



**REPORT ON
FUTURE EARTH REGIONAL WORKSHOP FOR ASIA AND THE PACIFIC
21 – 23 NOVEMBER 2012
KUALA LUMPUR, MALAYSIA**



Purpose of this document

This document is a report of the workshop organised by ICSU in Kuala Lumpur, Malaysia, on 21 – 23 November 2012. This event is part of a consultation process with the regions on a new programme called “Future Earth – research for global sustainability” launched in 2012.

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Acknowledgments

ICSU would like to thank all participants for their valuable contributions during the workshop.

ICSU would especially like to thank the Swedish International Development Agency (Sida) for making this event possible by providing financial support; the Asia-Pacific Network for Global Change Research (APN) which sponsored the participation of a number of participants and provided guidance within the organising committee; Candice Lung, Jiahua Pan, Chuluun Togtokh, Tandong Yao for their involvement in the organising committee; and Linda Stevenson, Sybil Seitzinger and Rik Leemans for co-chairing the workshop with Nordin Hasan.

The workshop was organised and hosted by the ICSU Regional Office for Asia, which is hosted in Malaysia by the Academy of Sciences Malaysia (ASM) and the Ministry of Science, Technology and Innovation (MOSTI) .

Key recommendations

The Asia Pacific region has the capacity to drive a transition towards global sustainability under the Future Earth programme. Its scientific community is ready to make the changes needed to support integrated research that would build the knowledge and solutions for the transition to sustainability. Through Future Earth, the region can develop new ways to engage with developed and less developed countries and help to ensure development which is socially inclusive and environmentally sound.

- In developing the research framework for Future Earth, there should be a focus on development challenges which are unique to Asia and the Pacific. Of particular importance are the role of technological sciences and engineering in sustainability science, the use of public-private partnerships (PPP)s to support sustainability research, the drivers of social change, tipping points in ecological and social change, and governance for sustainability. Furthermore, the contribution of indigenous knowledge and the wisdom of local communities in the transition to sustainability should not be ignored.
- Future Earth research in Asia and the Pacific should primarily focus on issues related to climate change, rapid urbanization, food and water security, ecosystem services, the vulnerability of coastal communities and ecosystems, the security of livelihoods – particularly in rural communities, the green economy and mountain ecosystems.
- Future Earth should be more explicit about how to nurture disciplinary capability while increasingly promoting interdisciplinary research, which needs to be grounded in deep domain expertise. Leadership is an important success factor in integrated studies. Future Earth should identify and nurture leaders to deliver its research approach.
- Future Earth should enhance integration of socio-economic and human dimensions in monitoring and data sharing systems. Studies in areas identified as sustainability hot-spots should take into account natural as well as social determinants of sustainability.
- Local issues should receive equal attention in Future Earth research, and solutions developed need to be applicable at the scales where decisions are taken. Comparability across nations and regions is important for the integration of knowledge in regional and global assessments of sustainability.
- Scientific knowledge from Future Earth should widely impact decision- and policy-making. Particular attention should be paid to the translation of science into materials which can inform policies at the national and local levels. Greater use should be made of regional political fora

(ASEAN; APEC; SOPAC; SAARC¹) to share critical scientific and technical knowledge on sustainability.

- Closer links with development aid, business and industry and other agencies (e.g. Global Environmental Facility GEF) are needed to generate new sources of funding for Future Earth.
- Existing research networks should be strengthened to enable them to meet the needs of Future Earth in Asia and the Pacific. Bodies could be established to organize and manage Future Earth activities at the national level. Virtual arrangements for collaboration should be encouraged.
- The participation of younger scientists in the integrative work of Future Earth should be given special attention. Greater capacity for integrated research should be developed in the region. Capacity building is critical for less developed countries of Asia and the Pacific. Pilot studies should be initiated to demonstrate how Future Earth will contribute to global sustainability.
- Follow-up workshops and “road-shows” should be organised to introduce Future Earth to the wider research community in the region.

¹ Association of Southeast Asian Nation (ASEAN), Asia-Pacific Economic Cooperation (APEC), Secretariat of the Pacific Community (SOPAC), South Asian Association for Regional Cooperation (SAARC)

1. Introduction

Future Earth is a 10-year international programme on Earth system research for global sustainability. The goal of Future Earth is to provide the knowledge required for societies in the world to face risks posed by global environmental change and to seize opportunities in a transition to global sustainability.

Future Earth has been established by a broad Science and Technology Alliance for Global sustainability including the International Council for Science (ICSU), the International Social Science Council (ISSC), the Belmont Forum of global change research funding agencies, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), the United Nations University (UNU), and the World Meteorological Organization (WMO) as observer.

While the scope of Future Earth is global, a number of issues require region-specific approaches to provide robust observations and forecasts of regional environmental change, assess potential impacts and vulnerabilities, explore mitigation and adaptation pathways, etc. Regions, as early witnesses of environmental change, have a critical contribution to make to assess environmental change and to participate in building a global picture for transitioning towards sustainability. Stakeholders in the region also have a fundamental role to play in implementing sustainability research and facilitating its application. This could involve identifying the needs and priorities of researchers and practitioners at national and regional levels, stimulating cooperation and partnerships, and promoting institutional coherence.

As a first step in looking at a regional approach for Future Earth, ICSU, on behalf of the Alliance, organised a set of three regional workshops for Africa, Asia-Pacific, and Latin America and the Caribbean, funded by the Swedish International Development Cooperation Agency (Sida). These regional workshops were held as part of a broader consultation process, starting at the Rio+20 Earth Summit where Future Earth was launched, and will continue in 2013. These regional consultations were timed to coincide with the final phases of design work on Future Earth led by the 'transition team', including proposals for the research framework and a governance structure. These proposals formed a basis for consultation at both global and regional levels. This consultation process seeks to test and refine the initial design proposal with key stakeholders as Future Earth enters its operating phase from January 2013 onwards.

The Future Earth Regional Workshop for Asia and the Pacific was held from 21 to 23 November 2012 in Kuala Lumpur. It was attended by 51 participants from the Asia - Pacific region. Members of the Transition Team and representatives of the Global Environmental Change (GEC) community were also present. The list of participants is given in Annex 2 and workshop details are available at <http://www.icsu.org/future-earth/whats-new/events/kuala-lumpur-workshop>.

The objectives of the workshop were as follows:

- i. To develop a common understanding of Future Earth, including its vision, research framework and governance;
- ii. To identify regional research priorities that will help shape the Future Earth research strategy in the Asia Pacific region;
- iii. To discuss opportunities and challenges for implementing Future Earth in the region;
- iv. To explore ways of establishing a regional interface for Future Earth.

2. Context

The Asia-Pacific region presents great historical, cultural, and ethnic diversity with countries at a variety of stages of political evolution and economic development. Climatic conditions in the region range from tropical to arctic, and it is also topographically diverse ranging from the mountains of the Himalayas to the deserts of Mongolia and Australia. It has a long coastline and the maritime environment has some of the richest coral communities in the world.

The region is developing rapidly and is home to 60% of the world population and accounts for more than 40% of the global economy. Nonetheless, it still has an estimated 70% of the global poor. Rapid economic growth has put enormous pressure on the region, manifest in increasing incidence of disasters resulting from land degradation, air and water pollution, and loss of biodiversity. Other main concerns in the region include high rates of loss of life and property from hazards and disasters compared to other regions of the world, high rates of urbanization, and increasing migration and brain drain to more developed countries.

3. Key Outcomes of the Workshop

The workshop was effective in building an understanding of Future Earth among participants, providing information on current initiatives and developing a common vision for Future Earth in the region. A preliminary research priority list was developed but this requires further development involving a broader range of stakeholders. Key success requirements were also identified as a basis for further discussion of the regional governance of Future Earth. The process could be continued in the region during the 18-month interim transition phase of Future Earth.

3.1. Common vision of Future Earth

The following draft vision for Future Earth in the Asia and the Pacific was derived from the workshop: ***Information and knowledge from research on global sustainability are effectively used to underpin regional actions to achieve sustainable development of a wide range of communities while maintaining a resilient and healthy environment.***

3.2. Research framework for Future Earth in Asia Pacific

The proposed research framework for Future Earth in Asia Pacific should aim to maintain and enhance on-going research programmes that have the potential to contribute to Future Earth. It is essential that a mechanism be developed that would enable as many on-going projects as possible be involved in

Future Earth while enhancing the conduct of more transdisciplinary/interdisciplinary research² at the national and regional levels. Significant pilot projects that would promote such research should be set up as early Future Earth activities.

There are many challenges to implementing Future Earth in the region, but these also present some new research and development opportunities. Some initial activities identified to help further define and focus Future Earth in Asia and the Pacific are:

- Identifying and addressing global, regional and local problems and exploring the best ways to effectively engage with stakeholders to achieve sustainability;
- Developing examples to illustrate how the Future Earth research framework can be scaled up and down;
- Initiate activities to support:
 - i. Co-design – identify stakeholders and work together in finding the regional and local research questions;
 - ii. Identification of potential gaps via a review of current regional literature, including local language literature and data relevant for Future Earth
 - iii. Fostering links between science and business to access relevant commercially or industrially- held data sets;
 - iv. Identification of current best practices and future needs to integrate the social, natural and technological sciences to support research on regional sustainability.

3.3. Governance structure for Future Earth in Asia Pacific / Regional interface of Future Earth

The regional interface/s will become the focal point/s for linking global and regional scales and act as the coordinating body for Future Earth in the region. Existing governance models need to be assessed for their strengths and weaknesses before deciding on a suitable structure or mechanism. In a broad sense, ICSU ROAP can function as a facilitator and catalyst to explore and bring together potential partners and stakeholders into the Future Earth framework.

3.4 Regional Research Priorities

The following areas were identified as possible research priorities for the region. This list reflects the views of the workshop participants and is neither comprehensive nor complete. Further national and regional consultations engaging a wider range of stakeholders will most certainly result in a more comprehensive list of priorities. Business and industry, development aid and funding communities were under-represented at the workshop..

- Natural characteristics of the region – seismic risks, monsoons, cyclones and heat stress;

² **Interdisciplinary research:** Research that involves several unrelated academic disciplines in a way that forces them to cross subject boundaries to create new knowledge and theory and solve a common research goal.

Transdisciplinary research: Research that both integrates academic researchers from different unrelated disciplines and non-academic participants, such as policymakers and the public, to research a common goal and create new knowledge and theory.

ICSU (2010). *Earth System Science for Global Sustainability: The Grand Challenges*. International Council for Science, Paris. ICSU (2010). *Earth System Science for Global Sustainability: The Grand Challenges*. International Council for Science, Paris.

- Pressures of urbanization – megacities, health, pollution;
- Coastal hazards, vulnerability and impacts on communities and new development plans;
- Climate variability and extremes;
- Key social pressures - rapid economic growth, population, consumption, global connectivity;
- Water, energy, land and food security issues specific to the region;
- Emerging health issues;
- Green economy, new economic models.;
- Valuation of natural capital;
- Mountain and low land interaction – transboundary issues.

3.5 Opportunities and Challenges for Implementing Future Earth in the region

In developing the framework for Future Earth in Asia and the Pacific, many cross-cutting issues and challenges need to be addressed. These include lack of scientific capacity in many Asia-Pacific countries, brain drain, especially following advanced and graduate training in the sciences, gaps that exist between policymakers and scientists resulting from ineffective translation of scientific knowledge into policy, poor communication and engagement between the scientific community and relevant stakeholders, and poor transfer of knowledge from developed countries to less developed countries. In addition, not all countries in Asia and the Pacific have programmes affiliated to the Global Environmental Change programmes of ICSU. A mechanism to include such countries early in the planning phase of Future Earth needs to be developed.

3.6 Funding

Future Earth needs innovative and opportunistic strategies to reach out to different national, regional and international funding sources. It should tap into the resources of various development assistance organizations and regional development banks, private sector companies and foundations, and government agencies to fund its programmes. Private-public partnerships should be encouraged to establish regional funding frameworks that would support integrative research in natural and social sciences. A “Belmont Forum” mechanism should be created for Asia and the Pacific.

4. Looking ahead

Participants recommended engaging existing GEC-related programmes and networks (IGBP, IHDP, DIVERSITAS, WCRP, START, APN) and their funders in discussions to build links between the regional Future Earth interface - to be defined - and the governing bodies of Future Earth. At the same time a regional plan for the implementation of Future Earth in Asia and the Pacific should be prepared that would clearly define priority research areas and desired outcomes for the region in the first five years of Future Earth. In these endeavours, the experience of networks, such as APN, in funding and promoting GEC research in the region, could provide the necessary building blocks in the transition to Future Earth.

The workshop also made the following specific recommendations.

Coordination and convergence

- Develop an understanding of what sustainability means at the national and regional levels taking into account varying cultural contexts;
- Develop global sustainability indicators that can guide implementation at the regional and sub-regional levels;
- Develop strong regional representation in Future Earth and regional priorities that are developed through in-depth, long-term and sustained discussions;
- Create alliances of current integrated research projects and researchers upon which to build long-term strength;
- Define clear mechanisms, such as an endorsement process, for projects to become part of Future Earth;
- Develop incentive mechanisms to promote transdisciplinary research;
- Foster networks for scientists across regions, disciplinary fields and stakeholders.

Learning and capacity development

- Compile examples of best practices of transdisciplinary research on sustainability issues beginning with small and local scale projects that could be scaled up through programmes at the regional and national levels;
- Document case studies of successful integration and interdisciplinary work in the region and create guidelines on how to do co-design and co-production of research;
- Increase human capacity development training programs, through short-term workshops, exchange of graduate students, increasing the number of graduate research positions and Professorial Chairs within countries in the region and develop mentoring of young scientists in least developed countries by more experienced researchers.

Science-policy and stakeholder interface

- Develop an understanding of what the points of entry into the policy arena are;
- Develop approaches and programmes to bring into dialogue groups of people who do not normally talk to each other;
- Translate and share models on how to influence policymakers - taking into account the wide range of political systems and cultural settings prevalent in the region - and businesses, and sustain successful science-policy dialogues;
- Create or identify science-policy platforms to effectively inform and engage decision- and policy-makers
- Engage indigenous communities and local knowledge systems in the research process;

5. Concluding summary

The Asia Pacific region has the ability to lead the move towards global sustainability under the Future Earth programme. Its scientific community is ready to make the change to support integrated research

that would build the knowledge and solutions necessary for the transition to sustainability. Through Future Earth, the region can engage with developed and less developed countries in a new programme which seeks to ensure development that is socially inclusive and environmentally sound.

Annexes

Annex 1: Evaluation

An in situ evaluation took place at the end of the workshop with all attendees being invited to contribute their views. In addition, evaluation questionnaires were distributed and 18 completed evaluation forms were analysed.. The majority of respondents considered the workshop successful. Among the most appreciated aspects of the workshop were the rich discussions and interaction among participants representing various backgrounds and disciplines, openness, as well as the opportunity to provide contributions to the design of Future Earth.

To improve future workshops, participants recommended broader geographical representation, in particular of the Pacific region (e.g. via videoconferencing). As a way of promoting a different type of research, which involves co-design and co-production, participant suggested exploring opportunities to include other stakeholder groups, rather than solely focusing on the scientific community. Early career representatives should also be more strongly represented in these discussions. Demonstration of successful case studies on co-designed and transdisciplinary research could be an effective approach to strengthening stakeholders' interest in Future Earth.

Annex 2: List of participants

Future Earth Regional Workshop for Asia & the Pacific 21-23 November 2012 Kuala Lumpur, Malaysia

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Annex 3: Workshop agenda

FUTURE EARTH REGIONAL WORKSHOP FOR ASIA AND THE PACIFIC

Hotel « Le Meridien », KUALA LUMPUR, MALAYSIA

21 – 23 NOVEMBER 2012

FINAL PROGRAMME

Organiser



Partners



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Main goals:

1. To develop a common understanding of Future Earth, including its vision, research framework and governance
2. To identify regional research priorities (research questions, required capabilities, etc.) that will help shape the Future Earth research strategy in the Asia-Pacific region
3. To discuss opportunities and challenges for implementing Future Earth in the region
4. To explore the best ways of establishing a regional interface for Future Earth

Expected outcomes:

1. Regional feedback on Future Earth, including its vision, research framework and governance
2. Identified links with existing regional research plans and priorities
3. Guidance on the next steps to implement Future Earth in the Asia-Pacific region

DAY 1 – 21 November 2012 (Wednesday)

Introduction to Future Earth and regional landscape for Earth system science

Co-chairs: Nordin Hasan and Linda Stevenson

08:00 – 09:00	Registration
Session 1: Introduction to Future Earth	
09:00 – 09:15	Opening Remarks Yuan Tseh Lee – President, International Council for Science (ICSU)
09:15 – 09:30	Objectives of the workshop and agenda Day's co-chairs : Nordin Hasan – Director, ICSU Regional Office for Asia and the Pacific (ICSU ROAP) and Linda Stevenson – Executive Science Officer, Asia-Pacific Network for Global Change Research (APN)
09:15 – 09:45	Presentation of Future Earth: overall objectives, rationale and design process Carthage Smith – Deputy Executive Director, ICSU
09:45 – 10:00	Short Question and Answer session on the overall presentation of Future Earth
10:00 – 10:30	Presentation of the research framework for Future Earth Anne Larigauderie – Executive Director, DIVERSITAS and Future Earth Transition Team member
10:30 – 11:00	Short Question and Answer session on the research framework
11:00 – 11:30	Coffee Break
11:30 – 12:10	Presentation of the governance structure and funding mechanisms for Future Earth Rik Leemans - Professor, Wageningen University and Future Earth Transition Team member
12:10 – 12:45	Question and Answer session on the governance structure
12:45 – 14:00	Lunch
Session 2: Regional perspectives on the development of Future Earth at the global and regional levels	
14:00 – 15:30	Feedback and discussion on the global design and features of Future Earth – Asia Pacific perspectives Panelists will provide their feedback on Future Earth as described in the morning's presentations and will address the following questions: What is your personal take on the global design of Future Earth that has been presented? Are the research framework and governance structure proposed adequate to deliver integrated and solutions oriented research for global sustainability?

	<p>Panellists include:</p> <p>Regional scientists:</p> <ul style="list-style-type: none"> • Ailikun Director, Monsoon Asia Integrated Regional Study (MAIRS) • Yasunari Tetsuzo Professor Emeritus, Hydrospheric Atmospheric Research Center (HyArc), Nagoya University; Chairman of Japan Joint National Committee for IGBP-WCRP - DIVERSITAS • Harini Nagendra DST Ramanujan Fellow, Ashoka Trust for Research in Ecology and the Environment (ATREE); Scientific Committee Member of DIVERSITAS; Scientific Steering Committee Member of the Global Land Project, Capacity Building Committee Expert Member for the Asia Pacific Network for Global Change Research • Kanayathu Chacko Koshy Professor of Sustainability, Center for Global Sustainability Studies, Universiti Sains Malaysia (USM) • Chuluun Togtokh Director General of the Department of Green Development Policy and Planning, Ministry of Environment and Green Development, Mongolia <p>Previous speakers:</p> <ul style="list-style-type: none"> • Carthage Smith • Anne Larigauderie • Rik Leemans
15:30 – 16:00	Coffee Break
16:00 – 17:30	<p>Roundtable discussion on regional priorities and opportunities to develop Future Earth</p> <p>From a regional perspective, what are the challenges and opportunities to delivering solutions oriented sustainability research and how can Future Earth contribute? Given current activities on global environmental change in the region, how can Future Earth add value at the regional level?</p> <p>Discussants:</p> <ul style="list-style-type: none"> • Andrew Matthews Expert Member of the APN Steering Committee • Takashi Kohyama Professor of Plant Ecology, Hokkaido University; IGBP – WCRP – DIVERSITAS National Committee Japan • Joyashree Roy Professor of Economics, Jadavpur University, Kolkata, India

	<ul style="list-style-type: none"> • Sirimali Fernando Chairperson, National Science Foundation of Sri Lanka • Mafizur Rahman Professor of Engineering, Bangladesh University of engineering Technology
19:00 - 22:00	Welcome Dinner

<p>DAY 2 – 22 November 2012 (Thursday):</p> <p>Developing a vision for Future Earth in the region and research priorities</p> <p>Co-chairs: Nordin Hasan and Sybil Seitzinger</p>
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Session 3: Developing a regional vision for Future Earth	
08:30 – 09:00	<p>Main messages from day 1</p> <p>Co-chairs: Nordin Hasan and Sybil Seitzinger</p>
09:00 – 09:45	<p>Introduction of the sub-group session 1</p> <p>Carthage Smith</p>
09:45 – 11:30	<p>Breakout Session 1 on developing a regional vision for Future Earth</p> <p>What is your vision for sustainability research? What would success look like for Future Earth in the region? What would the success indicators be?</p> <p>Breakout group 1:</p> <p>Chair (facilitate discussions within the group and report in plenary): to be defined by the group</p> <p>Rapporteur: Alison Greenaway</p> <p>Transition Team member: Rik Leemans</p> <p>Breakout group 2:</p> <p>Chair: to be defined by the group</p> <p>Rapporteur: Anne-Sophie Stevance (ICSU)</p> <p>Transition Team member: Tandong Yao, Anne Larigauderie</p> <p>Breakout group 3:</p> <p>Chair: to be defined by the group</p> <p>Rapporteur: Norizan Ab Rahman (ICSU)</p> <p>Transition Team members: Anantha Duraipappah</p> <p>Breakout group 4:</p> <p>Chair: to be defined by the group</p> <p>Rapporteur: Sharizad Dahlan (ICSU)</p>

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	Transition Team members: Sybil Seitzinger
11:30 – 12:00	Coffee Break
12:00 – 12:45	Presentation by breakout group chairs in plenary
12:45 – 13:45	Lunch
Session 4: Defining research priorities for the region within Future Earth	
13:45 – 14:15	Mid workshop evaluation What have we achieved so far? What are your expectations for the rest of the workshop? Have you got any remaining questions regarding Future Earth or the workshop that you would like to raise now? Sybil Seitzinger
14:15 – 14:30	Introduction of the breakout session 2 Carthage Smith
14:30 – 14:45	Coffee Break
14:45 – 16:15	Breakout Session 2: research priorities and opportunities to strengthen capabilities within Future Earth in Asia and the Pacific What are the regional research questions for each of the 3 research themes that need to be answered to achieve this vision? What are the set of capabilities needed to answer these questions? All groups will cover the 3 themes (1/ Dynamic planet 2/Global development 3/Transformation towards global sustainability) <ul style="list-style-type: none"> Breakout group 1 Chair: to be defined by the group Rapporteur: Alison Greenaway Transition Team member: Anne Larigauderie Breakout group 2 Chair: to be defined by the group Rapporteur: Anne-Sophie Stevance (ICSU) Transition Team members: Anantha Duraipah Breakout group 3 Chair: to be defined by the group Rapporteur: Norizan Ab Rahman (ICSU) Transition Team member: Rik Leemans Breakout group 4 Chair: to be defined by the group

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	Rapporteur: Sharizad Dahlan (ICSU) Transition Team members: Sybil Seitzinger, Tandong Yao
16:15 – 16:45	Coffee Break
17:00 – 18:00	Presentation by breakout group chairs and discussion in plenary : Research priorities and capabilities in the region
19:00 - 22:00	Dinner reception

DAY 3 – 23 November 2012 (Friday) :

Organizing Future Earth at the regional level
Co-chairs: Nordin Hasan and Rik Leemans

Session 5: designing the regional interface of Future Earth	
08:30 – 08:45	Key messages from day 1 and day 2 Co-chairs: Nordin Hasan and Rik Leemans
08:45 – 09:45	Presentation of funders’ perspective on sustainability research and discussion on opportunities <ul style="list-style-type: none"> • Taniguchi Makoto / Carthage Smith on behalf of the Belmont Forum– 10 minutes • Neda Farahbakhshazad Research for Development (R4D) Adviser, Swedish Secretariat for Environmental Earth System Sciences (SSEESS), representing the Swedish International Development Agency (Sida) – 10 minutes • Akio Takemoto Director, APN Secretariat – 10 minutes
09:45 – 10:00	Introduction of Breakout Session 3 Carthage Smith
10:00 – 10:15	Coffee Break
10:00 – 11:45	Breakout Session 3: options and recommendations to implement Future Earth in the region Breakout groups working in parallel on the following questions How to organize ourselves at the regional level? What should the regional interface of Future Earth look like? Who should be engaged? Where do we start, what are the next steps? How would we fund it? <ul style="list-style-type: none"> • Breakout Group 1 Chair: to be defined by the group

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	<p>Rapporteur: Alison Greenaway Transition Team member: Rik Leemans</p> <ul style="list-style-type: none"> • Breakout Group 2 Chair: to be defined by the group Rapporteur: Sharizad Dahlan (ICSU) Transition Team member: Anantha Duraiappah • Breakout Group 3 Chair: to be defined by the group Rapporteur: Norizan Ab Rahman (ICSU) Transition Team member: Tandong Yao, Anne Larigauderie • Breakout Group 4 Chair: to be defined by the group Rapporteur: Anne-Sophie Stevance (ICSU) Transition Team member: Sybil Seitzinger
11:45 – 12:00	Coffee Break
12:00 – 13:00	Presentation by Working Groups chairs and Discussion in plenary: options for implementing Future Earth in the region
13:00 – 14:00	Lunch
Session 6: Recommendations and way(s) forward to develop Future Earth in the region	
14:00 – 14:30	<p>Impression from the co-chairs on key messages Co-chairs: Nordin Hasan and Rik Leemans</p>
14:30 – 16:00	<p>Panel Discussion: Implementing Future Earth in the Asia – Pacific region</p> <ul style="list-style-type: none"> • Yuan Tseh Lee President of International Council for Science (ICSU) • Taniguchi Makoto Program Director at the Research Institute for Humanity and Nature (RIHN) and Belmont Forum representative • Andrew Matthews Expert Member of the APN Steering Committee • Toshio Yamagata Director, Application Lab, Japan Agency for Marine-Earth Science and Technology (JAMSTEC); ICSU Regional Committee Member for Asia and the Pacific • Zakri Abdul Hamid Science Advisor to the Prime Minister of Malaysia • Cindy Yoshiko Shirata Secretary General of Science Council of Asia, also representing SATREPS (Science and Technology Research Partnership for Sustainable

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	<p>Development)</p> <ul style="list-style-type: none">• Neda Farahbakhshazad Research for Development (R4D) Adviser, Swedish Secretariat for Environmental Earth System Sciences (SSEESS), representing the Swedish International Development Agency (Sida)
16:00 – 16:20	Coffee Break
16:20 – 16:45	Final evaluation Carthage Smith
16:45 – 17:05	Summary and next steps Co-chairs: Nordin Hasan and Rik Leemans
17:05 – 17:15	Closing words Zakri Abdul Hamid