

## SCOPING DOCUMENT

### Scope, Content and Process for the Preparation of the Synthesis Report (SYR) of the IPCC Fifth Assessment Report (AR5)

#### **Background**

*At its 28th Session, Budapest, 9-11 April 2008 the Panel agreed to do a Synthesis Report and at its 30th Session, Antalya, 21-23 April 2009 agreed that the scoping of the AR5 SYR should start with the first scoping meeting. In line with that decision a broad outline for the AR5 Synthesis Report was developed at the AR5 Scoping Meeting held in Venice, 13-17 July 2009. A dedicated scoping meeting for the Synthesis Report was held in Liège, Belgium from 24-27 August 2010, from which the Liège Scoping Document IPCC-XXXII/Doc. 4 was produced for the 32nd Session of the Panel.*

*The following scoping document was developed at the 32<sup>nd</sup> Session from discussions based on the Liège Scoping Document.*

#### **I. SCOPE**

As defined in the IPCC procedures, the SYR would synthesize and integrate material contained within IPCC Assessment Reports and Special Reports. The SYR would be based exclusively on material contained in the three Working Group Reports and Special Reports produced during the 5<sup>th</sup> or previous Assessment Cycles. It would be written in a “non-technical style suitable for policymakers and address a broad range of policy-relevant, but policy-neutral questions”. The SYR should be largely self-contained, but guide readers to the underlying material if they wish to look further.

The primary audience for the SYR would be policymakers, in particular from governments, advisors to policymakers, and experts. However, it is recognized that others will also make use of the report.

The proposed SYR would consist of two parts:

1. Summary for Policymakers (SPM): up to 8 pages of text excluding the tables, maps, boxes and figures
2. Longer Report: up to 30 pages of text excluding the tables, maps, boxes and figures

The SYR publication would also contain annexes such as a glossary, list of authors, reviewers, Review Editors, and an index.

The AR5 SYR would be self contained and published as a stand-alone publication in the six official UN languages. It would be accompanied by a DVD, which contains the SYR (SPM and longer report), the contributions of the three IPCC Working Groups to the AR5 in English, and the summaries of these reports (SPM and Technical Summary) in all official UN languages. Automatic hyperlinks to references from the SYR (and its SPM) to

the longer Working Group reports will be available on the DVD/off-line version and the web-based version of the reports. There will also be full traceability in the referencing for the AR5 in the hard copies of all the reports, including the SPM of the SYR.

## **II. CONTENT**

The following structure for the AR5 SYR is proposed.

The topic and box headings and the structure for the SYR, outlined here, are agreed. However, flexibility is provided to the SYR writing team in the development of the proposed content (list of bullets) provided here as guidance, and not as a constraint. All bullets will be considered by the core writing team (CWT). The coverage of the bullets will depend on the assessment of the literature by the authors, cognizant of the page length restrictions. The IPCC Chair will report to the Panel on the evolution of the outline of the SYR after the zero order draft has been produced.

The core writing team may note submissions by governments containing their views and questions on the SYR, including IPCC-XXXII/INF.3 and IPCC-XXXI/INF.5. The SYR would be based exclusively on material contained in the three Working Group Reports and Special Reports produced during the 5<sup>th</sup> or previous Assessment Cycles.

Cross Cutting Themes and Methodologies (CCT and CCM) need to be given careful attention throughout the report, and particular attention must be paid to specific issues requiring consistent treatment in the SYR.

## **III. SYR OUTLINE**

### **FOREWORD**

The Chairman's foreword will describe the history of the report, its structure, and the relationship to the other AR5 reports, how detailed information on topics and regions can be accessed and how it has been cross-referenced. It will describe who the intended users are. It will also state how the cross cutting themes and methodologies used in the AR5 are addressed in the SYR.

### **INTRODUCTION**

- Rationale
- Framing the climate and human systems
- Major challenges
- Treatment of confidence, risk and uncertainty

### **TOPIC 1 – Observed Changes and their Causes**

- Pre-instrumental environmental changes, their effects and their causes
- Recent observed changes in the climate system
- Observed effects and impacts
- Past and recent drivers of climate change
- Attribution of climate changes, impacts, effects and drivers
- Human activities affecting climate drivers

- Historical transformational dynamics of societies and lessons to be learned
- Observed vulnerability to shifts in extreme-events and other climatic changes

## **TOPIC 2 - Future Climate Changes, Impacts, and Risks**

### ***Drivers of future climate change***

- Description of Representative Concentration Pathways (RCPs) and scenarios used in AR5 (including comparison with the Special Report on Emissions Scenarios (SRES) and previous Assessment Reports)
- Anthropogenic (primarily) and physical factors that lead to a change in climate (e.g., emissions, land-use change, population, etc.)

### ***Basis of projections***

- Earth system, vulnerabilities, impacts, and economic models, and their validity
- Uncertainty and confidence

### ***Projections of future changes and risks***

- Climate futures: mean, variability, and extremes
- Committed climate change, abrupt changes, irreversibility
  - High impact / low probability events
- Changes and impacts on systems, sectors, and regions
  - Ecosystems, food production, and sustainable economic development (Article 2 of the UNFCCC)
- Direct and aggregate costs
- Relationships between risks and vulnerabilities with temperature, levels, timing, and pathways for stabilization of greenhouse gas concentrations / cumulative emissions

## **TOPIC 3 - Adaptation and Mitigation Measures**

### ***Response options***

- Observed responses
  - Drivers, outcomes and implications
- Adaptation and mitigation responses (including regional and sectoral perspectives):
  - Options, including technologies, and related policies and measures
  - Capacities and their determinants
  - Costs and benefits, including co-benefits, trade-offs, and spillover effects
  - Barriers, constraints, and limits, including inertia
  - Cross-cutting issues and aggregate responses
- Interactions between adaptation, mitigation, and development, including equity and ethics
- Geo-engineering – possible role, options, risks and status

### ***Enabling factors and addressing barriers, constraints, and limits including regional considerations***

Note: this part should address only the factors related to specific options but not address systemic aspects

- International and regional collaboration
- Governance and institutional arrangements
- Investment, finance and financial instruments
- Changes in lifestyles and behavioural patterns
- Innovation, and technology research, development, deployment, diffusion and transfer
- Information, monitoring and evaluation to support decision-making

### **TOPIC 4 - Transformations and Changes in Systems**

Note: This topic takes a systems perspective in addressing climate change response strategies and policies.

#### ***Overview of transformation pathways***

- Interpreting scenarios and their pathways including regional and sectoral aspects across different stabilization levels (timeframes and emission pathways for different stabilization levels)
- Mitigation and adaptation strategies - characteristics, risks and interactions
- Systems, costs, investment strategies, and trade flows
- Avoided damages under adaptation and mitigation
- Benefits and co-benefits, tradeoffs and spillover effects (mitigation, adaptation and sustainable development); Possible reference to Millennium Development Goals (MDGs)
- Societal changes

#### ***Strategic approaches: common and specific systemic changes across the pathways***

- Technology change (RD&D, technology transfer, role of private sector)
- Societal changes
- Policy, governance and institutional (including international) arrangements
- Investment and finance
- Capacity building: mechanisms and strategies
- Equity and ethical dimensions
- Diversity of values and priorities
- Co-benefits, tradeoffs, obstacles and barriers

## **Box - Information relevant to Article 2 of the UNFCCC**

Note: this box will not duplicate information presented in former topics; cross-references should be made to the corresponding data in previous topics.

- Preamble preventing prescriptive interpretation
- Relationship of risks and key vulnerabilities to levels, timing and pathways for stabilization of greenhouse gas concentrations (including regional information)
- Relationship to cumulative emissions and budgets
- Timeframes and pathways for stabilization of greenhouse gas concentrations

### ***Ecosystems, Food Production and Sustainable Economic Development***

- Allowing ecosystems to adapt naturally
- Ensuring food production is not threatened
- Enabling economic development to proceed in a sustainable manner (including regional information)

## **Annexes**

- User guide and access to more detailed information
- Glossary
- Acronyms, chemical symbols; scientific units; country groupings
- List of Authors
- List of Reviewers and Review Editors
- Index
- List of all publications of the IPCC

## **IV PREPARATION OF THE SYR**

### **Writing Team**

The IPCC Chair would lead the Core Writing Team (CWT). In accordance with the IPCC Procedures the members of the CWT would be nominated by the IPCC Chair in consultation with the Co-Chairs of the Working Groups. The composition of the writing team would be agreed by the Bureau.

### **Time schedule**

In order to start the synthesis report process in a timely manner, the implementation of the decisions of IPCC-32 on the SYR will be taken up by the IPCC Chair and WG Co-Chairs at the time of the IPCC-34 Session in November 2011. This discussion will include criteria for composition and selection of members of the core writing team and extended writing team.

- The members of the core writing team (CWT) and members of the extended writing team would be chosen in March 2012, after the second Lead Author meetings of the three Working groups. By that time, the Co-Chairs and writing teams will have sufficient oversight as to efficiently divide the workload.

- CWT-1 should be held in mid 2012 (when all 1st-order drafts of the WG Reports are available) the writing of the Zero-order draft SYR would start. A progress report for the next Session of the Panel (scheduled Sept/Oct 2012 tbd) will be prepared.
- Between January and March 2013 the Zero-order draft of the SYR will be reviewed by the authors of the AR5 Working Group Reports.
- CWT-2 would meet in mid 2013 to consider the comments on the Zero-order draft and start writing the first draft SYR based on the 2nd-order drafts of the Working Group Reports, including development of integrated graphics, figures and tables.
- CWT-3 (scheduled for January 2014 after the final drafts of all Working Group contributions are available) will produce a draft SYR.
- CWT-3bis should be a small targeted meeting held back-to-back with the Approval Session of WGIII (April 2014) and revise the first draft based on the outcome of this Session and produce a second-order draft for expert government review.
- The expert/government review will take place in May/June 2014 (8 weeks).
- CWT-4 (scheduled early July) would consider the review comments and prepare the final draft SYR.
- The final draft would be submitted to governments and participating organizations at least 8 weeks before the Session of the Panel that adopts/approves the AR5 SYR.
- Adoption and approval of the SYR and its SPM will take place by end of October 2014 to allow making available an advanced copy of the longer report and the SPM of the AR5 SYR prior to the UNFCCC COP 20.
- The Panel invites the UNFCCC to consider holding COP 20 as late as possible in order to allow sufficient time between the SYR approval Session and its availability for UNFCCC COP 20.
- Printing, Translation and Distribution of the AR5 should be ready in February or March by early 2015.

### **Management of the SYR**

The IPCC Chair will chair the writing team and provide overall guidance to the development of the SYR. The management of the SYR will be considered at a future plenary.