

Report on the

Training and Study Tour of an African Ministers' Council on Water (AMCOW) TAC-Delegation on "Water Security and Climate Resilient Development in the German Water Sector"

Short Report

The training and study tour of an African Ministers' Council on Water (AMCOW) TAC-Delegation on "Water Security and Climate Resilient Development in the German Water Sector" took place from 23 June (arrival of participants) to 30 June 2013 (departure of participants). There were 13 participants from the following countries: Egypt, Ghana, Central African Republic, Zimbabwe, Ethiopia (AU Commission – GIZ), Mauritania, Kenya, Gabon (ECCAS), Chad, Nigeria (AMCOW North Africa), Tunisia, Algeria and Burkina Faso (EcoWas), see Annex 1. The annex includes as well the HR Wallingford, GWP, Overseas Development Institute, Infrastructure Consortium for Africa, GIZ teams/trainers and support team.

The kick off for the study tour was a one and a half day training on the AMCOW/GWP Strategic Framework for Water Security and Climate Resilient Development, the Technical Background Document and Policy Briefs¹. It was delivered by HR Wallingford who, with GWP, led the development of the Strategic Framework. International experts in climate financing, project preparation and M&E provided additional training sessions.

The training was followed by visits to highly professional German institutions, all involved in different aspects of climate change and water research, studies and implementation of adaptation measures. The emphasis of the visits was on sharing and discussing experiences and findings. The institutions visited were

- Potsdam Institute for Climate Impact Research. There the delegation got the latest information on the work of the Intergovernmental Panel on Climate Change (IPCC), on climate change and the IPCC findings, research on a German river basin and in selected African regions,
- German Federal Environmental Agency in Dessau, where the delegation got information on the German National Adaptation Strategy, its genesis, relevance and next steps but also specific information on adaptation measures in the water sector,
- The International Commission for the Protection of the Rhine (ICPR) in Koblenz. The topics presented and discussed were the ICPR as an institution and the international co-operation, the Sandoz-accident as a trigger for the Rhine Action Programme, the 1993 and 1995 floods as well as integrated river basin management and climate change strategy and activities,
- Mosellum, a new information centre at the fish pass in Koblenz beside a hydropower station & a ships' lock. A representative of the Flood Protection Centre in Cologne presented its flood management concept, developed after the 1995 floods,
- Germany's National Meteorological Service, the Deutscher Wetterdienst (DWD), in Offenbach. The delegation got more information on the Global Framework for Climate Services, on climate change adaptation in the water sector and specifically on data management and the climate data center and
- KfW Development Bank in Frankfurt, where climate adaptation finance/ investments were discussed.

The report is supported by the following annexes

- Annex 1 – Study tour delegation, trainers and support staff
- Annex 2 – Study tour programme

¹ Available online at <http://www.gwp.org/en/WACDEP/RESOURCES/WACDEP-Publications/>

- Annex 3 – Summary of the training sessions, resulting discussions and recommended actions
- Annex 4 – Summary of the main discussion points at the institutions visited during the study tour

The evaluation at the end of the tour confirmed the great interest of the participants on the subject of water security and climate resistant development, the training and the visited institutions. They especially appreciated the homogenous visit to get a better and consolidated understanding of climate change and the resilience topic.

Highlights of the programme for them were

- the visit of the International Commission for the Protection of the Rhine, the concept and notion of consensus building of this commission and its work with the European Framework Directive for Water,...
- the visit of the German Meteorological Service, the climate forecasting, data handling, the use of satellites and radar and
- the visit to KfW as a financing institution for climate change.

Equally the training at the beginning was rated as useful for the participants, especially the overview and understanding of the WACDEP programme, the information on project preparation and the overview of the German water sector.

Besides taking home many ideas for studies and climate resilient projects and their possible financing, participants are keen to report in detail to their ministers and departments. They insist that the training and study tour should be made available to other TAC members of AMCOW not present, but as well to their colleagues from the environment departments/ministries and to parliamentarians. They further saw a great need to stay connected as a group that could be extended to possible further participants of similar visits and suggested simple means such as a regular newsletter or an own website/platform.

Hans Hartung
09.07.2013

Annex 1: AMCOW - Directors' Delegation

First Name	Name	Country	Function	Institution
Nehal	ADEL MOHAMED	Egypt	Manager of Studies, minister's Office Deputy Director	Minister of Water Resources and Irrigation Ministry of Water resources Works and housing
Harold Tetteh	CLOTTEY	Ghana		
Sylvain	GUEBANDA	RCA – Bangui	Directeur General de l'Hydraulique Chief Hydrologist	Ministère de l'énergie et de l'Hydraulique Ministry of Water Resources
Zvikomborero	MANYANGADZE	Zimbabwe		
Rashid	MBAZIRA	Ethiopia	GIZ Technical Advisor IWRM, DREA	African Union Commission GIZ
Yehdih	MOHAMED MAHMOUD	Mauritania	Ingénieur Hydrogéologue Principal	Directeur du Centre National des Ressources en Eau
Fred Kyalo	MWANGO	Kenya	Head, Trans-boundary Waters	Ministry of Water and Irrigation
Backotta Désiré Armand	NDEMAZAGOA	Gabon	Expert en Eau	Secrétariat Général de la CEEAC
Younane	NELNGAR	Chad	Conseiller du ministre	Ministère de l'Hydraulique Urbaine et Rural
Laila	OUALKACHA	Nigeria	North Africa Manager	African Ministers' Council on Water - AMCOW
Moncef	REKAYA	Tunisia	Directeur General des Ressources en Eau	MINISTERE DE L'AGRICULTURE – TUNIS- TUNISIE
Rachid	TAIBI	Algeria	Directeur General au Ministère des Ressources en Eau	Ministère des Ressources en Eau d'Algérie
Mahamane Dedeou	TOURE	Burkina Faso	Expert en Eau	Secrétariat Général de la CEDEAO

Global Water Partnership and HR Wallingford

Nigel Walmsley – HR Wallingford

George Woolhouse – HR Wallingford

Sonja Hoess – Infrastructure Consortium for Africa

Nathaniel Mason – Overseas Development Institute

Neil Bird – Overseas Development Institute

Alex Simalabwi – Global Water Partnership

Programme Management in Germany:

Dieter Anders

Kathrin Heinz

Trainer:

Hans Hartung

Seminar Assistant

Luise Lorenz

Translation

Veronika Gruber

Bernd Saure

Jacqueline Recker

Annex 2: Programme

Sunday, 23. June 2013

Arrival of Participants

Monday 24. June 2013

Sorat Hotel Berlin

Training in Berlin Sorat Hotel

- Session 1 - Dieter Anders/Hans Hartung: Welcome addresses by Laila Oulkacha (AMCOW Secretariat) and Dr. Adel Mohamed Nehal (AMCOW TAC); Introduction to the study tour, presentation of participants and overview of the German water sector
- Session 2 - Alex Simalabwi: Introduction to the Water, Climate and Development Programme (WACDEP)
- Session 3 – Nigel Walmsley / George Woolhouse (GWP and HR Wallingford team): Introducing the AMCOW Framework for Water Security and Climate Resilient Development and making the case for resilience
- Session 4 – George Woolhouse (GWP and HR Wallingford team): Climate risk assessment and ensuring decisions are robust under uncertainty
- Session 5 – Sonja Hoess (GWP and HR Wallingford team): Project preparation for climate resilient development

Tuesday, 25. June 2013

Training continued:

- Session 6 – Neil Bird (GWP and HR Wallingford team)- Climate adaptation finance: recent trends and access to finance
- Session 7 – Nathaniel Mason (GWP and HR Wallingford team): Monitoring and Evaluation, its role within climate resilient development

Visit of the **Potsdam Institute for Climate Impact Research**

- Climate change and the latest IPCC findings,
- PIK activities/projects in Germany and in Africa

Wednesday, 26. June 2013

Visit of the **Federal Environmental Institute, Dessau**

“The National Adaptation Strategy – genesis, relevance and next steps”

Mr. Clemens Hasse

- *Section: KomPass – Climate Impacts and Adaptation in Germany*

“Adaptation measures in the water sector”

Mrs. Cindy Mathan

- *Section: General Aspects of Water Quality and Water Resources Management, Groundwater Protection*

Thursday, 27. June 2013

Visit of the **International Commission for the Protection of the Rhine (ICPR)**, Koblenz

Topics:

- Rhine: Characteristics
- About the ICPR and international co-operation
- The Sandoz accident – trigger for the Rhine Action Programme
- The 1993 and 1995 Floods – trigger for the Flood action plan
- Integrated river basin management – EU directives
- Climate change activities in the ICPR
- Study Results on the Consequences of Climate Change for the Rhine Catchment
- Development of a climate change strategy

Visit of the “Mosellum” in Koblenz with an introduction to its objective and function

Presentation of Flood management of the city of Cologne in the Mosellum by Mr. Fuchs

Friday, 28. June 2013

Visit of **Germany's National Meteorological Service, Offenbach**

- GFCS - Global Framework for Climate Services
- Climate Change Adaptation in the water sector
- Climate Change Adaptation in agriculture
- Climate Data management in Germany and International Cooperation (SASSCAL)
- New climatologies – based on satellite and radar
- Climate predictions

Visit of **KFW Development Bank, Frankfurt/Main**

Evaluation of the training and study tour

Saturday, 29. June 2013

Visit of Frankfurt, Departure

Sunday, 30. June 2013

Departure

Annex 3: Main discussion points during the training and the visits of the institutions

Introduction

The Global Water Partnership (GWP) is supporting AMCOW in the implementation of the Water, Climate and Development programme (WACDEP). The programme supports implementation of the African Union Heads of State climate change related commitments in the 2008 Sharm el Sheikh Declaration on water and sanitation, and runs from May 2011 to April 2016. Initially, WACDEP starts in eight African countries and five transboundary river basins / aquifers all over the continent. The WACDEP aims to integrate water security and climate resilience in development planning processes, build climate resilience and support countries to adapt to a new climate regime through increased investments in water security.

In order to support the WACDEP programme, GWP and AMCOW developed the Strategic Framework for Water Security and Climate Resilient Development. The Framework is aimed at high level decision makers and sets out key activities which can be undertaken to integrate resilience into planning and decision making processes and increase investment in water security. This is accompanied by a set of policy briefs with key messages from the Strategic Framework and a Technical Background Document which provides more detailed tools and methods to enhance climate resilience.

The study tour kicked off with a training on the Strategic Framework, Technical Background Document and Policy Briefs.

Given the broad scope of the Strategic Framework it is not possible to cover all aspects in detail and the training focussed on selected themes, including particular interests expressed by the AMCOW TAC. These included:

- Increased awareness of the AMCOW Framework for Water Security and Climate Resilient Development;
- Gain an overview of the main aspects of the Framework and its rationale;
- Improved knowledge on key aspects of the Framework including:
 - Risk assessment and decision making under uncertainty;
 - Climate Finance availability and access;
 - Preparation of bankable projects for climate change adaptation;
 - Monitoring and Evaluation for climate resilience.

The training was delivered using a mixture of presentations, open discussion and group working activities. It was delivered by HR Wallingford who, with GWP, led the development of the Strategic Framework. International experts in climate financing, project preparation and M&E also provided training sessions which gave more detail on those subjects. The training aimed to both disseminate the Strategic Framework as well as being a forum for sharing experiences and lessons from African countries.

Training sessions feedback

This section summarises the main conclusions and discussion points following each of the sessions. The presentational material is provided in Appendix B. The points here provide very brief summaries and concluding points rather than a detailed transcription of discussions.

Session 1: Introduction to the study tour and presentation of participants

Hans Hartung asked participants to comment on the item in the study tour programme of most interest. The following points summarise participant responses:

- Rhine River Commission (transboundary water management);
- Floods and drought management (extremes);
- Concept of water security and climate resilience;
- Climate change impacts on water supply / security;
- Climate change – how to integrate into policies;
- Financing (generally);
- Water quality;
- Early warning / drought warning;
- Managing water scarcity;
- Actions Germany has developed for resilience;
- Financing mechanisms;
- Regionally coordinated actions.

Following the initial question Hans Hartung presented an overview of the German Water Sector, policies practices and challenges. The following bullets summarise the main questions and conclusions:

- Contrast between Germany and Africa – water variability, evaporation, main uses (industry / agriculture / municipal);
- Germany has strong legislation and regulation, but how are these implemented in practice (financial framework / conflict resolution / assigning costs e.g. flooding);
- Recent flooding – responsibility for assigning costs (transboundary / federal / state level);
- ECOWAS developing water directive – how to learn from EU WFD?
- Water should be managed at the lowest practicable level;
- Role of the private sector increasingly important.

Session 2: Introduction to the Water, Climate and Development Programme (WACDEP)

Alex Simalabwi introduced the AMCOW/GWP WACDEP programme and Framework for Water Security and Climate Resilient Development. The following bullets summarise the key discussion points following his presentation.

- Framework provides generic pan-African guidance, for translation into local country contexts. It is not a manual;
- Definition of no/low regrets required;

- Practical advice on how to get access to climate funds remains a key question;
- Sub-national and local levels should not be neglected in planning;
- Continuity in government staff can be a challenge for implementing programmes such as WACDEP. The AMCOW TAC to be mechanism for continuity;
- WACDEP and Framework works across sectors and ministries;
- Financing for infrastructure is important for Africa;
- Terminology is problematic but important amongst some financiers / stakeholders.

Session 3: Introducing the AMCOW Framework for Water Security and Climate Resilient Development and making the case for resilience

Nigel Walmsley presented an introduction to the AMCOW Framework for Water Security and Climate Resilient Development. He then requested participants to identify two challenges and one opportunity for climate resilient development. The responses were then mapped onto the Framework stages to assess how the Framework can be used to help solve these challenges. Figure 3.1 provides a summary of the challenges and opportunities, the number in brackets suffixed to some points indicates how often these points were repeated.

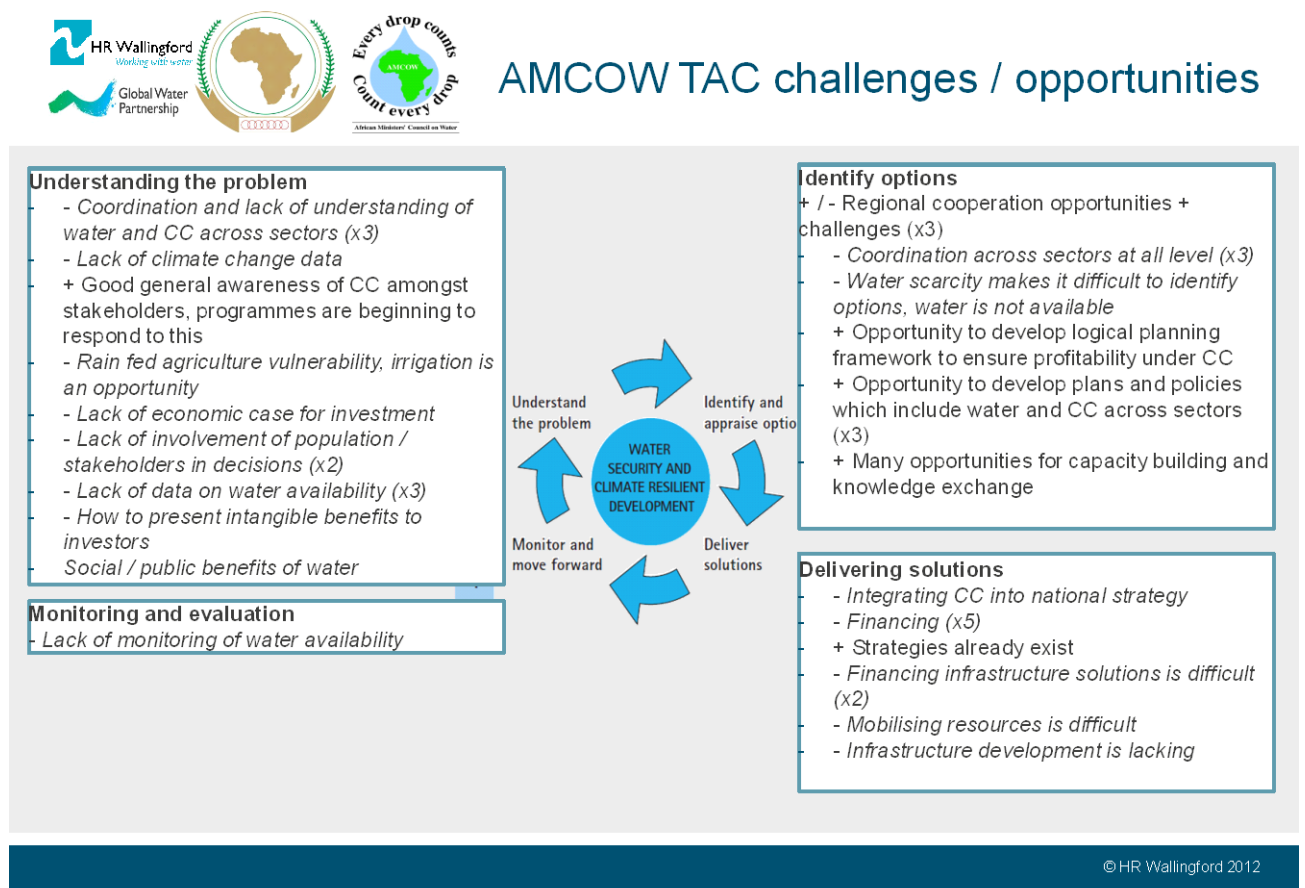


Figure Error! No text of specified style in document..1: Summary of the main challenges and opportunities for climate resilient development (challenges in italics)

George Woolhouse presented some tools and approaches related to making the case for resilience to influence decision makers. This was followed by group working to respond to three questions. The questions and a summary of responses are given below:

In your experience:

1. What arguments and evidence have greatest influence on key policy makers?

- Internal evidence – national development priorities;
- External evidence – international commitments and conflicts;
- Future scenarios and technical assessments of impacts;
- High level economic arguments (e.g. %GDP);
- Natural disasters provide a strong catalyst for change, political impetus.

2. What information is currently lacking to make this case and how can the evidence be generated / synthesised?

- Water data + impacts on societies and economies lacking;
- Little groundwater data;
- International sharing of data lacking;
- Data quality issues;
- Modelling and simulation of impacts and produce data;
- Sharing / publishing of studies.

3. Compared to written evidence how important are the role of personal relationships, influential champions and successful partnerships in making a strong case?

- Personal relationships bring benefit based on trust / flexibility / good neighbourliness / competence / skills;
- Shared benefits key to successful partnership;
- Mechanisms for managing institutional relationships important (governance).

Session 4: Climate risk assessment and ensuring decisions are robust under uncertainty

George Woolhouse introduced key terminology for, and approaches to climate risk assessment. This session was cut short due to overrunning discussions during previous sessions. The complete slide set, including slides not presented at the workshop, has been included in the appendix. The feedback from the subsequent discussions are focussed around the use of terminology for risk assessment and are summarised below:

- Probabilities are important for making the case to decision makers;
- Lack of reliable data for extremes is an issue for those informing decision makers;
- Common language and understanding on terminology for climate risk is important but challenging (IPCC);
- The distinction between adaptation and resilience is not clear in the developing country context.

Session 5: Project preparation for climate resilient development adaptation

Sonia Hoess presented on the Infrastructure Consortium for Africa (ICA) assistance in project preparation for 'bankable' projects. This was followed by discussions and questions from the participants which are summarised below;

- ECOWAS is already working with ICA on regional major water infrastructure initiatives. ECOWAS has developed guidelines for development of infrastructure, to be converted into regional directive;
- Environmental impact assessment should come up front in project preparation;
- Sustainability is a key consideration in project preparation (Sonja concurred, proper project preparation should consider sustainability through the entire preparation process; enabling environment, legislation etc.);
- AMCOW TAC members made the recommendation to host smaller regional training workshops on project preparation, regionally in Africa;
- It was noted that the opportunity for further discussions on training in project preparation and funding with KfW and GIZ could occur later in study tour;
- Questions over what does bankability mean? It can comprise social, environmental, economic gains. Economic benefits are often required to secure private finance whereas public finance can fund less economically tangible benefits.

Session 6: Climate adaptation finance: recent trends and access to finance

Neil Bird presented an introduction to financing for climate change mitigation and adaptation:

- Dedicated climate change funds are important, but in the near term national budgets are important in delivering investment in adaptation and mitigation;
- Mitigation and adaptation in the water sector are heavily interrelated, it is an artificial divide so consider both aspects when accessing climate funds;
- Although the climate finance landscape is complicated, it is cost beneficial to invest in understanding the landscape in order to access funds, which in general are not seeing substantial disbursement;
- National climate funds may have some benefits but they also create parallel processes which hinder the mainstreaming of climate resilience into planning processes;
- Accessing climate funds for transboundary projects and initiatives requires a much higher level coordination than accessing for a simple national application;
- Green Climate Fund may go some way to simplifying the climate finance landscape, at present it is assumed to be split 50/50 adaptation/mitigation.

Session 7: Monitoring and evaluation, its role within climate resilient development

Nathaniel Mason presented a session on Monitoring and Evaluation for climate resilient development, followed by a short group working session. This session was cut short due to overrunning discussions during previous sessions. The complete slide set, including slides not presented at the workshop, has been included in the appendix. The feedback from the subsequent discussions are summarised below;

- Monitoring and evaluation of projects and programmes was not identified as being a challenge for climate resilient development during session 3. Is this because M&E systems are adequate or because M&E is an afterthought / less important than implementation concerns?
- A lack of familiarity with the Logical Framework approach to M&E was expressed;
- Difficulty in expressing qualitative social gains in indicators relative to economic information.

Session 8: Round-up

A final closing session provided the opportunity to reinforce the main messages and present a synthesis of the outcomes of the sessions over the 1½ day Training Workshop. Finally a set of next steps and areas for action were identified by participants:

- Regional project preparation workshops with ICA to go into further detail with real case study examples;
- Follow up activities in country in communication with GWP;
- Move towards making linkages with bilateral agreements, mechanism for sharing information on these;
- Implementing WACDEP across Africa rather than in the eight countries and 5 basins;
- Embedding WACDEP within RECs was considered useful;
- There is a need to translate some of the Framework principles into the regional and country level details;
- Key question remains on how to assess climate change risks without recent hydro-meteorological data;
- There is a need for better understanding of baseline conditions, including groundwater as the basis for assessing climate change risk;
- There is a need to align with and be aware of international indicators, to better evaluate options for resilience;
- There is a need to follow up on approaches for good transboundary water management from German experience;
- Much work has already been completed, There is a need to capitalise and share this body of work, in order to better develop indicators;
- The new AMCOW workplan needs strategic level M&E framework to demonstrate results.

Conclusions and recommendations from the training sessions

The training was well received by the AMCOW-TAC participants and based on the lengthy and fruitful discussions, the subject matter for the sessions was fully aligned with the priorities and interests of the TAC members.

The sessions were pitched at a relatively high level, highlighting key points rather than delving into detail which resonated well with the audience for whom a high level appreciation of a broad range of issues is most useful in their role as advisers. However, this did identify areas where in the future more detailed training workshops would be beneficial.

Recommendations on the next steps include:

- Some 14 AMCOW-TAC members attended the training workshop, whereas the total number of members exceeds 50. A large cohort of TAC members therefore have yet to benefit from the training.
 - **Recommended action:** Repeat the training workshop for the AMCOW-TAC members who were unable to attend. Two workshops each for ~15-20 participants is recommended, and these could be held back-to-back with planned AMCOW-TAC meetings or events.
- Regional challenges across Africa are highly diverse and it is difficult to discuss shared issues of water security across such diverse climatic, geographic and political regions without diluting or generalising issues and responses.
 - **Recommended action:** Regional Training Workshops are instigated in each of the five African regions (North, South, East, Central and West) to allow more focussed discussions on regional issues and the presentation of region-specific case studies.
- The workshop necessarily covered a very broad range of topics related to water security and climate resilience. This did not allow for detailed consideration of any one particular issue (e.g. climate finance).
 - **Recommended action:** To allow a drilling down into specifics, to have more focussed thematic workshops in each region, addressing specific requirements identified by the AMCOW TAC.
- Strengthening capacity is a continuing process, not a one off event. A mechanism to provide feedback on how the training has been used in practice, and where future gaps may lie would enable lessons to be learned and future capacity development to be more targeted.
 - **Recommended action:** GWP/AMCOW-TAC to consider the most appropriate mechanism for monitoring, feedback and evaluation, preferably using an existing reporting channel.

Annex 4: Main discussion points during the visits to the institutions

Tuesday, 25 June 2013

Potsdam Institute of Climate Impact Research

Inputs:

- **Backgrounds about Atmosphere Climate by Peter Hoffmann**
- **Climate Impact Research in Germany: A focus on Water Management in the river Elbe basin, by Hagen Koch**
- **African Case Studies: Vulnerability Assessment, by Stefan Liersch**

Discussion Points:

Data

- Satellite data are too large, they have to be reduced
- Potsdam Institute use climate data, but as well land use and hydrological data
- PIK provides climate data which are freely available and which we can make available
- PIK works on different research projects across the African continent, partly with GIZ and EU

Models

- Forecast models must be specific for one region
- Models are based and calibrated with data of the past
- Depending on the degree of precision, we include economic data (effects on tourism e.g.) or greenhouse gas emission changes
- The model presented on the Elbe river basin was developed over 9 years and cost 8 Million Euros
- There are global models, regional models and local models with increasing degrees of precision
- PIK works with local partners in Africa, PIK is in touch with stakeholders on many levels
- PIK always uses a number of different models for a concrete regional or local “research project”

Wednesday, 26 June 2013

Federal Environmental Agency

Inputs:

- **The National Adaptation Strategy; KomPass – Climate Impacts and Adaptation in Germany by Clemens Hasse**
- **Adaptation measures in the water sector by Cindy Mathan**

Discussion:

European level

- Since April 2013 there is an European Climate Adaptation strategy, developed much later than national strategies
- On the European level, we usually discuss how to harmonise existing differences and settle conflicts on different approaches and priorities

German level

- There is no direct collaboration by Environmental Agency with the International Convention to Combat Desertification, as drought is not a major problem in Germany
- Irrigation is only a very small part of Germany's water use, but the Agency is starting to look how to decrease even this quantity, as there might be problems in the future with low river flows in the summer in some areas of Germany
- The drinking water consumption per person has decreased considerably in Germany due to metering every household, moderate to high water charges per m³, improvements in Non-Revenue Water and awareness of the population
- The private sector is involved in formulating policies and strategies: the drafts are circulated to industry and NGOs and they can give their comments which will be taken into account in the final policy or strategy
- Constant adaptation of existing laws is a better strategy than creating new laws
- The institutional arrangement of the environmental sector was briefly explained, putting emphasis on the federal constitution of Germany
- The German Adaption Plan of Action was made available to the delegates – as well as other publications of UBA
- Further questions regarding the work of the Federal Environmental Agency can be sent by e-mail to our guide, Ms. Heinicke, who will forward it to the experts concerned

Economic instruments

- Insurance companies insuring against environmental risks assist the Environmental Agency to carry out an economic evaluation of risks as they have monetary data on damages of the past
- The Environmental Agency is collecting and developing economic models to assess and value environmental services of nature as a global good
- The "polluter pays" principle and abstraction fees are well established in Germany as economic instruments

Thursday, 27 June 2013 - 1

International Commission for the Protection of the Rhine, ICPR

Inputs:

- **The Rhine: Managing a European river by Dr. Anne Schulte-Wuelwer-Leidig**

Discussion:

The commission

- **Website:** www.iksr.org
- All conventions, rules of procedures and financial regulations are on the website
- **There is an interesting film on the work of the commission to be seen at:**
<http://www.iksr.org/index.php?id=363&L=3&rel%3Dexternal=>
- The commission has only 13 people at its headquarters in Koblenz; 250 people are working for it in their home countries
- There are 5 members and the EU, other riparian countries have observer status
- First the commission was only there to combat pollution, afterwards ecological aspects, groundwater and floods were added
- There is an informal coordination committee which deals with all countries and they work well together – to design and get agreed a new convention would just take 6 to 8 years of precious time
- The distribution of fees for the states: Germany, France and the Netherlands have the main share
- Switzerland is an important member. They do not implement the EU directives but work in the same direction
- There is a different commission for navigation on the Rhine
- There are often too many lengthy discussions; especially in Germany with the federal system, where all “Laender” have their own water legislation
- There is a separate data collection centre for Europe, where the river data are collected and analysed

The work of the commission

- 80 billion Euro has been spent on wastewater treatment since 1978 along the Rhine river and will be spent up to 2020
- The Sandoz accident triggered a whole new view on the river and its environment
- The floods 1993 and 1995 triggered coordinated action plans for floods
- Storage of water in retention areas is a big topic now
- The Technical report 200 details the retention work (available on the website)
- More than 250 parameters are measured and the decrease of many harmful substances is impressive
- Salmon 2000 was used as a symbol to clean the river up to the year 2000

The future

- Challenges from the Water Framework Directive: improve ecology, establish free migration ways for fish, improve habitat diversity and biodiversity
- Another challenge is reporting; there is a legal basis now with the Water Framework Directive
- The relationship with spatial planning has to be intensified

Lessons learned

- After the Sandoz incident and the floods, things were possible, which were not possible before! But you have to be fast to use the momentum of such events!
- But does it need always disasters to get “things” moving?
- Politics, media and other accidents contribute to the work in the commission
- These are interactive processes: the population’s interest/will and political will have to somehow complement one another.

Thursday, 27 June 2013 - 2

Venue: Mosellum

Input:

- **Flood Protection in Cologne by Gerald Fuchs**

Discussion about flood protection

- “A tamed river runs wild”
- Areas near the river are good farmland – cities are growing along the river, i.e. why rivers are dammed and straightened (e.g. the Rhine is now 70 km shorter, only in its course in Germany)
- People forget about floods (there were 70 years of no floods in Cologne)
- The mobile protection system in Cologne (with aluminum bars) costs around 1,2 mill Euro per km
- Beside protection walls, one needs to demarcate no-go areas at the mobile walls (so that people do not steal the elements) and you have to construct pumping stations to pump the drainage water out from the protected zone
- There are cheaper protection methods than the mobile systems of Cologne: e.g. concrete slabs, wooden beams, dams....
- Here in Europe you have only material damages – in the countries in the South, there is often loss of human lives
- In Cologne, there are 48 hours to prepare but in the South people do not have good early warning systems – but in some instances, there is just no time for warning the population (e.g. extremely intensive rainfall in the area)
- Every town has to find its own system of protection and early warning system, as conditions vary greatly

Friday, 28 June 2013 - 1

DWD, Germany's Meteorological Service

Input:

- **GFCS (Global Framework of Climate Services) and its national implementation by Dr. Paul Becker**
- **Climate Change Adaptation in the Water Sector by Andrea Becker**
- **Climate Change Adaptation in Agriculture by Dr. Cathleen Fruehauf**
- **Climate data management in Germany and international cooperation (SASSCAI) by Frank Kaspar**
- **New climatologies – based on satellite and radar by Dr. Rainer Hollmann**
- **Climate Predictions @ DWD by Barbara Frueh**

Discussion

- DWD is collecting data and provides them to other institutions
- DWD works on the federal level and provides climate information to the “Laender” (province) level; consultancy services for the Laender is important
- DWD provides information on water until it has reached the ground and then passes this information to hydrological centres
- In Germany, 15 sectors have been defined as climate affected sectors
- The Global Precipitation Climatology Centre (GPCC), website: <http://gpcc.dwd.de> is located here with DWD. DWD collects the data and archives them and can give quality assurance information for these data
- The German Climate Portal is as well operated by us
- Another product of DWD is the German Climate Atlas
- DWD is digitalising old data, not only from German weather stations but as well from 1500 old German weather stations around the world
- Important information: There is an Integrated Flood Management Help Desk, www.floodmanagement.info
- DWD's data are free for official use, for research – but DWD does not (yet) put all data in the public domain (without knowing what happens with them)
- The Global Runoff Data Centre is in Koblenz, DWD hosts the Global Climate Data Centre
- For some regions in Africa, DWD makes climate predictions
- There are 2 initiatives for climate data management and international cooperation financed by the German Federal Ministry of Education and Research - BMBF, called SASSCAL and WASCAL
- There are possibilities of support for different meteorological services by DWD
- Remote sensing by satellites and radar has temporal and spatial advantages and can be combined with “old style” data
- DWD's aim is to get to “seamless predictions”, i.e. that DWD can predict the climate as well for one month up to 5 years, which is normally not covered by any models
- DWD can cooperate on seasonal climate predictions by e.g. having a look from global climate models; we are as DWD interested in stakeholders in East Africa (esp. from the agricultural sector)
- Future cooperation is important for DWD in view of flood and drought events
- **Any further questions can be directed to Claudia Rubart <Claudia.Rubart@dwd.de>**

Friday, 28 June 2013 - 2

KfW – Kreditanstalt fuer Wiederaufbau

Input:

* **Financing Adaptation to Climate Change** by Katja Eichner

Discussion

- Germany has 50 so-called “partner countries”, which get priority funding; this is politically decided upon
- KfW does as well cooperate with supra-national institutions in Africa
- There are many funding channels for KfW, depending on the status of the country, the topic, etc.
- There are no specific guidelines for project formulation
- Climate risk assessment is just one assessment of many others when a project is formulated
- ECOWAS is piloting adaptation measures for a big dam project on an international river basin (Benin-Togo)

Final discussion at Intercity Hotel, Frankfurt Airport

Question: What was the most important learning experience for me?

* **The Rhine Commission** was mentioned by 7 participants, being a very good example (9 countries, only 5 are in the commission – but everybody is in the coordinating committee), the valuable learning about international river basin management and how they share information, the integration of the European Framework Directive for Water, their reporting system, the concept and notion of consensus building, e.g. also integrating Switzerland, which is even contributing funding, the good working together of the countries and their management for the best common good, in short: their governance system.

* **Germany’s Meteorological Service DWD** was one of the most important institutions to visit by 6 participants, the information received there, how to forecast climate, how to use satellites and radar for integrating climate information into water resources management, DWD as a centre that has very good information.

* **The training course** as a whole was mentioned by 2 participants, as Climate Change is a reality and we have to take it seriously in our (African) development projects; the water sector and climate change have to be linked better and the sensitive information of how to present projects; especially the **project preparation session** with Sonja Hoess (3 participants mentioned this particular session).

* **KfW** as a financing institution for climate change adaptation and financing models for projects was appreciated by 2 participants as the most important learning aspects.

* **The example of flood protection by the city of Cologne**, how they plan for it and how they combat floods was very important for 2 participants.

* The overview of the **German water sector** was very important for 2 participants.

* Two participants found **the whole week as a homogenous visit**, having learned about climate change and all aspects of it for a better understanding. They found the German climate adaptation as very rich and very useful.

Question: What and how will I transfer the experience of this week to my country/my region

All participants agreed that they consolidated their view on climate change; they can and will use the experience and information they got over the week within their countries and projects and even got new ideas to push climate adaptation forward.

- Three participants mentioned explicitly the briefing of their minister, colleagues and staff of the ministry,
- Three participants want to convey and use the information on climate financing and formulation of projects,
- Two participants want to assist in implementing WACDEP and start studies on climate relevant topics,
- One participant wants to make the course available to other TAC members and
- Another participant wants to lobby for capacity building for regional climate models in Africa

Other participants mentioned

- Their ability to give and seek assistance for the implementation of the Water Framework Directive in West Africa
- The use of the technical and financial information received
- The start of a water information system with the aim to implement early warning systems
- The implementation of a regional water data centre
- A network for climate adaptation in the country and
- A Round table on water policy.

Important questions to the colleagues present and GIZ at the end:

- **Can we start a network between us as participants of this study tour, where we share information between ourselves (and maybe other colleagues who may get the benefit of a similar training and study tour in the future)?**
- **Can we repeat this tour for other participants to get as well such a wonderful tour and maybe take in environmental people as well (who sit on the money) and maybe also take in parliamentarians?**
- **Can we try to define what the global models tell us for the different regions in Africa?**