



Documentation

1st International Workshop

Adaptation to climate change: putting knowledge into action

24 – 25 November 2011

in Durban, Republic of South Africa

On behalf of



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and Nuclear Safety

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Registered offices

Bonn and Eschborn, Germany

T +49 228 44 60-0 (Bonn)

T +49 61 96 79-0 (Eschborn)

Friedrich-Ebert-Allee 40

53113 Bonn, Germany

T +49 228 44 60-0

F +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1-5

65760 Eschborn, Germany

T +49 61 96 79-0

F +49 61 96 79-11 15

E info@giz.de

I www.giz.de

Environment & Climate Change Division
Competence Centre for Climate Change

Responsible

Dr. Nana Künkel

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Executive Summary

The first international workshop of the global project '**Inventory of Methods for Adaptation to Climate Change**', which is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Potsdam Institute for Climate Impact Research (PIK), took place in Durban on 24-25 November 2011. The workshop brought together around 50 practitioners and researchers from Indonesia, Philippines, Tunisia, Mexico, South Africa, UK, Switzerland, and Germany to exchange knowledge and experiences with decision-support related to adaptation to climate change, both from a scientific as well as from an application-oriented perspective.

An opening session featured panelists with expertise in climate, environmental politics and climate knowledge brokering. The subsequent parallel working groups provided the opportunity to share country experiences and discuss current challenges on 'Climate compatible development', 'Vulnerability analyses and impact assessments', and 'Climate services and data/information provision'. Further on, during a market place of country experience, participants shared a wealth of detailed information on current activities within their countries.

Based on the needs and interests of participants, preliminary future focal areas for the community of practice were identified. With regard to '**Climate Proofing and mainstreaming**', group members agreed to gather and showcase lessons learnt, as well as success and failure stories; to create a pool of resource persons on climate proofing knowledge, and to develop a communication strategy for adopting climate proofing as a tool. Participants interested in '**Adaptation indicators, monitoring & evaluation**' would like to work together on clarifying when adaptation M&E should be done, by whom and how. They see a need for capacity development in this area that they hope the project can address and they plan to keep each other informed of the development of M&E of adaptation at the international level. With regards to '**Climate Information/data**', participants showed interest in sharing climate information (both historical and projected) and generating data for the same region. Additionally, they agreed to target the issue of tools and methodology for data analysis. Participants interested in '**Vulnerability Assessments**' were interested in capacity development measures to set up indicators for vulnerability assessments. In addition, they discussed sharing methodologies and information currently used, and developing guidelines for conducting vulnerability assessments. **Sustainable transition pathways** and **comparable impact assessments** are areas of work that would merit exchange particularly from a scientific perspective.

The workshop provided participants with ample opportunity to exchange information, to form bilateral cooperation agreements and to design the thematic outline of a vibrant Community of Practice. At the end of the workshop, participants agreed to set up an exchange platform and exchange e-mail addresses to enable 'autonomous' networking, and to ally with existing networks such as Nairobi Work Programme and Adaptation Partnership. In order to move the thematic discussions forward, the IM project will develop a first draft of concept papers for each of the four focus topics, which can then act as the basis for further discussion. A second international workshop will take place in the second half of 2012; in the meantime, participants will strive to keep alive the Community of Practice through virtual exchange and national meetings.

1 Background and Workshop Objectives

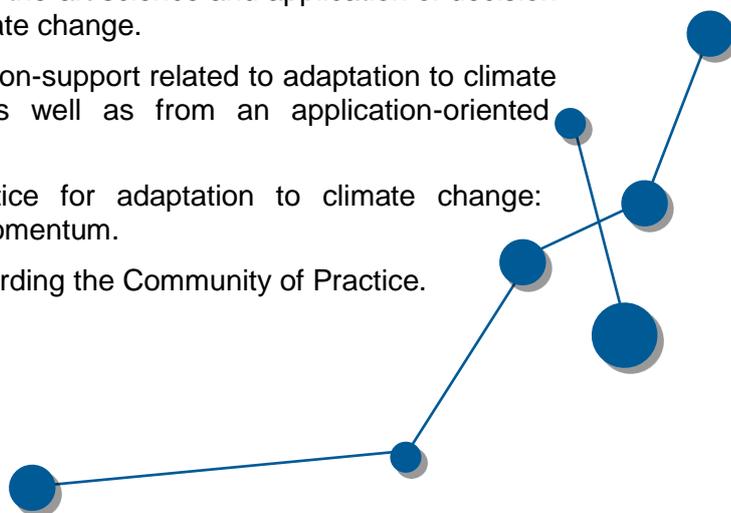
The workshop took place in the context of the global project 'Inventory of Methods for Adaptation to Climate Change', which is being implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Potsdam Institute for Climate Impact Research (PIK) on behalf of the International Climate Initiative (ICI) of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

The project intends to provide further support in adaptation research, e.g. in terms of the development of standardised assessment methodologies and in respect of the development of suitable transition pathways to sustainability. To bring this knowledge into practice the project has established a 'Community of Practice for Knowledge Exchange and Learning on Adaptation'. This network is understood as a means for exchange and peer review between practitioners and a testbed for developed concepts and methodologies. With about 50 participants from the project partner countries Mexico, Tunisia, Indonesia, Philippines and the host, South Africa, the workshop marked the beginning of a series of three international events taking place over the next two years. Together these events constitute the backbone of the Community of Practice, which aims to encourage learning, exchange of knowledge, identify knowledge gaps and foster a more in-depth collaboration between practitioners, decision-makers and scientists from partner countries in the field of adaptation.

Of particular relevance to this community is the challenge of transitioning to mitigation and adaptation-compatible development, and in particular addressing the question 'How to support efficient decision-making related to adaptation/mitigation to climate change?' While each of the three workshops runs under a focal theme, they offer enough flexibility to adapt to upcoming demands and needs of participants. Further virtual collaboration and exchange on national levels will be facilitated between the workshops.

The objectives of the 1st International Workshop "Adaptation to climate change: putting knowledge into action" that took place from 24 – 25 November 2011 in Durban, Republic of South Africa were:

- Sharing of information about state-of-the-art science and application of decision support related to adaptation to climate change.
- Exchange of experiences with decision-support related to adaptation to climate change, both from a scientific as well as from an application-oriented perspective.
- Launching a Community of Practice for adaptation to climate change: Exploring its potential, generating momentum.
- Agreeing on the further process regarding the Community of Practice.



2 Process and Findings

2.1 Opening Session

Nana Künkel, head of the project 'Inventory of Methods for Adaptation to Climate Change', opened the workshop and welcomed the roughly 50 participants. Subsequently, participants were invited to get to know each other. The group aligned itself according to different criteria such as *country of origin*, *professional background* or *previous experience with decision-support for adaptation*, which revealed the group's diversity. During the alignment process along the steps of the adaptation process (from climate trends, impacts, adaptation options, prioritisation, to implementation + Monitoring and Evaluation (M&E)), it became obvious that all steps were almost evenly covered – with many participants involved in multiple steps. This proved to be a great starting point for two days of fruitful discussions - an ideal basis to engage in communities of practice.



Picture 1: Participants getting to know each other

To prepare for the subsequent panel discussion and as an entry point to the workshop topic, participants were asked to discuss two questions in smaller groups and to share results in the plenary: *What is your understanding of adaptation decision support? And what makes good decision support?* Decision support (oftentimes supported by computer-based systems) intends to help decision-making in a given field of work. Such systems do not make decisions, but they support experts through providing robust input into decision-making. Within the process of decision-making, identifying suitable options, planning, prioritisation and implementation were seen as those stages where adequate support is important.

The **translation of technical knowledge into practice-oriented decisions** was mentioned as an important characteristic of “good” decision support. Thus there is the need “*to analyse available climate information so that it is easy to communicate and can be understood by decision makers*” (Rizaldi Boer). Further, it was stressed that the **planning horizons for decision makers** have to be considered. Therefore, the communication of climate trends may be more suitable, rather than long-term scenario-based information. Considering that decision makers face many problems at once, there may be other priorities that have to be taken into account. Efficient and effective decisions can be supported through the provision of unbiased and scientifically sound information that require little effort of the decision maker. While a range of options should be offered, they should point in a clear direction. Also, available knowledge needs to be translated into “policy language” with tangible, concrete and local options, as “*the local is where adaptation happens*” (Michael Hoppe). Generally a range of advanced tools are necessary to make decision support possible and enable strategic decisions.

2.2 Key Note



Picture 2: Ravendra K. Pachauri

In his video message to the workshop participants IPCC Chair Dr. Ravendra K. Pachauri briefly explained the need for institutional mechanisms, tools and techniques that will allow societies to adapt to climate change. He illustrated his points with examples from agriculture and health. One billion small-scale farmers in Asia, Africa and parts of Latin America are likely to be vulnerable to changes in precipitation patterns. However, climate impacts on humans would go beyond droughts, floods, and extreme weather events as there would also be an increase of infectious diseases. In this regard, he highlighted the importance of scientific capability and knowledge as a basis for developing response strategies and measures for adaptation and emphasised the potential role of the GIZ/PIK project “Inventory of Methods for Adaptation to Climate Change” Moreover, he referred to the IPCC Special Report that was released on 19 November which deals with extreme weather events and our ability to adapt to the impacts of these extreme events. Finally, he wished participants fruitful discussions with an impact on the following UNFCCC negotiations.

2.3 Panel Discussion

The following four panellists each provided a short thematic input before entering into discussion with the audience:

- Dr Sylvester Mpandeli, Department of Environmental Affairs, South Africa
- Commissioner Naderev M. Saño, Climate Change Commission, Philippines
- Professor Rizaldi Boer, Bogor Agricultural University, Indonesia
- Ms Megan Gawith , United Kingdom Climate Impacts Programme (UKCIP)

Dr. Mpandeli elaborated on the climate policy formation process in South Africa. On a national level, a comprehensive strategy was drafted while including significant stakeholder involvement in the process. In 2006, the long-term adaptation scenario project was completed, helping to identify priority areas of action (e.g. vulnerability assessment, mainstreaming). The South African national climate change adaptation plan that will outline concrete actions to be taken is currently under preparation. At the same time, mainstreaming of climate change into all departmental policies is ongoing. Dr. Mpandeli emphasised that a main focus has been given to the local level: “*At the local level is where adaptation needs to happen.*” Communities that will be most strongly affected by climate change impacts are often the most vulnerable (e.g. limited access to technology and finance). Thus local governments are supported to mainstream adaptation measures into local development plans.



Picture 3: Sylvester Mpandeli



Picture 4: Yeb Saño

Reflecting on how decisions can be taken to adapt to climate change under the lack of precise projections of future climatic changes and resulting impacts for different regions, *Commissioner Saño* stated that this uncertainty presents a significant challenge to policy makers. Nevertheless, as global climatic trends are confirmed, it is necessary to take action now, even without complete information, he said, using the words of J. Meynard Kenyenes: “*It is better to be approximately right than to be precisely wrong.*” What need to take place are appreciation of the present, analysis of the past and approximate anticipation of the future.

Commissioner Saño emphasised the importance of long-term planning and of integrating climate change into development plans. Selection criteria for adaptation options should include non-disturbance of food production and economic production as well as protecting ecosystems. It is important that the selection process does not consume too much time, as is the combination of different measures (no single action will result in effective adaptation). Adaptation is both a science and an art, requiring creativity, innovation, courage and commitment. Knowledge networks and communities of practice can play a key role in exchanging and analysing experiences and in defining best practices in adaptation.

While referring to the role of science for adaptation practice, Professor Rizaldi Boer pointed out that science can help practitioners on all levels understand how a system will likely be affected by climate change. Referring to the previous speaker he said that “*science helps us to be approximately right.*”

Consequently, reactive measures can be turned into proactive activities; hence spontaneous adaptation can be turned into planned adaptation. Decisions should be based on combining different climate models under different scenarios. Climate information should also be used for the identification of climate-related vulnerabilities of communities and farmers. With regard to agricultural practices, Professor Boer emphasised the importance of capturing valuable indigenous knowledge. Moreover, capacity building of affected groups, such as farmers, is essential. For example, if farmers can make use of long-term climate forecasts and are aware of long-term shifts in precipitation patterns it is more likely that they will be able to adapt their agricultural techniques accordingly.



Picture 5: Rizaldi Boer



Picture 6: Megan Gawith

Megan Gawith made clear that an organisation that has relevant climate data at its disposal does not automatically take informed adaptation action. “*Access to understanding of climate change does not automatically lead to informed adaptation action.*” Instead, UKCIP has adopted a two-tiered approach when dealing with its clients from government and businesses: firstly, general headings, such as ‘it is getting hotter’ or ‘periods of drought and heavy rain will increase’ should be communicated. As a next step, specific impacts that are particularly relevant for the client can be examined in greater scientific detail. Furthermore, the relevance of adapting to climate change to business/policy success should be pointed out clearly by relating climatic impacts to specific objectives of the client. Adaptation support needs to be tailored to the organisation’s needs and requirements. It is, for example, important to consider that many other factors apart from climate change influence the

success of a certain decision to be implemented. More generally, in order to bridge the gap between science and practice in adaptation to climate change, learning and exchange on an international level is vital.

During the subsequent discussion, Professor Boer highlighted that even though science can only provide approximate estimations of future climatic changes, there are many examples of communities having used these estimates to implement effective adaptation action. Commissioner Saño stated that physical and social science need to merge in order to create a better understanding of adaptation needs and risks. Dr Mpandeli pointed out that policy making is already based on scientific estimations of climate change (e.g. related to the more frequent occurrence of extreme weather events), even though less uncertainty would be desirable.

The issue of determining an adequate level of stakeholder involvement was also raised. The panellists made clear that no objective criteria exist as of yet and that the national context plays a crucial role. In addition, the importance of integrating indigenous knowledge into policy making and in assessing vulnerabilities was underlined. “*We have to blend indigenous knowledge with scientific knowledge.*” (Dr Rosa Perez). In the Philippines, for example, local development plans already integrated indigenous knowledge. But Dr Mpandeli also made clear that getting indigenous people to use probabilistic forecasts requires significant awareness raising. In a nutshell, combining indigenous and scientific knowledge remains a challenge. Another major discussion point was how science should look like in order for it not to be a barrier but instead to support decision-making processes. Apart from the two-tiered approach Megan Gawith mentioned, the identification of thresholds beyond which impacts would worsen considerably was found to be useful information to practitioners. Furthermore, the issue of long-term planning needed for successful adaptation action was brought up. Science can help by predicting long-term changes e.g. in the water flow of streams. Large businesses in the UK that are involved in long-term investments such as infrastructure have already begun to climate proof their investments.

Finally, participants emphasised that all participating countries share similar challenges and perspectives, namely: taking effective decisions on adaptation based on scientific knowledge; integrating adaptation into development, including the dissemination of scientific knowledge to the local and municipal level; and identifying concrete measures, priorities and objectives to help the vulnerable population adapt.

2.4 Working Groups

Before participants gathered in three parallel working groups, Alfred Eberhardt from the Ministry of Environment of the State of Schleswig-Holstein, Germany, explained why methods and tools are only good in as far as they lead to better (informed) decisions on climate change/adaptation. In his presentation “*Framing the decision-support discussion: How can tools / methods support successful adaptation?*” he emphasised that tools / methods have to be able to perform certain functions to play a useful role in decision-making. They should:

- help focus on what really matters
- reduce complexity
- lead to conclusions which can be digested by the decision-makers
- be manageable by institutions involved in the preparations for decision-making
- be part of clear processes and working structures

Alfred concluded that a more detailed understanding is needed on how policy decisions are being taken and how the methods and tools can support good decision-making. He summarised his ideas in the following overview and invited the audience to further explore options for decision-support through methods and tools, conditions for their successful application during the working groups as well as further challenges for adaptation decision-support throughout the workshop.

Policy decisions/ planning are successful if...	Translation to CC	Options for support through methods and tools – Examples:	Conditions for successful application
...steered through goal oriented process (non-erratic)	Apply systematic process steps where possible	Climate Proofing	
...able to cope with complexity	Focus on relevant impacts, select optimal measures	Vulnerability Assessment	
...able to achieve support in networks of differing interests	Involve stake-holders affected by climate change	All participatory tools	
...able to integrate different sector policies	Mainstream adaptation in relevant sectors	Climate lens	
...being accountable	Keep accountability over long periods	Continuous M & E systems	

Explore last two
columns
through concrete
examples,
exchange of
experiences etc.

Add possible
further lines:
What are your
biggest
challenges



Working Group 1: Climate-compatible development

Inputs from

- Ms. Syamsidar Thamrin, Indonesian Deputy Director for Climate and Weather, National Development Planning Agency (BAPPENAS)
- Mr. Marco Antonio Herrera García, Director of Air Quality and Climate Change, Secretariat of Environmental Sustainability and Land-Use Planning, State of Puebla, Mexico
- Dr. Dominik Reusser, Potsdam Institute for Climate Impact Research (PIK), Germany

In her detailed presentation *Syamsidar Thamrin* described the high vulnerability of Indonesia to climate change and the significant amount of greenhouse gas emissions in Indonesia. She presented the Indonesian response strategy, including the adaptation strategy 'Indonesia Climate Change Sectoral Roadmap'. Challenges to tackle climate change adaptation and mitigation were also addressed, including the lack of data availability. Lastly, Syamsidar presented the newly developed concept of a reward system for local governments if they comply with pre-determined targets for GHG mitigation, adaptation and pollution.

The subsequent discussion focused strongly on the idea of establishing a reward system for local governments based on clear indicators. Syamsidar clarified that such a system is already fully operational in Indonesia with regard to mitigation (e.g. within the energy sector), and is planned to be established next year for adaptation. Currently the question of defining indicators is being dealt with. Tunisian participants expressed great interest in the topic as in their country a reward system is currently being developed too. Protection of farm land and forest, as well as air and water

quality will be rewarded. It was emphasised that local efforts cannot protect large ecosystems, which is why a local reward system needs to be complemented by activities at the regional and national levels.

Mr. Marco Antonio Herrera García gave a comprehensive presentation on how the Mexican state of Puebla is tackling adaptation and mitigation of climate change. Analyzing 127 years of climate data, it was established that Puebla faces an increase in extreme weather events, drought and temperature. Detailed impact and vulnerability maps have been compiled for various topics (including e.g. temperature, rain, distribution of malaria, biodiversity). It became clear that poor communities in Puebla are at greatest risk of being affected by adverse effects of climate change. On the mitigation side, various initiatives are operational, including the monitoring of burned biomass, reforestation, reducing the number of old cars, energy consumption and championing renewable energy.

In the subsequent discussion Marco stressed that the State of Puebla engages stakeholders from academic institutions, government, and civil society in the development planning process. He moreover clarified that implementation of measures at the local level needs to be improved, for example through capacity development of local governments. The State of Puebla supports local governments in the areas of research, identifying concrete measures and in communication. An interministerial panel has been established to facilitate coordination of efforts. Sanctions can be imposed on local governments that do not comply with certain regulations. But the State of Puebla exerts only limited influence on local governments, among other factors due to insufficient legal structures.

Dr. Dominik Reusser presented a modelling system of future pathways available to a society that is currently being developed at PIK. The model aims at identifying ways of combining mitigation, adaptation and development efforts so as to create a sustainable, low carbon society. It is composed of a complex network of interactions between different sectors within economy, society, and environment. By quantifying key variables and interactions between them, different transition pathways for society can be calculated. The option space available to policy makers can be identified and implications of different policy choices or major changes in environment/society can be concretised.

Syamsidar from Indonesia expressed strong interest in using the model at the national level. Dominik clarified that data requirements are not very high (key variables and their interactions have to be quantified) and that the application of the model requires only modest modelling skills. The software being open source makes a national application even more likely. It was moreover emphasised by Dominik that any conceptual input will be highly appreciated.

Working Group 2: Vulnerability analyses and impact assessments

Inputs from

- Anne Holsten, Potsdam Institute for Climate Impact Research (PIK)
- Kamel Tounsi, Institut Sylvopastoral Tabarka, Tunisia
- Tri Wahyu Hadi, Institut Teknologi Bandung (ITB), Indonesia

After a welcome by Anne Hammill from the International Institute for Sustainable Development, participants were once again asked about their role in the adaptation process, with the following result: The majority considered themselves as supporting decisions while some are involved in decision making itself.

During the first presentation, Anne Holsten gave an overview of experiences and examples from vulnerability or impact assessment in Germany. She particularly emphasised defining the project aim and target group as crucial entry points for such assessments. For the actual scientific analysis she provided examples of modelling approaches from the health and forestry sectors as well as a framework for a cross-sectoral vulnerability assessment.



Kamel Tounsi gave insight into a regional climate vulnerability assessment of the cork oak ecosystem in Tunisia. Using geographic information systems the assessors quantified vulnerability based on biophysical, climatic, agricultural and vegetation factors using thresholds and weighting factors. To deal with uncertainty, less accurate components were given less weight. The results were translated into action plans to change the management of most vulnerable sites.

Dr. Tri Wahyu Hadi presented vulnerability studies carried out in Indonesia as a basis for decision-making. These were subject to a set of assessment criteria: Applicability, integration/mainstreaming, benefit and replication potential. Stakeholders were involved in validating the results. He concluded that vulnerability assessments are highly applicable given a sufficient data basis.

The first part of the discussion revolved around challenges of vulnerability assessments as a basis for decision-support. Here, lack of data, available methods, stakeholder involvement and the interdisciplinary nature of the approach were discussed.

Experiences from Mexico, shared by Andrew John Rhodes Espinoza, have shown that the spatial dimension is also a critical issue (e.g. landscape or administrative level). In addition, challenges also arose from involving stakeholders throughout the process, thus going beyond the validation of results by them. Also the transfer of methods to the regional context has been identified as a barrier. The group also concluded that the issue of uncertainty involved in vulnerability assessments is challenging for stakeholders. Sometimes, a shift in focus to the stresses on the systems or its sensitivity can provide a more solid basis for decision-makers. Clear prioritisation and application of no-regret measures can be helpful too.

In the second part of the discussion, practitioners from the decision-making side were asked to share their experience as well as to give advice to the scientific field regarding the operationalisation of vulnerability assessments.

“It does not always require model outputs”, suggested Paul Desanker, since they are often too technical and less focused on the demand. Rather simpler approaches should be expanded to include economic damage in order to highlight the relevance of the impact. Alfred Eberhardt also highlighted the need to ensure ownership of decision-makers for the assessment, which could be achieved by formally launching the process at the political level. Agnes Balota raised the challenge of synchronising different time horizons of planning instruments and vulnerability assessments in practice. Also, actions are often determined by political time horizons: *“The probability of action depends on the probability of the respective politician to be re-elected”*, was her experience from collaboration with politicians.

Astutie Widyarissantie stressed the importance of maintaining the memory of the process of a vulnerability assessment, such that it is included in “political books” independent of an individual politician. Keeping a good documentation (e.g. who was involved and how) can help to re-establish a project even years later, added Andrew.

Working Group 3: Climate services and data/ information provision

Inputs from

- Nadia Manasfi (GIZ), Tabea Lissner (PIK)
- Alexander Serrano, GIZ Mexico
- Dr. Rosa Perez, GIZ Philippines

The working group on climate services was structured along three main questions: (1) What are climate data/information provision platforms? (2) Who uses climate services and at what stage of the decision-making process? (3) What is the added value of national climate services? To start the session, examples of existing climate service platforms were presented. The website www.climateplanning.org is a good entry point to find a suitable climate service, as it provides several criteria to narrow down the search for a suitable tool. The *ci:grasp* platform (www.cigrasp.org) was presented as an example of how communication of complex scientific results can be achieved. An additional regional example of climate services (the German Regional Climate Atlas: www.regionaler-klimaatl.de) was given. Further input highlighted the results of a first workshop on climate services for climate change adaptation in Mexico, while a presentation from the Philippines gave a good idea of how to address the main questions stated above.

Generally, climate services are a means of providing climate related information and putting them into a relevant context. They are not necessarily limited to climate data itself, but can and should also provide information on the socio-economic context and vulnerabilities and may also provide possibilities for interaction.

The discussion raised many interesting questions and topics. Relating to the question of global versus national platforms, it was agreed that both provide important tools which complement each other, however both serve different purposes. While global platforms can synthesise results and encourage learning between regions, detailed national information considering the local context is essential for actual planning purposes. Global platforms can serve as an example for the development of national platforms while national platforms are able to deliver

local level entry points to climate information. Moreover, national platforms can link different data and information sources of a country. Ideally, both platform types would be connected for best information access.



Guy Midgley raised a very important point regarding the levels of uncertainty associated with climate models and scenarios and their use for adaptation planning. Climate data of the past and related vulnerabilities can be measured with certainty

and thus offer a reliable basis for planning. Scenarios on possible future change on the other hand are highly uncertain and often also go past decision-makers' planning horizons. Therefore both past and future climate information need to be considered in adaptation planning. There was strong agreement that realities on the ground should enter the planning process as reliable sources of information on actual vulnerabilities. In the context of vulnerability assessments the point was raised by participants from the Philippines that huge amounts of data are needed for adequate assessments; data provision and sharing for these services should thus become a high priority.

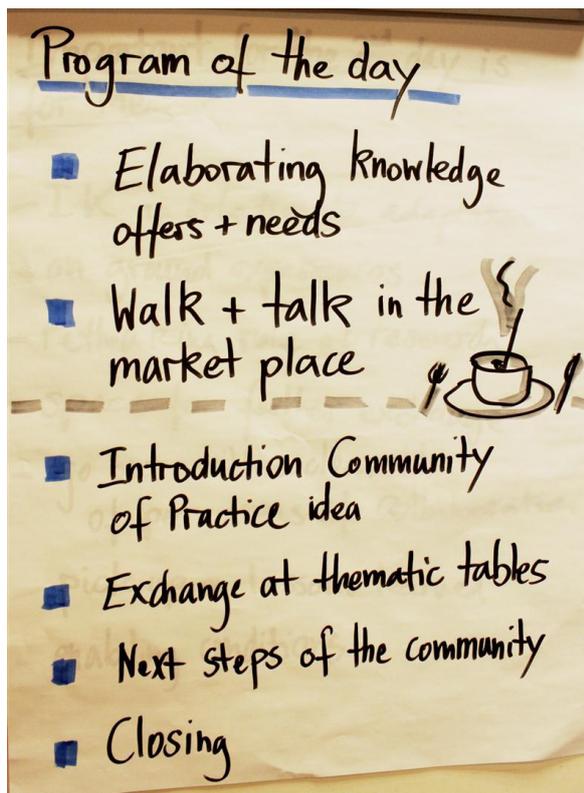
Another important discussion topic was the adequate “packaging” of climate information to be suitable for decision-making. Accompanying interpretation of data and results is essential: *“Politicians sometimes misuse information, so we always have to give the interpretation clearly!”* (Yusif Salib). While a range of options and scenarios should be provided, sufficient supporting information to make a suitable decision is essential, as interpretation by non-specialists may go wrong. Involving communication specialists in the translation from science to policy could be very valuable to ensure efficient and correct decision-support. Those providing the climate services should thus *“put themselves into the boots of those who use the information”* (Guy Midgley).

Several success factors for climate services to efficiently support decision making were identified. The user needs have to be clear and the entry points of the information into the decision-making process have to be known. Also, information and data have to be reliable and credible. Institutions that require climate change data should engage in regular data and information sharing via an institutionalised mechanism. Public-private partnerships can be important modalities to raise overall awareness and enable local action. Last but not least financial support is important for effective information transfer through climate services.

Generally, the discussion went well with good participation. Inputs from Mexico, Philippines and PIK/GIZ were short and concise and fit the questions. The result confirmed a previous assumption that there is a need to learn more about user demand/need – especially with regards to decision making processes – when providing and packaging climate information.

2.5 Market Place of Adaptation Knowledge Needs and Offers

In the morning of the second workshop day, participants gathered in country groups in order to prepare a market place. The market place was supposed to highlight knowledge and experiences participants can share in the community as well as to identify the blind spots / the questions that are relevant to the community in the future. After preparing pin-boards in country groups participants had the opportunity to explore the market place. The results of the two morning sessions are depicted on the following pages.

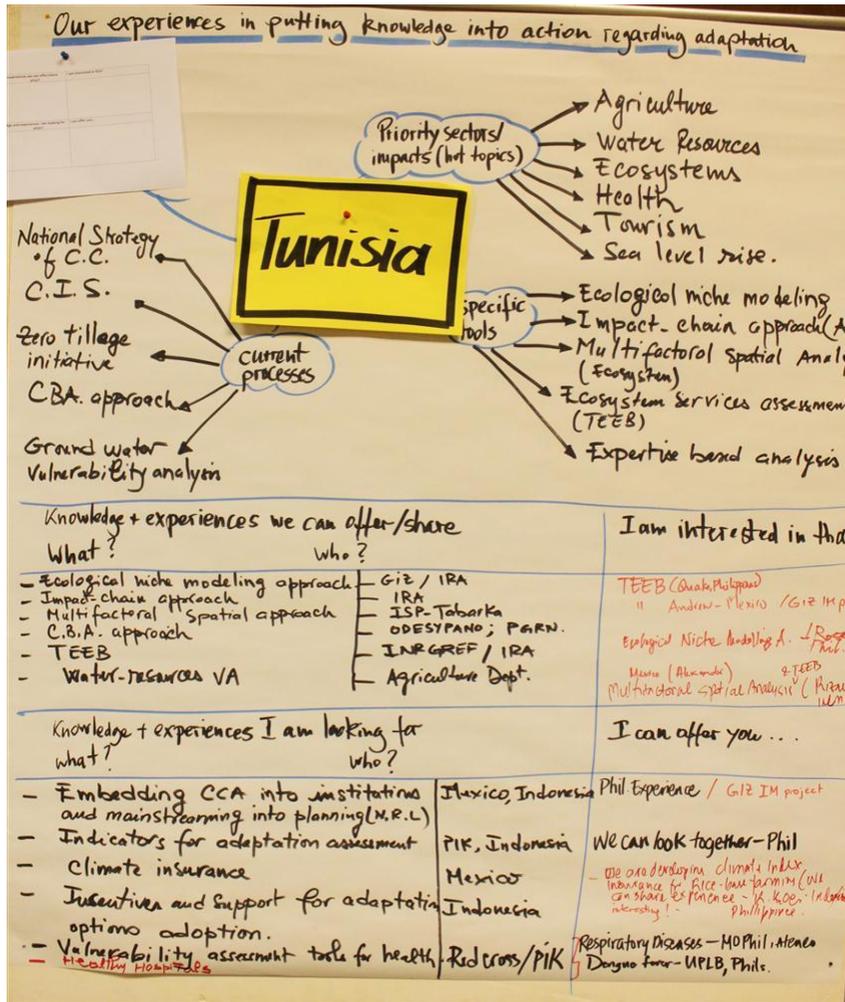


Indonesia



Knowledge and experiences we can offer/share		I am interested in that
What?	Who?	
<ul style="list-style-type: none"> Vulnerability assessment <ul style="list-style-type: none"> - Community based (Tunisia, Rajaa) - Sectoral based (Tunisia, Mohamed) - Ecosystem based 	Rizaldi, TRI Research institute	GIZ Tunisia (Ghazi) Lessons learnt (GIZ Inv. of Methods project) on VA & Mainstreaming Climate data rescue (PH) Overlaying Hazard + vul. Map / long term land use plans (PH)
<ul style="list-style-type: none"> Mainstream CC 	Idai, Kus, Gunawan, Sahla (Tunisia) Bappenas/Bappeda/BLH/KLH	Best practices in agriculture Hue- Iris (Mexico)
<ul style="list-style-type: none"> Financing institution Bappenas / DNPI 	Armi, Bu Idai Bappenas/Bappeda/BLH/KLH	Best practice/lessons – mainstreaming – IISD (Tunisia + Rajaa)
Knowledge + experience we are looking for		I can offer you
What?	Who?	
<ul style="list-style-type: none"> Indigenous knowledge (IK) 	Philippines, Tunisia, Mexico	Exchange visit with /PH (long overdue!)
<ul style="list-style-type: none"> Loss and damage evaluation tools 		<ul style="list-style-type: none"> - VA guidelines, tools
<ul style="list-style-type: none"> Climate proof development programs? 		<ul style="list-style-type: none"> - Financing – climate data/info - Integrated coastal Mgt (ICM) - Integrated watershed Mgt - Orientation on CP4D
<ul style="list-style-type: none"> Effective climate services for agriculture and water resource management and forest fire wing 		<ul style="list-style-type: none"> - Orientation on CP4D Experiences from other countries (e.g. Morocco), training (GIZ Inventory of methods project)

Tunisia



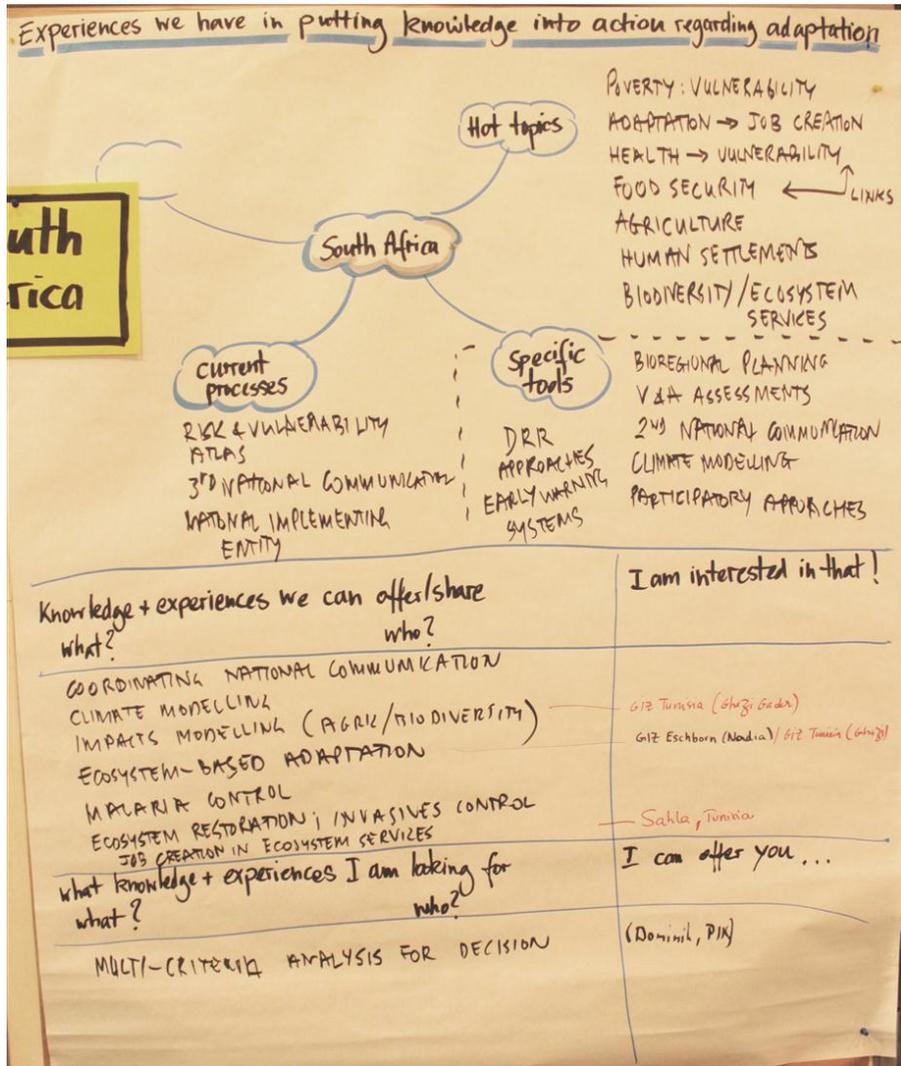
Knowledge + experiences we can offer/share		I am interested in that?
What?	Who?	
Ecological niche modelling approach	GIZ/IRA	TEEB (Quake, PH) TEEB Andrew, MX / GIZ IM project
Impact-chain approach	IRA	Ecological niche modelling A. (Rose, PH)
Multifactorial spatial approach	ISP-Tabarka	Multifactorial spatial analysis & TEEB (Rizaldi, IND)
C.B.A. approach	Odesypano ; PGRN	Water resources VA (Alexander MX)
TEEB	INRGREF/IRA	
Water resources VA	Agriculture Dept.	
Knowledge + experiences I am looking for		I can offer you ...
What	Who?	
Embedding CCA into institutions and mainstreaming into planning (N.R.L.)	Mexico, Indonesia	PH. experience
Indicators for adaptation assessment	PIK Indonesia	We can look together - PH
Climate insurance	Mexico	We are developing climate index insurance for rice base family (we can share experience - R. Boer, Indonesia)
Incentives and support for adaptation options	Indonesia	
Vulnerability assessment tools for health	Red Cross/PIK	Respiratory diseases - Mo Phil, Ateneo Dengue fever - UPLB, PH
Healthy hospitals		

Philippines



Knowledge and experiences we can offer/share		I am interested in that
What?	Who?	
<ul style="list-style-type: none"> - Crop models : rice, corn - VA framework for coastal and agric., forestry and water / tool kit (MDGF) - e.g. CTI, coral triangle initiative - Early warning system - Weather forecast - Health surveillance system - CP4D, climate programme for D/T - EBA approach, MPA networks - Climate projections, scenarios - RS GIS mapping analysis - Climate analysis (regional climate modelling; observation) - Data rescue - PDP (Philippine development plan) - PNRPS, Philippine national REDDT strategy - National CC action plan 2011-2028 - Ecotown approach - National framework strategy on CC 2011-2022 	<ul style="list-style-type: none"> - Ecotown approach – Andrew (MX) - Mainstreaming and climate proofing (Sahla, Tunisia) + implementation CCA option - Climate proof water, infrastructure (R. Boer, IND) - Real experiences / process for designing CP4D (R. Boer) - Data rescue + early warning system, Matthieu Lux (IND) + Johannes Ariyanto (IND) - Ecotown approach gun.wicak@yahoo.com - Experiences/lessons learned on how the planning / mainstreaming processes are coordinated / implemented (Nana) - RS GIS Mapping: GIZ (Ghazi, TUN) 	
Knowledge + experience we are looking for		I can offer you
What?	Who?	
ccc/ Success stories	COP practices	<ul style="list-style-type: none"> - On COP practices/ CC success stories → formats, (GIZ IM project) + other combined experiences - Best practices on agriculture adaptation - Iris /MX) Dynamic crop calendar (IRRI- 11 December 2012
ccc/ Data information exchange	CCC/ Technology transfer	
Financial support	CCC/ Other V vs. A frameworks	
	CCC/ New methods on Analysis	

South Africa



Knowledge and experiences we can offer/share		I am interested in that
What?	Who?	
Coordination national communication		
Climate modelling		
Impacts modelling (agric / biodiversity)		GIZ Tunisia (Ghazi Gader)
Ecosystem – based adaptation		GIZIM project (Nadia) / GIZ Tunisia (Ghazi)
Malaria control		
Ecosystem restoration; invasive control		
Job creation in ecosystem services		Sahla, Tunisia
What Knowledge + experience am I looking for?		I can offer you
What?	Who?	
Multi Criteria Analysis for decision		(Dominik, PIK)

Mexico

Which experiences (successes + interesting failures) do you have in putting knowledge into action with regard to adaptation to CC?

national alliance for CC in protected areas: "resilient Mexico"
Adaptation to CC impacts in the Mexican Sep networks

Priority sectors/impacts (hot topics)
 - risk management
 - agriculture
 - water
 - forests
 - biodiversity
 - energy & industry & services
 - public health
 - land use & urban development
 - transport & communications infrastructure

Specific tools
 - capacity building
 - national programme on CC for protected areas
 - monitoring in high altitudes of greenhouse gases (Puebla)
 - CC education centre (Puebla)
 - guide for elaborating adaptation programs for protected areas
 - Vulnerability Atlas
 - vulnerability atlas for hydrometeorological risks
 - Prioritization tool for adaptation measures (capacities, forests, biodiversity, water) including GIZ benefit analysis (crop rotation, irrigation)

Current processes
 - CCCC interministerial commission on CC
 - SI-Adapt: Working group on adaptation
 - MPA: adaptation policy framework
 - ENA: national adaptation strategy
 - ECCAP: CC strategy for natural protected areas
 - adaptation program for natural protected areas
 - PEACC: state action plans on CC (e.g. non-mangrove systems)
 - scientific network on CCA for agriculture
 - PECC: Special Climate Change Program 2009-2012 (5 million USD)
 - 142 Adaptation goals

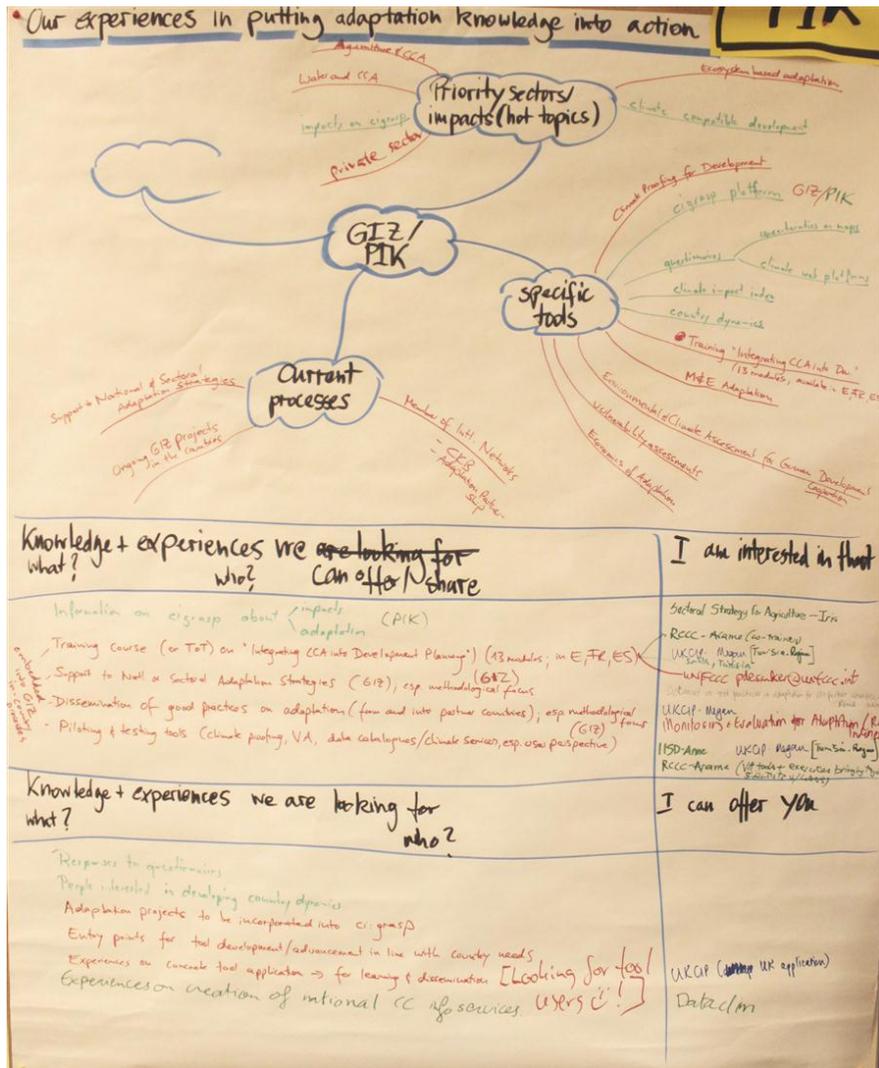
Knowledge + experiences we can offer/share		I am interested in that
What?	Who?	
- invitation to realize next event/conference in Mexico/Puebla - Mexico	Marco	Risk-transfer mechanism exp (Espaldona, Victoria, PH)
- protected area case studies (coffee, landslides, risk management, wild fires, restoration...)	Andrew	Climate insurance (Rose, PH, Sahla, TUN)
- sharing of information/experiences related to mindmap above	all	Embedding CCA into institutions Mainstream CCA into planning at Regional, local levels (Sahla TUN) Climate insurance (Santi, Gunawan, IND) Climate center interactive (Quake, PH, gun_wicak@yahoo.com , IND) GIZ IM Project, GIZ Tunisia Exchange visit with the Philippines
What knowledge + experiences I am looking for?		I can offer you
What?	Who?	
Best practices of adaptation	All Mex. participants	
Communication strategies for CCA	Andrew & Iris	UKCIP - Megan / GIZ IM Project
M&E, indicators	All	UKCIP - Megan / GIZ IM Project
Know-how in development of climate services	Alexander	UKCIP - Megan / GIZ IM Project
Experiences working with local organisations on CCA (of UKCIP & others)	All	UKCIP - Megan / GIZ IM Project
How to correlate cc scenarios with impacts in different sectors	Marco	Tunisia, Rajaa
Transition model (PIK)	All	
Payments of ecosyst. services as tool of adaptation	Andrew, Alexander	

What knowledge + experiences I am looking for?
 - transition model (PIK)
 - payments of ecosystem services as tool of adaptation
 - Alexander, Alexander

I can offer you...
 - UKCIP - Megan / GIZ IM Project
 - UKCIP - Megan / GIZ IM Project
 - UKCIP / GIZ Tunisia

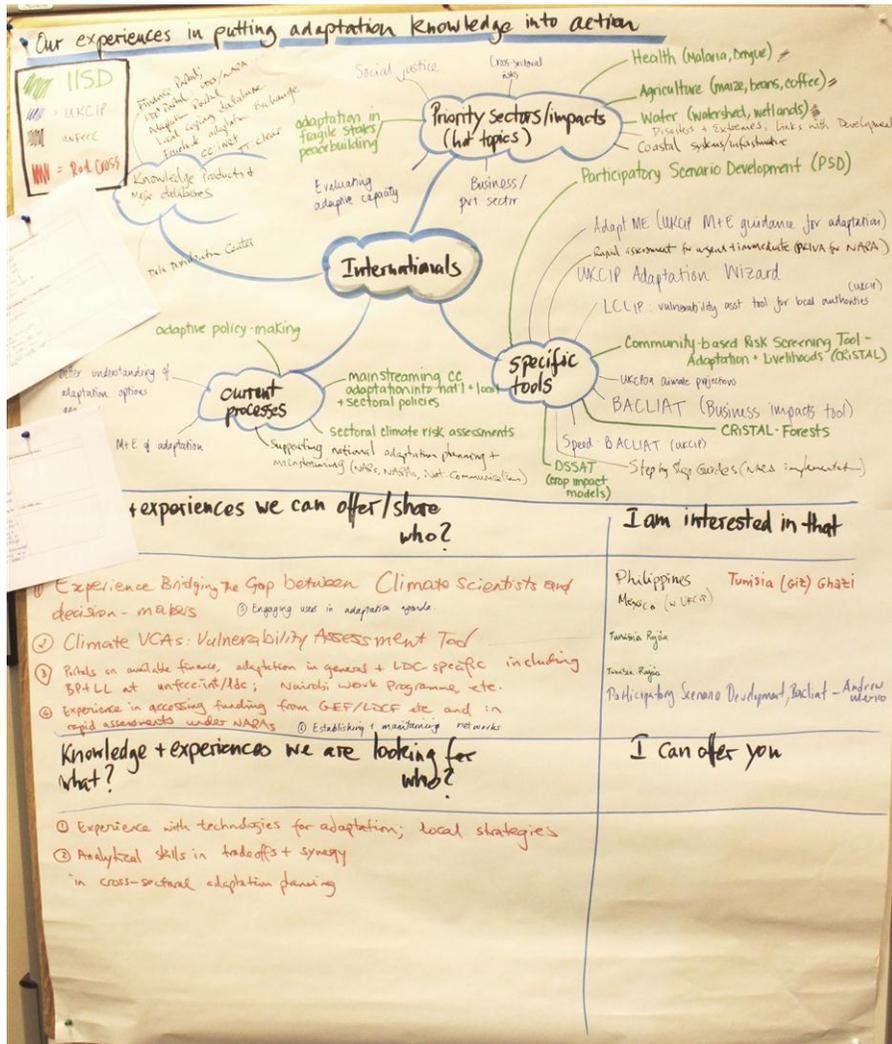
Knowledge and experiences we can offer/share		I am interested in that
What?	Who?	
Invitation to realize next event/conference in Mexico/Puebla	Marco	Risk-transfer mechanism exp (Espaldona, Victoria, PH)
Protected area case studies (coffee, landslides, risk management, wild fires, restoration...)	Andrew	Climate insurance (Rose, PH, Sahla, TUN) Embedding CCA into institutions Mainstream CCA into planning at Regional, local levels (Sahla TUN) Climate insurance (Santi, Gunawan, IND) Climate center interactive (Quake, PH, gun_wicak@yahoo.com , IND) GIZ IM Project, GIZ Tunisia Exchange visit with the Philippines
Sharing of information/experiences related to mindmap above	all	
What Knowledge + experience am I looking for?		I can offer you
What?	Who?	
Best practices of adaptation	All Mex. participants	
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Know-how in development of climate services	Alexander	UKCIP - Megan / GIZ IM Project
Experiences working with local organisations on CCA (of UKCIP & others)	All	UKCIP - Megan / GIZ IM Project
How to correlate cc scenarios with impacts in different sectors	Marco	Tunisia, Rajaa
Transition model (PIK)	All	
Payments of ecosyst. services as tool of adaptation	Andrew, Alexander	

GIZ / PIK



Knowledge and experiences we can offer/share		I am interested in that
What?	Who?	
Information on ci:grasp about impacts and adaptation	PIK	Sectoral Strategy for agriculture – Iris (MX)
Training course or ToT on “Integrating CCA into development planning” (13 Modules in EN, ES, FR)		RCCC – Arame (co trainer) Sahla (TUN) P. Desanker (UNFCCC)
Support to national or sectoral adaptation strategies (GIZ), esp. methodological focus	GIZ	Document on good practices on adaptation for GIZ partner countries (R. Boer, IND)
Dissemination of good practices on adaptation (from and into partner countries), esp. methodological focus	GIZ	UKCIP – Megan Monitoring and Evaluation for Adaptation (R. Boer, IND)
Piloting & testing tools (Climate proofing, VA, data catalogues/Climate services, esp. user perspective)		IISD- Anne, UKGP- Megan (Rejaa, TUN) RCCC- Arame (VA tools + exercises)
What Knowledge + experience am I looking for?		I can offer you
What?	Who?	
Responses to questionnaires		
People interested in developing country dynamics		
Adaptation projects to be incorporated into ci:grasp		
Entry points for tool development /advancement in line with country needs		
Experiences on concrete tool application → for learning & dissemination (Looking for tool users!)		UKCIP (UK application)
Experiences on creation of national CC info services		Dataclim (IND)

Internationals



Knowledge and experiences Red Cross can offer/share		I am interested in that
What?	Who?	
Experience bridging the gap between climate scientists and decision –makers		Philippines Tunisia (GIZ) Ghazi, Mexico
Climate VCAs: vulnerability Assessment tool		Tunisia, Rajaa
Portals on available finance, adaptation in general + LDC specific including BP +LL at unfccc.int/ldc; Nairobi work programm, etc.		Tunisia, Rajaa
Experience in accessing funding from GEF/LDCF etc. and in rapid assessment under NAPAS		Participatory scenario development, Andrew, Mexico
Engaging users in adaptation agenda		
Establishing + monitoring networks		
Business Areas Climate Assessment Tool (UKCIP)		Andrew, MX
What Knowledge + experience Red Cross is looking for?		I can offer you
What?	Who?	
Experience with technologies for adaptation, local strategies		
Analytical skills in tradeoffs + synergy in cross sectoral adaptation planning		

Knowledge and experiences we can offer/share who? what?	I am interested in that!
UKCIP Development of user-oriented tools (climate projections, risk assessment, adaptation asst)	
UKCIP Training + support in use of UKCIP tools (wizard, UKCIP09 etc)	
UKCIP Engaging stakeholders	
What knowledge and experiences I am looking for who? what?	I can offer you...
UKCIP Assessing adaptation options	
UKCIP How to address social justice in adaptation	
UKCIP Tailoring generic tools for specific sectors / users	
UKCIP Adaptive capacity asst	

Knowledge and experiences we can offer/share who? what?	I am interested in that!
IISD Training + support in the use of CRISTAL	
IISD Using the results of VAs to mainstream adaptation into natl / sectoral / local policies	
IISD Designing + conducting climate risk assessments	
What knowledge and experiences I am looking for who? what?	I can offer you...
IISD Lessons / best practice with mainstreaming CCA into dev +	
IISD Experiences with designing + implementing adaptation in fragile / post-conflict settings	
IISD User perspectives re. knowledge broker tools / platforms → i.e. where do you go for data + information? Why?	

Knowledge and experiences <u>UKCIP</u> can offer/share	I am interested in that
What?	
Development of user oriented tools (Climate projections, risk assessment, adaptation assessment)	
Training + support in use of UKCIP tools (wizard, UK Climate Projections 09 etc)	
Engaging stakeholders	
What Knowledge + experience <u>UKCIP</u> is looking for?	I can offer you
What?	
Assessing adaptation options	
How to address social justice in adaptation	
Generic tools for specific sectors / users	
Adaptive capacity assessment	

Knowledge and experiences <u>IISD</u> can offer/share	I am interested in that
What?	
Training + support in the use of CRISTAL	
Using the results of VAS to mainstream adaptation into national/sectoral/local policies	
Designing + conducting climate risk assessment	
What Knowledge + experience <u>IISD</u> is looking for?	I can offer you
What?	
Lessons / best practice with mainstreaming CCA into development	
Experiences with designing + implementing adaptation in fragile / post-conflict settings	
User perspectives re. knowledge broker tools / platforms → i.e. where do you go for data + information? Why?	

Summary of observed common themes in the market place

Each participating group shared a wealth of knowledge and experience. The box below summarises some key tendencies that emerged.

Priority sectors / impacts (hot topics)	Current processes / Tools applied
Agriculture (e.g. food security) Water (e.g. watershed management, wetlands) Health (e.g. malaria) Forests (e.g. reforestation) Biodiversity (e.g. ecosystem-based adaptation)	Mainstreaming climate change National/local/sectoral strategies Adaptation action plans Vulnerability and risk assessments Climate projections modelling Early warning systems Monitoring and evaluation tools Capacity development initiatives
Examples: Knowledge of /Experiences in...	Examples: Looking for..
Vulnerability analysis (Indonesia) Mainstreaming climate change (Indonesia) Impact-chain approach (Tunisia) Community-based adaptation (Tunisia) Climate projections scenario (Philippines) Early warning systems (Philippines) Ecosystem-based adaptation (South Africa) Climate and Impact modelling (South Africa) Protected area case studies (Mexico) Adaptation strategies and action plans (Mexico)	Integration of indigenous knowledge (Indonesia) Loss and damage evaluation tools (Indonesia) Indicators for adaptation assessment (Tunisia) Vulnerability assessment tools for health (Tunisia) Adaptation success stories (Philippines) Other vulnerability assessment frameworks (Philippines) Multi-criteria analysis for decision-making (South Africa) Indicators for monitoring and evaluation (Mexico) Communication strategies (Mexico)

These outcomes were used - apart from the formation of bilateral initiatives - to establish preliminary future thematic areas for exchange within the community of practice.

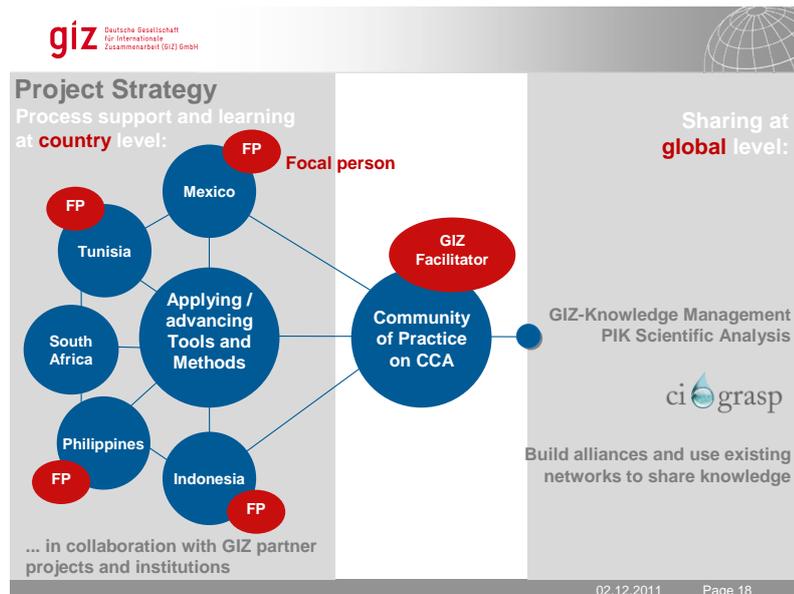
Impressions from the market place



3 Launching a Community of Practice

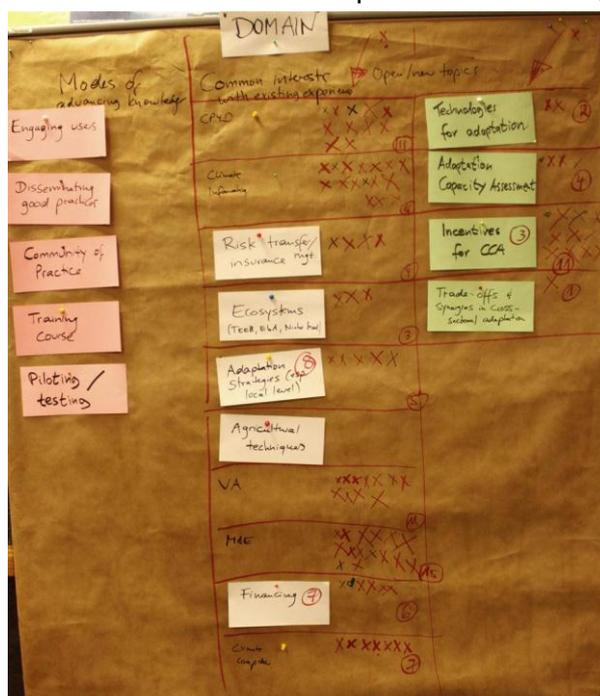
The afternoon of the second workshop day started with a brief presentation on the Community of Practice approach. Following a conceptual overview given by the facilitator, Michael Hoppe from the GIZ/PIK project “Inventory of Methods for Adaptation to Climate Change” explained the role of the project in the take-off phase of the community until 2013. He embedded the Community of Practice approach into the project strategy, highlighted the following four tasks of successful community development and explained how the project intended to address these tasks in the future (both presentations can be found in the annex):

1. Facilitating learning/ providing appropriate leadership
2. Filtering and amplifying knowledge and information
3. Creating a preliminary design for the community
4. Financing
5. World class scientific results that are suitable to securely support decision making



In order to identify the topic areas that were most interesting to the Community, the GIZ project team presented topic clusters that were derived from the outputs of the morning session. Subsequently, participants prioritised these clusters with the following results (from high to low priority):

1. Climate Information & Data
2. Monitoring & Evaluation of Adaptation
3. Climate Proofing for Development
4. Vulnerability Assessments
5. Incentives for Climate Change Adaptation
6. Climate-Compatible Development
7. Financing of adaptation
8. Adaptation Strategies (esp. local level)
9. Risk Transfer / Insurances
10. Adaptation Capacity Assessment



- 11. Ecosystems and climate change
- 12. Technology for Adaptation

Furthermore, the market place revealed the following concrete matches in adaptation knowledge/experience demand and supply:

- TEEB => Tunisia (INGREF, IRA), Philippines (Quake), Mexico (Andrew), Indonesia (Rizaldi)
- Impact chain approach => Tunisia, GIZ Inventory of Methods project
- Ecological niche modelling approach => Tunisia (GIZ/Institute of Arid Regions), Philippines (Rose)
- Multifactoral spatial analysis => Tunisia (ISP Tabarka), Indonesia (Rizaldi)
- Embedding CCA into institutions and mainstreaming into planning (at national, regional, local levels) => Tunisia, Philippines, GIZ Inventory of Methods project
- Indicators of adaptation => Tunisia, Philippines
- Climate insurance => Tunisia, Indonesia (Rizaldi), Philippines
- Vulnerability assessment tools for health => Tunisia, Philippines

Where there was demand, but no supply:

- Providing incentives and support for CCA

3.1 Working groups on priority topic clusters

Based on the potential co-operation themes identified by the participants, the following four issues were explored in brief working groups as a starting point for further exchange in the Community of Practice:

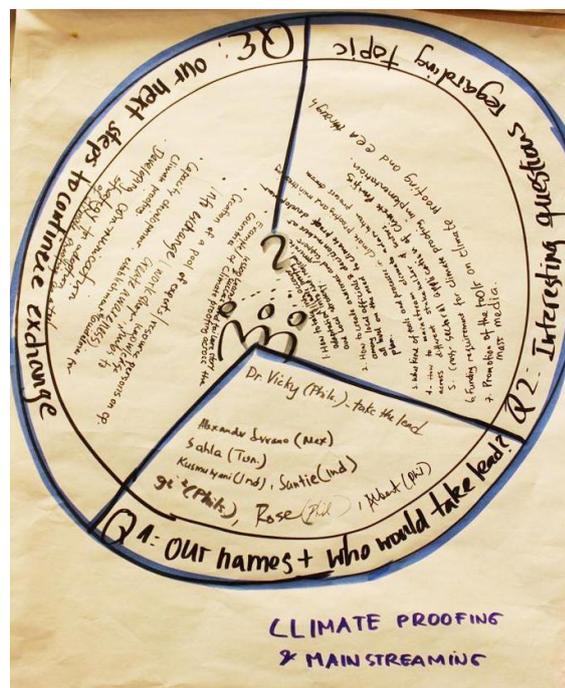
Climate proofing and mainstreaming

Q1: *our names and who would take the lead:*

- Dr. Vicky (Philis) – takes the lead
- Alexander Seraeno(Mexico)
- Sahla (Tunisia)
- Kusmulyani (Indonesia)
- Santie (Indonesia)
- GIZ (Philippines)
- Rise (Philippines)
- Albert (Philippines)

Q2: *Interesting questions regarding topic*

- How to take into account climate proofing regarding adaptation into national, regional and local strategy

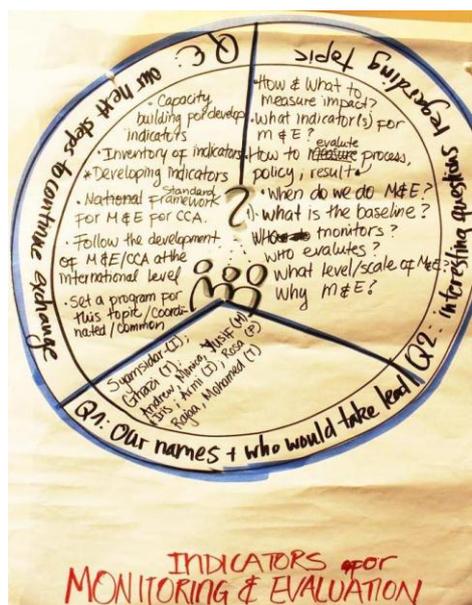


- How to create awareness and generate support among local officials & decision makers at all levels on the need to climate proof development
- What kind of tools and processes in climate proofing and mainstreaming exist
- How to mainstream the climate adaptation process across different stakeholder & sectors
- Cross sectoral application of climate proofing
- Funding requirement for implementation of climate proofing
- Promotion of the tools on climate proofing and CCA through mass media

Q3: Our next steps to continue exchange:

- Gathering lessons learnt & success and failure stories
- Showcase example of climate proofing across the countries
- Creation of a pool of experts /resource persons on Climate Proofing Knowledge
- Info exchange /workshop to create awareness
- Capacity development, establishment of guidelines for climate proofing
- Developing a communication strategy for adoption of climate proofing as a tool

Indicators for Monitoring & Evaluation of Adaptation



Q1: Our names and who would take the lead

- Syamsidar, Armi (Indonesia)
- Ghazi, Rajaa, Mohamed (Tunisia)
- Andrew, Monica, Yusif (Mexico)
- Rosa (Philippines)

No lead identified yet.

Q2: Interesting questions regarding topic

- Why M&E?
- When do we do M&E?
- What is the baseline?
- What exactly should be measured and how?
- What indicators for M&E?
- How to evaluate policy, result, and process?
- Who monitors, who evaluates?
- What level/scale of M&E?

Q3: Our next steps to continue exchange

- Capacity building to develop indicators
- Inventory of indicators
- Developing indicators
- Standard framework for M&E for CC Adaptation
- Follow the development of M&E/CCA at the international level
- Set a program for this topic

Climate Information / Data

In the centre of interest were climate data with specific aspects such as scale and the link between regional and global data. Also the adequate communication of data is an important aspect.

Q1: *our names and who would take the lead*

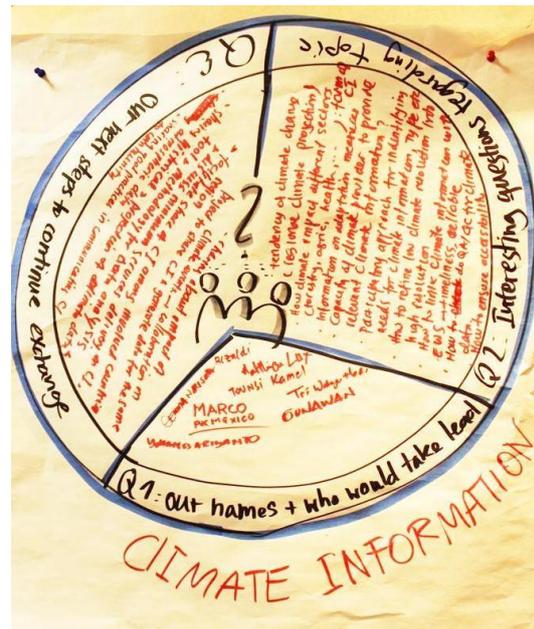
- Gemma Narisaa (Philippines)
- Rizaldi (Indonesia)
- Marco (Mexico)
- Matthieu Lux (Indonesia)
- Kamel Tounsi (Tunisia)
- Tri Wadyenthe (Indonesia)
- Gunawan (Indonesia)
- Johannes Arisanto (Indonesia)

Q2: *Interesting questions regarding topic*

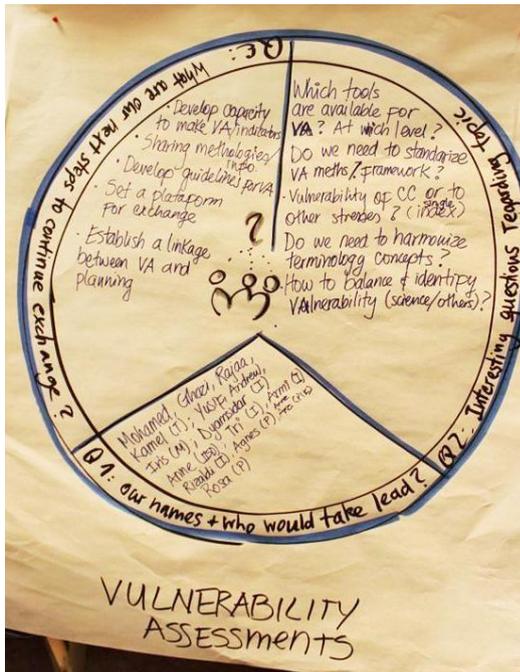
- Tendency of climate change (regional climate projection)
- How climate impacts different sectors (forestry, agric, health,...): form of Climate Information (CI)
- Information on adaptation measures
- Capacity of climate providers to provide relevant climate information?
- Participatory approach for identifying needs for climate information, type etc.
- How to refine low climate resolution in high resolution
- How to link climate information with EWS→timeless, reliable
- How to do QA/QC for climate data
- How to ensure accessibility

Q3: *Our next steps to continue exchange*

- Sharing impact of climate events → collaboration on project to share CI & generate data for the same region
- Facilitate sharing of CI among involved countries & discuss minimum services delivery on CI , tool & methodology for data analysis
- Sharing historical & projection of climate data & atmospheric data
- Sharing good practices in communicating CI to community



Vulnerability Assessment (VA)



Q1: Our names and who would take the lead

- Mohamed (Tunisia)
- Ghazi (Tunisia)
- Rajaa (Tunisia)
- Kamel (Tunisia)
- Yusif (Mexico)
- Andrew (Mexico)
- Iris (Mexico)
- Dyamsidar (Indonesia)
- Anne (IISD)
- Tri (Indonesia)
- Armi (Indonesia)
- Rizaldi (Indonesia)
- Agnes (Philippines)
- Anne (PIK)
- Rosa (Philippines)

Q2: Interesting questions regarding topic

- Which tools are available for VA? At what level?
- Do we need to standardise VA methods/framework?
- Vulnerability of CC or to other stresses? (single index)
- Do we need to harmonise terminology concepts?
- How to balance & identify vulnerability (science/others)?

Q3: Our next steps to continue exchange

- Develop capacity to set up VA-indicators
- Sharing methodologies/info
- Develop guidelines for VA
- Set a platform for exchange
- Establish a linkage between VA and planning

Regarding next steps to materialise the exchange on these four themes, the participants emphasised documentation and exchange of success stories, the organisation of pools of experts, capacity building and sharing of relevant data within regions.

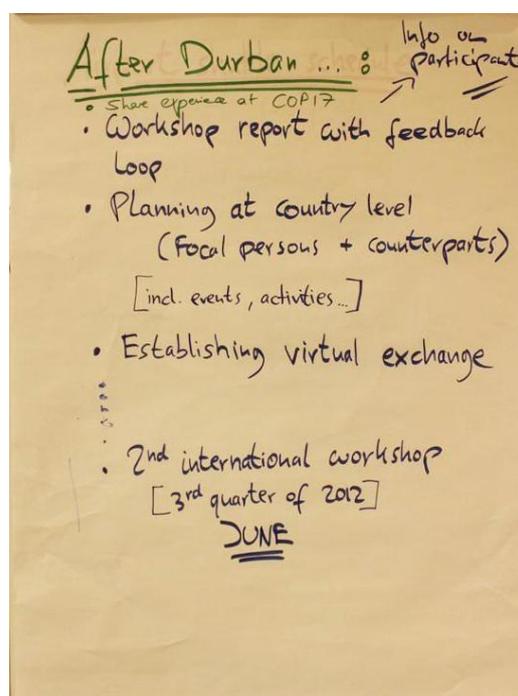
3.2 Road beyond Durban

The final discussion centred on the question of how the dynamics as launched in Durban could be transferred into an efficient and sustainable Community of Practice. Participants and GIZ representatives gave the following statements and recommendations:

- Set up an exchange platform and exchange e-mail addresses to enable 'autonomous' networking.

- Ensure 'leadership' and organisation of further exchange. The project and the country focal points seem to have a crucial role in this respect.
- Develop concept papers for each of the four thematic focus areas (first draft to be completed in Eschborn) and use those papers as the basis for further discussion.
- Ally with existing networks such as Nairobi Work Programme and Adaptation Partnership.
- Launch quick e-mail based collection of ideas to make sure that findings of the workshop are reflected in COP 17.
- Create an inventory of good practice and case studies.
- Ensure efficient ways of further exchange and clarify the 'architecture' of the Community of Practice.

Nana Künkel, GIZ head of the Inventory of Methods project, reacted to these recommendations by emphasising that the structure of future exchange and the Community of Practice in particular are 'work in progress' and will be specified gradually. All inputs by the co-operating partners are highly appreciated. Feed-back to this report is also welcome. The country focal points and the co-operating national projects will have a crucial role in building up a stable Community of Practice and are invited to specify proposals. A first meeting of focal points will take place after the workshop. She encouraged participants meeting at the national level to keep the discussions and the Community of Practice going. A second international workshop is planned for the second half of 2012 and details will be shared in time. Nana closed the workshop by extending thanks to all participants for the committed and engaged contributions, which made the workshop a success.



3.3 Reflections on the results of the workshop

By Prof. Jürgen Kropp, Potsdam Institute for Climate Impact Research (PIK)

The workshop presentations and discussions showed that there is still a mismatch between what stakeholders would like to see and what science can deliver. This gap is based on the fact that stakeholders, policy makers and administrations need to develop plans for short- to medium-term development. They have a legal duty to reduce the risks their residents are exposed to; therefore, they try to include climate (weather) related risks in their analysis. However, climate scientists and impact researchers are focusing on much longer time scales. They use hypothetical storylines about demographic and technological developments which they translate into emission trajectories which are finally used as input for climate models. As a consequence, climate data as such is not suitable for planning, because it is not meant to be used for shorter-term risk assessments by planners. Thus the question remains: Why should stakeholders and climate scientists work together? There are mainly two reasons: First there is an ongoing debate regarding whether mitigation or adaptation would be cheaper. Second, risk assessments are feasible even in an uncertain environment. The overall objective of projects like the Inventory of Methods should be to enhance our understanding of the options, strategies, costs and impacts of climate change while simultaneously considering mitigation, adaptation and sustainable development issues. For this issue we need comparable and standardised methods. Before discussing these issues we need to substantiate the problems:

Uncertainty problem: Future climate change impacts depend on political decisions and technological advances over the next few decades. However, it is not possible to forecast these developments precisely. As a result, all climate projections have an associated level of uncertainty. Currently, many stakeholders interpret this uncertainty more as scientific disagreement than as a level of risk.

Organisation problem: Data about climate change scenarios, regional vulnerability assessments, and adaptation practices is widely scattered and not easily accessible for relevant stakeholders. As a result, stakeholders either face problems in deriving the right conclusions from the existing information or spend considerable money in seeking to develop new concepts. This leads to inefficiencies and overstretching of their resources.

Capacity problem: Stakeholders and public institutions often have insufficient capacity to interpret the complexity of climate scenarios as well as impact and vulnerability analyses in a sufficiently robust manner. This often ends up in a different awareness and risk assessment.

Transferability problem: Even when stakeholders have the capacity to analyse adequate information, it can still be a challenge to transfer experiences from one city, country or region to another.

These four problem fields are well-known and have been widely discussed, so the current project aims to close these gaps. In policy and planning in particular a new understanding of the concepts of risk and uncertainties is needed. Furthermore, while the capacity problem cannot be solved by science, science can assist with regard to transferability, decision support systems and data access.

The workshop results point to gaps where science needs to advance, in particular in terms of comparable impact assessments and systematic adaptation research. Similarly, the workshop results also point to areas where administrations and stakeholders need to act: Stakeholders need to realise that adaptation alone will not protect against climate threats. The source of the climate crisis is greenhouse gas emissions. Therefore, a sole focus on adaptation is unsuitable. Moreover, it can be shown that in certain regions the impacts on people can be reduced by half if one follows a low emission scenario rather than a high emission one. In other words, local stakeholder should at least put the same emphasis on mitigation as adaptation, because this will save costs.

In a nutshell the current project aims to address these issues from both the scientific side as well as from the side of stakeholders and practitioners. The workshop is certainly still a starting point, but further meetings and the foundation of a community of practice provides the hope that this progress can be achieved.

Annex

1. Participants

No	Name	Country	Institution, Function
1	Prof. Dr. Rizaldi Boer	Indonesia	Agricultural University Bogor (IPB)-Center for Climate Risk and Opportunity Management in Southeast-Asia and Pacific (CCROM-SEAP); Executive Director
2	Ms. Syamsidar Thamrin	Indonesia	National Development Planning Agency (BAPPENAS)
3	Ms. Kusmulyani	Indonesia	Ministry of Environment
4	Ms. Astutie Widyarissantie	Indonesia	Ministry of Environment
5	Mr. Gunawan Wicaksono	Indonesia	Environmental Bureau Semarang, Central Java
6	Ms. Ni Luh Made Ashanapuri	Indonesia	GIZ Policy Advice for Environment and Climate Change (PAKLIM)
7	Dr. Tri Wahyu Hadi	Indonesia	Institut Teknologi Bandung (ITB)
8	Mr. Yohanes Ariyanto Wibowo	Indonesia	GIZ Data and Information Management on Adaptation to Climate Change (DATACLIM)
9	Dr. Armi Susandi	Indonesia	Dewan Nasional Perubahan Iklim (DNPI)
10	Mr. Matthieu Lux	Indonesia	GIZ Indonesia
11	Ms. Monica Paola Echegoyen López	Mexico	The Ministry of Environment and Natural Resources
12	Mr. Andrew John Rhodes Espinoza	Mexico	National Commission on Natural Protected Area (CONANP) Strategic Director of Climate Change Division
13	Mr. Yusif Salib Nava Assad	Mexico	National Institute of Ecology (INE) Head, Department of Vulnerability and Adaptation to Climate Change
14	Mr. Hector Alexander Serrano Navarro	Mexico	GIZ Mexican-German Climate Alliance
15	Ms. Iris Adriana Jiménez Castillo	Mexico	Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) Deputy Director for Climate Change Evaluation
16	Mr. Marco Antonio Herrera García	Mexico	Secretariat of Environmental Sustainability and Land-Use Planning Director of Air Quality and Climate Change, State of Puebla
17	Ms. Lea Herberg	Mexico	GIZ Advisor, Mexican-German Climate Alliance

18	Ms. Gabrielle Dominique Alicas	Philippines	GIZ Adaptation to Climate Change and Conservation of Biodiversity (ACCBio) Project
19	Mr. Albert Magalang	Philippines	EMB-DENR Supervising Environmental Management Specialist
20	Dr. Rosa Perez	Philippines	GIZ Consultant
21	Dr. Gemma T. Narisma	Philippines	Manila Observatory Regional Climate Systems
22	Ms. Rosalina L. Bistoyong	Philippines	Stakeholders Relations Office Department of Agrarian Reform Undersecretary for Special Programs and Agrarian Reform
23	Ma. Gerarda Asuncion D. Merilo	Philippines	Environmental Management Bureau, Department of Environment and Natural Resources Senior Environmental Management Specialist
24	Hon. Naderev M. Saño	Philippines	Climate Change Commission San Miguel, Manila Commissioner
25	Dr. Ma. Victoria O. Espaldon	Philippines	University of the Philippines Dean of the School of Environmental Science and Management
26	Ms. Agnes Balota	Philippines	GIZ Senior Advisor, Adaptation to Climate Change and Conservation of Biodiversity (ACCBio)
27	Dr. Dicky Simorangkir	Philippines	ASEAN Centre for Biodiversity Philippines International Climate Change Senior Advisor for GIZ
28	Dr. Ghazi Gader	Tunisia	GIZ National Expert, UNFCCC Implementation in Tunisia
29	Mr. Mohamed Zmerli	Tunisia	Ministry of Agriculture and Environment, General Direction of Environment and Life Quality, Focal Point Adaptation
30	Ms. Sahla Mezghani	Tunisia	Ministry of Agriculture and Environment, General Direction of Agriculture Production, Director
31	Ms. Rajaa Mazouzi	Tunisia	Ministry of Public Health, Direction of Hygiene and Environmental Protection, Head Officer
32	Mr. Mohamed Ouessar	Tunisia	Institute of Arid Regions of Medenine, Researcher
33	Mr. Kamel Tounsi	Tunisia	Forest and Pastoral Institute of Tabarka, Professor and researcher
34	Ms. Arame Tall	Senegal	Red Cross Climate Center
35	Ms. Megan Gawith	United Kingdom	UK Climate Impacts Programme (UKCIP) Scientific Officer
36	Mr. Alfred Eberhardt	Germany	Federal Administration of Germany

37	Dr. Guy Midgley	South Africa	South African National Biodiversity Institute (SANBI)
38	Ms. Anne Hammill	Switzerland	International Institute for Science and Development Project Manager and Researcher, Climate Change & Energy and Environment & Security programs
39	Dr. Nana Künkel	Germany	GIZ Project head, Inventory of Methods for Climate Change Adaptation
40	Ms. Nadia Manasfi	Germany	GIZ Junior Advisor, Inventory of Methods for Climate Change Adaptation
41	Mr. Michael Hoppe	Germany	GIZ Advisor, Inventory of Methods for Climate Change Adaptation
42	Ms. Gwendolin Aschmann	Germany	GIZ Intern, Inventory of Methods for Climate Change Adaptation
43	Ms. Nompumelelo Rangaka	South Africa	GIZ Programme Assistant, Climate Protection Programme
44	Dr. Dominik Reusser	Germany	Potsdam Institute for Climate Impact Research (PIK)
45	Ms. Anne Holsten	Germany	Potsdam Institute for Climate Impact Research (PIK)
46	Ms. Tabea Lissner	Germany	Potsdam Institute for Climate Impact Research (PIK)
47	Mr. Fabian Busch	Germany	Denkmodell
48	Mr. Paul Desanker	Germany	UNFCCC Manager of the Adaptation Programme Head of Capacity Building and Outreach
49	Dr. Sylvester Mpandeli	South Africa	Department of Environmental Affairs (DEA) Specialist Advisor: Climate Change Adaptation
50	Ms. Kristy Facer	South Africa	Council for Scientific and Industrial Research (CSIR)

2. Agenda



Programme, day 1

Day 1: Thursday, 24 November 2011

09.00 – 10.30h	Welcome and Opening
<i>Coffee Break</i>	
10.45 – 12.30h	Setting the Scene – Adaptation to Climate Change: Putting Knowledge into Action Keynote (video message): Rajendra K. Pachauri (Chair of the Intergovernmental Panel on Climate Change IPCC) Panel with scientific experts, governmental and non-governmental practitioners
<i>Lunch Break</i>	
14.00 – 16.00h	Zooming into practice Framing the discussion: Methods and processes in decision-making for adaptation Parallel working groups
<i>Coffee Break</i>	
16.30 – 17.30h	Zooming into practice Sharing and discussion of results in the plenary
From 19.00	Reception and Dinner



Programme, day 2

Day 2: Friday, 25 November 2011

Until 09.30h	Preparation of market Place
09.30 – 11.15h	Discovering the value of knowledge exchange <ul style="list-style-type: none"> • Introduction to the Community of Practice approach • Identification of knowledge needs and offers
<i>Coffee Break</i>	
11.45 – 12.45h	Walk and Talk <ul style="list-style-type: none"> • Exploring knowledge needs and offers in the market place
<i>Lunch Break</i>	
14.00 – 16.30h	Launching a Community of Practice <ul style="list-style-type: none"> • Elaboration of topic areas and questions relevant for the Community of Practice • Defining a working mechanism of the Community of Practice • Agreement on next steps • Closing remarks
<i>Coffee Break</i>	
From 16.30h	Living the Community of Practice <ul style="list-style-type: none"> • Informal meetings between participants from different countries





Programme, day 3

Day 3: Saturday, 26 November 2011

09.00 – 12.00h Field Trip: Beachwood Mangrove Nature Reserve

- Input: Guy Midgley, South African National Biodiversity Institute (SANBI)

Lunch





Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
T + 49 61 96 79 - 0
F + 49 61 96 79 - 11 15
E info@giz.de
I www.giz.de