International Workshop on Mainstreaming Adaptation to Climate Change

Guidance and Tools

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Background to the Workshop

Rationale

Many development efforts and impacts are at risk if climate change is not taken into account. It is therefore necessary to integrate adaptation into different levels of development work, in addition to support to stand-alone climate change adaptation programmes.

A number of actors in the fields of science, administration and development cooperation have for some time now been developing practical approaches and instruments to assist the process of mainstreaming adaptation to climate change, and are testing them in the field.

The OECD has released its 'Policy Guidance on Integrating Climate Change Adaptation into Development Co-operation' which represents a significant step towards the creation of a general framework to assist the design of resilient national, sectoral, project and local development interventions.

So far there have been very few occasions in which developers exchanged their tools, approaches and experiences. Thus, it was time to evaluate progress and foster exchange. We felt that this time the exchange should not only be between the tool developers but also between potential users from partner countries, development practitioners and climate scientists.

Objectives

The objectives of the workshop therefore were

- Stock-take of state of the art adaptation decision making tools and assess strengths and weaknesses, (for an overview of tools see *Annex 1*);
- Recommend actions to improve usefulness of these tools;
- Disseminate the 'OECD Guidance on Integrating Adaptation to Climate Change into Development Cooperation' and recommend actions for its application;
- Recommend further steps to enhance the quality of and the complementarity, and cooperation amongst tools.

[Day 1
Setting The Stage "We tried to design the agenda as participatory and interactive as possible. We set the stage with a session in which participants shared their general experiences with mainstreaming adaptation to climate change in their specific contexts and articulated their expectations in regard to the workshop." The 'OECD Guidance on Integrating Climate Change Adaptation into Development' was then presented as its content framed the workshop.]

[Day 1
Climate Change Information In the next session we confronted an adaptation practitioner and a climate change scientist, with the guiding questions which climate change information practitioners need and which information science can provide.]

[Day 1-3
Market Places on Tools The different tools and approaches on mainstreaming climate change adaptation were presented in 'market places'. Developers presented their tools in parallel small groups of participants. Participants shifted every half an hour enabling them to get a good overview but also ask their specific questions to the developers.]

[Day 2
Reality Check of Tools The next session focused on tool applications in practice. The discussion focused on identifying the process steps that are important for mainstreaming, and on the strengths, weaknesses, opportunities and threats of the tools presented in the market places. Break out groups divided into national, sectoral, project and local level discussed a real case presented by a partner country participant.]

[Day 3
Gaps, Opportunities and Next Steps On the final day main gaps and opportunities were identified and discussed. Based on these, proposals for next steps bringing mainstreaming adaptation forward were provided by the participants and compiled in the 'Berlin Agenda on Mainstreaming Adaptation'.]

Participants

About 80 participants from different regions of the world, various institutions and different background attended the workshop. Among them:

- Potential tool users from partner countries (adaptation experts, sector specialists and development planners);
- Tool developers and development practitioners (from various institutions of development cooperation);
- Climate change scientists.

The participants list can be found in *Annex 2*.

The Host's View

For us, the exchange between the various participants with their very diverse backgrounds and wealth of knowledge was both inspiring and productive. Everybody participated actively and constructively – that's why we think this group holds a lot of promise for advancing mainstreaming adaptation.

This documentation can only give a rough overview and will not be able to adequately reflect the richness of discussions. The documentation uses several quotes – reflecting the vivid debates. We hope this is interesting and informative for the reader. Not surprisingly, you will find some contradictions in opinions and positions.

The workshop was not only about exchange. We wanted to come up with next steps. 'The Berlin Agenda on Mainstreaming Adaptation' contains many very concrete and important measures. We do want to follow up on them with you!

We felt that the workshop was an important step towards a community of practice – naturally open to others that could not attend - in which a joint iterative learning process can take place. We enjoyed the two and a half days in Berlin and are looking forward to working together under our 'Berlin Agenda' towards a follow up workshop in about a year.

We would like to thank all those that helped to make the workshop a success. The GTZ organising team:

Dr. Lorenz Petersen
Jan Peter Schemmel
Michael Scholze
Michael Wahl

Results:
'The Berlin Agenda on Mainstreaming Adaptation'

At the end of the workshop participants proposed concrete next steps to be taken in the future. Furthermore priority actions related to these next steps were discussed in breakout groups.

Nr.	Activity	Responsible / Coordination
1	Create federation and foundation to enable definition and funding of collaborative projects	Mohammed S. Boulahya
2	Create distributed community of practice around regional centres / initiatives	Emilio Sempris
3	Organise (further) meeting(s) to bridge science / practice	Ian Noble
4	Include/update methods and tools discussed at the workshop in the UNFCCC Compendium	Xianfu Lu
5	Collaborate on/coordinate the development of a web-based portal on adaptation	Xianfu Lu
6	Produce institutional map of organisations working at local and national level	Chinwe I. Speranza; Ian Tellam
7	Coordinate future donor action on this agenda	Alessandra Sgobbi, Jan Peter Schemmel, Michael Scholze
8	Coordinate further action on this agenda with DRR experience – through collaboration with Global Platform for DRR	Mike Wiggins
9	Distribute and test tools among agencies to draw up quality assurance criteria together	Bo Lim
10	GTZ will provide a training on the OECD guidance	Jan Peter Schemmel, Michael Scholze, Ilona Porsché
11	Create a moderated 'solutions exchange network', resourced with decision support tools, modelled on a pilot in India	Shan Mitra
12	Incorporate a map of decision support tools in UNDP's ALM	Julia Wolf
13	Use existing web-based portals to support networks, such as Livelihoods Connect, managed by IDS	Clare Shakya

Nr.	Activity	Responsible / Coordination
14	Organise regional practitioners' meetings such as forthcoming meeting in South Asia	Clare Shakya
15	Involve regional centres that specialise in seasonal forecasting	Richard Jones
16	Promote dissemination / development / discussion of decision support tools through GCOS regional meetings	Richard Jones
17	Create a small group to develop financial / economic / social assessment tools and a framework for adaptation	Marcus Moench
18	Learn from experience on embedding technical assessments into policy of DRR	Mike Wiggins
19	Create a network on adaptation in cities in Asia	Jyoti Parikh
20	Develop tools to assist mainstreaming in sectoral / programme based aid	Jan Peter Schemmel, Michael Scholze
21	Develop public/private partnerships in the area of early warning and Climate Advisory Services, supported by Social Safety Nets like micro-insurance and community solidarity for a betterClimate Risk Management	Mohammed S. Boulahya
22	Learn lessons from using tools	Jan Peter Schemmel, Michael Scholze
23	Consider potential for housing further tool development work via 'WCC-3' climate services initiative	William Westermeyer
24	Develop tools to assist M&E	Shan Mitra
25	Create a group to define minimum standards for data and tools	Yvan Biot
26	Refer to UNDP's tools guide	Xianfu Lu
27	Define who the users of tools are and develop ways to asses impact of uncertainty and represent uncertainty	Jürgen Kropp
28	Consider quality assurance as theme for next years tools meeting	Ian Noble
29	Ensure quality assurance in both data and processing	Richard Jones
30	Coordinate with group in Cape Town on quality assurance	Annie Roncerel
31	Involve AU-AfDB-UN-ECA's ClimDevAfrica in quality assurance work	Siham M. Ahmed
32	Comparative study of use of adaptation tools for integrating adaptation in development agencies	Anne Hammill, Tom Tanner

Priority Actions Defined by Breakout Groups

A: Community of Practice

Lead: Emilio Sempris and Mohammed S. Boulahya

1. Define purpose
2. Map existing networks and resources for networking
3. Establish community before Copenhagen
4. Identify an institutional home for this community

B: Quality Assurance

Lead: Ian Noble and Richard Jones

1. Define scope
2. Identify what others do / has already been done that is relevant
3. Outline agenda for follow up workshop (Michael Scholze)

C: Donor Coordination

Lead: Alessandra Sgobbi, Janinie Kuriger

1. Define agenda for a meeting
2. Find out OECD plans in this area
3. Define action points depending on outcome of 2

D: Address Social and Economic Considerations

Lead: Marcus Moench and Bo Lim

1. Establish a list of interested participants
2. Map existing work
3. Hold a small group meeting to define key areas of work

Main Discussion Points

Climate Change Information

There were several discussions on climate change information in regard to existence, access, quality, adequateness, resolution, user friendliness, etc. Key points in the discussions were:

Uncertainty

Inoke Ratukalou (SPC, Fidji) made the point in the very beginning that the lack of climate change information and the uncertainty related to it is a difficult challenge in adaptation to climate change. Martin Todd (UCL) pointed out that "the confidence in climate projections very much depends on the variables and the regions examined …and… although climate models will continue to improve uncertainty is unlikely to be substantially reduced in near future (~10 years)… ". Thus, the challenge is rather to manage than to overcome uncertainty. That means "…that when communicating climate change information one has to be honest about this uncertainty." This also very much relates to intensive discussion on quality assurance (=> see below).

Dealing with Uncertainty

"Although climate models will continue to improve, uncertainty is unlikely to be substantially reduced in near future."

Martin Todd, UCL

Access

Another challenge is that data in some cases is not accessible. "Data is often sitting in research centres in developing countries and is not being shared."

Socio Economics

Furthermore Edi Effendi Tedjakusuma (BAPPENAS) said that "…especially information on vulnerability and on the economic costs of adaptation based on solid socio-economic information is lacking."

Adaptation with Little Information

In contrast Marcus Moench (ISAT) stated that instead of waiting for better projections to come we have to focus on enabling adaptation which is "… about understanding the systemic factors that enable autonomous as well as planned adaptation and developing processes that are themselves adaptive and can respond as knowledge emerges and conditions evolve."

Cooperation between Science and Practice

Both researchers and practitioners/development planners attended the workshop and both agreed that the cooperation between the development and the science community must be strengthened. Participants agreed that there still are large gaps between adaptation researchers and practitioners.

Setting Incentives for Cooperation

Jürgen Kropp (PIK) claimed for a 'new culture of cooperation'. But as both communities work in different modes and sometimes with different agendas incentives have to be set for closer cooperation. As one participant put it: "Climate scientist and local and sectoral practitioners need to be in close dialogue. Don't fund the scientists on their own, but rather in association with the planners."

Cooperation between Science and Practice

"Closer cooperation is a win-win situation. Inputs from sector experts help to improve impact and vulnerability models, input from science increases the quality and credibility of our advice."

Jan Peter Schemmel, GTZ

Quality Assurance

High Responsibility

The issue of quality assurance both for tools and the climate change information applied was raised several times. It was stated that its users of tools and climate change information carry a large responsibility.

Risk of Misinterpretation

While there often is a demand for very easy 'take home messages' from decision makers on the one hand, on the other hand one has to very carefully interpret the existing information on climate change. A lack of expertise can lead to misinterpretation of data.

Transparency

It was proposed that tools should be transparent on which climate change information they applied as a minimum standard.

Minimum Standards

It was furthermore a consensus that more conceptional work is necessary to find ways to assure the quality both of tools as well as of climate change information and therefore a group on this issue was formed under 'The Berlin Agenda on Mainstreaming Adaptation' (=> see above).

Harmonisation and Cooperation of Tools and Approaches

Throughout the whole workshop there were many discussions on the need for harmonisation. It became clear that there are different levels on which harmonisation could play a role, like donor policies, tools, and information. The opinions differed widely.

Core Elements

"We should not aim at one tool as result, but we should rather evolve core elements of adaptation mainstreaming.

Virinder Sharma (DFID)

Need for Harmonisation

Work is duplicated and not in accordance with the Paris Declaration. "Thus, there is a risk of wasting resources through excessive overlap and weak coordination." (Ulrika Akesson, SIDA).

Horses for Courses

In contrast other participants claimed: "There are different horses for different courses. It doesn't matter that there are many different tools because we have different questions to answer. Tool development is also a recent phenomenon and we should not kill the entrepreneurial spirit required in this process by introducing a rigid clearing house" (Yvan Biot, DFID).

Policies rather than Tools

Furthermore it was pointed out that as long as donor policies are not fully harmonised, tools are not possible to harmonise either, as they have to be in accordance to different donor processes. "There are no blue-print-approaches" (Lorenz Petersen, GTZ). Or as another participant put it: "If you relate the harmonisation issues discussed to gender, governance, culture, etc., they would apply as well. Which means this is an issue of aid effectiveness. There is not really a need to harmonise tools but rather harmonise approaches of donors."

Programme Based Approaches

It was agreed that by definition harmonisation is needed in Programme Based Approaches (PBA) and joint pilots would be very helpful.

Common Language

Furthermore, Jan Peter Schemmel (GTZ) pointed out that similar to other processes like Strategic Environmental Assessment, it would be important to come up with a common language, as differently used terms are the reason of many misunderstandings.

Data Harmonisation

In regard to climate change data, Siham Mohamed Ahmed (AfDB) argued, that there is a clear need for harmonisation.

Consensus on Closer Cooperation

Although opinions differed in regard to the degree of harmonisation there was a consensus that a closer cooperation between the tools and approaches is necessary (=> see also 'The Berlin Agenda on Mainstreaming Adaptation'). A follow up workshop should take place in about a year and a donor coordination meeting was proposed by Alessandra Sgobbi (EC).

The Process of Mainstreaming Climate Change Adaptation

Many participants stressed that apart from the tools the process of mainstreaming or integrating climate change in development is key.

Stronger Focus on Process

Kamal Uddin (CDMP) warned in this context: “Get down to a concrete level, don’t talk about mainstreaming too much anymore.”

Process Obstacles

When designing processes of mainstreaming climate change one normally faces many obstacles. As one participant made clear: “How are you supposed to mainstream adaptation when you have a high rotation of politicians in the government? We have changed five vice-ministers since August of last year, making it very difficult to mainstream since each politician starts from zero.”

Stronger Focus on Process

“We are focusing too much on the tools. We should focus more on the decision making process.”

Islam Faisal (DFID Bangladesh)

Climate Mainstreaming Tools: SWOT Analyses

Participants made **S**trengths **W**eaknesses **O**pportunities & **T**hreats (SWOT) Analyses in breakout groups and tried to allocate the different tools to the different levels of the OECD guidance (=> see above). The latter task proved to be difficult. Anne Hammill and Tomas Tanner soon will publish a comparative study on the different adaptation tools that probably will shed light on the issue. The key results of the SWOT analyses were:

Key Messages from OECD Guidance The Guidance is intended for policy makers and practitioners in both donor countries and developing countries. It applies a government approach to integrating adaptation, addressing four levels of decision making: national, sectoral, project, local.

Strengths

- "Some tools offer capacity building elements."
- "Some provide good access to climate change information."
- "There is an entrepreneurial spirit in the tool developer community.
- "Most tools are very good at analyzing the physical side, not so good on socio-economic factors."
- "Many of the tools help to make sense of climate information if you are not an expert."
- "Simple to use and open source – easy access for all."
- "Tools can help to create a more open and transparent decision making process."
- "Tools assist in guiding thought processes and bringing together stakeholders."
- "There is richness in the diversity of tools, serving different needs; all are useful in some way."

Weaknesses

- "None of the tools are designed for the national level."
- "I haven't seen a tool that focuses on cross-sectoral interactions."
- "Most of the tools lack to mention the financial implications (cost-benefit analysis)."
- "Link to Disaster Risk Management (DRM) is not always given."
- "Limits and constraints of tools are not well communicated (tools are only as effective as the information that they use)."
- "A lot of tools are donor-centric and not partner-centric and not developed in cooperation with partners."
- "All tools are lacking monitoring and evaluation."
- "The power of the tools depends on the power of the politics."
- "Online tools depend on good internet connectivity, which is not available in all parts of the world."
- "We haven't engaged enough with soft solutions yet."

Opportunities

- There is an opportunity for customisation: "… can we take from various tools to use in our case…"
- "There is a readiness in many countries to apply tools."
- "One could create a toolbox of all tools."
- „We need to catalogue the various tools to see whether new tools are necessary to fill gaps."
- "Synergies with greater coordination and collaboration."
- "Quality can be improved through stronger link to scientific community and ongoing research."
- "Tools can raise awareness at country-level (also about climate data needs)."
- "Business opportunities to create a serviceable product (early-warning networks)."
- "The tools need continuous peer review."
- "Mainstreaming tools should not only look into adaptation but also mitigation."
- "We need to capture local knowledge. It is amazing what local people know."
- "Trade-offs need to be dealt with when recommending adaptation options."
- "There is a need for capacity building on how to use tools, which tool to use when and how tools will help in different situations."
- "Tools need to integrate disaster risk management components – otherwise we miss out on a wealth of relevant experience."
- "Quantity and quality of data fed into a tool needs to be transparent and assessed."

Threats

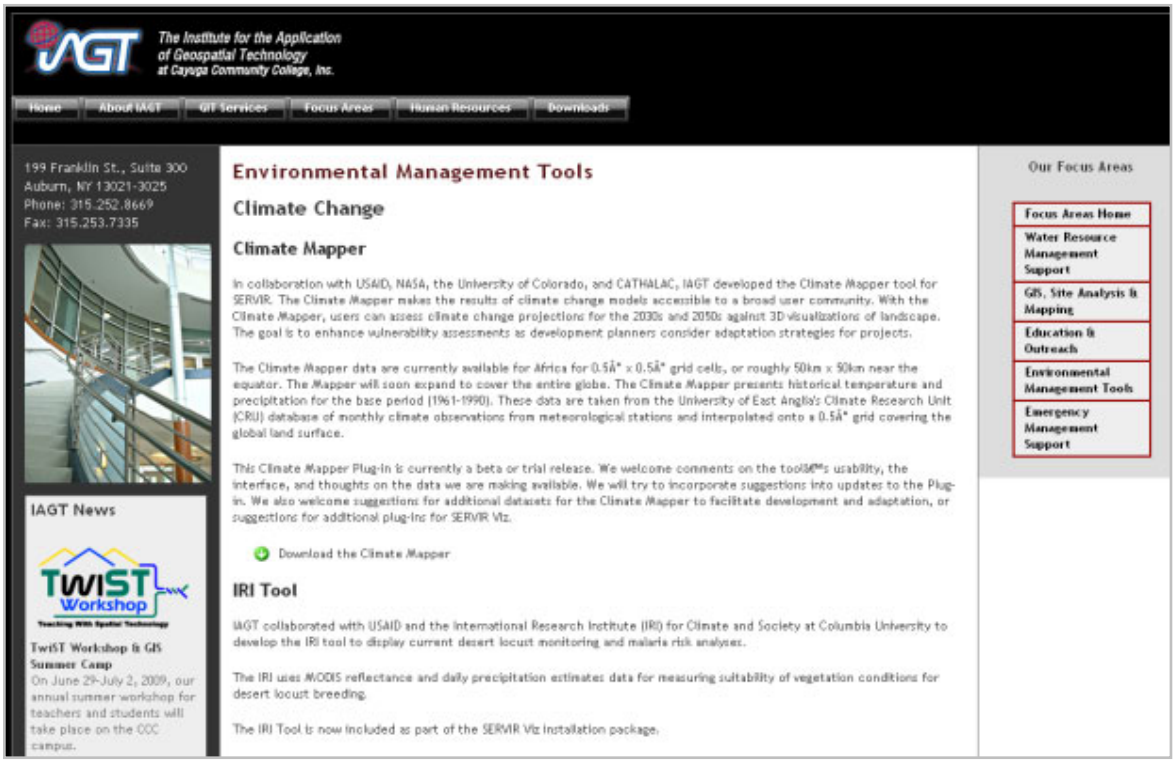
- "Waste resources through overlap and weak coordination."
- "Some tools are too simplistic."
- "Adaptation tools and policies may crowd out normal, economic development policy (climate bias)"
- "There are many tools creating danger of competition."

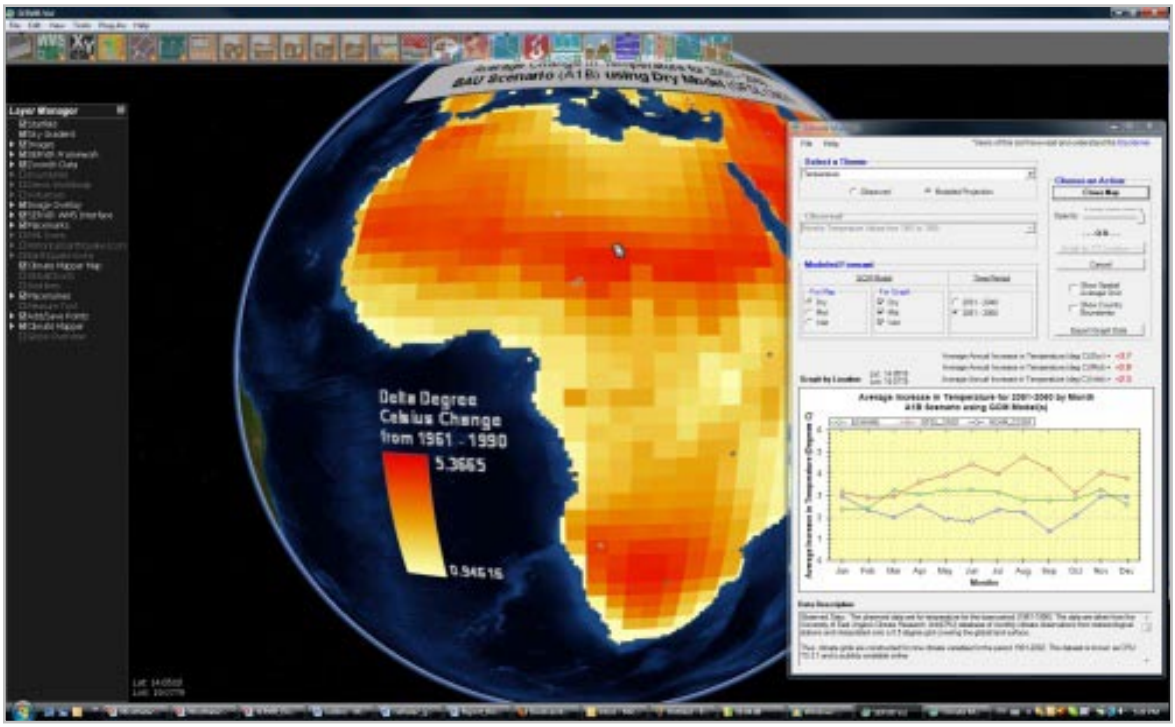
Annex 1: Climate Mainstreaming Tools & Methods

A1.1 Climate Mapper by USAID, NASA, CATHALAC e.a.

Organisation	United States Agency for International Development (USAID), National Aeronautics and Space Administration (NASA), Institute for the Application of Geospatial Technology (IAGT), University of Colorado, CATHALAC
Name of tool	The Climate Mapper
Short description	The Climate Mapper is a free 'plug-in' for the NASA World Wind 3D virtual globe as well as the SERVIR-Viz virtual globe interface. The purpose of the Climate Mapper is to make the results of climate change models accessible to a broad user community. With the Climate Mapper, users can assess and compare climate change projections for the 2030s and 2050s against 3D visualisations of landscape. This should enhance vulnerability assessments as development planners consider adaptation strategies for projects. The Climate Mapper data are currently available for the entire globe at roughly 50km x 50km near the equator. The Climate Mapper presents historical temperature and precipitation for the base period (1961-1990). These data are taken from the University of East Anglia's Climate Research Unit (CRU) database of monthly climate observations from meteorological stations and interpolated onto a 0.5° grid covering the global land surface. The modeled data are monthly data averaged over the decades 2031-2040 and 2051-2060. Data are outputs of three of the models used in the IPCC's 4th Assessment Report: the National Centre for Atmospheric Research Community Climate System Model (NCAR CCSM); the European Centre/Hamburg Model (ECHAM); and the Geophysical Fluid Dynamics Laboratory Coupled Model (GFDL-CM21). These models were chosen because they represent the highest, middle, and lowest projections for changes in Africa in the Climate Moisture Index (CMI), a measure of the relative balance of precipitation and temperature. The models were run using the A1B SRES scenario, a scenario of economic activity and carbon emissions that most closely represents the current or business-as-usual economic and carbon emissions trajectory. The data presented as maps and graphs are the difference (delta) of a ten year average of GCM monthly values for the SRES A1B scenario compared with the 30 year average base period (1961 -1990). The Climate Mapper was developed by USAID, NASA, the Institute for the Application of Geospatial Technology (IAGT), the University of Colorado, and CATHALAC.
Target group	Development planners, academic institutions, general public.
Costs	free
Time needed	Five minutes to download and install with broadband connection. Afterward, tool is interactive and results instantaneous.
Level of climate expertise needed	low to moderate
Status of application in your organisation	voluntary
Web based tool	yes
Web link	http://www.iagt.org/focusareas/envmon/climatechg.aspx
Contact	John Furlow, USAID, jfurlow@usaid.gov

Screenshots Climate Mapper by USAID, NASA, CATHALAC e.a.

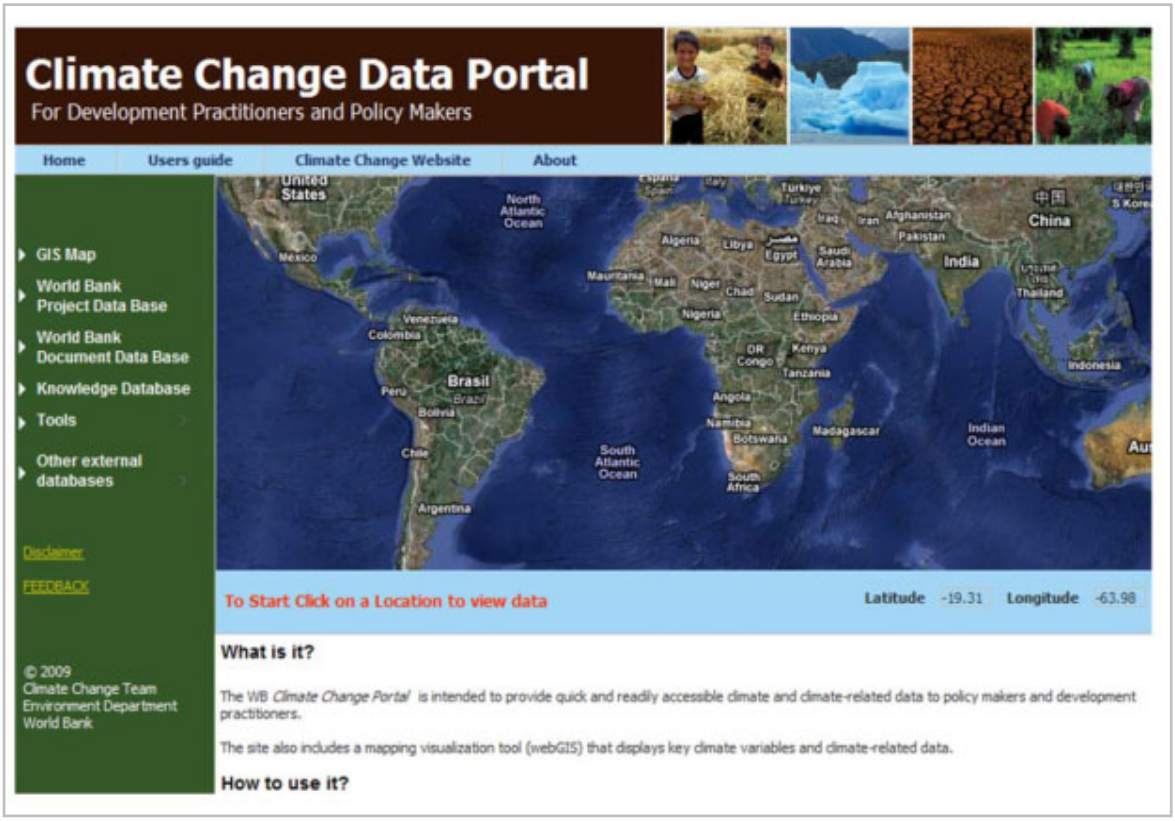


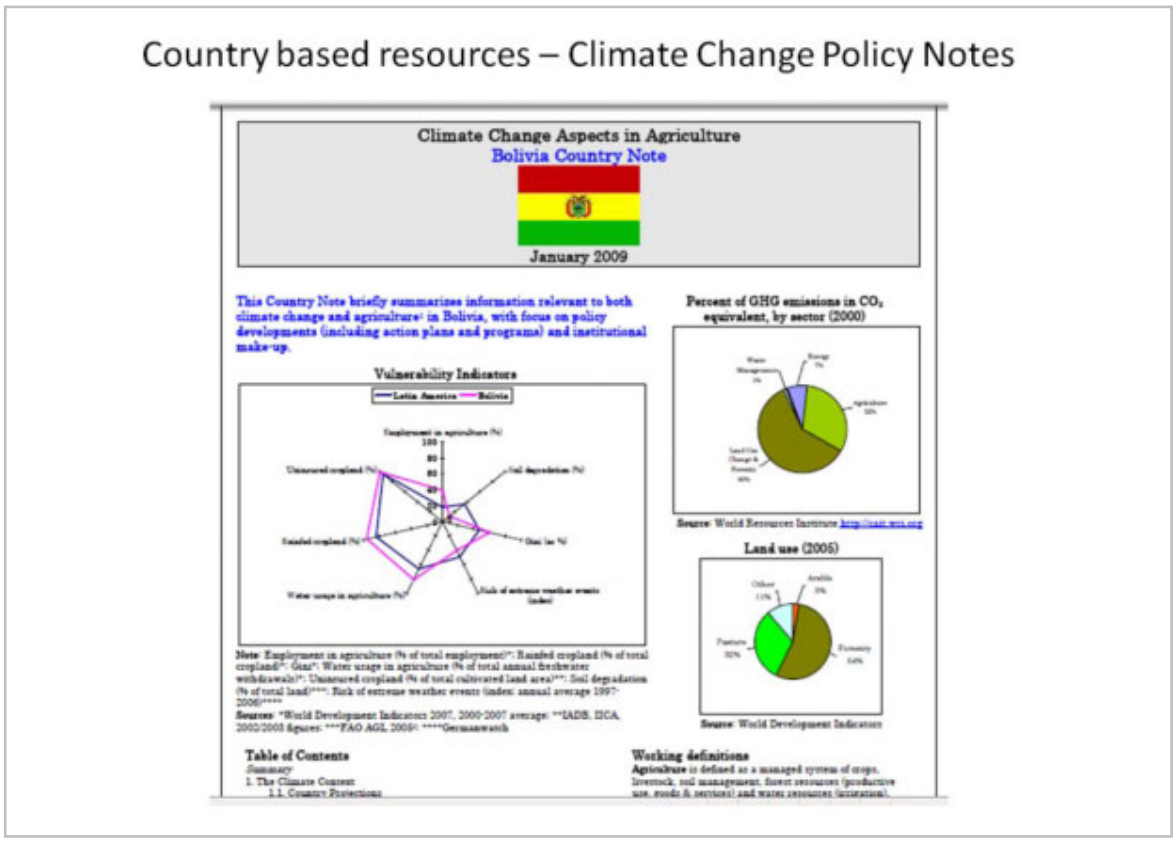


A1.2 Climate Change Data Portal by the World Bank

Organisation	World Bank
Name of tool	Climate Change Data Portal
Short description	The Climate Change Data Portal provides an entry point for access to climate related data and tools. The Portal provides access to comprehensive global and country data information related to climate change and development. The portal intends to serve as a common platform to collect, integrate, and display climate change relevant information at the global scale.
Target group	Policy Makers and Development Practitioners.
Costs	free of charge
Time needed	Less than one hour.
Level of climate expertise needed	low to medium
Status of application in your organisation	voluntary
Web based tool	yes
Web link	http://www.worldbank.org/climateportal
Contact	Ana Bucher, World Bank, abucher@worldbank.org Ian Noble, World Bank, inoble@worldbank.org
Other important information	Open source platform with intelligent links to global climate-related databases. The portal contains historical and projected spatially referenced data, a webGIS visualisation tool, and access to resourceful information at the country level.

Screenshots World Bank

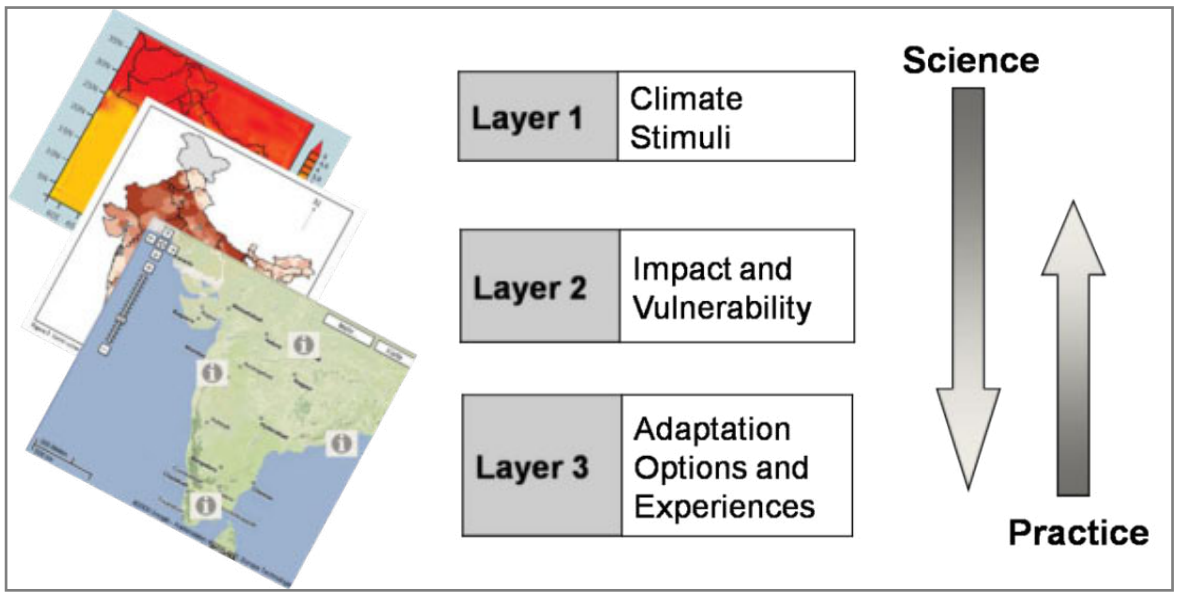


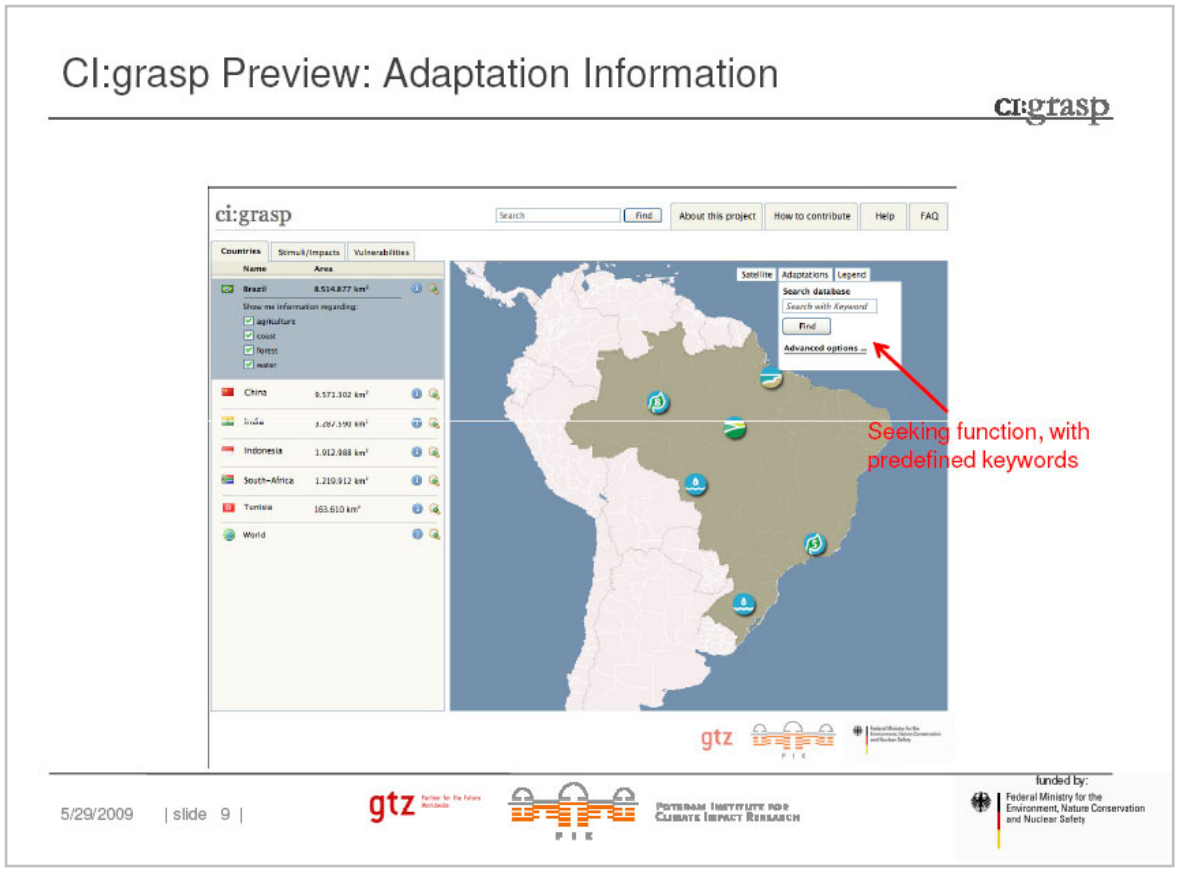


A1.3 CI:grasp by PIK and GTZ

Organisation	Potsdam Institute for Climate Impact Research (PIK) and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
Name of tool	CI:grasp (Climate Impacts: Global & Regional Adaptation Support Platform)
Short description	An interactive information platform will be developed, initially in some pilot countries. The platform will contain 3 main information layers, compiled and collected in a user friendly manner: • Climate change parameter (like temperature, precipitation, wind, etc.) • Physical and socio-economic impacts (e.g. sea-level rise, chances in agricultural production, losses due to extreme events, etc.) • Adaptation options and experiences. Where information on impacts is lacking, it will be complemented by research for the most important sectors. All information will be freely available in an internet platform visualised mainly through maps. Other additional information sources like links to relevant literature, etc. will be added. Using the latest Web 2.0 applications adaptation experts and practitioners can furthermore feed in their experiences through pre-structured web forms and geo-tags, which will undergo quality control mechanisms. CI:grasp is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.
Target group	Decision makers that want to anticipate climate change in their decisions and search for options of adaptation to climate change. These could be e.g. ministries, governmental agencies, sector specialists, development agencies, NGOs, etc.
Costs	free of charge
Time needed	2 hours
Level of climate expertise needed	moderate
Status of application in your organisation	voluntary
Web based tool	yes
Web link	http://www.ci-grasp.org/
Contact	Jan Peter Schemmel, GTZ, jan-peter.schemmel@gtz.de Dr. Jürgen Kropp, PIK, kropp@pik-potsdam.de

Screenshots CI:grasp by PIK and GTZ



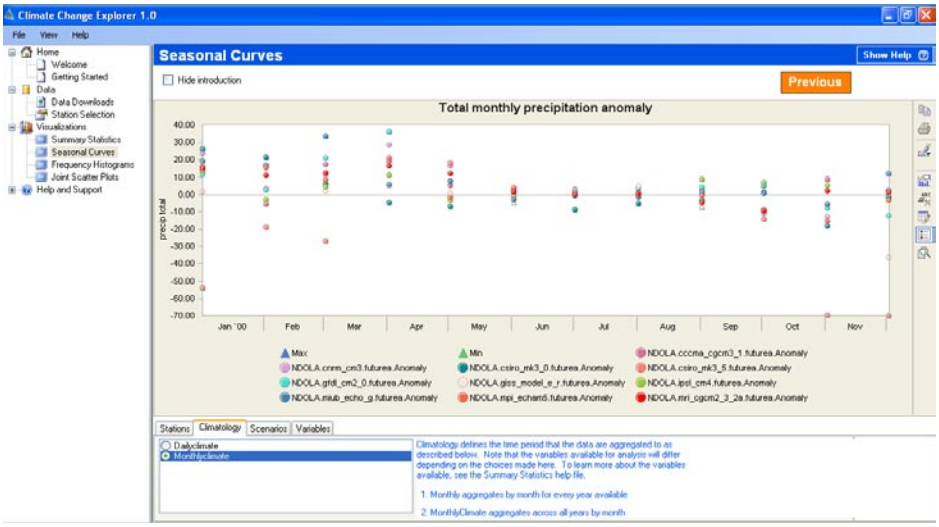


A1.4 weADAPT by Stockholm Environmental Institute (SEI)

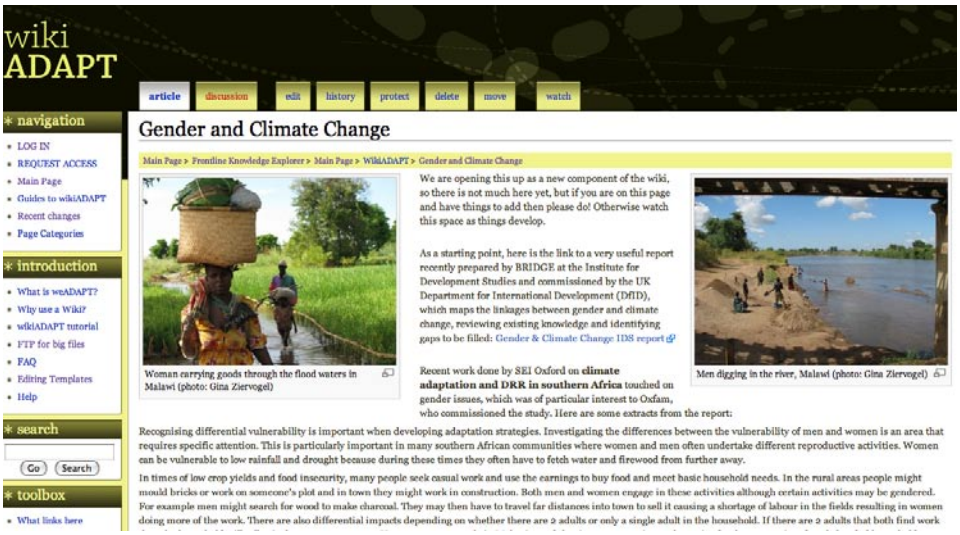
Organisation	Stockholm Environment Institute (SEI) e.a.
Name of tool	weADAPT (a suite of tools referred to as a platform)
Short description	weADAPT is the overall brand for a set of activities, tools and services developed through collaboration between the Stockholm Environment Institute (SEI), the University of Cape Town and an expanding number of other partners. Tools in the weADAPT set include: Climate Change Explorer (CCx) is a software tool that enables the user to access and use local climate data. The CCx is essentially a tool for assessing climate risks and enables non-expert users to explore the range of plausible climate futures to inform robust adaptation decisions. CCx is available for download and currently provides statistically downscaled projections for over 1000 stations in Africa and 300 in Asia from 10 GCM models. The tool allows for comparisons to be made between the current climate and the envelope of future climate projections, and is designed not just for use by climatologists but decision-makers, as well. Guidance is provided within the tool to help the user interpret what the data is showing and its relevance for making adaptation decisions, including tackling the issue of uncertainty. The material provided within the tool is supported by additional information available on wikiADAPT, a web 2.0 tool for dynamically developing guidance material, documenting and sharing experiences in undertaking adaptation research, practice and policy-making, publicly open for both viewing and contributing. Newer components of weADAPT include an Adaptation Layer in Google Earth that takes a variety of information relevant to climate adaptation in a specific location (including videos and graphics) and makes it easy to find. Also under development is the Adaptation Decision Explorer**,** a decision support tool to screen adaptation options.
Target group	Decision-makers including project officers, planners and advisors in technical assistance agencies, NGOs, donor agencies, as well as researchers and those involved in policy processes.
Costs	All tools and materials are free to download and use; if downscaled data is required for additional stations there is some cost involved in accessing and processing the input data, applying the downscaling technique and analysing the output data; support services including training and are also on offer.
Time needed	Not intended for one-time use but rather on-going.
Level of climate expertise needed	Some tech-know how is helpful.
Status of application in your organisation	Platform has been institutionalised at SEI Oxford and working on collaborations with others (SEI Asia, US and Stockholm, UNEP, Sida, Enda, DFID, Oxfam, etc.) to expand its use.
Web based tool	wikiADAPT is web-based; CCx, Adaptation Layer and ADx prototypes currently available for download with plans to make these tools web-based in the near future.
Web link	http://www.weadapt.org/
Contact	Anna Taylor, SEI, anna.taylor@sei.se; Ian Tellam, Educational Training Consultants Foundation (ETC), ian.tellam@etcnl.nl

Screenshots weADAPT by Stockholm Environmental Institute (SEI)

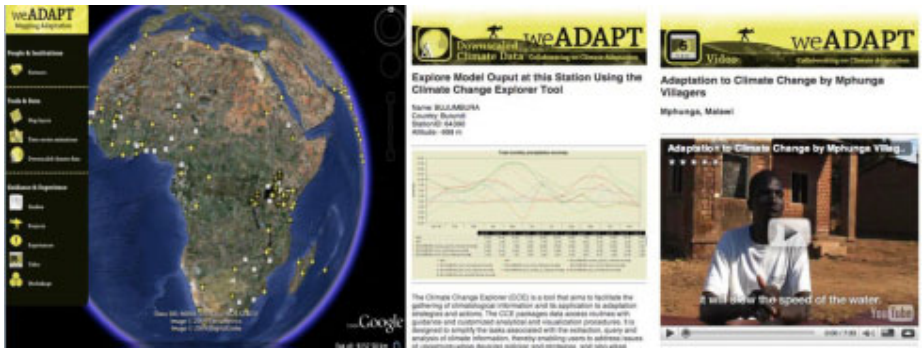
Sample of data view in the Climate Change Explorer



Sample of wikiADAPT page



Sample of Adaptation Layer view and information balloons



A1.5 ALM by UNDP

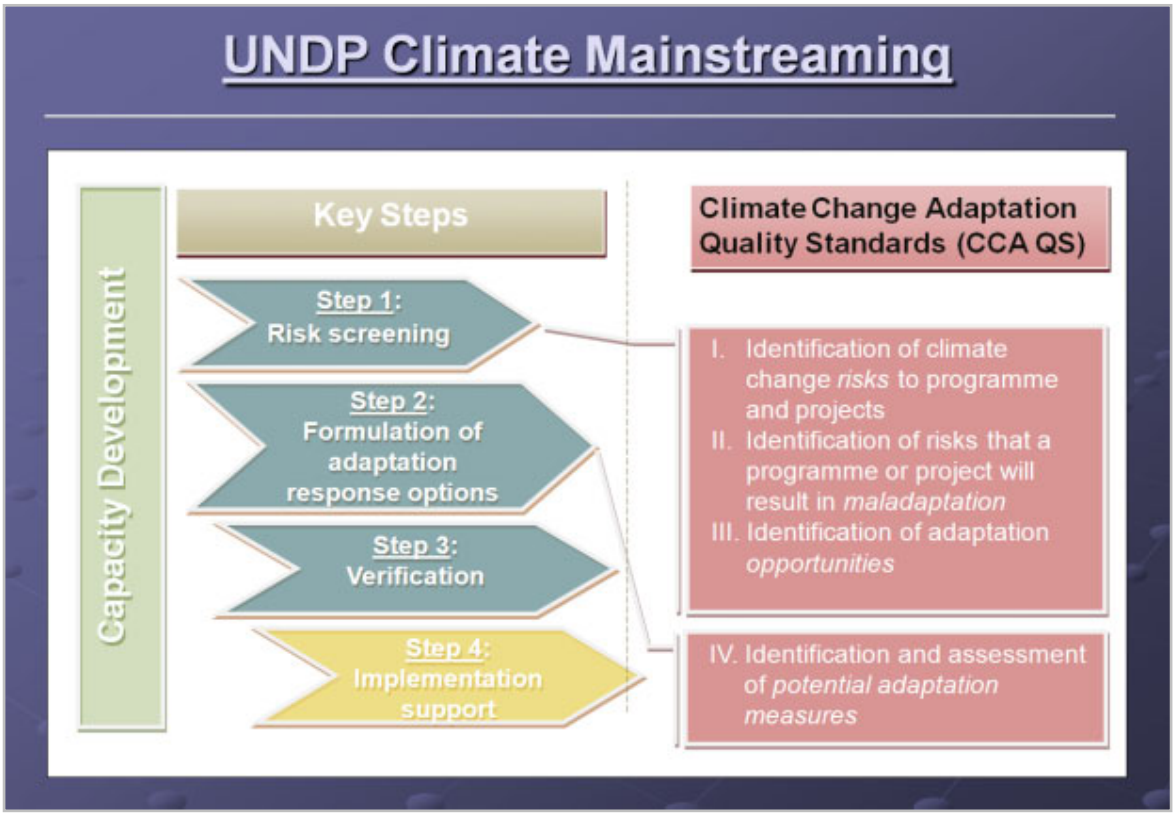
Organisation	United Nations Development Programme (UNDP)
Name of tool	Adaptation Learning Mechanism (ALM)
Short description	The Adaptation Learning Mechanism (ALM) supports *learning on climate change adaptation through good practice and experience* by promoting knowledge exchange and collaboration between practitioners. The ALM is an inter-agency knowledge platform facilitated by the United Nations Development Program (UNDP), in partnership with the World Bank (WB), United Nations Environment Program (UNEP), and the United Nations Framework Convention on Climate Change (UNFCCC). The ALM's primary objective is to help stakeholders integrate adaptation to climate change into development planning. Drawing from experiences on the ground, the ALM provides good practice and operational guidance for adaptation and is designed to accelerate the process of learning. Among its many features, the ALM platform highlights adaptation experiences, country profiles and regional pages. Becoming a member of the ALM will allow stakeholders to join expert group discussions on key adaptation issues and approaches, network with the ALM community to broaden and strengthen adaptation work, and contribute information on climate change adaptation. Three-year ALM project was launched in late 2007. It is funded by the Global Environment Facility, with co-financing from the Swiss Agency for Development and Cooperation and the *Institut de l'Énergie et de l'Environnement de la Francophonie*.
Target group	The ALM targets development practitioners and is seeking to create partnerships across agencies, sectors and levels, i.e. UN, IGO's, national and local government representatives, Civil Society Organisations, private sector, community-based organisations.
Costs	free of charge
Level of climate expertise needed	any level
Status of application in your organisation	voluntary
Web based tool	yes
Web link	http://www.adaptationlearning.net/
Contact	Julia Wolf, UNDP, julia.wolf@undp.org, ALM Project Manager

Screenshots ALM by UNDP

A1.6 CCA QS – Quality Standards by UNDP

Organisation	United Nations Development Programme (UNDP)
Name of tool	UNDP's Quality Standards for the Integration of Adaptation to Climate Change into Development Programming (CCA QS)
Short description	UNDP's CCA QS provides a comprehensive yet concise and structure framework to ensure that climate change risks and opportunities are adequately addressed in its development practice. The guidance presents a framework for best practices to facilitate a successful incorporation of climate change adaptation concerns in development programs and projects. The guidance is useful to (i) assist UNDP staff in the identification of climate change risks and opportunities relevant to existing programmes and projects, and (ii) integrate adaptation into new programmes and projects. Project/programme planners and implementers are guided in the assessment of four 'quality standards': • Identification of climate change risks to programmes and projects; • Identification of risks that a programme or project will result in maladaptation; • Identification of adaptation opportunities; and • Identification and assessment of potential adaptation measures. A set of questions guides the user in meeting each quality standard requirement, providing a robust guidance on the actions necessary to a comprehensive adaptation strategy.
Target group	Project and programme planners and implementers
Time needed	The rapid screening**:** a few hours to a few days; the detailed screening: depends on the availability of the information.
Level of climate expertise needed	medium to high
Status of application in your organisation	Pilot stage in 5 countries.
Web based tool	no
Web link	N/A
Contact	Marjolaine Côté, UNDP, marjolaine.cote@undp.org, Project Coordinator, Environment and Energy Group
Other important information	The quality standard guideline is still under development and therefore not broadly accessible yet.

Figure CCA QS – Quality Standards by UNDP

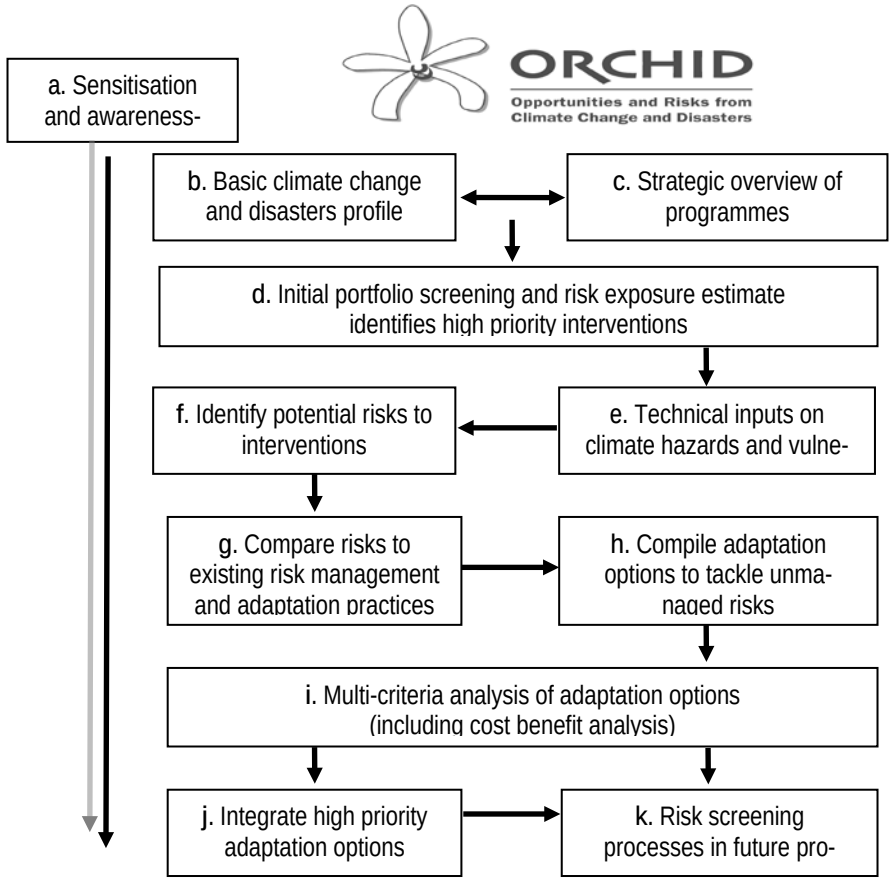


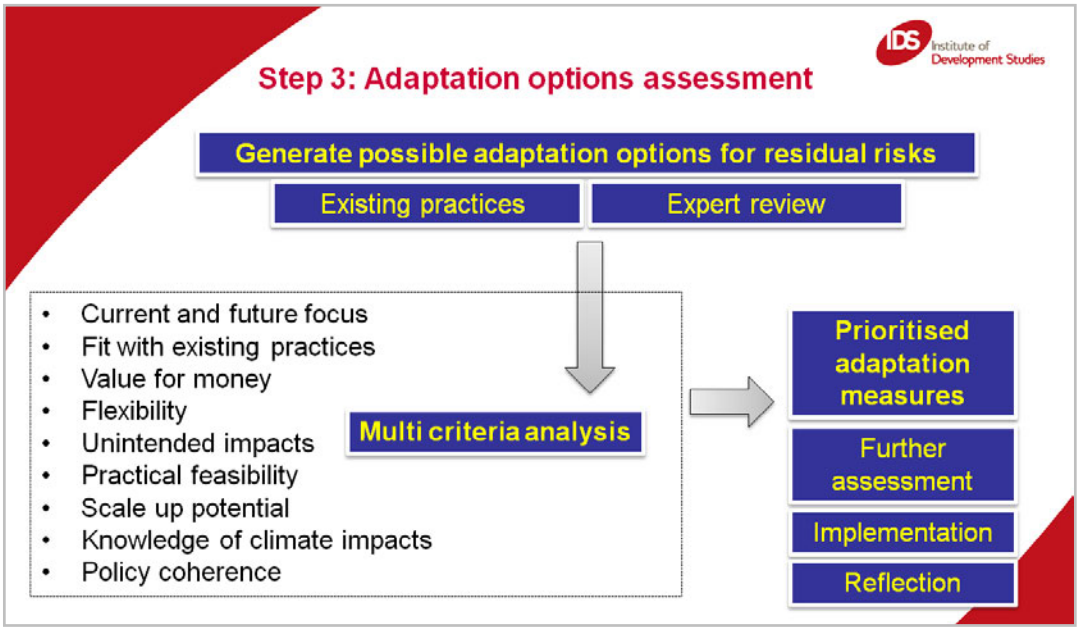
A1.7 ORCHID by DFID

Organisation	UK Department for International Development (DFID)
Name of tool	ORCHID (Opportunities and Risks of Climate Change and Disasters)
Short description	ORCHID is a systematic climate risk management methodology which assesses the relevance of climate change and disaster risks to an organisation's portfolio of development projects. The aim of ORCHID is to help development organisations and their partners to integrate risk reduction and adaptation processes into their programmes. It makes use of already available climate and vulnerability data and considers existing climate and disaster risk management practices. It employs multi-criteria analysis and cost benefit analysis to prioritise additional adaptation and disaster risk reduction options relevant for the programme. The ORCHID methodology has been piloted in DFID country offices in Bangladesh and India, and was adapted for use (as CRISP) for broader sector support in Kenya.
Target group	Development agency and partner agency programme managers.
Costs	Dependent on level of detail and availability of climate and vulnerability data, but assessment of an agency's 20 programme country portfolio could be carried out with roughly 40 days consultancy input, split between international and national expertise.
Time needed	Ideally the methodology is used as part of ongoing systems for programme development and monitoring rather than a one-off input. As a one-off it could be carried out in 1-2 months.
Level of climate expertise needed	Basic understanding of climate information and its uncertainty/limitations.
Status of application in your organisation	voluntary
Web based tool	no
Web link	http://www.ids.ac.uk/climatechange/orchid
Contact	Thomas Tanner, IDS, t.tanner@ids.ac.uk Eleanor Briers, DFID, E-Briers@dfid.gov.uk
Other important information	The lessons from the ORCHID pilots are currently being included in an integrated assessment process covering climate change, disaster and environment risks for DFID-supported productive sector programmes in South Asia.

Figures ORCHID by DFID

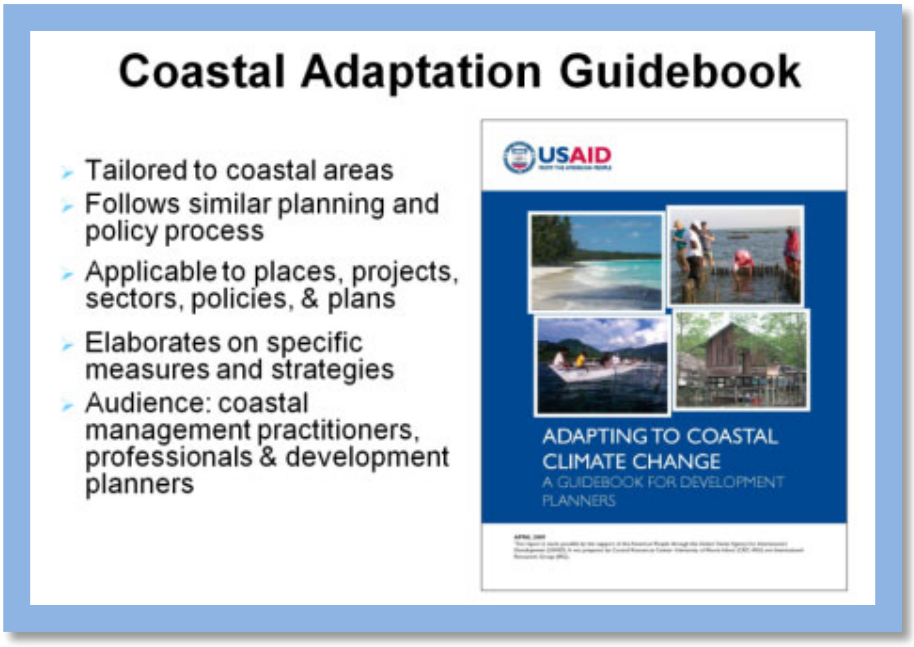
The ORCHID Climate Risk Screening Methodology



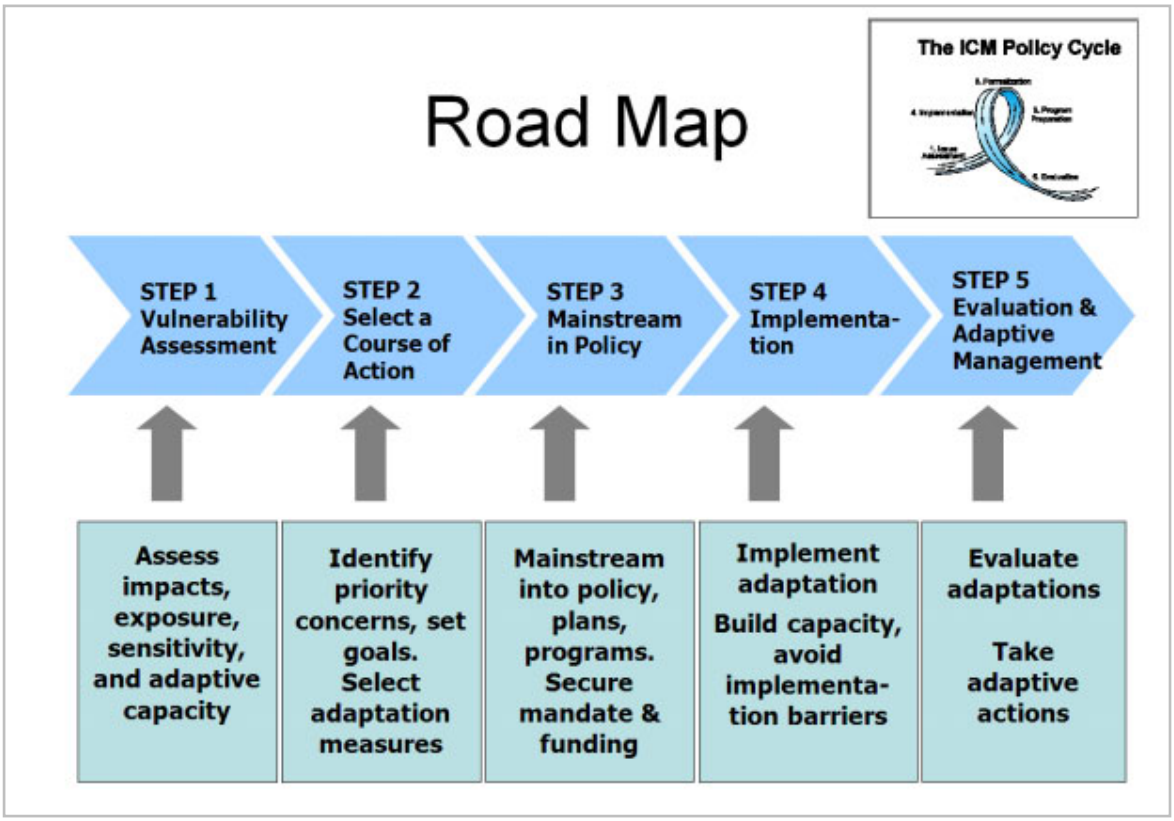


A1.8 Coastal Adaptation Guidebook by USAID

Organisation	United States Agency for International Development (USAID)
Name of tool	Adapting to Coastal Climate Change: a Guidebook for Development Planners
Short description	The coastal adaptation guidebook is a companion document to the USAID V&A manual and provides the practitioners with more detailed and sector-specific guidance for responding to climate change in coastal areas. Seventeen briefs on coastal adaptation measures and strategies are provided.
Target group	Coastal planners, practitioners, and policy makers.
Costs	Depends on context and type of application.
Time needed	Requires an inclusive and participatory planning process generally lasting 1-3 years.
Level of climate expertise needed	moderate
Status of application in your organisation	voluntary
Web based tool	No, but it is available online: http://www.usaid.gov/our_work/environment/climate/docs/reports/coastal_adaptation_guide.pdf
Web link	http://www.crc.uri.edu/
Contact	Pam Rubinoff, Coastal Resources Centre (CRC), Rubi@crc.uri.edu John Furlow, USAID, jfurlow@usaid.gov



Figures Coastal Adaptation Guidebook by USAID



A Repetoire for the Practitioner

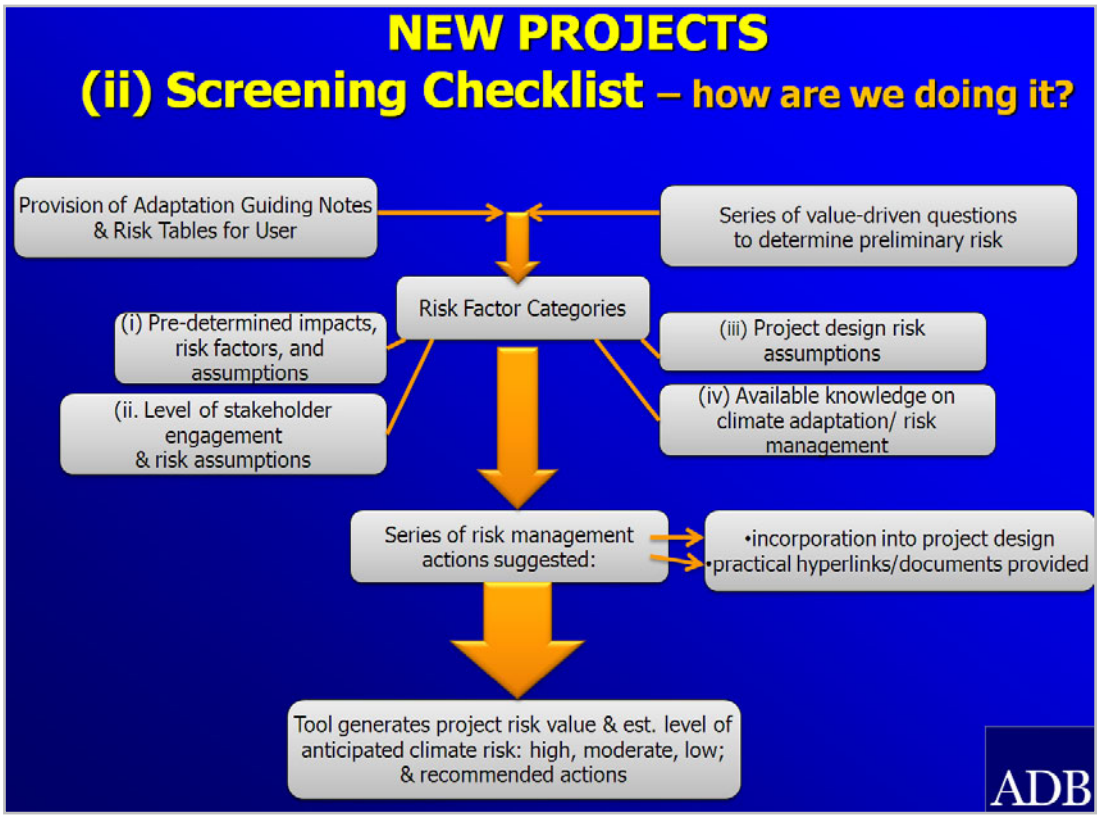
(and, by the practitioner)

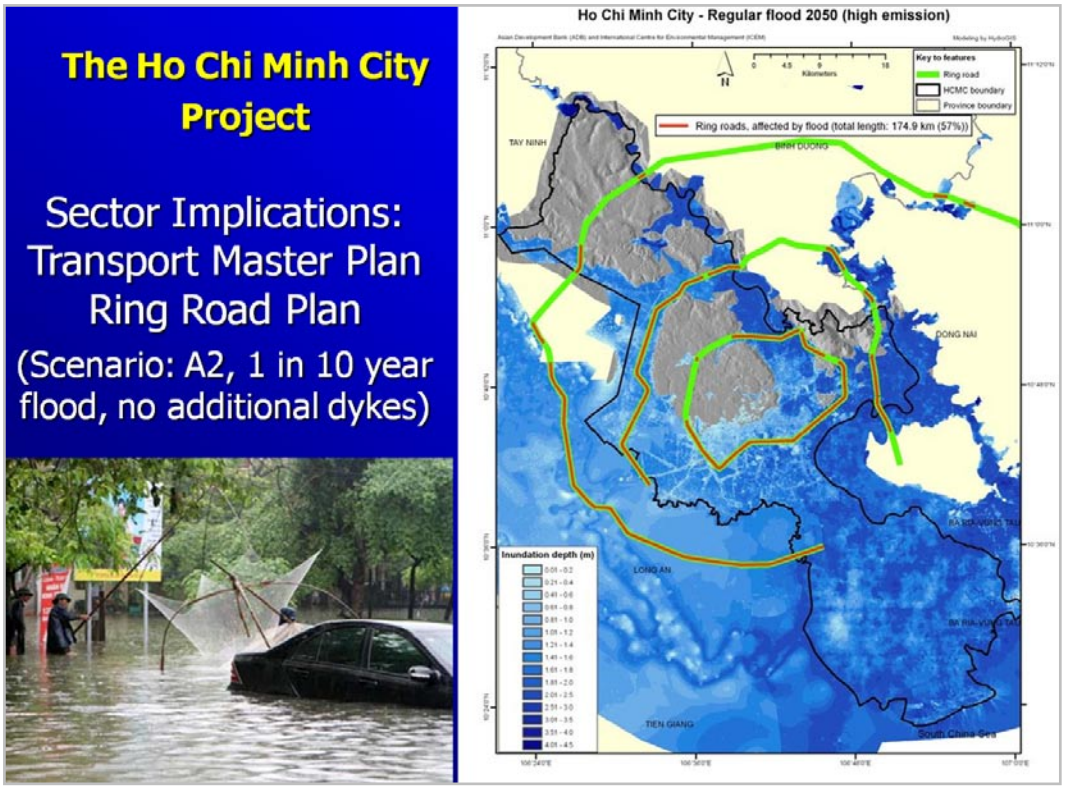
Measure	Adaptation goals				
	Functioning and healthy coastal ecosystems	Reduced exposure and vulnerability of the built environment	Strengthened governance, policy and planning	Livelihood support	Human health and safety
Wetland protection and restoration	X	x		x	x
Marine protected areas	X		x	x	
Living shorelines	X	x			x
Coastal development setbacks	x	X			x
Shorefront stabilization	x	X		x	x

A1.9 Project Screening Tool by ADB

Organisation	Asian Development Bank (ADB)
Name of tool	Project Screening Tool (PST) for Climate Risks
Short description	The PST is a simple checklist that helps project officers to consider climate risks and how to reduce them in project design and operations. By identifying four risk factor categories: • Pre-determined impacts, risk factors, and assumptions • Level of stakeholder engagement & risk assumptions • Available knowledge on climate adaptation/ risk management • Project design risk assumptions The tool aims at generating project risk value and estimates the level of anticipated climate risk (high, moderate, low).
Strenghts	• Simple and easy to use • Gives preliminary guidance
Weaknesses	• Limited rigor (e.g. point system very basic) • Some 'red herrings' (e.g.: Climate Screening "Are there any noted references to climate change and risk reduction measures in the project support documents"? if there are no climate risks…they won't be noted …yet answering "no' will raise risk level!); or questions with faulty logic (e.g. projects identified in NAPAs are low risk; maybe it should be the other way around… that projects in NAPAs mean they are at risk!), and some redundancies. • The PST raises the awareness of the project's climate risks but does not provide the officer with suggestions on the project level; the project officer needs to approach the ADB's climate expert for concrete recommendations
Target group	Project Officers at ADB and other organisations
Costs	free of charge
Time needed	30 min to 2 hours
Level of climate expertise needed	low
Status of application in your organisation	voluntary
Web based tool	no
Contact	Jay Roop, ADB, jroop@adb.org

Screenshots Project Screening Tool by ADB



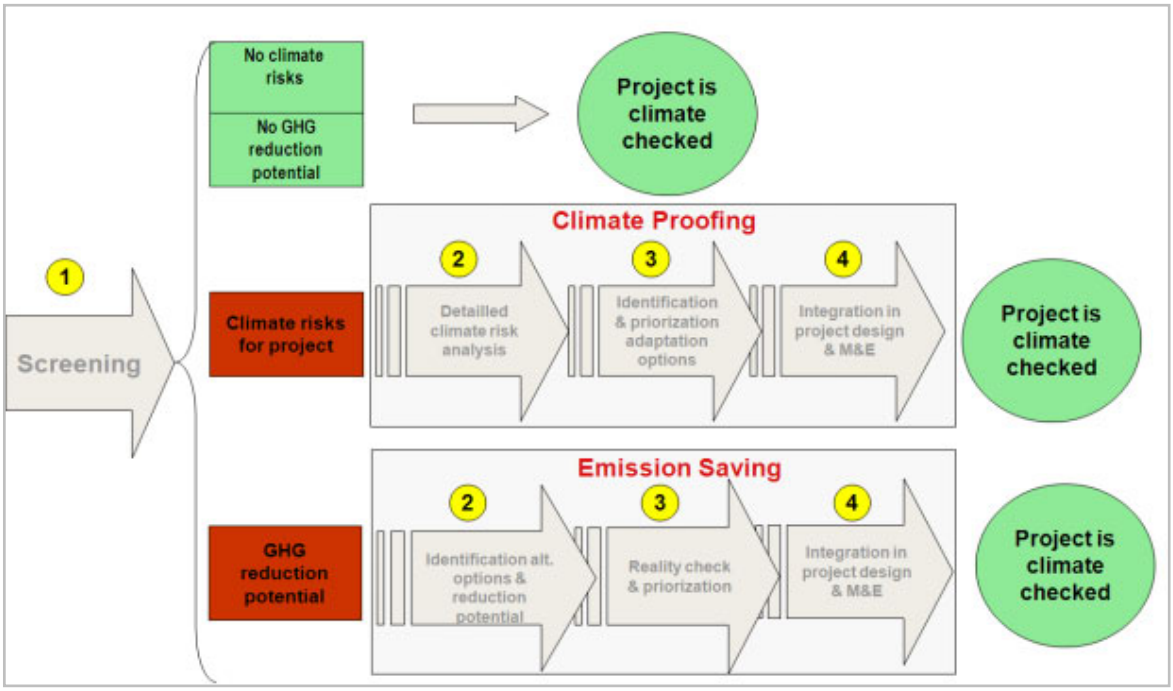


A1.10 Climate Check by GTZ

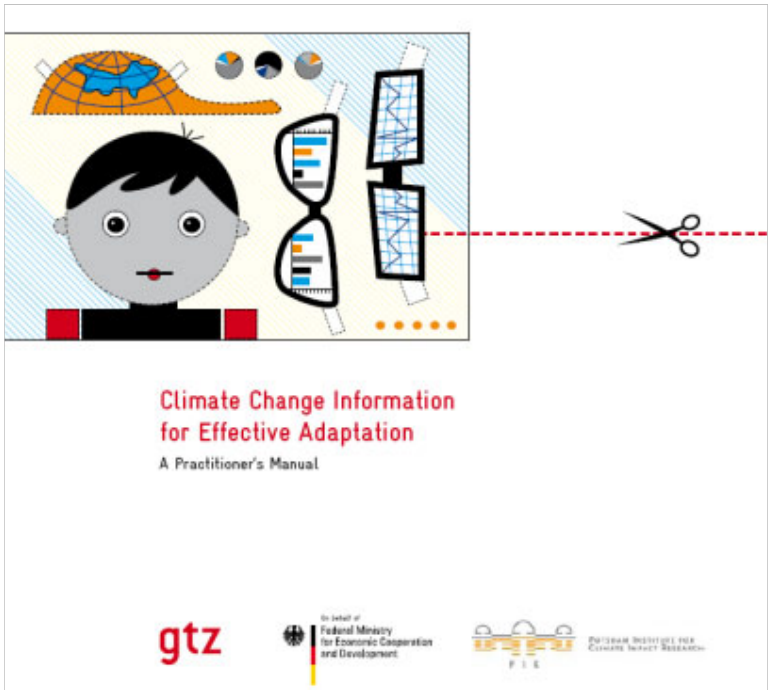
Organisation	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ)
Name of tool	Climate Check
Short description	As part of an overall mainstreaming strategy, GTZ has developed a 'Climate Check'. The objectives of this instrument are: • to systematically reduce risks and maximise chances induced by climate change for the impacts of development programmes. • to systematically maximise contributions of cooperation programmes to reducing greenhouse gas emissions. The Climate Check contains two instruments: • Climate Proofing systematically analyses the risks that climate change poses to the sustainability of development projects and identifies adaptation strategies for adjusting projects. • Emission Saving analyses how projects can contribute to mitigating climate change and identifies alternative options and measures to maximise these contributions. An overall guidance, sector specific material and a Practitioner´s Manual on the use of Climate Change for Effective Adaptation are provided to support the users. The instrument is targeted to GTZ programmes but also can also used – with some modifications - for partners to integrate climate change aspects in their work. GTZ has started to use it in its advisory service.
Target group	GTZ staff, partner institutions, development experts
Costs	1-7 man-days, potentially travel and accommodation costs
Time needed	Depending on level of detail: 1 to 7 days.
Level of climate expertise needed	Targeted to persons that are not explicit climate experts, training necessary
Status of application in your organisation	mandatory / voluntary Will become mandatory by beginning of 2010.
Web based tool	no
Web link	http://www.gtz.de/climate-check
Contact	Michael Scholze, GTZ, michael.scholze@gtz.de Jan Peter Schemmel, GTZ, jan-peter.schemmel@gtz.de

Figure Climate Check by GTZ

Climate Check Flow Diagram



Climate Check support material



A1.11 CRiSTAL by IISD

Organisation	International Institute for Sustainable Development (IISD)
Name of tool	CRiSTAL (Community-based Risk Screening Tool – Adaptation & Livelihoods)
Short description	CRiSTAL is a screening process designed to help project designers and managers integrate risk reduction and climate change adaptation into community-level projects. Specifically, it helps project designers and managers: (a) Understand the links between livelihoods and climate in their project areas; (b) Assess a project's impact on community-level adaptive capacity; and (c) Make project adjustments to improve its impact on adaptive capacity and reduce the vulnerability of communities to climate change. Users can follow this process through a Microsoft Excel interface or by reading the accompanying document (User's Manual). Training in CRiSTAL has been undertaken in Africa, Asia and Latin America and feedback from these sessions is being used to continually update and revise the tool.
Target group	Project planners and managers working at the community level.
Costs	Staff time, travel or field costs associated with community consultations.
Time needed	Minimum 1 day upwards, depending on the number and type of stakeholder consultations involved.
Level of climate expertise needed	Basic knowledge of climate change and adaptation to climate change.
Status of application in your organisation	voluntary
Web based tool	yes/no (both – available online and offline)
Web link	http://www.cristaltool.org/
Contact	Anne Hammill, IISD, ahammill@iisd.org
Other important information	CRiSTAL is available in English, French and Spanish. Training workshops offered in partnership with CARE International and their Climate Vulnerability and Capacity Analysis (CVCA) framework.

Screenshots CRiSTAL by IISD

CRiSTAL 3.2

Community-based Risk Screening Tool: Adaptation and Livelihoods

Livelihoods and Climate Change

In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) concluded that the globally averaged surface temperatures increased 0.74 ± 0.2°C between 1906 and 2005. This trend is expected to persist, with a 1.8 to 4°C warming predicted for the current century. (1) Warming will vary by region and be accompanied by significant changes in local precipitation, sea level rise and changes in the frequency and intensity of some extreme events. Yet these impacts will not be distributed or felt uniformly, as those "with the least resources have the least capacity to adapt and are the most vulnerable." (2)

Juergen Blaser, Intercooperation

Climate change will thus impact natural and human systems to alter the productivity, diversity and functions of many ecosystems and livelihoods around the world. For poor natural resource-dependent communities, climate change may compound existing vulnerabilities. Settlement on marginal or unstable lands already heightens exposure to climate hazards. Heavy dependence on ecosystem services places their welfare at the mercy of environmental conditions. As the availability and quality of natural resources decline, so does the security of their livelihoods. Limited resources and capacities for responding to stresses such as floods and droughts constrain their ability to meet basic needs and move out of poverty.

With climate change impacts already being observed, there is an urgent need for adaptive response measures. For the poor, this must start with actions that reduce current vulnerabilities and increase adaptive capacity so they can face the longer-term impacts of climate change. Reducing current vulnerabilities and increasing adaptive capacities, however, requires an understanding of how livelihoods are conducted and sustained, as the assets and capabilities that comprise peoples' livelihoods often shape vulnerability and the ability to reduce it. By understanding the dynamics of poor peoples' livelihoods, one can begin to understand how they will be affected by climate change impacts, how they might respond with the resources they have, what additional resources may be required and how these conditions can be reflected and built upon for successful adaptation strategies.

CRiSTAL is a decision-support tool that aims to provide a logical, user-friendly process to help users better understand the

What are the climate-related hazards, impacts and coping strategies in your project area?

Enter the main climate-related hazards that affect your project area, their associated impacts, and the primary coping strategy for each impact. To view definitions of "hazard", "impact" and "coping strategy", place your cursor over the word. To see examples of hazards, impacts and coping strategies, place your cursor over the associated text box.

If the answer to either "Is the strategy working" or "Is the strategy sustainable" is no, enter an alternative coping strategy.

Hazard 1:

Impact	Coping strategy	Is the strategy working?	Is the strategy sustainable?	Alternate coping strategy	Notes
	Example impacts: Crop damage/loss, Damage to dwellings, Depletion of grain stores, Disease, Disrupted transport, Fuel shortages, Household food insecurity, Income loss, Loss of life, Loss of savings, Loss of trees, Personal injury, Reduced fish stocks, Reduced soil fertility, Reduced water quality, Sick or weak livestock, Social conflict/tension, Unemployment, Water shortage	yes	yes		
		yes	yes		
		yes	yes		

Hazard 2:

Impact	Coping strategy	Is the strategy working?	Is the strategy sustainable?	Alternate coping strategy	Notes
		yes	yes		
		yes	yes		
		yes	yes		

Hazard 3:

A1.12 PRECIS by Met Office Hadley Centre

Organisation	Met Office Hadley Centre
Name of tool	PRECIS (Providing REgional Climates for Impacts Studies)
Short description	PRECIS is based on the Hadley Centre's regional climate modelling system. It has been ported to run on a PC (under Linux) with a simple user interface, so that experiments can easily be set up over any region. • PRECIS incorporates information on large-scale climate changes from 20 global climate models • PRECIS can provide detailed climate information (at 25 or 50 km resolution) for any region of the world including on the climate of the recent past (1957-2004) • PRECIS data-processing and visualisation tools enable manipulation, statistical processing and application of data • PRECIS projects provide scientific and technical support for climate scenario generation and application PRECIS was developed in order to help generate high-resolution climate change information for as many regions of the world as possible. The intention is to make the tool freely available to groups of developing countries in order that they may develop climate change scenarios at national centres of excellence, simultaneously building capacity and drawing on local climatological expertise. These scenarios can be used in impact, vulnerability and adaptation studies.
Target group	Anybody interested in climate scenario generation and application.
Costs	PRECIS DVD is supplied to institutions free of charge (subject to the terms of the PRECIS license agreement) by the Hadley Centre to institutes in non-Annex I countries as defined by the UNFCCC. Other institutes are charged € 5,000 to attend the mandatory PRECIS workshop (see below).
Time needed	A typical experiment, covering a 100-by-100 gridbox domain and including a representation of the atmospheric sulphur-cycle, run on a standard single-processor PC, takes 3 months to complete a 30-year simulation. On a multi-processor multi-core PC this can reduce to 15 days or less.
Level of climate expertise needed	The PRECIS DVD is only supplied in conjunction with a PRECIS workshop.
Web based tool	no
Web link	http://precis.metoffice.com/
Contact	precis@metoffice.gov.uk Richard Jones, Hadley Centre, richard.jones@metoffice.gov.uk.

Screenshots PRECIS by Met Office Hadley Centre

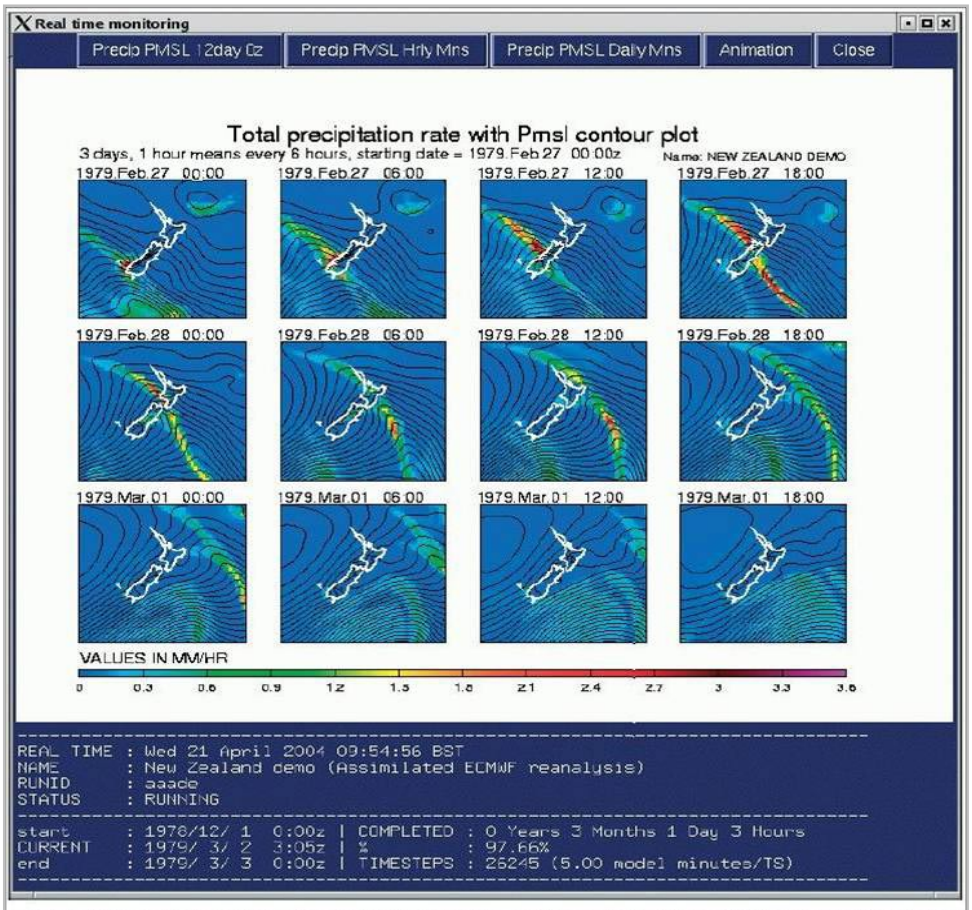
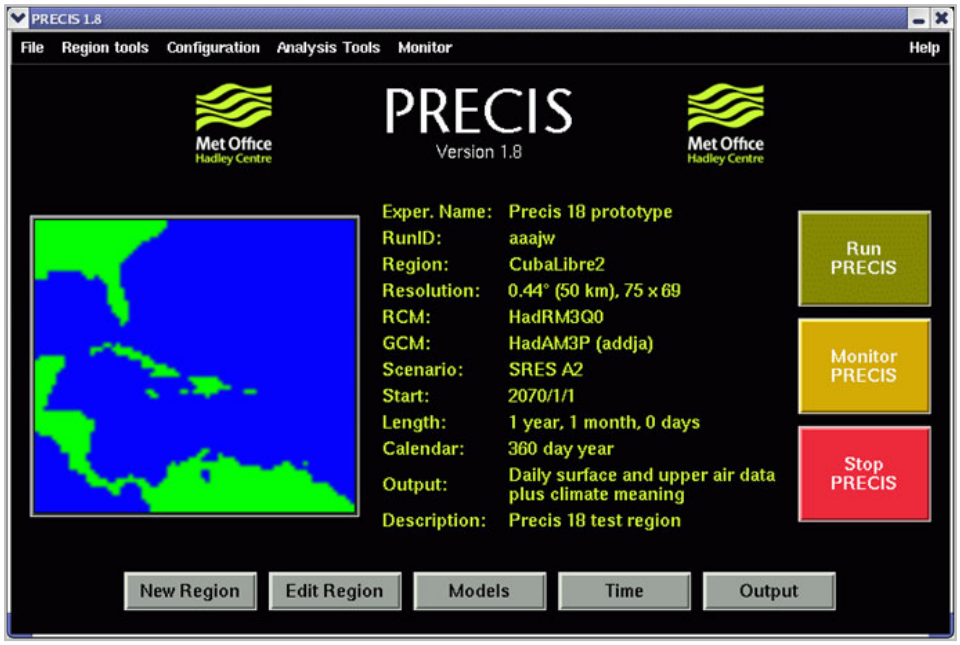


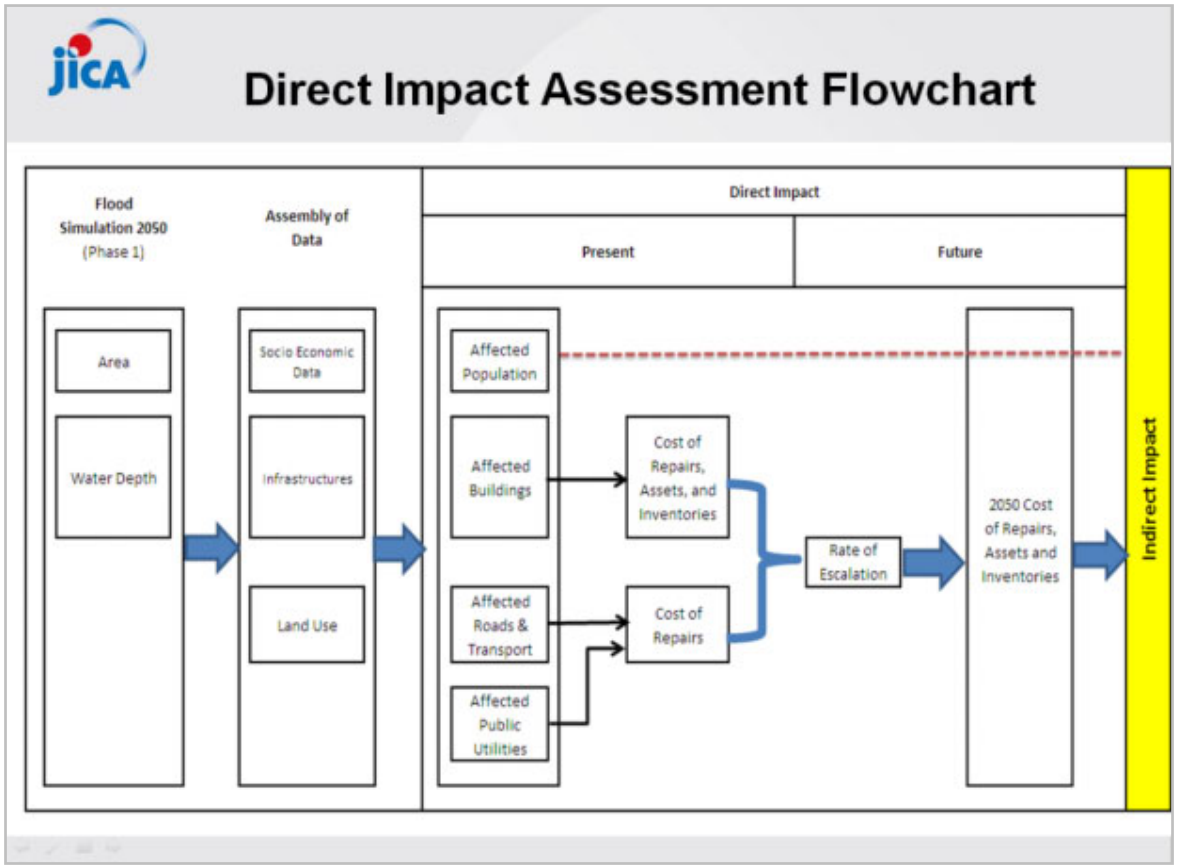
Figure 1: Example output monitoring the PRECIS RCM running over New Zealand, showing (from top left, clockwise) maps of rainfall (shaded) and mean sea level pressure isobars (contoured) at 6 hourly intervals for three successive days of a model integration.

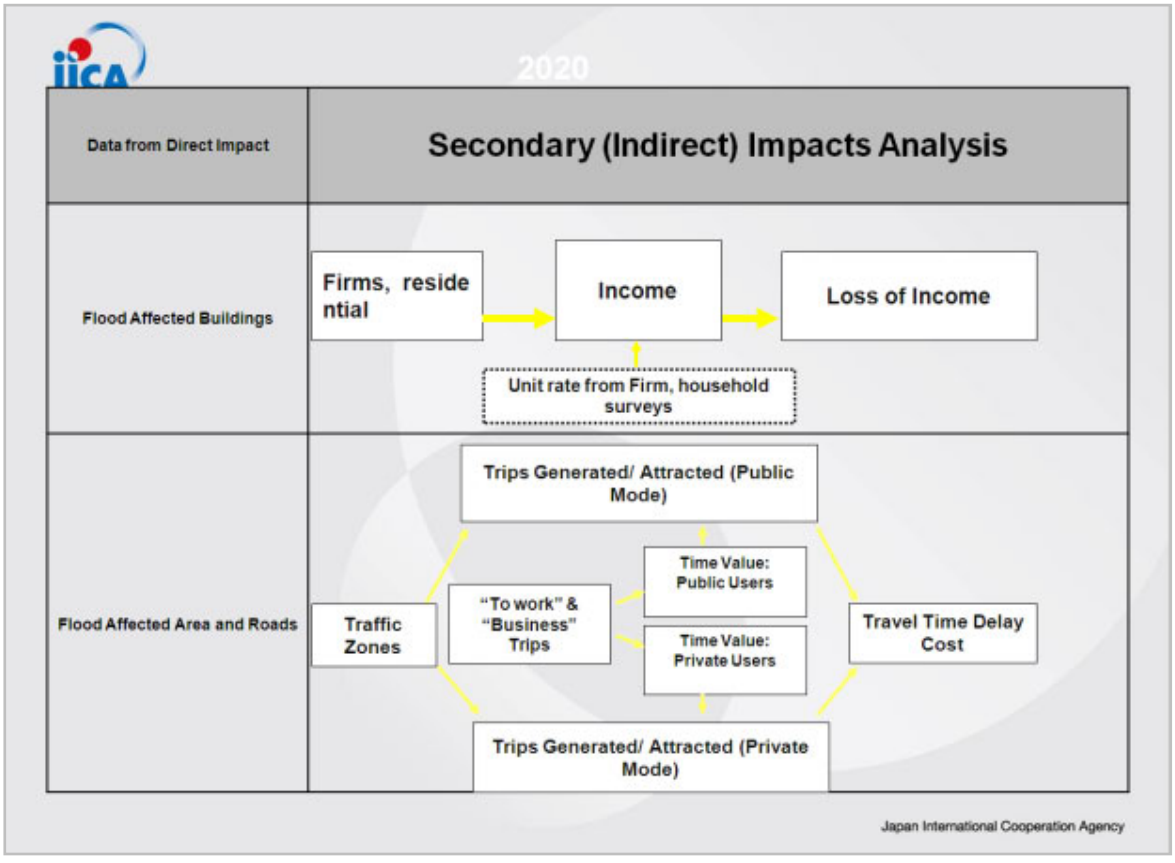


A1.13 Policy Tool for Climate Change Vulnerability Assessment by JICA

Organisation	Japan International Cooperation Agency (JICA)
Name of tool	Policy Tool for Climate Change Vulnerability Assessment
Short description	'JICA Policy Tool for Climate Change Vulnerability Assessment' aims to facilitate identifying policy options for wise localised adaptation measures against various climate risks and climate vulnerability through well-designed analysis framework. Combined datasets of high resolution, localised climate change simulation and existing weather data and information will be used to conduct detailed analysis for identifying development strategies, policies, plans and project proposals, which are based on cost and benefit analysis (CBA) to provide suitable options for policy makers, project officers and development partners. This approach has been applied in '*Study on Climate Change Adaptation in Asian Coastal Mega Cities'* conducted by JICA, WB and ADB, successfully demonstrating its usefulness and reliability as a policy analysis framework.
Strengths	• High resolution forecast • Combining multi-factor Impact • Consider alternatives & CBA • Applicable from policy making level to project design level
Weaknesses	• Time consuming • Data availability, collection
Target group	Policy makers, project officers and development partners around the globe, particularly useful for analysis of urban climate risk and vulnerability in developing countries
Costs	Depend on the factors (such as scale, data availability etc)
Time needed	Depend on the factors (such as scale, data availability etc)
Status of application in your organisation	voluntary
Web based tool	no
Contact	Sudo Tomonori, JICA, Sudo.Tomonori@jica.go.jp Muto Megumi, JICA, Muto.Megumi@jica.go.jp
Other important information	Further information on the Earth Simulator, please visit http://www.jamstec.go.jp/es/en/index.html

Screenshots Policy Tool for Climate Change Vulnerability Assessment by JICA





A1.14 E-Learning Tool 'Planning for community based climate change adaptation in agriculture' by FAO

Organisation	Food and Agricultural Organisation (FAO), University of Freiburg (Germany)
Name of tool	Planning for community based climate change adaptation in agriculture
Short description	The e-learning tool aims to contribute to awareness raising and capacity building on planning for climate change adaptation in the agricultural sectors. It builds on experiences in FAO projects, such as the LACC project (Livelihood adaptation to climate variability and change in drought-prone areas of Bangladesh) but includes a wider range of country specific examples and can be applied to all developing countries. The tool consists of four interactive learning modules in English language. The first two modules aim at an improved understanding of the phenomena and impacts of climate change in general and specifically for agriculture and allied sectors as well as introduce the concepts and examples of adaptation to climate change related to agriculture. The other two modules more specifically outline the procedures for planning and implementing community-based adaptation, with a major focus on participatory approaches and institutional aspects reflecting the understanding of adaptation as continuous socio-institutional learning process. The tool development builds on the experience gained in the preparation of the e-learning tool 'Climate and flood forecast applications in agriculture' available under http://www.webgeo.de/module/applied/FAO/probabilisticforecasts-bgd-fao.html
Target group	The primary target groups for the tool are field technicians and extension staff in agriculture and related sectors in developing countries affected by climate change impacts and thus likely to be exposed to the need to include adaptation issues into their daily work. The tool will also be helpful for the government and non-governmental organisations engaged in implementation of adaptation projects with a view to enhance the adaptive capacity of rural livelihoods in agriculture and allied sectors.
Costs	Will become freely available, on the web and as CD ROM.
Time needed	Stand alone about 3.5 h (but modules can also be picked individually), also to be used in 2 days workshop.
Level of climate expertise needed	low
Status of application in your organisation	voluntary
Web based tool	yes
Web link	not yet available; see similar E-learning Tool 'Climate and flood forecast applications in agriculture' available under http://www.webgeo.de/module/applied/FAO/probabilisticforecasts-bgd-fao.html
Contact	Stephan Baas, FAO, Stephan.Baas@fao.org
Other important information	A zero version of the tool is planned to be released by August 2009 for extensive testing through FAO experts and interested practitioners in developing countries, and will then be finalised based on the feedback received.

A1.15 CEDRA by Tearfund

Organisation	Tearfund
Name of tool	Climate change and Environmental Degradation Risk and Adaptation assessment (CEDRA)
Short description	CEDRA helps agencies working in developing countries to access and understand the science of climate change and environmental degradation and compare this with local community experience of environmental change. Climate change cannot be addressed in isolation from environmental degradation as the two are very closely interlinked. Using CEDRA, agencies can prioritise which environmental hazards may pose a risk to their existing projects and project locations, enabling them to make decisions to adapt some projects, stop doing some projects or start new ones. Adaptation options are discussed, and decision-making tools are provided to help with planning responses to the hazards identified. CEDRA includes integrating Disaster Risk Reduction responses as relevant existing forms of adaptation.
Target group	National and international development & relief agencies. Secondary audience: policy makers, national governments and decision makers.
Costs	Minimal if integrated into existing programmatic work. Costs include trainer, travel, training workshop, materials costs, monitoring and evaluation costs. If coordinated by an international consultant trainer providing an initial workshop, remote support, and in-country follow-up support, costs will be around 12000 Euros.
Time needed	2 weeks intensive, or 1 day a week over 3 months
Level of climate expertise needed	Minimal. However, experience of working in development is essential, and experience working in agriculture, water and sanitation, construction and/or community participatory approaches are beneficial.
Status of application in your organisation	mandatory / voluntary Both
Web based tool	yes/no. Available on the internet
Web link	http://tilz.tearfund.org/Topics/Environmental+Sustainability/CEDRA.htm
Contact	Mike Wiggins, Tearfund, mike.wiggins@tearfund.org

ANNEX 2 – Participants

Workshop Mainstreaming Adaption to Climate Change
Guidance and Tools

No.	Surname	Name	Organisation	Abbrev.	Country
1	Abaab	Ali	German Technical Cooperation, Tunisia	GTZ	Tunisia
2	Ahmed	Siham Mohamed	African Development Bank	AFDB	Tunisia
3	Åkesson	Ulrika	Swedish International Development Cooperation Agency	SIDA	Sweden
4	Akhtar-Schuster	Dr. Mariam	Biodiversity Research Coordination for the German Federal Ministry of Education and Research	BMBF	Germany
5	Aquino	Dr. Albert P.	Philippine Council for Agriculture, Forestry and Natural Resources Research and Development	PCARRD	Philippines
6	Belwal	Lalit Mohan	Madhy Pradesh Rural Livelihoods Project	MPRLP	India
7	Bergmann	Johanna	InWent - Capacity Building International	InWent	Germany
8	Biot	Dr. Yvan	Department for International Development	DFID	United Kingdom
9	Boulahya	Mohammed S.	Development initiative of the Joint Secretariat of AUC-ECA-AfDB in Disaster & Climate Risk Management and Adaption to the Climate Change	ClimDevAfrica	Africa
10	Brander	Martin Bo	Embassy of Denmark in Dhaka	Danish Embassy	Bangladesh
11	Briers	Eleanor	Policy and Programme	DFID	United Kingdom
12	Bucher	Dr. Ana E.	World Bank	World Bank	USA
13	Carty	David A.	Anguilla Energy Committee	Anguilla	Anguilla

No.	Surname	Name	Organisation	Abbrev.	Country
14	Davies	Dr. Craig	European Bank for Reconstruction and Development	EBRD	United Kingdom
15	Dembele	Boubacar Sidiki	Secretariat Technique Permanent / Environment	STP	Mali
16	Donato	Silvia	International Fund for Agricultural Development	IFAD	Italy
17	Dux	Dr. Joerg	KfW Development Bank	KfW	Germany
18	Faisal	Dr. Islam M.	Department for International Development Bangladesh	DFID	Bangladesh
19	Furlow	John	United States Agency for International Development	USAID	USA
20	Gader	Ghazi	German Technical Cooperation Tunisia	GTZ	Tunisia
21	Hammill	Anne	International Institute for Sustainable Development	IISD	Switzerland
22	Harnisch	Dr. Jochen	KfW Development Bank	KfW	Germany
23	Hiepe	Dr. Claudia	Food and Agriculture Organisation of the United Nations	FAO	Italy
24	Ingram	John	Global Environmental Change and Food Systems	GECAFS	United Kingdom
25	Irwin	Daniel	Marshall Space Flight Centre	MSFC / NASA	USA
26	Jaouhari	Youssef	Prefecture Inezgane / Department for Rural Affairs		Morocco
27	Jones	Dr. Richard	Met Office Hadley Centre	Hadley Centre	United Kingdom
28	Kamaye	Dr. Maâzou	University of Niamey and National Council of the Environment for Sustainable Development	CNEDD	Niger
29	Kind	Christian	Adelphi Research	Adelphi Research	Germany

No.	Surname	Name	Organisation	Abbrev.	Country
30	Kowal	Torsten Mark	Climate-Insight	Climate-Insight	United King-dom
31	Kropp	Dr. Jürgen	Potsdam Institute for Climate Impact Research	PIK	Germany
32	Künzi	Erwin	Austrian Development Agency	ADA	Austria
33	Kuriger	Janine	Swiss Agency for Development and Cooperation	SDC	Switzerland
34	Lim	Bo	United Nations Development Programme	UNDP	USA
35	Loster	Thomas	Munich Re Foundation	Munich Re Foundation	Germany
36	Lu	Dr. Xianfu	United Nations Framework Convention on Climate Change	UNFCCC	Germany
37	Manneh	Lamin	African Development Bank	AFDB	Tunisia
38	Mendez	Fernando	British Embassy	British Embassy	Bolivia
39	Mitra	Shantanu	Department For International Develop-ment	DFID	India
40	Moench	Dr. Marcus	Institute for Social and Environmental Transition	ISET	USA
41	Noble	Dr. Ian	World Bank	World Bank	USA
42	Parikh	Dr. Jyoti	Integrated Research And Action For Development	IRADe	India
43	Payormyong	Srisuwan	German Technical Cooperation Bangkok	GTZ	Thailand
44	Paz	Oscar	Mayor of San Andrés University	UMSA	Bolivia
45	Ratukalou	Inoke	Secretariat of the Pacific Community	SPC	Fiji Islands

No.	Surname	Name	Organisation	Abbrev.	Country
46	Reddy	Gala Baskhar	Orissa Watershed Development Mission	OWDM	India
47	Roncerel	Annie Bonnin	Environment Integration in EC Development Cooperation	Agreco	Belgium
48	Roop	James Albert	Asian Devevlopment Bank	ADB	Philippines
49	Sempris	Emilio	Water Centre for the Humid Tropics of Latin America and the Caribbean	CATHALAC	Panama
50	Sgobbi	Alessandra	European Commission - Europe Aid Cooperation Office	Europe-Aid	Belgium
51	Shakya	Clare Patricia	Department for International Development	DFID	Nepal
52	Sharma	Dr. Virinder	Department for International Development	DFID	United Kingdom
53	Speranza	Dr. Chinwe Ifejika	German Development Institute	DIE-GDI	Germany
54	Sudo	Tomonori	Japan International Cooperation Agency	JICA	Japan
55	Sutherland	Karen	Canadian International Development Agency	CIDA	Canada
56	Tanner	Dr. Thomas	Institute of Development Studies	IDS	United Kingdom
57	Taylor	Anna	Stockholm Environment Institute	SEI	United Kingdom
58	Tedjakusuma	Edi Effendi	National Development Planning Agency	BAPPENAS	Indonesia
59	Tellam	Ian	Educational Training Consultants Foundation	ETC Foundation	Netherlands
60	Tobey	James Ashley	Coastal Resources Centre, University of Rhode Island	CRC / URI	USA
61	Todd	Dr. Martin	University College London	UCL	United Kingdom

No.	Surname	Name	Organisation	Abbrev.	Country
62	Tong	Prof. Dr. Jiang	China Meterological Administration	CMA	China
63	Tröger	Prof. Dr. Sabine	Centre for International Migration and Development / University Bonn	CIM	Ethiopia
64	Tummakird	Aree Wattana	Office of Natural Resources and Environmental Policy and Planning	ONREP	Thailand
65	Uddin	Abu Mostafa Kamal	Climate Change Cell	CDMP	Bangladesh
66	Van Be	Dr. Nguyen	Can Tho University	CTU	Vietnam
67	Veit	Sebastian	African Development Bank	AFDB	Tunisia
68	Westermeyer	Dr. William	World Meteorological Organisation	WMO	Switzerland
69	Wiggins	Mike	TEARFUND	TEARFUND	United Kingdom
70	Woldemedhin	Negusu Aklilu	Forum for Environment	FfE	Ethiopia
71	Wolf	Julia	United Nations Development Programme	UNDP	USA
72	Wright	Jaqueline	Department for International Development - Livelihoods Resource Centre	DFID	UK
73	Klein	Katharina	German Technical Cooperation	GTZ	Germany
74	Lacy	Sallie	German Technical Cooperation	GTZ	Germany
75	Petersen	Lorenz	German Technical Cooperation	GTZ	Germany
76	Porsché	Ilona	German Technical Cooperation	GTZ	Germany
77	Schemmel	Jan Peter	German Technical Cooperation	GTZ	Germany

No.	Surname	Name	Organisation	Abbrev.	Country
78	Scholze	Michael	German Technical Cooperation	GTZ	Germany
79	Wahl	Michael	German Technical Cooperation	GTZ	Germany
80	Wils	Frédéric	German Technical Cooperation	GTZ	Germany
81	Sabaß	Hanna	German Technical Cooperation	GTZ	Germany

ANNEX 3 – Agenda

Day 1: Thursday, 28 May 2009		
9.30 – noon	**Session 1: Setting the stage for mainstreaming adaptation** **Moderator: Jan Peter Schemmel (GTZ)**	
9.30 – 10.00 am	**Welcome, opening statements and overview**	
10.00 – 10.30 am	**Needs, experiences and challenges of mainstreaming adaptation on the ground**	
10.30 – 11.15 am	**Discussion on mainstreaming adaptation**	
11.15 – 11.30 am	Tea/ Coffee Break	
11.30 – noon	**Key messages from the new OECD Guidance on Integrating Climate Change Adaptation into Development** Presentation on why, where, when, in what and how to mainstream adaptation?	**Janine Kuriger (SDC)**
Noon – 1.30 pm	Lunch	
1.30 – 3.00 pm	**Session 2: Information needs for adaptation** **Moderator: John Furlow (USAID)**	
1.30 – 2.00 pm	**What do we need to know - information requirements for effective adaptation** Experiences from an adaptation practitioner	**Marcus Moench (ISET)**
2.00 – 2.30 pm	**What science can and cannot provide** The limits of climate change information	**Martin Todd (UCL)**
2:30 – 3:00 pm	**Introducing the marketplace of adaptation tools**	**John Furlow (USAID)**
3.00 – 3.30 pm	Tea/ Coffee Break	
3.30 – 5.15 pm	**Session 3: Market Place I** **The world of adaptation tools - computer based decision support tools** **Moderator: John Furlow (USAID)**	
3.30 – 5.15 pm	**Presentation of SERVIR** **–** *Daniel Irwin (NASA), Emilio Sempris (CATHALAC)* **Presentation of World Bank Climate Change Portal and ADAPT** *– Ana Bucher (World Bank)* **Presentation of ci:grasp** *– Jürgen Kropp (PIK)* **Presentation of the WeAdapt Climate Change Explorer** *– Anna Taylor (SEI), Ian Tellam (ETC)* **Presentation of climate change screening: Approaches and experiences and adaptation learning mechanism** *– Julia Wolf (UNDP)*	3.30 – 4.00 slot 1 4.00 – 4.30 slot 2 4.00 – 4.45 break 4.45 – 5.15 slot 3
5.15 – 5.30 pm	**Plenary - Evening programme and preview of the next day**	
5.30 – 6.30 pm	Back to Relexa Hotel; bus leaves at Relexa at 6.30 pm	
7.00 – 10.30 pm	Dinner during boat trip on the Spree river	

Day 2: Friday, 29 May 2009		
9.00 – noon	**Session 4: Market Place II** **The world of adaptation tools: Adaptation and risk management tools** **Moderator: Ian Noble (World Bank)**	
9.00 – 9.15 am	**Plenary - Moderator: Elevator talks on tools**	
9.15 – noon	**Presentation of ORCHID -** *Thomas Tanner (IDS), Yvan Biot (DFID)* **Presentation of USAID Guidebook -** *John Furlow (USAID)* **Presentation of AsDB Climate First -** *James Roop (ADB)* **Presentation of BMZ/GTZ Climate Check -** *Jan Peter Schemmel & Michael Scholze (GTZ)* **Presentation of CRISTAL -** *Anne Hammill (IISD)*	9.15 – 9.45 slot 1 9.45 – 10.15 slot 2 10.15 – 11.00 break 11.00 – 11.30 slot 3 11.30 – noon slot 4
Noon – 1.30 pm	Lunch	
1.30 – 5.15 pm	**Session 5: Reality check - Application in practice** **Moderator: Yvan Biot (DFID)**	
1.30 – 1.45 pm	**Introduction in breakout group work**	
1.45 – 3.15 pm	**Work in breakout groups on real cases on** - **national level** - **sectoral level** - **project level** - **local level**	
3.15 – 3.45 pm	Tea/ Coffee Break	
3.45 – 5.15 pm	**Plenary - Presentation of results of breakout groups**	
5.15 – 5.30 pm	**Evening programme and preview next morning**	
5.30 – 6.30 pm	Back to Relexa Hotel; Bus starts at Relexa at 18:30	
7.00 pm – open end	Dinner; dinner speech by Thomas Loster (Munich Re Foundation): Integrating adaptation to climate change into business decisions	

Day 3: Saturday, 30 May 2009		
8.30 – 10.00 am	Session 6: Marketplace III Deepening of tools and other similar tools	
8.30 – 10.00 am	Presentation of FAO activities - *Claudia Hiepe (FAO)* Presentation of PRECIS - *Richard Jones (Met Office)* Presentation of CEDRA - *Mike Wiggins (Tearfund)* Presentation of ADB – JICA – WB Joint Study on Adaptation in Asian Coastal Cities – *Tomonori Sudo (JICA)* Presentation of Climate Change and Cities – *Jyoti Parikh (IRADe)* *Tea and coffee available*	8.30 – 9.00 slot 1 9.00 – 9.30 slot 2 9.30 – 10.00 slot 3
10.00 – noon	Session 7: Gaps, opportunities and next steps Moderator: Yvan Biot (DFID)	
10.00 – 10.30 am	Presentation of consolidated list of gaps, opportunities, and prioritisation. Identification of next steps	
10.30 – 11.30 am	Working groups: Development of plans for next steps	
11.30 – noon	Presentation of results of working groups	
Noon – 1:00 pm	Conclusions of workshop Moderator: Lorenz Petersen (GTZ)	
Noon – 12.30 am	Final discussion on - results of the working groups - main findings - proposal on follow up meetings	
12.30 – 1.00 pm	Closing remarks (USA, World Bank, GTZ, DFID)	
1.00 – 2.00 pm	Lunch	

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