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# INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

INTERGOVERNMENTAL PANEL  
ON CLIMATE CHANGE

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## AR4 PRODUCTS

(Submitted by the Secretariat)

## **1. BACKGROUND**

At IPCC-XXI the IPCC Secretariat presented document IPCC-XXI/Doc.14 on the AR4 products set. The paper listed the following types of possible products:

### **Primary AR4 products**

- Three Working Group contributions, their Summaries for Policymakers and Technical Summaries
- Subject to the decision by the Panel a Synthesis Report
- Translations, web-version, CD RoM and a set of graphic files from the reports.

Technical Papers on regions and/or topics.

### **Further products and options for presenting regional information**

- Annexes to AR4 Synthesis Report
- IPCC outreach material specifically designed for regions
- Regional seminars
- Summaries of AR4 information prepared by regional organisations
- A Special Report on regional issues.

### **Other products and activities**

- Data sets and interactive models
- Posters
- Outreach activities.

IPCC-XXI considered the matter and came to the conclusion that it is too early to rule out any options. It requested the IPCC Secretariat to invite governments to provide their views on needs, priorities and key audiences for communicating information contained in the AR4. Further the Panel requested the Bureau to prepare a revised document taking into account governments' views, the framework and set of criteria for establishing priorities for AR4 (IPCC-XX, Decision 2), and the following issues:

- Past experiences with assessment products and outreach activities that might be relevant for determining a suitable set of products;
- Products that are appropriate for the IPCC's consideration, within the IPCC mandate and resource base;
- Resources: time, effort, capacities of authors and the TSUs, and costs;
- Synergies and trade-offs with other agreed or proposed AR4 products, including outreach;
- Mechanisms and the process by which these products would be produced and disseminated.

## **2. CONSIDERATION BY THE IPCC BUREAU**

18 submissions were received from governments and made available to the Bureau for its consideration. A synthesis of government comments is contained in Annex 1.

The Bureau at its 31<sup>st</sup> Session (Geneva, 28-30 April 2004) set up a contact group to consider AR4 products. The contact group addressed essential AR4 products and the question on how best to respond to the need for regional information. It decided not to discuss matters related to the Synthesis Report.

The contact group met twice during the session of the Bureau. The discussions of the Group are summarised below.

### **2.1 Core AR4 products**

The Group agreed that essential AR4 products would include the Assessment Reports of the three Working Groups, their Summaries for Policymakers (SPM) and Technical Summaries (TS). These products need to be available in all UN languages as soon as possible after approval by Plenary, both in print and in electronic (web and CD-RoM) form.

A set of readily accessible and well designed graphics, similar to the set that was produced for the IPCC TAR Synthesis Report (SYR), would be of high value. At a minimum this set should include, in PowerPoint format, all diagrams, graphs and figures contained in the SPM and TS of the three Working Group reports and the Synthesis Report if the Panel decides to produce one. It would enhance accessibility if graphics could be provided in a manner that allowed easy translation of the text, but risks associated with editable text were noted and need to be avoided.

The contact group also discussed providing the source code and all parameters for simple models that had been used in the Assessment Reports. To avoid misuse of the models leading to incorrect results, the Group noted that it would be important to provide a precise set of parameters for the model(s) with appropriate caveats about changing any of those parameters. This information could be provided within an appendix to the Assessment Reports, or through the IPCC's Data Distribution Centre.

## **2.2 Regional information**

The Group considered the following options to address the need for regional information:

- a) Technical Papers on Regions
- b) Regional appendices to the Working Group (WG) reports
- c) Datasets, models, visualisation tools
- d) Improving access to regional information within the WG reports through indexing, cataloguing and search tools
- e) Work with appropriate regional and national organisations
- f) Graphic material and tailored presentations.

### ***(a) Technical Papers***

Only few country submissions had specifically asked for regional Technical Papers (TP). Producing TPs on regional issues as part of the AR4 faces major constraints in the form of resource requirements and management of the work by the TSUs and Bureau at the end of the assessment cycle. Further many countries had requested regional information at a level of detail that could not be met on the basis of information contained in the main WG reports whose outlines and author teams for the main WG reports had now been decided. It was also noted that the three WGs would not adopt the same approach and detail to discussing regions and had delineated regions in different ways.

Therefore providing TPs on all regions of the world would not be practical, and that in general TPs on regions would unlikely satisfy the demands for information that had been expressed. Nonetheless, some Bureau members suggested that TPs for a small number of regions where organisations and governments lack the capacity to make use of regional information contained in the main AR4 reports may be useful.

### ***(b) Regional appendices within WG reports***

In light of the limitations of Technical Papers, it was suggested that regional information as a first principle has to be included in the main part of the WG contributions to the AR4, rather than appendices that do not have a proper context in the main WG reports. It was noted that both WG1 and WG2 already had one or several chapters devoted to regional issues in their outlines. WG3 also intends to provide regional information wherever possible and appropriate, as included in its report outline.

### ***(c) Datasets, models, visualisation tools***

Several countries had requested more detailed information, including on regions, which could only be provided through the underlying datasets, models, and visualisation tools. Some of this material is already available from the IPCC's Data Distribution Centre. However, it would be difficult to apply the "Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports" to any such material. Whether and how such material could be provided as supporting material needs careful consideration to avoid possible inappropriate use and wrong interpretations of data.

The question of whether data used in the AR4 must be frozen at the time the report was produced, or whether the databases could be updated subsequently as additional studies become available needs to be addressed in this context as well. Given limited resources available to the IPCC and its TSUs, it appears necessary to freeze data provided as part of the AR4 products at the point of completion of IPCC reports.

Regional capacity to access and make use of this information will be required. The Group noted that the high resource requirements, and therefore services could only be provided in collaboration with other organisations to provide resources, host and provide access to data. It was also noted that any such activities should only be undertaken after the main reports had been completed, which poses problems of continued support from TSUs. One viable way appears to be to seek arrangements with other organisations for the hosting of and providing access to data.

***(d) Improved electronic index, cataloguing and search facilities***

The contact group recognized that evolving information technologies will facilitate access to regional information in the working group reports. In particular, it noted that consistent indexing of regionally relevant information in the WG reports would allow more powerful search tools to extract regionally relevant information from the WG reports. Such a feature could be enhanced by catalogues that act as portals to provide access to the reports from a regional perspective. Such features would require the TSUs, possibly with the help of external experts, to index the final text of the WG reports in a manner that allows search and cataloguing tools to extract regional information at a consistent level of detail and relevance.

***(e) Work with appropriate regional and national organisations***

It was suggested that most of the work to develop regional information in a format relevant to end-users would best be done by regional and national organisations that use the IPCC reports as a basis. Such work would have the advantage that it is not restricted to information available at the time the IPCC reports have been prepared but could evolve as additional information becomes available. To enhance such future collaboration and outputs, the Group considered it useful if the Secretariat could compile a list of relevant regional organisations. The Group noted that any such collaboration still had considerable resource requirements on the IPCC, in particular the TSUs, co-chairs and lead authors, and that the boundaries between IPCC material, and information produced by other groups on the basis of IPCC material, needed to be clearly defined in this context.

***(f) Graphic material and tailored presentations***

The Group noted that regionally relevant graphics and tailored presentations on parts of the IPCC reports could be useful in disseminating regional information. It did not discuss these options further since it considered that they form part of outreach activities rather than specific AR4 products.

**2.3 Resource requirements and conclusions on AR4 products**

The Group considered that it would be useful to know the costs and resource requirements for the options outlined above. Such information, and clear budget provisions from the IPCC Trust Fund, would be necessary to allow the Panel to make a decision on any products that go beyond the core AR4 products. At IPCC-XXI only cost estimates for the IPCC Trust Fund for developing TPs on regions have been provided. Feasibility estimates for any of the options would need to consider not only demands on the IPCC Trust Fund, but also the possibly substantial costs for on-going support for any such process through the TSUs, the need for further engagement by lead authors at the end of the AR4, and the demands on the Bureau which would need to approve the TPs.

### **3. REVISED PROPOSAL BY THE IPCC SECRETARIAT**

#### **3.1 Core IPCC products:**

##### *Three Working Group contributions to the AR4 in English*

As has been the case in the past three volumes containing full scientific, technical and socio-economic assessment of the IPCC Working Groups, their technical summaries and summaries for policymakers will be published commercially. An indexing system that will facilitate access to information on certain topics, sectors and regions will be developed, together with the search facility for webversion and CD RoM. It will be applied to printed versions of the full reports, the summaries, if the Panel decides to prepare one, the Synthesis Report and all electronic publications.

##### *Summaries for Policymakers and Technical Summaries of the three Working Group contributions*

These summaries will be published in all UN languages. They may either be published in one volume and, if the Panel decided to prepare one, together with the Synthesis Report as was the case for TAR volume 4. Alternatively they may be published as three, respectively four separate volumes. Regardless of the option chosen for publication indexing, layout and graphics should be done in a consistent manner. A CD RoM containing the full Assessment Reports should accompany the published summaries. To facilitate the planning, in particular graphics, layout and indexing the decision whether to publish one “volume 4” or separate summary publications for each Working Group should be taken preferably at this session of the Panel.

##### *Synthesis Report (subject to decision of the Panel to prepare one)*

If the Panel decides to prepare a Synthesis Report presentation, layout and graphics will follow the same style as the summaries mentioned above. The same indexing system will be used to facilitate access to background information. The decision whether to publish the Synthesis Report as stand alone version or together with the summaries of the Working Group contributions as “volume 4” should be taken preferably at this session of the Panel. Based on experience with the TAR it is not suggested to publish a “stand alone version” as well as a combined “volume 4”.

#### **3.2 Other products**

##### *Web version and CD RoM*

As soon as possible after completion the reports will be made available on the IPCC website and as CD RoM. Technical advances that facilitate the development of an improved indexing system and search facility and that ensure rapid release of the web version/CD RoM after completion of the reports are being explored by the Secretariat in collaboration with the Technical Support Units. A specialist for electronic publishing should provide advice to TSUs and authors in the final drafting and editing stage of the full working group reports and, if the Panel decides to prepare one, the Synthesis Report to ensure that they are prepared in a format that meets the requirements of the selected indexing system and search facility.

##### *Graphics*

A graphics expert should get involved in the preparation of the reports at an earlier stage than has been the case for the TAR. This expert should provide guidance on the development of graphics with the aim to have a more consistent appearance of graphics throughout the reports and prepare all graphics contained in the summaries and, if it is decided to prepare one, the Synthesis Report in uniform design. He would also interact with the lead authors to identify whether the presentation of certain topics might be supported through graphics and develop specific graphics in collaboration with the authors. All graphics contained in the summaries and, if decided to prepare one, the Synthesis Report will be made available, together with the figure captions and any further explanation to be agreed upon, as power point files and in other appropriate graphics formats on the IPCC website and on CD RoM.

##### *Models, datasets, scenarios and visualisation tools*

It has been suggested to also provide models, datasets and scenarios assessed in the AR4 as well as visualisation tools. Presently such information is provided by the IPCC Data Distribution Center (DDC) of

the IPCC Task Group on Data and Scenario Support for Impact and Climate Assessment (TGICA). Presently the DDC provides guidance material, visualisation tools and four main types of data:

- Observed Climate Data Sets
- Global Climate Model Data and Scenarios (GCM archive)
- Socio-economic data and scenarios
- Data and scenarios for other environmental changes

The aim of the DDC is to make such information available to the impact research community. Datasets have been selected according to criteria established by the TGICA. Presently material assessed in the TAR or accepted in the Special Report on Emissions Scenarios (SRES) is provided along with other datasets and IPCC Supporting Material.

If more models, datasets, scenarios and visualisation tools will be provided in the future as part of the AR4 it will be necessary to relate such material clearly to different classes of IPCC products. It would also be required to review and if necessary revise the IPCC Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports to ensure that they are applicable to such material.

To enable a well informed decision on that matter it is suggested that the Panel asks the TGICA to present to its 24<sup>th</sup> Session a detailed report of what is presently available on the DDC, the criteria applied for posting material and datasets on the DDC as well as a proposal on how data, models and scenarios, including regional models and scenarios, assessed in the AR4 and visualisation tools could be made available either on the DDC or in another adequate format.

#### *Other ways to provide material on regions*

Following the recommendation by the contact group of the IPCC Bureau it is suggested that the IPCC Secretariat in cooperation with members of the IPCC Bureau will identify appropriate regional and national organisations for preparation and dissemination of regional information. If the Panel agrees to that approach further steps would be taken in the context of the IPCC outreach programme.

### **3.3 Estimated resource requirements**

In the following cost estimates for items that will require resources from the IPCC Trust Fund are provided. It should be noted that, in particular costs for any form of electronic publishing may change, subject to availability of new tools. Additional requirements from TSUs will depend on the system chosen for the development of an indexing system and search facility. The IPCC Secretariat is presently exploring available systems and their suitability for the IPCC. The full costs and human resource requirements for providing models, data, scenarios and visualisation tools will depend very much on the amount and nature of the material to be provided. It is therefore suggested to ask the TGICA and the institutions, which are presently hosting the DDC (Deutsches Klimarechenzentrum (DKRZ/MPI) in Hamburg, Germany, and the Climatic Research Unit (CRU) at the University of East Anglia in Norwich, UK) to provide a more detailed cost estimate. Resource requirements for the management of the writing and review process of a SYR are reflected in document IPCC-XXII/Doc.5. Resource requirements for publishing a SYR are also mentioned here as they relate to other publishing costs.

Bulk purchase of Working Group contributions for free distribution

Expected costs in the order of	150.000 CHF (without Synthesis Report)
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Summaries of Working Group contributions in official UN languages (200 pages including annexes)

Layout, Translation and Printing	750.000 CHF
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Synthesis Report in official UN languages (80 pages including annexes)

Layout, Translation, Printing	300.000 CHF
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Indexing system, Website, CD RoM

Estimated costs in the order of	150.000 CHF
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Graphics work for Summaries, Synthesis Report, guidance kit for graphics in full reports and slide package  
200.000 – 300.000 CHF depending on number of graphics (estimate for 80-100 designed graphics)

Models, data, scenarios and visualisation tools

During the compilation period of the AR4 at least one full time person will be required. Staff will also be required on a permanent basis to maintain the site and to assist users. Annual costs will depend on the amount of data to be handled, but are estimated to be in the order of at least 120.000 CHF during the compilation period and 30.000 CHF during the maintenance period.

## SYNTHESIS OF COMMENTS FROM GOVERNMENTS:

Comments were received from 18 governments and are summarised below.

### a. Needs and priorities

Information relevant for national and local planning including national CDM strategies and policy reforms in the areas of adaptation and development planning in the energy, industry, agriculture and waste sectors, water resources management, land use management, disaster prevention and relief, and environmental policy were repeatedly mentioned as needs and priorities. The need for information on mitigation and adaptation technologies, socio-economic scenarios of climate change impacts, ancillary benefits, climate extremes, risk and uncertainties were highlighted as well as the need for more detailed information on regions.

### b. Key audiences

The primary audience referred to in most submissions are government policymakers and their advisors. Further parliamentarians, NGOs, and decision-makers at the local level and in the private sector were referred to as important users, as well as researchers which use IPCC reports as a resource. Media and general public were also mentioned but different views were expressed as to how far the IPCC would be able or should prepare material for these groups.

### c. Products

#### i. Primary IPCC products

All submissions highlighted the importance and high value of assessment reports, summaries for policymakers and technical summaries and in many submissions it was recommended to concentrate the attention on these products. Governments also expressed satisfaction with web publishing and production of CD RoMs and suggested that such products, including graphs and figures will be made available as soon as possible after completion of a report. Better indexing and cross-referencing was suggested as a way to enhance the user-friendliness of IPCC reports. The importance of translations was emphasized, but a shorter delay between finalization of the English version and the translations would be appreciated.

Most submissions expressed the need to synthesize policy relevant findings, information across working groups and information on certain CCTs. Several governments explicitly supported the preparation of a Synthesis Report and made specific proposals on scope and content of a Synthesis Report, which are taken up under the respective agenda item.

#### ii. Information on regions

Almost all submissions, in particular from developing countries asked for more information on regions. Several submissions supported technical papers on regions as useful tool for making information on regional issues available, while a few submissions did not support this option because of time and resource constraints and the fact that regional information would have to contain more details than can be provided through an IPCC Technical Paper. Some submissions supported regional appendices in the working group reports and suggested to translate them into the relevant languages. Links to or posting of specific regional information on the IPCC website was suggested as alternative method for providing or facilitating access to regional information. The preparation of a special report on regions did not receive strong support.

#### iii. Other products and activities

A few governments supported the preparation of Technical Papers on specific topics or on CCTs. Others cautioned that in particular cross cutting themes cannot be addressed through secondary products but need to be integrated in a broader synthesis.

Diverse outreach activities and material for regions and on topics were mentioned, but target groups and nature of such material were often not clearly specified.



Several governments suggested making data-sets and interactive models available for the benefit of education communities and researchers. The IPCC DDC was mentioned in this context. Workshops and seminars were mentioned frequently as appropriate means for disseminating IPCC information on topics and regions to various user groups.

Different views were expressed concerning the preparation of material for the general public. While the importance of civic education and awareness raising was highlighted, concern was also expressed, whether the IPCC would be well placed to produce such material. Some specific suggestions were to prepare posters, education material and fact sheets e.g. for decision makers not directly involved in climate policy summarising the most relevant information and key findings of the AR4 including on CCTs. The need to develop a procedure to ensure that such material would conform with the high standards of IPCC publications was emphasized, e.g. by having this material written by authors involved in the assessment and some form of a review procedure.

Rather than IPCC producing such material it was also suggested to structure and present the primary IPCC products in a way, which facilitates extraction of material by government institutions or NGOs for education purposes and any specific information material they want to produce for their audience. Collaboration with other international organisations and NGOs was also proposed.