



PROVIA

PROGRAMME OF RESEARCH ON
CLIMATE CHANGE VULNERABILITY,
IMPACTS AND ADAPTATION



www.provia-climatechange.org



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INTRODUCTION

.....a new and growing network of scientists and decision-makers working towards identifying research gaps and meeting policy needs in climate change vulnerability, impacts and adaptation (VIA) research

While numerous initiatives and programmes exist to collect, monitor and analyse climate data, there has been little coordination of the work of the scientific community on vulnerability, impacts and adaptation (VIA) to climate change. Consequently, the ability of societies to effectively anticipate and adapt to such changes is hampered by, among other challenges, poor communication to decision makers and the absence of a common platform where the scientific community can become organized and avail their VIA knowledge to those who need it most.

A commonly understood kind of adaptation includes specific 'adjustments' to actual or expected climate signals. An equally important form of adaptation is building resilience to a plausible range of climatic variability and potential impacts, without reference to any actual or specific expected projections.

Given this dynamic context and the relatively new field of VIA research, a key challenge is to help governments and communities maintain and build adaptive capacity. Building resilience and adaptive capacity aims at increasing the ability of a system to adjust to climate change to moderate potential damages, to take advantage of opportunities, or to cope with the range of consequences.

Decision-makers increasingly consider adaptation a key part of international climate policy. In 2010, governments agreed at the UN Climate Change Conference in Cancún on an Adaptation Framework to allow better planning and implementation of

adaptation projects, and to set up a Green Climate Fund, with a financial target of US\$100 billion per year by 2020. A growing body of evidence suggests that implementing adaptation measures does not only impose burden, but also presents opportunities for innovation and the advancement of new developments in science.

The Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) responds to the current lack of international direction towards meeting VIA research needs in policy-relevant areas. PROVIA is a new and growing network of scientists and decision-makers working towards identifying research gaps and meeting policy needs in climate change vulnerability, impact and adaptation research. It responds to the urgent call by the scientific community for a more cohesive and coordinated approach, and the critical need to harmonize, mobilize, and communicate the growing knowledge-base on vulnerability, impacts and adaptation.

Acknowledging emerging policy strategies, new scientific developments and lessons learnt from past programmes, PROVIA promises to deliver, through an evolving partnership with UNEP, WMO and UNESCO, improved coordination of international research on the impacts of and responses to climate change, and to strengthen the provision of the high quality scientific information that is being increasingly requested by the world's decision-makers.



“Our foremost objective is to help coordinate research on vulnerability, impacts and adaptation to climate change and thus develop better knowledge about how to respond.”

Chair, Interim Scientific Steering Committee of PROVIA, Martin Parry

BACKGROUND

As governments, communities and civil society gear up to adapt to climate change they are often confronted with a lack of adequate knowledge about both the threats of climate change and how to respond.

The impacts of climate change pose an unprecedented and increasing global threat to life, livelihoods, and life-supporting systems. There is an urgent need for immediate and adequate actions to adapt to current climate change before its impacts become unmanageable. Equally important is the need to prepare for potential future impacts and more long-term consequences of a changing climate.

As governments, communities and civil society gear up to adapt to climate change, they are often confronted with a lack of adequate knowledge about both the threats of climate change and how to respond. There is major uncertainty about the kind of impacts to be expected, about the vulnerability of nature and society to these impacts, and about the effectiveness of different response measures required to adapt to changing conditions.

The good news is that the scientific community and other stakeholder groups are generating much knowledge in this area, through a huge assortment of different research and pilot activities. The bad news is that the community concerned with vulnerability, impacts and adaptation (VIA) research lacks structure and is not as organized as it could be.

This basic lack of coordination is impeding both the advancement of knowledge and its communication to the people that need it most. This is not surprising since climate change VIA research is still a relatively young field that covers a vast array of sectors and topics that are linked in a variety of ways, some of which remain scarcely understood.

The establishment of the Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) responds to the urgent call by the scientific community to remedy a serious shortcoming in the current support architecture for VIA research: The lack of international direction towards addressing gaps in the growing VIA knowledge-base, and especially those gaps that are important to fill to achieve major policy objectives, such as those of the UNFCCC.

The PROVIA initiative, which is being developed as a collaborative effort by UNEP, WMO and UNESCO, works closely with various research institutions, global change programmes of the Earth System Science Partnership (ESSP), and the Intergovernmental Panel on Climate Change (IPCC).

In the emerging Global Framework for Climate Services, it is intended that PROVIA will provide direction and coherence at the international level for VIA research. PROVIA also provides important contributions to UNEP's ongoing adaptation work, for example in the area of Ecosystem Based Adaptation (EBA), where more research is needed to grasp when, where and how EBA can be applied most effectively.

Together with its collaborative partners, knowledge networks such as the UNEP-led Global Adaptation Network, and the larger VIA community, PROVIA will strive to promote a greater science-policy dialogue while advancing efforts towards identifying research gaps and meeting policy needs in climate change vulnerability, impact and adaptation research.



*“PROVIA responds to the urgent call by the scientific community for more cohesive and coordinated global research on climate change vulnerability, impacts and adaptation.”
UNEP Chief Scientist,
Prof. Joseph Alcamo*

VISION, OBJECTIVES AND SCOPE OF WORK

The overall aim of PROVIA is to help provide international direction and improve the coherence of research on climate change vulnerability, impacts and adaptation (VIA).

PROVIA addresses the critical need to harmonize, mobilize, and communicate the growing knowledge-base on VIA research that decision makers and the rest of society need in order to understand and adapt to risks from climate change. With this in mind, it is our vision to create a new and vitally important interface between the scientific community and decision-makers involved in VIA issues, and improve the availability and accessibility of such knowledge to the people that need it most.

OBJECTIVES

The overarching objectives of PROVIA are:

- To advance research on vulnerability, impacts and adaptation related to climate change
- To coordinate and facilitate the dissemination and practical application of this research for the benefit and value of society

Specific objectives are:

1. To build a new and important interface between the scientific community and decision-makers and other stakeholders involved in VIA issues
2. To promote communication within the community of scientists working on VIA issues; to facilitate the exchange of latest research results; to encourage cooperative work on specific research challenges; and to provide a forum for improving the quality of research

3. To identify gaps in VIA research and critical emerging issues, and to identify research priorities that are critical from both the scientific and policy perspectives
4. To provide a new avenue by which decision-makers can solicit scientific input to critical policy issues
5. To provide an information-clearinghouse on current and emerging vulnerability, impacts and adaptation issues
6. To build the capacity of young scientists in developing countries to carry out scientific assessments of climate change vulnerability, impacts and adaptation

SCOPE OF WORK

PROVIA will be developed through three phases. The scope, range, and resource needs for the functions and core services of PROVIA will expand from one phase to the next. The PROVIA Work Programme for 2010-11 (the Initial Phase) consists of four priority activities, agreed by the Interim Scientific Steering Committee:

- Coordination of International Agenda of Research
- Provision of Scientific Advice to the UNFCCC Process on Adaptation
- Strengthening of Communication within the VIA Research Community
- Revision of Technical Guidelines on VIA methods



“The Climate challenge is enormous and requires a comprehensive and coordinated response from the world community.”
Global Framework for Climate Services

PROGRAMME STRUCTURE

PARTNERS

PROVIA is conceived as a collaborative inter-agency initiative that intends to build on the convening power and expertise of the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the World Meteorological Organization (WMO).

Partnerships are fundamental to the PROVIA vision and are at the core of its aim: To provide direction and improve international coherence for vulnerability, impacts and adaptation research.

PROVIA will work closely with various research institutions, global change programmes of the Earth System Science Partnership (ESSP), and the Intergovernmental Panel on Climate Change (IPCC). PROVIA will also seek to partner closely with and improve interactions between various knowledge networks and platforms such as the Global Framework for Climate Services, the Global Adaptation Network, and many other affiliated scientific partners.

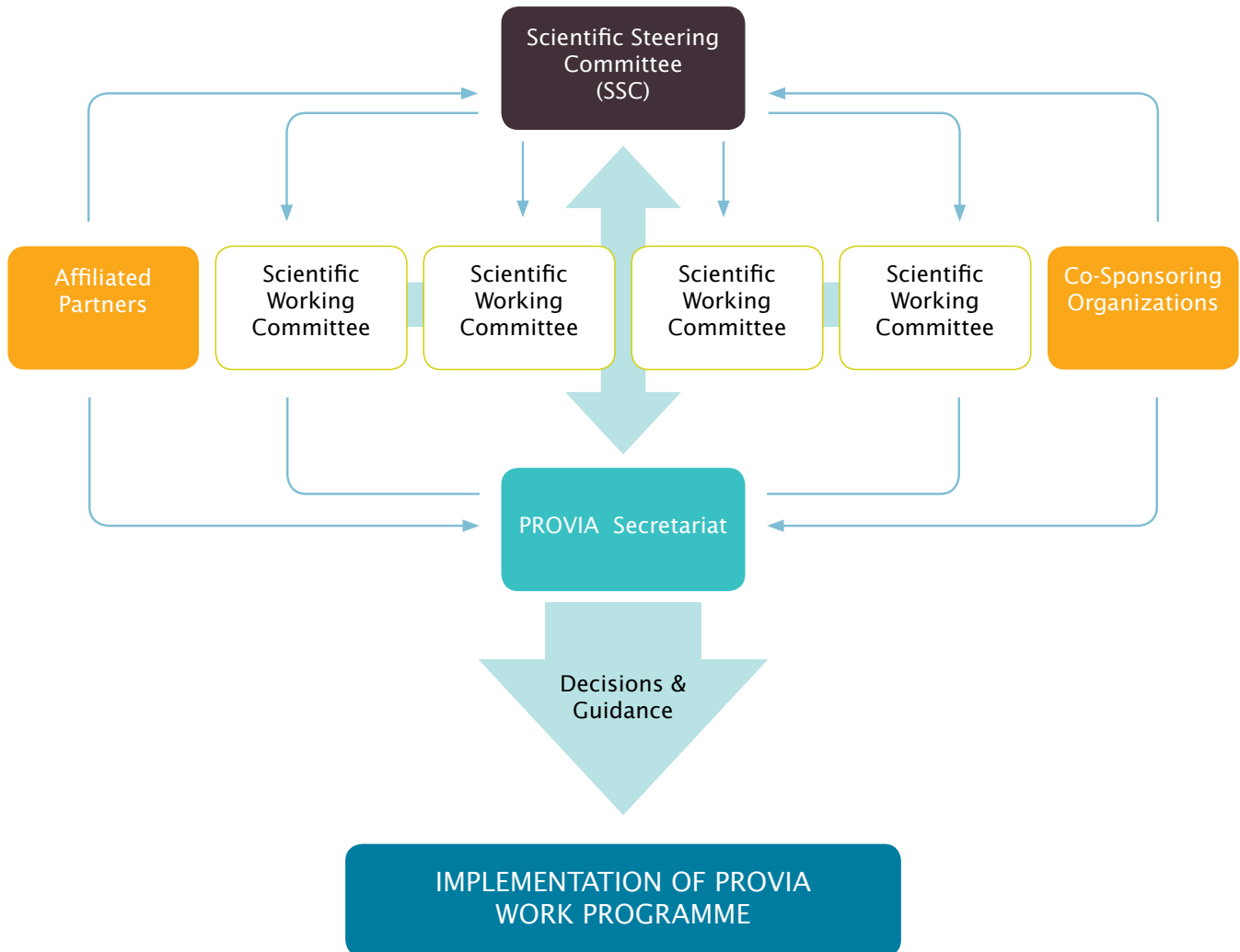
The beneficiaries of PROVIA include, in addition to the VIA research community, multilateral organizations and UN agencies engaged in VIA-related issues, as well as governments and vulnerable communities who serve to benefit from the enhanced knowledge and information that PROVIA will broker.

SECRETARIAT STAFF

PROVIA is currently funded by UNEP, which also hosts its Secretariat. The Secretariat administers the Programme's day-to-day operations, finances, and overall Programme of Work. It supports the Scientific Steering Committee (SSC) and Scientific Working Committees, and assists in formulating the scope of PROVIA and implementing its core activities and outputs through the working committees.



GOVERNANCE AND OPERATIONAL STRUCTURE



SCIENTIFIC STEERING COMMITTEE

The governing body of PROVIA is an international Scientific Steering Committee (SSC). The SSC sets the general scientific direction of PROVIA and supports efforts to communicate findings to scientists, policymakers and other stakeholders. It guides the Secretariat in the implementation of the Work Programme and establishes Scientific Working Committees.

The SSC is composed of a Chair and 14-20 distinguished members from the scientific community at large, including ex officio members

from co-sponsoring organizations. The members represent a wide range of disciplines and research areas related to climate change vulnerability, impacts and adaptation.

An Interim Scientific Steering Committee was established in November 2010. The committee held its second meeting in June 2011. During the Initial Phase (2010-11) the committee is chaired by Prof. Martin Parry.

MEMBERS OF THE PROVIA INTERIM SCIENTIFIC STEERING COMMITTEE:

Prof. Martin Parry (Chair),
Imperial College London

Prof. Chris Field,
Stanford University

Prof. Balgis Osman-Elasha,
African Development Bank

Prof. Christopher Gordon,
University of Ghana

Dr. Saleemul Huq,
Centre for Advanced Studies,
University of Bangladesh

Dr. Ian Noble,
Formerly World Bank, lead on adaptation

Prof. Erda Lin,
Chinese Academy of Agricultural Sciences

Prof. Richard Klein,
Stockholm Environment Institute

Prof. Jean Palutikof,
NCCARF, Griffith University

Prof. Anand Prabhakar Patwardhan,
India and Duke University

Dr. Cynthia Rosenzweig,
NASA Goddard Institute for
Space Studies

Ms. Carolina Zambrano Barragan,
Municipality of the Metropolitan
District of Quito, Ecuador

Ex officio:

Prof. Joseph Alcamo,
Chief Scientist, UNEP

Mr. Peter Dörsé, UNESCO

Dr. Ghassem Asrar,
Director, WCRP, WMO
(Alternate: Mr. Avinash Tyagi,
Director CWD, WMO)



PRIORITY ACTIVITIES

Work Programme 2010-2011

ACTIVITY 1

Develop and communicate to governments and international agencies a prioritized international agenda of research on VIA

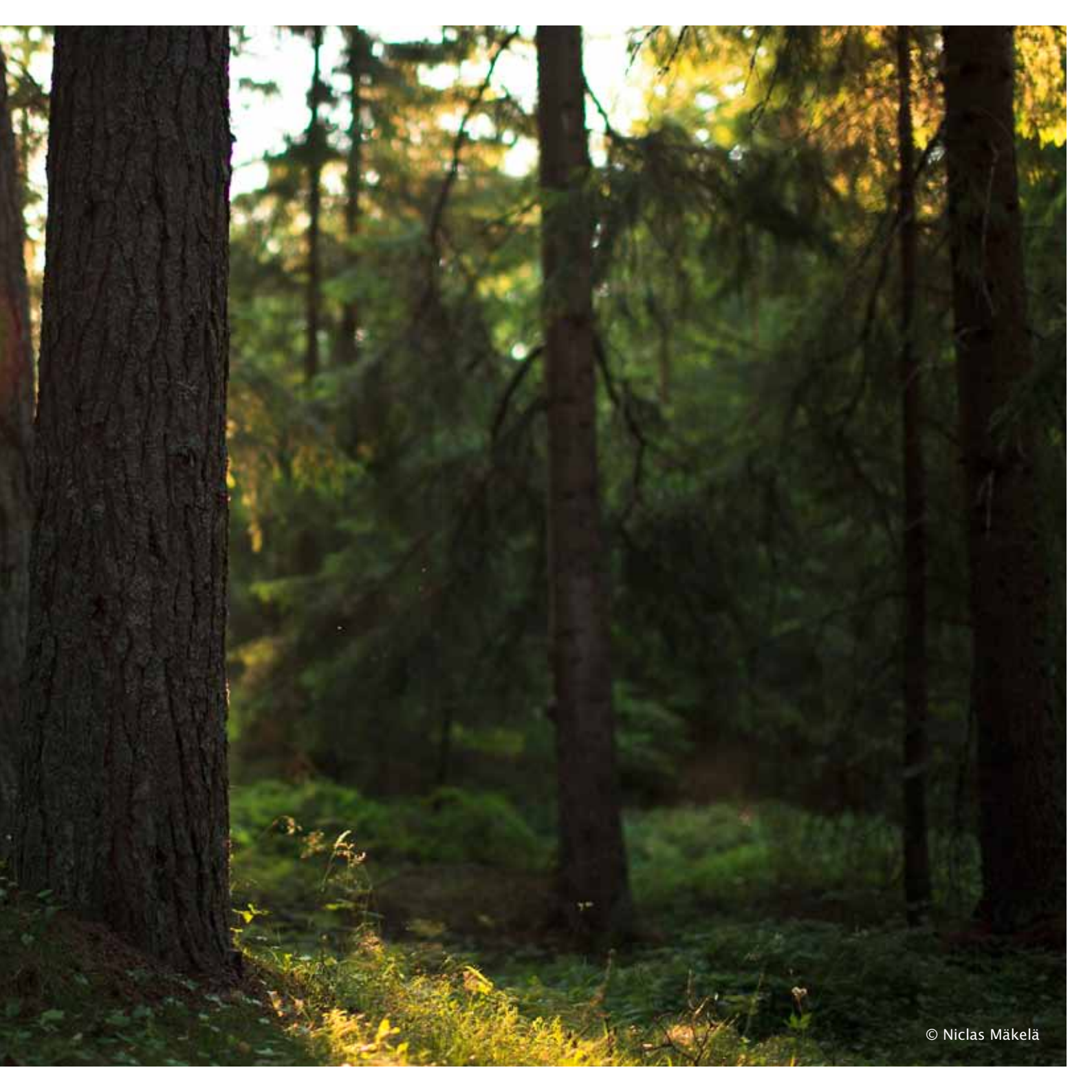
PROVIA is developing an international agenda of research on VIA through a series of activities aimed at identifying research gaps and needs in this area. The objective is to identify main gaps in vulnerability, impacts and adaptation knowledge and communicate these through a dialogue with the research and policy communities.

This involves two foresight knowledge gap analyses: Firstly by scientific experts and secondly by the policy community. This will be followed by an integration of the two analyses. The results will be published by PROVIA in May 2012. This activity is implemented in partnership with Columbia University.

The expert-based prioritisation of knowledge gaps is now in draft form, and is available for review through the PROVIA website: www.provia-climatechange.org

The policy-based prioritization will start in October 2011, in collaboration with the International START Secretariat: www.start.org





ACTIVITY 2

Provide advice and scientific information to the United Nations Framework Convention on Climate Change (UNFCCC) and other international bodies, to enable more effective adaptation

PROVIA will provide targeted scientific advice to the UNFCCC and the boarder adaptation funding interface. The objective is to establish a formalized means of communicating scientific knowledge about adaptation to the UNFCCC (including knowledge on vulnerability and impacts where these are relevant to the work of the UNFCCC).

This includes information that would be of assistance to the Adaptation Fund, the Green Fund, to the Subsidiary Body for Scientific and Technological Advice (SBSTA) and to the Nairobi Work Programme on Impacts, Vulnerability and Adaptation (NWP).

As a first step towards this objective, PROVIA has made a formal Action Pledge to the Nairobi Work Programme to provide scientific information on adaptation.





ACTIVITY 3

Strengthen communication within the Vulnerability, Impacts and Adaptation Research Community

The objective of this activity is to give greater focus to research on vulnerability, impacts and adaptation (VIA) by improving communication and interactions within the research community. The prime task is to communicate priorities in VIA research and to help scientists access funding for these priority topics.

One means of achieving this will be to convene a bi-annual international conference on VIA. The PROVIA website www.provia-climatechange.org, the online newsletter and regional seminars on developments in VIA methods are part of the communication efforts.

In 2012, PROVIA will in collaboration with University of Arizona co-host 'Adaptation Futures: 2nd International Conference on Climate Adaptation' in Tucson, Arizona, USA between 29 and 31 May 2012.





ACTIVITY 4

Improve the robustness of VIA assessments, by developing revised technical guidance on tools and research methodologies

PROVIA is developing revised guidelines for vulnerability, impact and adaptation assessment in close collaboration with scientific experts. The revised guidelines, which will be published in December 2012, will serve as much needed update of earlier IPCC Guidelines, UNEP Handbook (1994 and 1996 respectively) and other publications.

The expected result is greater comparability of climate change vulnerability, impact and adaptation assessments.

A survey of current guidance has been completed, and the first draft of revisions is expected to be completed by March 2012, to be followed by international review, then re-revision and publication by December 2012.





PROPOSED WORK PROGRAMME 2011-2012

In addition to current activities, PROVIA is considering the following Proposed Activities for the 2011-12 Work Programme:

- Developing methods for evaluating adaptation approaches. At present very large scale funding is being considered for implementation of adaptation (a target of c. \$100 bn per annum together with mitigation) but relatively few adaptation methods and technologies have been properly evaluated, especially of adaptation in practice.
- Developing methods of constructing adaptation and other socio-economic scenarios. Delivery of these, agreed in principle four years ago at an IPCC meeting, has been delayed. These are essential for the next generation of impact and adaptation assessments. PROVIA aims to help lead in the development of new scenarios, and write/publish an accessible guide to the methods of scenario development for VIA assessment.
- Monitoring current vulnerability, impacts and adaptation, and avoiding potential surprises. Current vulnerability is being mapped in different and non-comparable ways. Tested and reliable means of vulnerability mapping are needed to identify the people and places most at risk. In addition, we need to monitor systematically the emergence of impacts and analyse in real-time the adaptations to them. This will enable a robust and empirically-based evaluation of adaptation methods. The monitoring system should include 'horizon-scanning' for non-linearities that could detect (and avoid) potential surprise impacts.



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