

The following is a document prepared on the basis of two quite different proposals by the FE science committee and by the implementation committee for the FE global secretariat. The IAI is part of the negotiations because it had offered its services for a regional representation as part of the global secretariat.

The document is a result of negotiations between groups with quite different approaches to regional participation. It has not been approved, and is for discussion within the IAI only. The purpose of this discussion is to provide further guidance at the upcoming CoP to the directorate on how to construct IAI - FE linkages that respect regional interests while supporting FE agendas.

Future Earth Policy Paper: Regional architecture for Future Earth

April 2015

This paper draws on the guidance prepared by the Regional Taskforce (Attachment 1) to summarise the key governance elements of Future Earth below the global level. The guidance spells out a set of principles and approaches, which are operationalised here into the implications for 3 governance elements: National Committees, Regional Committees and Regional Centres. These are defined and approved by the Governing Council in ways that **allow considerable flexibility in their implementation, to suit different regions and cultures; some elements may evolve over time.**

Background

Future Earth aims to be an inclusive global research and engagement platform. A basic design principle has been **to give voice and influence to expertise and institutions** across the globe. While this is partly reflected in regional representativeness in the Science and Engagement committees and the globally-distributed secretariat, there is a need for regional and national entities that can have input into equitable and innovative global priority setting and activities. In developing a mechanism for this, Future Earth is cognisant of **key principles of legitimacy, credibility, inclusiveness, representation, transparency and openness, accessibility, responsiveness, flexibility and adaptability** (see section II in the appendix for elaboration).

Governance elements

There are 3 elements relevant to governance below the global level: National Committees, Regional Committees and Regional Centres.

National Committees

National Committees existed for the precursor Global Programmes (IGBP, DIVERSITAS and IHDP) and up to 20 Future Earth National Committees (or platforms) have been formed or are planned. *The role of National Committees is to communicate, make relevant and promote Future Earth principles and activities within a country, to encourage participation, and to be a bridging-point for the global Future Earth platform with research and societal stakeholders*, probably mostly via the relevant Regional Committee and Regional Centre. Given the focus on 'solutions', there is an increased need for engagement at the national and local level. National Committees will be valued for playing a leading role in engaging with national policymakers and business leaders on issues of importance to Future Earth. However, significant numbers of countries will not have the capacity to establish NCs, so this cannot be the only pathway for involvement in Future Earth (see next item).

Drawing on the SSEESS NC Report¹, the National Committees should be self-organised, primarily because this will lead to more energetic and innovative approaches appropriate to national contexts and partly because a more effective use of Future Earth resources will be at the regional level. Despite being self-organised within a country, to be recognised by Future Earth they must meet certain criteria for eligibility:

- i) There can only be one NC for a country
- ii) Members should include both scientists and societal partners (principle of co-design and co-production of knowledge)
- iii) Initiators must show they have consulted with any ICSU/ISSC adhering bodies in the country, and any extant IGBP/DIVERSITAS/IHDP National Committee; the committee must have legitimacy and be representative within the country
- iv) Initiators must show evidence of having engaged with diverse research communities including both natural and social sciences in the country, as well as stakeholders
- v) NCs should be willing to seek national financial and scientific contributions to Future Earth
- vi) NCs must consider gender, disciplinary and sectoral balance, and have a process for rotating membership.

There should be an open call in 2015 for further National Committees to be formed, noting the criteria above. The Executive Secretariat (mostly through the relevant Regional Centres) will maintain a contacts database on Future Earth National Committees, communicate relevant strategies and initiatives, and involve National Committees (where appropriate) in Future Earth initiatives and activities. National

¹An assessment of National Committees was carried out in 2014 by an international group, led by SSEESS at the Swedish Academy of Sciences. The report sets out steps needed to create an effective network of National Committees, including the need for a strategic plan, the need for broad guidance, the proposal for a coordinated open call for National Committees to be formed, and human and financial resources to be dedicated to these committees in some fashion in the Executive Secretariat. This should be mainly through the relevant Regional Committee and Centre.

Committee inputs to Science and Engagement Committee thinking will happen via the relevant Regional Committee.

Regional Committees

A regional structure of committees is new to Future Earth, having not existed under precursor Programmes, but is needed to fulfil the commitment of the Future Earth design report (Future Earth 2013) **to ensure that its global agenda adequately addresses regional science priorities and end user needs**. *The role of Regional Committees is to be an effective advocate for Future Earth in their regions and to be an effective advocate for regional interests in the global Future Earth platform.*

Regional Committees will be aligned with Future Earth Regional Centres, themselves part of the globally-distributed Executive Secretariat (see next section). Operational functions between Regional Centres and Regional Committees will be jointly developed within regions so shared goals and expectations can be met. Regional Committee chairs will be expected to attend at least one Engagement/Science Committee meeting a year, and may attend the associated Governing Council meeting.

Future Earth will initially designate five world Regions, noting that these will be the subject of review over time. The initial Future Earth Regions will be:

- 1) Sub-Saharan Africa,
- 2) Asia,
- 3) **Latin America and the Caribbean,**
- 4) Middle East and North Africa, and
- 5) Europe and North America.

Countries are welcome to affiliate with whichever region they prefer, but in general the expectation will be for geographic coherence.

Future Earth wishes to allow regions considerable autonomy and flexibility to establish Regional Committees as they see fit for their region. However, to be recognised by Future Earth they must meet certain criteria:

- i) They will involve existing Future Earth National Committees in the region but also actively engage nations without National Committees
- ii) They should include natural and social scientists, as well as societal partners
- iii) They must accept the vision and mission of Future Earth at the regional scale
- iv) They should have no more than 18 members, identified through a transparent process which has regional legitimacy
- v) They will develop annual plans of activities, to be communicated to the Executive Secretariat through the Regional Centre. Cross-regional activities will be encouraged
- vi) They should be willing to seek national financial and scientific contributions to Future Earth
- vii) They should include gender, disciplinary and sectoral balance, and have a process for rotating membership.

In practice it is expected that there will be a phase of establishing an interim or advisory committee that is able to consult within the region and eventually move into a formally constituted Regional Committee. Regional Committees may devise their own arrangements for engaging in their region, subject to resources. These

arrangements should facilitate and coordinate regional Future Earth activities. Other global Future Earth activities such as Core Projects and Knowledge Networks will be encouraged to link to agenda-setting and implementation of initiatives at the regional level with the awareness and assistance of the Regional Committees.

As resources permit, there should be an annual meeting of Future Earth Regional Committees at which their annual plans are shared and discussed, and areas of common interest identified. This should be coordinated with inputs to prioritising the global agenda of Future Earth.

Regional Centres

Regional Centres are an important, active and influential component of Future Earth's operational structure. These **centres provide a conduit for communication** between Regions and the Executive Secretariat. **The Regional Centres would provide the five core functions (i.e., coordination, research enabling, communication, capacity building and synthesis and foresight) of the Executive Secretariat within Regions.** The Regional Centres may also support international meetings with Future Earth.

The organisation of the Global Secretariat in Regions will eventually include a Regional Centre in each Future Earth Region. The Regional Centres will be integrated into the distributed Executive Secretariat, providing capabilities to support Regional work. Regional Centres will initially be based in the regional hubs proposed in the global secretariat bid, but the term Regional Centre is preferred both because 'hub' is being used in too many ways, and also because this emphasises that these are core arms of the global secretariat focused on issues of their region. Each Regional Centre will have a somewhat distinct profile, depending on the capabilities and history of each region, and their specific functions will be determined in the context of the overall global Secretariat and by the resources available. However, among many other roles, the Regional Centre will support their Regional Committee, and help to articulate the priorities that it identifies.

Other activities

Many other types of sub-global but multinational activities should take place under Future Earth, including those focused on particular biomes (e.g. mountain regions of the world), issues (e.g. cities in Asia), or functions (e.g. capacity building in small island states); and these may take many forms, such as research centres, or regional offices of global Knowledge Networks, or regular regional forums. These are important for the total capacity of Future Earth to operate subglobally, but these will not be a part of the formal governance structure, nor need they be organised according to the formal Future Earth Regions. These are mentioned here because if such activities wish to be designated as Future Earth's, it will be a requirement that the relevant Regional Committees and Support Centres are informed of such activities that overlap into their regions.

In addition it is worth noting that Future Earth ultimately depends on the activities of **Individual** scientists or groups within a country: some of these will engage directly with Future Earth via Core Projects or other activities as approved/endorsed by those entities. National Committees will be encouraged to keep track of these

engagements (especially where their nationals are officers, e.g. on SSCs), and the Global Secretariat through its Regional Centres will aim to support this awareness.

Implications for the Future Earth Governance paper

This basic architecture laid out in this paper requires endorsement by the Governing Council. In particular the Governance Paper for Future Earth needs to:

- (i) Recognise National Committees, Regional Committees and Regional Centres with the roles indicated above.
- (ii) Establish the rights of Regional Committees to have input into the Engagement and Science Committees as indicated above, and decide what access to the Governing Council they should be afforded.
- (iii) Establish the Future Earth Regions noted above
- (iv) Note that there is flexibility in the establishment and operation of each type of entity according to the principles but within the guidelines stated in this policy paper; and that these definitions may be updated on review over time.

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Appendix: DRAFT Guidance on Regional Engagement for Future Earth *This guidance underpins and enriches the specific arrangements outlined in this policy paper.*

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I. PURPOSE

Future Earth has a vision ‘for people to thrive in a sustainable and equitable world’ that ‘requires contributions from a new type of science that links disciplines, knowledge systems and societal partners to support a more agile global innovation system’. The connection between global, international and regional research areas is a unique feature of how Future Earth operates and provides additional opportunities for engagement in Future Earth activities. The challenges we face are global and require international research to identify and implement solutions, but the research is predominantly funded at national or regional levels, and most solutions will be implemented at more regional to finer scale.

The Future Earth design report² indicates that for its global agenda to adequately address the regional science priorities and end user needs, a strong regional engagement is needed to shape these more detailed and appropriate activities within regions. This interaction between the global and the regional scale will need the development of mechanisms enabling continuous dialogue and networking to facilitate the identification of opportunities for synergistic interactions and complementarities in research and end-user interactions. In addition, these regional and global interactions will give rise to more meaningful research activities. These – in turn- may provide guidance to the formulation of new priorities and funding strategies for regions and for global actions. **Such dialogue requires a structure that can engage regional and global partners in an equitable and legitimized way so that the resulting objectives and activities represent the priorities of both regional entities and Future Earth. Future Earth has the prerogative of shaping its own policy-making and advisory bodies, which are responsible for implementing their science programs and assuring that these are fundable. The regions in turn have the prerogative of developing their structures with which they wish to interact with Future Earth towards a mutually accepted and fruitful program of collaboration.** The Future Earth Executive Secretariat will interact with the regional networks and their points of contact to facilitate an evolving agenda and mutual collaboration.

A strong global-regional collaboration is therefore required to ensure that regional priorities are addressed within the global research agenda, that regional research

²Future Earth. (2013). *Future Earth Initial Design: Report of the Transition Team*. Paris, International Council for Scientific Unions (ICSU).

may benefit from global analysis, to ensure that stakeholders are engaged in co-design and co-production of new knowledge, to ensure its implementation, and to ensure that the capacity and capability of the research community is used effectively and efficiently (Design Document Page 21, Sec 1.3, Future Earth 2013). This Regional guidance document builds on the Future Earth Design Report (Future Earth 2013) to outline general principles for establishing and operating a regional network, objectives of regional engagement, how a regional level structure can contribute to, benefit from and work with the Executive Secretariat to deliver and to ultimately implement the Future Earth Agenda and work with the Executive Secretariat.

II. PRINCIPLES

The regional engagement in the Future Earth Programme is envisioned to be a two-way dialogue and exchange to shape the direction and implement activities of Future Earth. To achieve this, **the regions should work closely with the Executive Secretariat and with diverse communities within regions, including national committees.** In so doing it is recognized that the institutional frameworks and priorities, and therefore the modus operandi in the regions will vary. This diversity needs to be reflected in the structure and process of the regional engagement in a given region. For these reasons, we suggest a set of guiding principles, rather than prescriptions, to help conduct the regional organization and engagement with Future Earth. These principles include:

- *Legitimacy:* Institutions and partners should come from trusted groups and be endorsed by stakeholders. The sovereignty of nations, legitimacy of international organizations, legal contexts and existing institutional mandates must be accommodated by Future Earth structures and activities;
- *Credibility:* Future Earth partners should have sound scientific and/or political credentials;
- *Inclusiveness:* There should be inclusivity of participants over a wide range of stakeholders, disciplines, and user communities. This will be based on broad partnerships of regional and international scope;
- *Representation:* Regional representation should be through legitimate organizational structures most meaningful to Future Earth interactions. The structure that will provide such engagement is to be fit-for-purpose and leave room for adaptation for the delivery of research and its policy relevant results;
- *Transparency and Openness:* Open access and ease of availability of materials and information to enhance the sharing of knowledge and information across a range of media, should be encouraged and made feasible. Operations and decision-making should be transparent;
- *Accessibility:* The regional network or platform should be accessible to all those with an interest in participating in Future Earth activities;
- *Responsiveness:* Requests for information and exchange of perspectives should be addressed in as reasonable a time as feasible;
- *Flexibility and Adaptability:* Flexible and adaptive governance and management practices are encouraged to adjust to changing needs and demands of regional and global interactions and functions.

III. OBJECTIVES OF REGIONAL ENGAGEMENT

In addressing the global environmental challenges together with regional pathways toward sustainability, the regional efforts within Future Earth will:

- Help inspire and promote individuals and organizations within the regions to be involved with integrated science and solutions oriented research;
- Promote the engagement of influential stakeholders with the co-design and co-production of research that reflects regional context and concerns;
- Promote transdisciplinary and transformative research tailored to the regional context by mobilizing a critical mass of researchers and institutional resources at national and regional levels.

Meeting these objectives will enable Future Earth to establish itself as a globally recognized model for engagement and collaboration through effective means of communication and dissemination. These objectives will also stimulate debate, illustrate good practice and mobilize capacities for solution-oriented science, technology and innovation for sustainability; and foster engagement of national and international research agencies (including national Future Earth committees) with the Future Earth agenda.

IV. FUNCTION, STRUCTURE, AND ROLES

The Future Earth Executive Secretariat will play a coordination role in many of the communication, capacity building, and synthesis efforts. Broad engagement and inter-sectoral dialogues that involve knowledge users, scientists, governments, their regional organizations and representations, and funders, call for distributed networks of experts and institutions. This will make the coordination efforts of the Executive Secretariat and its regional points of contact particularly important.

Organizationally such networks will need logistical and institutional support from institutions with a legitimate standing in the regions. For example, in the case of the Americas, the Inter-American Institute (IAI) for Global Change Research is a legitimate intergovernmental organization that has offered such support to a network of funding agencies, and that can assure that research, funding and stakeholder organizations will have their due say in developing and implementing Future Earth regional agenda. Decision-making will be guided throughout the region by shared national interests, transparent goal-setting, and the ability to promote and fund initiatives. All partners within the IAI network are engaged in the coordination, design and funding of national and regional science, and through their existing structures have access to the research and science policy communities.

In other regions, other research or policy oriented institutions may be available to provide support and guidance for regional representations. The networks of partners will remain open for others to opt in as opportunities arise and new themes become important, or possibly opt out as interests shift. Such flexibility should be based on consent and goal orientation, so that changing priorities may be accommodated.

Functions

The Executive Secretariat functions include research enabling, communication, capacity building, coordination, synthesis, monitoring and evaluation of operational functions. Functions at the regional level need to be linked to the five Executive Secretariat functions and to provide connectivity among diverse communities and engage them in meaningful ways to enhance awareness, engagement, and exchange of knowledge within and across regions.

Through these functions we will connect and engage research and end-user communities at the regional and local level to:

1. Inspire and support a new generation of scholars and practitioners doing integrated science;
2. Build a diverse and connected community of participants and organizations;
3. Engage stakeholders and engage with diverse societal partners across all regions;
4. Mobilize capacities in all parts of the world to cooperate on research that connects local to global processes;
5. Create a critical mass of scientists, policy makers and civil society leaders who believe in and can serve as ambassadors for Future Earth;
6. Establish Future Earth as a globally recognized model for engagement and collaboration;
7. Stimulate debate, illustrate good practice and mobilize capacities for solution-orientated science, technology and innovation for sustainability;
8. Foster collaboration among national and international agencies research.

Structures

The Future Earth Programme, as described in the Future Earth Initial Design report (Future Earth 2013), will utilize multiple modes of operational structure from International Project Offices, Core Project regional offices, networks of sectoral or research communities, knowledge networks, Executive Secretariat, and other entities associated with Future Earth distributed geographically across the globe. In addition, there is a set of Future Earth Regional entities, which will serve regional interests around the world. An initial set of “Regional Hubs” has been approved by The Science and Technology Alliance for Global Sustainability (now the Governing Council for Future Earth) through the selection of the Executive Secretariat.

As Future Earth begins the implementation phase of its efforts, identifying a set of possible Regional Structures that might be used to enable regional engagement is provided here. There will be a multitude of entities engaged in Future Earth at the regional level, including for example, Regional Hubs or Regional support offices, Regional Committees, national committees, thematic centers, projects, networks and fora. In order to make linkages manageable, the Governing Council will define an initial set of formal Future Earth Regions; these may be reviewed and evolve over time. Considerable flexibility is then envisaged for how entities may be organized in different structures according to specific regional characteristics. These structures for regional engagement will enable the interactions and collaborations among regional communities and with Future Earth.

Regional Centres (or Regional Hubs)

Regional Centres are to be developed in a region through a consultative process of regional actors representing the diverse Future Earth communities in a region. These are based on the original regional hub proposals, but will move to use the term Regional Centre to emphasise that they are the part of the Executive Secretariat reporting to the Executive Director, dedicated to regional activities, rather than separate entities. Regional Centres are small organizations that support regional networks and communication. For example, the Asian Centre is hosted at RIHN with three staff members, while in Latin America and the Caribbean, IAI is facilitating the

development of a multi-national network with an initial set of three countries and serves more as a Regional Centre.

++++++REGIONAL NETWORK of NETWORKS BOX++++++

Throughout Regions, various regional networks have formed around common themes related to socio-economic sectors, disciplinary or academic areas, or environmental issues. In many cases interactions between these various networks are limited and may not even know of the existence of each other. An effort within Future Earth is to provide a Regional platform for regional networks to interact and to exchange information to form more integrated knowledge networks. The Regional Centres will facilitate the linkage between various networks of interested groups wishing to engage with Future Earth.

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Regional Centres are an important, active and influential component of Future Earth's operational structure, officially recognized by the Future Earth Governing Council. As described in the bidding document for a distributed executive secretariat, these Regional Centres would play a strong regional role and work closely with the Executive Secretariat. A mechanism for communication between Regional Centres and the Executive Secretariat is needed.

In order to be recognized officially as a Regional Centre, entities need to meet a set of criteria such as embracing the general Future Earth principles (e.g., commitment to trans-disciplinary, integrative and transformative research; representative of various end-user communities, etc); support of the research and end-user communities in the region, and a funding strategy and adequate facilities to support regional network activities. Regional Centres can be proposed by entities or solicited by the GC/executive secretariat and be recommended to the Governing Council for Future Earth for consideration. There should only be one Regional Centre per Future Earth Region (though this could be distributed within the region)

Regional Committees

Regional Committees will also be established to better represent the diverse perspectives and interests within each Future Earth Region. These Regional Committees are comprised of individuals representing the research, civil-society, and decision-making communities in the Region from both public and private sectors. They will play a key role in initiating processes of co-design, facilitating regional and international interactions, fostering regional capacity building and contributing to the establishment of regional structures. Regional Committees will encourage richer countries to develop south-south collaborations involving poorer and/or smaller countries (e.g., the International Social Science Council call for proposals for Transformative Knowledge Networks seeking developed country partnerships with developing countries:

<http://www.worldsocialscience.org/activities/transformations/call-proposals/>). The composition of the Regional Committee (5 to 15 members) will be a reflection of the diversity of the region, so that the composition of the committee is representative of the region, but need not be inclusive of each entity. The Regional Centre will serve as the secretariat for the Regional Committees.

+++++++ Box for Asian Office ++++++

Discussions around Future Earth in the Asia region (with stronger involvement of the eastern parts) have been ongoing for about two years and culminated in a workshop hosted by Research Institute for Human and Nature (RIHN) on 22 January 2015. Participants were mostly senior GEC researchers, with a small number of other stakeholders. The meeting decided to work towards the development of a Regional Committee for Asia, starting with the establishment of an Advisory Committee to the Regional Office (“Hub” or Regional Centre) with the aim of gradually growing this into a body with a more substantial role. It will be considered to convene a regular Regional Forum, which would be an important mechanism for enhancing the connectedness of the Committee with networks in the broader region. Members of this committee (7-13 people) would include non-scientists reflecting a diversity of backgrounds, experiences and geographies, along with researchers. They will be recruited through an open call for (self-) nominations and the Asia Regional Office will establish a selection committee that includes representation from the global level of Future Earth and some of the senior members of the group that met on 22 January. The functions of the committee, once matured, were envisioned to include:

- Initiating processes of co-design
- Facilitating regional and international interactions
- Fostering regional capacity building
- Establishing regional structures or activities such as thematic centers.

Eventually, the Regional Centre would become the secretariat to the Regional Committee.

+++++++ End of BOX ++++++

Regional Forum

A possible mechanism to enhance cohesion between communities, build partnerships, enhancement and promoting transparent inclusive engagement of diverse stakeholders, co-develop/design and implement regional Future Earth programs, projects, and activities, and equitably engage regional stakeholder communities in a region could be to convene a regular regional forum. Such a forum could be a venue for collaboration and communication for the components/elements of the regional Future Earth structure (defined elsewhere in this draft document). A regional forum should involve sessions on science (research findings, synthesis aimed at producing knowledge products to inform decisions and actions within various thematic and sectoral areas of regional priority, etc.), sessions on evaluating efficiencies and challenges related to implementing new regional activities, as well as elements of monitoring and evaluating the efficacy of the regional structures. A forum should explicitly include considerations of outputs (e.g., regional research networks) as well as outcomes (e.g., establishment and sustaining of regional communities of practice acting to promote sustainable development) of the Future Earth enterprise. In addition, a Regional Forum should be a venue for promoting broader engagement of communities of research, practice and policy. On annual basis, the forums might focus on different aspects of Future Earth regional enterprise in order to engage and consolidate partnerships with regional stakeholder communities.

+++++++REGIONAL THEMATIC CENTERS BOX+++++

Within a Region, there may be a critical issue or need which has been identified through consultation across the network of networks or by the Regional committee which calls for a “regional thematic center” to be identified to serve a specific need or function. These centers will be funded and resourced by entities developed in the region, and will provide various services and support development of knowledge products in support of the Future Earth agenda within a Region. The regional thematic centers will serve the entire Region and not just the country, which resides, so there is need for accessibility, openness, and equity as these centers are established and operated in a particular Region. These centers need not be applicable to all Regions.

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Regional Forums and regional thematic centers will not be a formal part of Future Earth governance, but illustrate the diverse ways in which regions could organise their capability.

National Committees

Another possible form of engagement with Future Earth is in national level via National Committees. National Committees are networks of scientists and other stakeholders that set the priorities, coordinate and communicate research for national interests, which may have regional and global implications. National Committees can play an important role in mobilizing funds and communicate the research to national policy makers.

Across the world, a number of National Committees are developing, but these are not uniform across Regions or globally. So the manner in which these National Committees work within a region needs to be developed in way suitable for regional interests, and engagement between national and regional structures should be developed.

V. RESOURCING Regional Functions and Structures

The regional functions and structural components described above also presents a unique challenge for implementation of Future Earth regional activities. In that in many regions of the world there is not a regional body which funds or provide other resources to support these efforts as described above. So innovative means need to be developed in each region to support these activities and to maintain the functionality required within the various regions. Currently, these have been up to regional efforts to define. The implementation of the regional architecture articulated in this document will be implemented only when adequate resources are made available to the Executive Secretariat in the form of Regional managers and annual travel funds to deliver services to Regional Centers.

Developing additional set of guidelines at this point is not possible, but will be developed with our regional partners as these efforts proceed.