate change affects the socio-economic status and disaster of Putalibazaar Municipality was collected and a trend analysis of extreme events was done. Participatory workshops were held in order to identify adaptation measures and introduce weather and climate information (WCI) and Insurance schemes (IS) as adaptation measures.

Pilot Action	Knowledge gaps identification
Mongolia	Climate trends and variability were analyzed for pilot study sites, using Climate Research Unit (CRU data) resolved spatially at 0.5 degree latitude and longitude from 1990 to 2000 of monthly climate (temperature and precipitation) and weather station data. The climate risks such as zud (extremely snowy winter) and drought (Batima et al. 2005) were analyzed, using risk ranking/scoring method. Vulnerability index of the rangelands (Chuluun et al., 2004 & 2005) consists of zud index (Nazagdorj and Sarantuya 2004) and land use intensity index. Higher zud index and higher land use intensity (exceeding the carrying capacity) results in higher vulnerability of the rangelands to climatic extreme events. This index is an attempt to make rangeland vulnerability assessment both to climate and land use changes, however, interaction of these two factors are not considered and carrying capacity assessment needs an improvement. Vulnerability and adaptive capacity indexes for the rangelands were developed and calculated for pilot research sites. Calculation of the carrying capacity was improved, basing on RS data and modeling exercises. Socio-economic vulnerability assessment and spider (web) analysis were conducted for each pilot site at multiple scales.
India	To facilitate consultations with the communities and experts on climate change, a campaign, titled Sunehra Kal (Golden Tomorrow) was launched in the region. The campaign engaged communities, experts and decision and policy makers in discussions aimed at collectively finding solutions to the threat of climate change. Under the campaign, climate assessments from the Meteorological Department and results of climate change projections and impact assessment on agriculture were used to initiate dialogue with stakeholders. The process of identification and prioritizing vulnerability reduction options is currently being taken forward by an official Core Group formed in the district. It has taken the mandate to identify the vulnerability reduction options available and integrating them in government schemes for large scale promotion.
Philippines	Development of adaptation strategies to climate variability and extremes at the watershed and local scales was undertaken using a combination of participatory approaches. Through this activity, significant amount of information on climate change adaptation to watershed resources and upland farms was generated. This information will form the basis for developing adaptation strategies for climate change which will appeal to both national and local decision makers.
Bangladesh	Adaptation strategies identified were tested in 120 households and the lessons learned documented. The evaluation showed that at least 6 options are viable for scale up at the local and national level.
Tunisia/Niger	A questionnaire was used to assess the impact of climate change and how 20 villages in the commune of Dantiandou were coping with the climate variability and how the land utilization had been affected. The findings were then analyzed and a published.

Discussion of the Results

The objectives of the ACCCA project were achieved by all the Pilot Actions as shown with the increased awareness about climate change, its impacts at every Pilot Action site, as documented for each of them. Furthermore the participatory consultations produced baseline data on community livelihoods and how these were affected by a changing climate, including the identification of knowledge and capacity gaps.

The adaptation options that were identified in most cases have empowered these communities by identifying and addressing the risk to their livelihoods. In addition the bottom-up/top-down approach used to engage all stakeholders can be replicated elsewhere as it ensures community ownership which is essential for sustainability.

A self evaluation of the project, done by each pilot action team, revealed that in general they all agreed that the ACCCA project had contributed to the increased awareness about climate change risks in all the selected project sites and at the national level. Furthermore, the baseline data collected on community livelihoods and vulnerabilities constitutes a major output of the project, valuable as a point of reference for all decision-makers, researchers and the donor community.

The knowledge generated and the adaptation options identified and documented need to be implemented in order for the research findings

to be translated into concrete actions and most importantly for these communities at risk to remain hopeful that “something is being done”.

The results of the ACCCA Pilot Actions are uploaded on the knowledge sharing platform and website of ACCCA (www.acccaproject.org), and are publicly available. The challenge will be to make aware the existence of this information and disseminate it to other interested stakeholders including adaptation practitioners worldwide. The ACCCA closing workshop was organized to coincide with the Bonn Climate Change talks organized by the UNFCCC Secretariat in June 2009 and the results were presented at a side event. Other initiatives such as linking the ACCCA platform to other adaptation platforms such as WeADAPT or AfricADAPT will also ensure that the results and lessons can be replicated by others.

However, the major actions that will ensure the sustainability of the project outputs remain the responsibility of each Pilot Action Team to share the methodology and process with other community sites within their countries. Within the Pilot Action countries this capacity is available and there is a need to upscale actions that are already underway.

Opportunities

- The project made it possible for the various stakeholders to have better access to climate change information; be aware of a wider range of feasible adaptive strategies; and feel empowered to successfully cope with risks from climate change. Thus, communities have been empowered and can make better adaptive decisions.
- The project has also established a very good relationship with the communities, which will allow for future intervention activities.
- The project outputs can be shared and should be linked to adaptation knowledge sharing platforms both at the international and national level.
- Adaptation options have been identified within the communities and thus providing an opportunity to implement them.

Strengths

- Using innovative participatory and networking methods fostered collaboration among stakeholders and led to community ownership.
- Enhanced capacity for stakeholders especially about communicating risks of climate change, identifying vulnerabilities, proposing adaptation actions.
- The establishment of local, national and international networks.
- The project also succeeded in generating baseline information essential for establishing the climate context.

RESULTS

Weaknesses

- The expectations of the communities were raised and difficulties were encountered when communities realized that no immediate solutions/funding were forthcoming but rather that this exercise was merely considered as a collection of ideas.
- The scale and scope of the project was sometimes considered very small to attract attention at the national level within certain countries.

Challenges

- It was difficult to organize community members' gatherings for some of the activities, especially during the main farming seasons.
- Lack of meteorological data and information in certain sites sometimes rendered the data analysis and synthesis impossible.
- If not continued, pilot actions results will be lost for scale up.
- If adaptation action plans are not implemented, partnership with local government and communities might be hindered in future activities in countries.
- Community targeted people (e.g. women, youth, etc.) might forget the issues and thus new investments will be required and the current investment will not be maximized.
- Poor people remain vulnerable and exposed to climate

Looking Forward

The diverse risk communication strategies developed through the projects, enhanced understanding by local communities and policy makers of site specific climate risks, which in turn helped to foster dialogue between the two types of stakeholder groups, while enhancing each group's ability to integrate climate considerations into planning processes, including the empowerment of local communities to develop their own appropriate adaptation options.

Several key questions or considerations emerge with respect to how the progress made under the ACCCA project can be strengthened and sustained in order to support the communities who were involved in the process. How does one sustain the ACCCA effort through institutional strengthening and additional capacity building in support of climate risk communication for adaptation? The two primary areas where support is needed to continue the ACCCA effort concern how to move from awareness to action on implementing adaptation measures, and how to scale up and disseminate climate risk communication in a practical and cost effective manner.

1. Move from awareness raising to action

Each project has developed a set of recommendations for adaptation but there seems to be an apprehension amongst the project teams that the recommended adaptation options will likely not be implemented without additional follow-up support in the forms of additional funding and continued technical support. The teams noted that support

would be needed for activities such as working with vulnerable communities to further elaborate plans for implementation.

Raising the profile of the major findings and capacity built through the ACCCA project within the UNFCCC and NAPA processes is one potential avenue to integrate the project's major recommendations into the NAPA (where relevant) policy channel at the national level and/or through other adaptation strategies plans.

2. Expanding climate risk communication

The various communication methods and outreach material developed such as posters, pamphlets, and television spots, can be expanded to reach a wider audience and require financial resources to produce the supplementary material. These costs will be minimal given that the tasks of developing climate risk communication strategy and the subsequent tools and methods to support that strategy have already been completed under the ACCCA project. What are required are small grants that support the translation of this material and mass printing.

3. Publish guidelines for mainstreaming adaptation in policies

The project teams and support teams agreed that the key lessons and insights gained from the project should be distilled into a set of recommendations, perhaps in the form of briefs targeted at policymakers and communities of practice. Policy briefs for policymakers would focus on how to improve dialogue between this

group and the vulnerable communities in order to foster more climate resilient policy actions and support implementation. A policy brief for the donor community would stress the importance of supporting processes for improving climate risk communication within funding for adaptation and capacity building initiatives. Practitioner briefs would provide a set of guiding principles for climate risk communication and would contain recommendations for developing and deploying risk communication tools and methods preferably in multiple languages.

4. Innovations built on ACCCA– the potential for an adaptation academy

The creative means used to communicate climate information by trainers in vulnerable communities, the tools and methods used to communicate climate risk and build a two-way dialogue between policy makers and local communities, can serve as the basis for an academic model from which experts and leaders at different country scales are trained in specific areas of critical value to the climate adaptation process. Incorporating climate science analysis and risk communication in the academic curricula can help better prepare current and future practitioners. Local leaders and policy makers

would better understand the site specific challenges related to climate change and explore effective ways of communicating this information further. The proposed academy would include a final examination and the recognition of international experts in the field of climate change adaptation.

5. Share and disseminate the knowledge

The knowledge generated under the ACCCA project needs to be shared with the wider international audience. The adaptation options identified, the various communication methods used and the methods adopted to engage all stakeholders can be re-applied by various other countries experiencing similar impacts from climate change. One way could be to link to other knowledge platforms such as WeADAPT and the Global Community Vulnerability and Adaptation Network to mention (but not limited to) some of the platforms promoting social learning/sharing and participative action. The ACCCA platform that served as the knowledge sharing platform and project coordination tool contains a wealth of information and data, as provided by the project teams that can benefit other adaptation knowledge platforms, so that the results can be accessed by a wider audience.

Summary and Conclusions

Overall, the ACCCA project has been evaluated as satisfactory by all primary users in achieving its objective to engage stakeholders and scientific communities, to reduce vulnerability to climate and environmental change, through a participatory and collaborative approach. Notable outputs were:

1. A variety of **risk communication outreach material** used to educate and raise awareness about climate change and the creative and diverse means by which the awareness about climate change and variability was communicated.
2. **Baseline data and information about community livelihoods**, climate change impacts and how these communities are currently coping. The adaptation solutions identified through collaboration is an assurance of sustainability, reinforced especially because community buy-in already exists.
3. **Enhanced capacity** gained through the training of community leaders, skills have been enhanced to lead adaptation efforts as well as training for policy-makers to understand climate science and integrate the findings into development initiatives.
4. **Creation of networks** at the local, national and international level that will sustain enhanced North-South and South-South collaboration.

This approach has led to the creation of a community with the knowledge and expertise necessary to prepare adaptation options.

5. **Adaptation actions** that have been identified and documented.

Furthermore, the diversity of the partners in this project assured that the learning and sharing was a rich experience from which all involved have greatly gained.

The lack of capacity and knowledge to address the impacts of climate change still remains a major challenge in developing countries. This project provides an example of one way this can be solved, but even more importantly, emphasizes the need for adaptation action, a need that the ACCCA project, because of its scope and focus, is still to be met.

The momentum that the ACCCA project has built needs to be maintained and sustained moving the research into action and thereby enabling the most vulnerable to sustain their livelihoods and ecosystems. The knowledge from ACCCA will be dispersed as widely as possible to benefit a bigger audience.

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Picture Acknowledgments

Cover image: ACCCA teams pictures of Bangladesh, Nigeria, India, Ghana and Niger/Tunisia

Pictures: ACCCA teams pictures of Bangladesh, Ghana, India, Malawi, Philippines and Nigeria

