



PROVIA: Science for adaptation policy

The Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA)¹ represents an interface between the research community and decision makers and other stakeholders to improve policy-relevant research on vulnerability, impacts and adaptation (VIA), allowing scientists to coordinate and facilitate the dissemination and practical application of their research. PROVIA helps international community of practice share practical experiences and research findings by improving the availability and accessibility of knowledge to the people that need it most. PROVIA aims to do so together with collaborative partners, knowledge networks, and the larger VIA community, by identifying research needs and gaps, helping scientific community to mobilize and communicate the growing knowledge-based on VIA so that governments and other main stakeholders are able to solicit scientific knowledge into their decision making processes.

PROVIA has two overarching objectives:

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

Specific objectives of PROVIA are:

- To build a new and important interface between the research community and decision makers and other stakeholders involved in VIA issues;
- To promote communication between the community of researchers working on VIA issues and users, by providing a vehicle for exchanging new research results, encouraging cooperative work on specific research challenges, and providing a forum for improving the relevance of research;
- To identify VIA research gaps, priorities and critical emerging issues that are important to both the science and policy communities;
- To provide a new avenue by which decision makers can solicit scientific input to new critical policy issues;
- To contribute to the capacity building of young scientists in developing countries to carry out scientific assessments of climate change VIA.

PROVIA aims to improve the general understanding of, and access to, relevant science-based information on the options for and impacts of adaptation to climate change as well as impacts of adaptation action on environment and society for decision-makers and a wide range of stakeholders.

A significant obstacle that continues to impede effective action on adaptation to climate change is lack of well-organized scientific knowledge on climate change impacts, vulnerabilities and the consequences and risks of response action vs inaction. This is in part due to a lack of coordination of research and understanding of scientific information, a deficiency of location-specific and sector-specific knowledge necessary to guide more effective decisions, poor access to and dissemination of science-based information and lack of research capacity in developing countries. This challenge is addressed through supporting the Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA), a global network of scientists, practitioners and decision-makers working towards

¹ <http://www.unep.org/provia>.

vulnerability, impacts and adaptation (VIA). PROVIA provides international direction to coordinate research on VIA as well as an avenue by which decision makers can solicit scientific input to critical policy issues in order to facilitate implementation of science based VIA knowledge on the ground for effective adaptation. As a component of the World Climate Programme, PROVIA provides highly demanded inputs from social and political research directly responding to needs of the UNFCCC Parties and other recipients of climate services.

Progress, current status and future directions

PROVIA became part of the World Climate Programme in 2013 and will contribute to the Global Framework for Climate Services. Since its inception in 2011, PROVIA has implemented the work plan agreed by the PROVIA Scientific Steering Committee (SSC), which included the activities, and delivered outputs as follows:

Activity 1: Defining global research priorities to support adaptation planning and implementation.

A landmark report ‘Research Priorities on Vulnerability, Impacts, and Adaptation: Responding to the Climate Change Challenge’² was published. The report compiles global VIA research priorities identified through a consultation process with both scientists and policymakers to respond to the demand for better coordination of policy-relevant research. A summary of the findings was disseminated at various fora including UNFCCC COP 19 (November 2013, Warsaw, Poland).

Activity 2: Provide advice and scientific information to the UNFCCC and other international bodies to support policy and to enable more effective adaptation. PROVIA is, in a number of ways, an active provider of scientific information to the UNFCCC process, and is now a designated partner of the Nairobi work programme on impacts, vulnerability and adaptation to climate change (NWP). Since its inception, PROVIA has been communicating scientific findings to policy-makers in order to support in decision making through the UNFCCC processes. These include updates and sharing the final products from Activity 1 and 4, through the NWP and the UNFCCC SBSTA Research Dialogue³⁴⁵⁶.

Activity 3: Strengthen communication within the Vulnerability, Impacts and Adaptation Research community and provide an interface with stakeholders affected by climate change. PROVIA is promoting communication of VIA information through a number of mechanisms, including a regularly updated PROVIA website⁷ and a quarterly newsletter. PROVIA is a founder of the biennial International Adaptation Futures Conference and is also one of the strategic partners and conveners of the Conference that brings together research scientists, policy makers and practitioners from developed and developing countries to share knowledge about adaptation challenges and opportunities. In May 2014, PROVIA co-hosted the Third International Climate Change Adaptation Conference (Adaptation Futures 2014, Fortaleza, Brazil). The Fourth International Climate Change Adaptation Conference 2016 will be

2 <http://www.unep.org/provia/RESOURCES/Publications/ResearchPriorities/tabid/130750/Default.aspx>.

3 <http://www.iisd.ca/vol12/enb12571e.html>

4 <http://unfccc.int/resource/docs/2013/smsn/igo/118.pdf>

5 http://www.wmo.int/pages/prog/wcp/COP/cop19/index_en.php

6 https://unfccc.int/files/methods_and_science/research_and_systematic_observation/application/pdf/14_provia.pdf

7 <http://www.unep.org/provia>

organized by the European Commission (EC) and PROVIA, and will be hosted by the Government of the Netherlands⁸.

Activity 4: Improving practices of assessing climate change vulnerability, impacts, and adaptation.

PROVIA has released ‘PROVIA Guidance on Assessing Vulnerability, Impacts and Adaptation to Climate Change’⁹ dedicated to climate adaptation planners. The guidance helps adaptation practitioners assess vulnerability, impacts and adaptation, covering the wide array of approaches, methods and tools with focus on practical implication to the development of specific, sectoral or place-based approaches with case studies and good practices for effective adaptation. The recommendations of the publication were featured at UNFCCC COP 19 (November 2013, Warsaw, Poland). Another report ‘Supporting NAP development with the PROVIA Guidance: A user companion’¹⁰ was also produced to explain how the PROVIA Guidance can be used to better understand key concepts and available methods and tools to support UNFCCC National Adaptation Planning Process¹¹.

In 2013, the **PROVIA Communication and Outreach Strategy** was developed and adopted by the PROVIA SSC to help achieve its organizational objectives, and to help PROVIA engage effectively with internal and external partners and stakeholders. PROVIA implements outreach strategy through the growing network of scientists, practitioners and decision-makers to improve the availability and accessibility of VIA knowledge for effective adaptation. Apart from major outreach activities, PROVIA have also expanded its VIA network and built its outreach through social media.

In 2013, the **PROVIA Resource Mobilization Strategy** was developed and adopted by the PROVIA SSC to outline an overall strategic approach for PROVIA to efficiently and effectively mobilize resources for its work.

Recently, PROVIA has identified priorities in research, communication and training for 2014-15 that were approved by the SSC in May 2014¹², also listed below.

PROVIA priority activities for 2014-15

PROVIA has recently undergone an exercise to identify priorities in research, communication and training for 2014-15. The criteria against which potential activities were evaluated to assign priority are:

- Do the topics match the PROVIA objectives (as listed above)?
- Do the topics advance understanding of VIA amongst the research and practitioner communities?
- Will these deliver useful outputs for decision makers working in VIA in developing countries?
- Will these deliver useful outputs on timescales of 2-3 years?
- How many topics can feasibly be undertaken given the available resources?
- Is the budget available from PROVIA commensurate with the cost of undertaking the work?
- Does PROVIA have the expertise to manage and/or undertake this work?

8 <http://www.unep.org/provia/NEWSLETTER/tabid/55283/Default.aspx>

9 <http://www.unep.org/provia/RESOURCES/Publications/PROVIAGuidancereport/tabid/130752/Default.aspx>.

10 <http://www.sei-international.org/mediamanager/documents/Publications/Climate/PROVIA-NAP-user-companion-2014.pdf>.

11 http://unfccc.int/files/adaptation/cancun_adaptation_framework/application/pdf/naptechguidelines_eng_high_res.pdf.

12 <http://www.unep.org/provia/ACTIVITIES/NewInitiatives/tabid/55279/Default.aspx>

A. Research activities: advancing policy-relevant research on VIA

A.1 Monitoring and evaluation: Develop indicators as a basis to monitor progress in adaptation as proxy for measuring adaptation impact; these indicators should permit measurement of levels of vulnerability (e.g., number of people residing in flood plains) and of progress in adaptation and resilience building (number of houses insulated, number of councils actively involved in adaptation planning). PROVIA Research Topic A.1.2

A.2 Limits to adaptation: Identification of situations where impacts exceed the capacity to adapt through incremental and/or transformational change; where current “best practice” no longer works and more radical responses are required. Identification and detection of VIA thresholds and tipping points; reviewing and applying current vulnerability indices to identify hotspots; avoiding surprises. A.1.3

A.3 Historical case studies: Evaluate examples of past interventions as a guide to the future, exploring climate related stresses and how the affected (individuals, civil society and the different tiers of government) have coped. To include case studies of investments by the public and private sectors. Identification of examples of good practice: construction of case studies and promotion of these good practice examples through the web page. Evaluation of the extent to which past good practice examples (mainly around responses to extreme events) can be used to inform our thinking on adaptation. Case studies of maladaptation and unintended consequences; case studies of transformational change. A.2.2; A4.3

A.4 Model inter-comparison: Conduct a comparison of models used in VIA research; utilize the results to improve the capacity of the research community to identify effective response and adaptation strategies. Advise on next generation of modelling for VIA. C.6

A.5 Scenario development: Provide organizational support for evaluation of the strengths and weaknesses of existing scenarios, especially the recent RCP and SSP scenarios, using a workshop approach. Support for development of a new generation of global and regional scenarios of climate change vulnerability, impact and adaptation as part of the current worldwide effort on climate change scenario production. C.5

A.6 Evaluation of strategies to communicate climate change science to policy and decision makers and practitioners. Understanding the knowledge requirements of this community (demand-led knowledge generation and communication); knowledge to support implementation. Matching knowledge needs to knowledge availability; understanding uncertainty and strategies for decision making under uncertainty. A.4.2

B. Engagement activities: coordinating and facilitating dissemination and practical applications of research

B.1 Biennial PROVIA Climate Adaptation Futures conference: ensure this conference occurs and is successful by identifying a host partner, working closely with them in steering committees, and participating to showcase PROVIA activities.

B.2 Communication of findings from the IPCC WGII Fifth Assessment in association with the Working Group II TSU, adding value where PROVIA has a role to play.

B.3 Develop a series of Policy Briefs to underpin and facilitate regular reporting to policymakers and civil society of the latest results from the VIA community, including especially PROVIA products. These could be in the form of an annual/semi-annual Climate Change Science Compendium providing a review of important new scientific literature on the state of knowledge about VIA. Briefs could also be produced on key emerging science papers – providing a summary for policy makers and practitioners in accessible language.

B.4 Dialogue meetings: Organize a series of regional and national science-policy dialogue meetings with policymakers and other stakeholders around the “Research Priorities on VIA” Report.

B.5 Advisory role: Provide advice and scientific information to the UNFCCC and other international and national bodies and institutions in climate change (including, for example, advice to UK DECC on country-level impact studies).

B.6 Liaison with international and national organizations relevant to PROVIA, including UNFCCC, WCRP, GCOS, UK DECC, EU Horizon 2020.

C. Development and training activities

C.1 Extension of activities on PROVIA VIA Technical Guidelines: Dissemination and training workshops for application of the Guidelines in Small Island Developing States (SIDS) (funds are available for this activity).

C.2 VIA-related training workshops: Co-organize workshops for developing country scientists and practitioners, in close cooperation with international organizations such as START and GAN (Global Adaptation Network) and regional organizations such as APN.

C.3 Mentoring program for young researchers: Support a mentoring program for young researchers from developing countries in the area of VIA research. This would be carried out in close cooperation with START and the UNEP-sponsored GAN.

PROVIA demonstrated strong potential to respond to the need of governments and other main stakeholders to support an organizing platform for the VIA scientists to communicate knowledge to policy makers. In 2013, the work of PROVIA was recognized by the UNEP Governing Council (UNEP/GC.27/11.V)¹³ and by the Executive Council of WMO that included PROVIA as a component of the World Climate Programme (Resolution 4.3(2)/1 (EC-65) at the 65th Session of the WMO Executive Council¹⁴.

¹³ UNEP/GC.27/11.V.

¹⁴ Resolution 6 (EC-65).

Following the inclusion of PROVIA in the WCP, PROVIA has been actively engaging with the WMO ECWG-CWE¹⁵, the GCOS Steering Committee¹⁶. Working modalities have been discussed at the recent meetings of WMO EC-66 Session¹⁷, Commission for Climatology (CCI)¹⁸ and WCRP¹⁹ for PROVIA to cooperate with the above institutions towards the Global Framework for Climate Services (GFCS).

PROVIA will provide the platform through which this project advances the coherence of policy-relevant research on climate change vulnerability, impacts and adaptation and improves the availability and accessibility of knowledge for adaptation through knowledge-sharing events, knowledge products, and online knowledge portals. Secondly, it aims at building capacity for using this knowledge for adaptation policy-setting, planning and practice, through biannual PROVIA International Adaptation Conference, training, technical advisory services, and institutional support.

PROVIA will build on the latest findings of the IPCC, in particular, Working Group 2 on Impacts, Adaptation and Vulnerability, and other subsequent research. Reputable scientific experts will be involved in report writing, training and capacity development activities and will advise on emerging issues and specific climate related threats and challenges. PROVIA will also capitalize on the scientific knowledge platforms currently being developed and the institutional repositories being created by universities and national research centres in developing countries, which go largely underutilized in the IPCC process. Finally, the project develops on the convening power in the areas of scientific coordination, dissemination of scientific information and capacity building, while it will significantly strengthen the science base and contribute to the implementation of the Science Strategy by strengthening its ties with scientists in a strategically-important area.

15 http://www.wmo.int/pages/prog/wcp/cca/documents/ECWGCWE-7-Report_270114_Final.pdf.

16 https://www.wmo.int/pages/prog/gcos/SCXXI/Doc3.1_GCOS_Review.pdf

17 <http://ec-66.wmo.int/>

18 <http://ccl-16.wmo.int/>

19 <http://www.wcrp-climate.org/JSC35/>