



INTERNATIONAL YEAR OF PLANET EARTH 2007-2009

Status Report

20 June 2009

Evolution of an idea

The idea of an International Year of Planet Earth was launched in 2000 at an IUGS Council meeting. Proclamation of an International Year was seen as a potentially powerful means of demonstrating how society could profit from the accumulated knowledge of the solid Earth as part of System Earth. Following a feasibility study, immediate support was provided by UNESCO's Earth Science Division, making it a joint initiative by IUGS and UNESCO (Initiators). After broad consultation, it was decided in 2002 to seek proclamation of the International Year of Planet Earth by the General Assembly of the UN, with a view to providing the best possible exposure to national governments.

On August 26, 2004, the joint Council of IUGS and the International Geological Congress, together representing Earth science communities in 140 countries and regions, adopted a Declaration on the International Year. This invited UNESCO's Executive Board to adopt an International Year of Planet Earth, considering that:

- the geosciences can contribute significantly to a safer, healthier and wealthier world;
- this potential contribution is seriously under-used by society and should be substantially increased;
- Proclamation of an international year under the aegis of UN member states would help the Earth sciences to make their full contribution to the sustainable stewardship of the planet.

Proclamation of 2008 as the International Year of Planet Earth was effected at the UN General Assembly in New York on 22 December 2005. At least three years will be needed to realize most of the ambitious science and outreach plans, and the Year's triennium will thus run from 2007 to 2009.

Science Programme

A Science Programme Committee (SPC) developed its Terms of Reference in 2002. Ten broad Themes provide the operational framework of the Year's Science programme. Brochures were written by specialists and are available in both printed and electronic forms. Printing of the brochures has been made possible by the generosity of several European geological surveys (Austria, Finland, Ireland, Norway, Spain, and Sweden), Ministries, national scientific bodies, and UNESCO. All brochures may be downloaded from www.yearofplanetearth.org. The full set of 12 IYPE brochures was translated in Portuguese by courtesy of the Portuguese National Committee and officially presented at the launch Event for Portugal in Lisbon, 10 November 2007. Translations of all brochures in Italian and Spanish are almost completed while Chinese, Arabic and Greek versions are in progress.

Implementation of the science programmes will closely resemble the successful International Geoscience Programme (IGCP), another joint IUGS/UNESCO Programme. Once sufficient funds would become available the Year's science programme will operate essentially in 'bottom-up' mode inviting scientists to submit proposals for the 10 science Themes, preferably addressing the 'key questions' mentioned in the science brochures, through Expressions of Interests (EoI's). These EoI's and subsequent proposals will be evaluated by Science Implementation Teams (SITs), one for each of the

Themes. These SITs are composed of 8 – 10 experts and have become effective in January 2007. The Chair of the Science Programme Committee is Prof. Sospeter Muhongo.

SIT membership includes:

Theme	SIT Leader	SIT Members; <i>co-leader in italics</i>
Groundwater	Jones (UK)	Struckmeijer (Ge), Adelana (Nig.), van der Gun (Netherlands), Zhang (Cn), Xu (S. Afr.), Christian (USA), Wang (Cn), Zheng (USA), <i>Lobo-Ferreira (Portugal)</i>
Climate	Dodson (Au) <i>Vice Chair SPC</i>	Alverson (USA), Nield (UK), Yuan (Cn), <i>Yim (Cn)</i> , Wigand (Ge), Larocque (Ca), Meadows (SA)
Earth & Health	Selinus (Se)	Centeno (USA), Finkelman (USA), <i>Weinstein (Au)</i> , Derbyshire (UK), Manay (Ur), Dogan (Tu), Davies (Ta)
Deep Earth	Cloetingh (NI)	Mulugeta (Et), van der Pluijm (USA), Friedrich (Ge), <i>Gabrielsen (No)</i> , Roure (Fr), Ludden (UK), Zoback (USA)
Megacities	Kraas (Ge)	Nenonen (Fi), Marker (UK), de Mulder (NI), <i>Coy (Au)</i> , Aggarwal (In), Xue (Cn), Yu (Ko), Ribeiro e Sousa (Port)
Resources	Sinding-Larsen (No)	Shields (USA), Gleditsch (No), <i>Ekdahl (Fi)</i> , Mienert (No), Cherkasov (Ru), Kouda (Jp), Persson (Sw), Dong (Cn)
Hazards	Beer (Au)	Marsh (UK), <i>Bobrowsky (Ca)</i> , Chadka (In), Cutter (USA), Pagliai (It), Supharatid (Th), Wu (Cn), Heuzé (USA)
Ocean	Chen (Cn)	<i>Lin (USA)</i> , Fischer (USA), Devey (Ge), Whitmarsh (UK), Cannat (Fr). Suyehiro (Jp), Wiens (USA), Faleide (No)
Soil	Hartemink (NI)	Nortcliff (UK), Frossard (Sw), Boettinger (USA), McBratney (Aus), Mendonca-Santos (Br), <i>Zhang (Cn)</i> , Bationo (Kenya)
Earth & Life	Talent (Au)	Blieck (Fr), Codrea (Ro), Hartzhauser (Au), Liebermann (USA), Mocanu (Ro), <i>Reichenbacher (Ge)</i> , Shen (Cn)

Outreach Programme

The Outreach Programme Committee has developed a website (www.yearofplanetearth.org), produced flyers, and released thousands of general information brochures, leaflets (in many languages) and, with the kind assistance of the Chinese Ministry of Land and Resources, a dedicated brochure. The outreach programme will essentially operate in a 'bottom-up' mode as well. Individuals and organisations are invited to submit EoI's, followed by proposals for realization through the Year.

Implementation of the outreach programme will be undertaken largely at national levels. Countries and regions are encouraged to develop their own outreach programme. Some examples of the outreach programme are given below:

- Release of 4,567 bio-degradable balloons, each representing 1 My of Earth history, by India President and in London UK in January '07.
- Launch Events with politicians, scientists and representatives of industry evaluating options for a better use of Earth science for solving societal problems.
- The Global IYPE Launch Event in Paris, 12-13 February 2008.
- A DVD and dedicated website of the Global Launch Event
- Geo-song produced for the Global Launch Event
- International Student competition for IYPE
- Latin American Launch Event in Brasilia (23 and 24 April 2008)
- African Launch Event in Arusha, Tanzania, 22 & 23 May 2008.
- Transparent Earth, through 1:1 M World digital geological map (OneGeology) supported by Geological surveys around the world, CGMW, IUGS, UNESCO and ISCGM.
- DVD on sustainable mineral exploration (IAGOD, SGA)
- 'Faces of earth' TV Documentary on Earth Sciences (AGI)
- 40,000 free copies of IYPE book in three editions in 2008 and 2009
- International Congresses with focus on IYPE at IGC and IGU (2008), GSA (2007, 2008 and 2009), et cetera.
- First world conference of Young Earth Scientists (YES), Beijing 2009
- Development of International Standards in Geo-Information (CGI)
- Quality control Medical Geology terminology (IAMG)
- Launch of Nature 'Geoscience' journal in 2008
- Nature Supplement on IYPE in 2008
- Springer Journal "Geoheritage"
- IYPE-SPRINGER Book Series on IYPE Themes
- Mosaic artists focus on 'Planet Earth' in 2008
- Via GeoAlpina, hiking tours through the Alps

Moreover, thousands of national initiatives have been developed, including:

- Exposure in national science congresses (India, Hungary, Bulgaria, etc.)
- Hong Kong Art Exhibition and sale for IYPE (China)
- Award-winning students from developing countries to participate in Global IYPE Launch Event (France)
- Books, journals and articles (UNESCO, Nature, Germany, Canada, Netherlands, France, Bulgaria)
- Issue of IYPE stamps (UN, Portugal, Spain, Ireland, Costa Rica)
- Issue of IYPE coins (Australia, Switzerland)
- Wine & Earth excursions (Australia, France)
- Fanfare: The World Anthem of Geologists (Italy)
- Fado song composed for the International Year (Portugal)
- Geo-bus and -truck tours (Austria, Netherlands, Belgium)
- Exhibitions (Netherlands, USA, Austria, Germany, Iran, Canada)
- Teaching courses for journalists & teachers (Tanzania, Germany, IGEO)
- Nation-wide geological excursions on 18 October 2009 (France)
- Renewable Energy excursion for 160 international students in Portugal
- Rock concert dedicated to the IYPE in central Oslo (Norway)

- Election of National Rock type (Norway)
- Children's drawing competition in China and many other nations
- Geoparks (China, Austria, Switzerland, Iran, Germany, Japan)
- Geotourism Conference, Australia 2008
- World Landslide Forum, Japan 2008
- IYPE Exhibition in Iran
- 3rd UNESCO Geoparks Conference, "Terra Vita", June 2008, Germany
- Lecture tours and excursions (Austria, Netherlands, France)
- Art competitions (Austria)
- Advertisement panels in subways and on trains (Austria)
- BasCamp tent, Switzerland
- Interactive website and maps (Austria)
- Earthlearning (IGEO, UK)

The Chair of the Outreach Programme Committee is Dr. Phil Manning.

Advisory Group

Individuals wishing to contribute to the Initiative and to support various activities through the science and/or outreach programmes may be invited to become Senior Advisers. The individuals making up this group will advise the MT concerning specific contributions to the activities for the Year. Senior Advisers are entitled to represent the International Year and are encouraged to publicise the Initiative as widely as possible. Currently there are 48 such Senior Advisers.

A small number of highly distinguished individuals have agreed to serve as Goodwill Ambassadors for the Year. These include persons with prominent media profiles in the world's major language areas, who are willing to promote the Year and its activities. Patrons include Heads of State and other World leaders who have expressed their willingness to give their patronage to the International Year. By November 1st, five Patrons have accepted our invitation: Sam Nujoma, Founding President of the Republic of Namibia and Benjamin W. Mkapa, until 2006 President of the United Republic of Tanzania, Sir Mark Moody-Stuart, President of the Board of Anglo-American, Ruud Lubbers, former Prime Minister of the Netherlands, and King Carl XVI Gustaf of Sweden.

Geoscientific Support, Partners

By mid 2003, the International Union of Geodesy and Geophysics (IUGG) and the International Geographical Union (IGU) joined this initiative as *Founding Partners*, a move soon followed by the International Lithosphere Programme (ILP), the International Union of Soil Sciences (IUSS) and ISRIC - World Soil Information. Other such Partners are the Geological Society of London and the Geological Survey of the Netherlands (TNO), the Federation of International Geo-Engineering Societies (FIGS) joined by Mid March 2005, the International Union for Quaternary Research (INQUA), the American Geological Institute (AGI) by mid June, the American Association of Petroleum Geologists (AAPG) by late June, and the American Institute of Professional Geologists (AIPG) by early October 2005, when access to Founding Partnership was closed.

Together with the Initiators, the 11 Founding Partners constitute the backbone of the Year. They all have a seat in the Board of the Corporation and are thus responsible for implementation of the International Year. They receive exposure through the Year's brochures, the Business Plan, the website and all other official publications of the International Year.

Associate Partners have actively supported the International Year of Planet Earth before implementation. They were invited to participate and bear co-responsibility in the Science Teams securing representation of their scientific interests within the Year's Science programme. Associate Partners also have access to the outreach activities and may suggest such activities to the Outreach Programme Committee. By February 2006, access to Associate Partnership was closed and the final composition was assessed at 25 (listed below):

ICSU	International Council for Science
IOC	Intergovernmental Oceanographic Commission of UNESCO
IPA	International Permafrost Association
IAGOD	International Association on the Genesis of Ore Deposits
SEG	Society of Economic Geologists
SGA	Society for Geology Applied to Mineral Deposits
IAH	International Association of Hydrogeologists
IGCP	International Geoscience Programme IGCP
EFG	European Federation of Geoscientists
AARSE	African Association of Remote Sensing of the Environment.
SCA	Science Council of Asia
ProGEO	European Association for the Conservation of the Geological Heritage
SEPM	Society for Sedimentary Geology
CCOP	Coordinating Committee for Geoscience Programmes in East and SE Asia
GSAf	Geological Society of Africa
UNU	United Nations University
AGID	Association of Geoscientists for International Development
UN/ISDR	United Nations International Strategy for Disaster Reduction
NESF	North-eastern Science Foundation (USA)
AASG	Association of American State Geologists
ISPRS	International Society of Photogrammetry and Remote Sensing
NACSN	North American Committee on Stratigraphic Nomenclature
CPC	Circum Pacific Council for Energy and Mineral Resources
IPA	International Palaeontological Association
CGMW	Commission for the Geological Map of the World

International Partners

As of March 2006 a new category of International partnership was introduced for new organizations actively supporting the ambitions of the International Year of Planet Earth upon its incorporation. *Non-commercial International Partners* contribute at least 10,000 US \$ (or € if based in Europe) per year over 2008 and 2009. Rates for *commercial International Partners* are double that of non-commercial International Partners. By June 2009, 30 organisations were registered as International IYPE Partners: The British Geological Survey (BGS), The Geological Society of America (GSA), the European Geoscience Union (EGU), the Geological Survey of Spain (IGME), The Geological Survey of Ireland (GSI), The American Geophysical

Union (AGU), EuroGeoSurveys (EGS), The National Aeronautics and Space Administration (NASA), the Norwegian Geological Survey (NGU), the AIST (Japan), the Society of Exploration Geophysicists (SEG), the Italian Geological Survey (APAT), Springer Verlag, the European Geopark Network, the International Association of Mathematical Geology (IAMG), the Polish Geological Survey, Caixa Economica Cabo Verde, ENACOL Cabo Verde, Centrais Electricas de Santa Catarina (CELESC), Brazil, Banco Espirito Santo (Angola), Banco Keve (Angola), Banco BAI (Angola), Banco BDA (Angola), QATTOR (Brazil), Banco Espirito Santo (Portugal), TAAG (Angola), CATOCA (Angola), DIAMANTES (Angola), PETROGAL (Angola), and SOMOIL (Angola).

Political support

At a high-level information meeting held at UNESCO headquarters in Paris on the 11th of February 2004, six nations (China, Russia, Brazil, Argentina, Italy and Jordan) agreed to support proclamation of the International Year of Planet Earth once it had been formally proposed in the General Assembly of the UN. A Draft Resolution, proposed by the United Republic of Tanzania, was adopted (unopposed) by UNESCO's Executive Board on April 28th 2005. There, 25 nations (Tanzania, Brazil, China, Burkina Faso, Turkey, Egypt, Ghana, Jamaica, Slovenia, Sri Lanka, Pakistan, Kenya, Ukraine, Algeria, Morocco, Russian Federation, Mozambique, Germany, Swaziland, Rwanda, Senegal, Mauritius, Italy, Namibia and Canada) voiced their full support, bringing the number of supporting nations at 36.

Adoption of a Draft Resolution on proclamation of 2008 as the International Year of Planet Earth by UNESCO's 33rd General Conference in October 2005 added another 15 nations (Afghanistan, Botswana, Chile, D.R. Congo, Costa Rica, Cuba, Indonesia, Nigeria, Philippines, Portugal, South Korea, Spain, Sudan, Togo and the United States of America). With the United Republic of Tanzania again taking the lead of a core group of 82 nations, a Draft Resolution was adopted without opposition by the 2nd Committee of the General Assembly on 11 December. UN proclamation of the International Year of Planet Earth, 2008 (Resolution 60/192) then followed by consensus in the General Assembly in its 68th plenary meeting, on 22 December 2005.

Resolution 60/192 reads as follows:

The General Assembly,
Reaffirming Agenda 21, the Plan of Implementation of the World Summit on Sustainable Development ('Johannesburg Plan of Implementation') and the Hyogo Framework of Action 2005-2015,
Noting that the wealth of scientific information available on planet Earth remains largely untapped and hardly known to the public or to the decision makers,
Convinced that education in Earth sciences provides humankind with tools for the sustainable use of natural resources and for building the scientific infrastructure essential for sustainable development,
Welcoming the decision of the General Conference of the United Nations Educational, Scientific and Cultural Organization to support the declaration of 2008 as the International Year of Planet Earth with a view on highlighting the importance of Earth sciences,
Taking into account the crucial role the Year could play, inter alia, in raising public awareness of the importance for sustainable development of the Earth processes and resources; disaster prevention, reduction and mitigation; and capacity-building

for the sustainable management of resources; and its important contribution to the United Nations Decade of Education for Sustainable Development,

1. *Decides* to declare 2008 the International Year of Planet Earth;
2. *Designates* the United Nations Educational, Scientific and Cultural Organization as the lead agency and the focal point for the Year to organize activities to be undertaken during the Year, in collaboration of the United Nations Environmental Programme and other relevant entities of the United Nations system, as well as the International Union of Geological Sciences and other Earth science societies and groups throughout the world, and in this regards agrees that the activities of the International Year of Planet Earth will be funded from voluntary contributions, including inter alia, from industry and major foundations mobilized by a consortium of international organizations, led by the International Union of Geological Sciences;
3. *Encourages* all Member States, the United Nations system and all other actors to take advantage of the Year to increase awareness of the importance of Earth sciences for the achievement of sustainable development and to promote action at the local, national, regional and international levels;
4. *Requests* the Secretary-General to report to the General assembly at its 62nd session on the progress of the preparations for the International Year of Planet Earth.

Links with other initiatives

In 2007-2009, three other Earth-related international year initiatives will be active: the International Polar Year (IPY), the electronic Geophysical Year (eGY) and the International Heliophysical Year (IHY). In September 2005, an agreement on active cooperation and involvement in each others' science and outreach programmes was signed with the leaders of all science year initiatives ('Celimontana Declaration'). As the science programme of the International Year of Planet Earth complies closely with the priorities set by the Global Earth Observation System of Systems (GEOSS), cooperation with GEOSS was formalized on August 4, 2006.

Organisation

The organisational structure of the International Year evolved as the Initiative grew in significance. By mid 2002, IUGS and UNESCO created an informal Management Team (MT) with two major constituents, the Science Programme Committee (SPC) and an Outreach Programme Committee (OPC). Regional representation was covered through China, Africa, North America and Latin America. The MT was complimented by a Treasurer and a liaison with UNESCO.

The MT was replaced by a Board of Officers upon the Year's registration as a not-for-profit 501 (c) (3) corporation under the law of the State of Delaware (USA), on March 16, 2006. Until the first Board meeting in January 2007, the Initiators invited members of the former MT to act as Officers of the Board, which also included representatives of IUGS and UNESCO. The Corporation is an independent body controlled by the Initiators, Founding Partners, the chairs of the three main lines of IYPE activities, and main sponsors, as secured in the Year's statutes. On November 15th, 2007, Prof. Larry Woodfork (USA) was appointed Chair of the IYPE Board of Officers and Directors. Mr. Eduardo Rubio (Peru) is the Vice-Chair. Prof. Edward Derbyshire who chaired the SPC from the onset

was succeeded by Prof. Sospeter Muhongo in December 2007. Dr. Ted Nield is the Chair of the OPC.

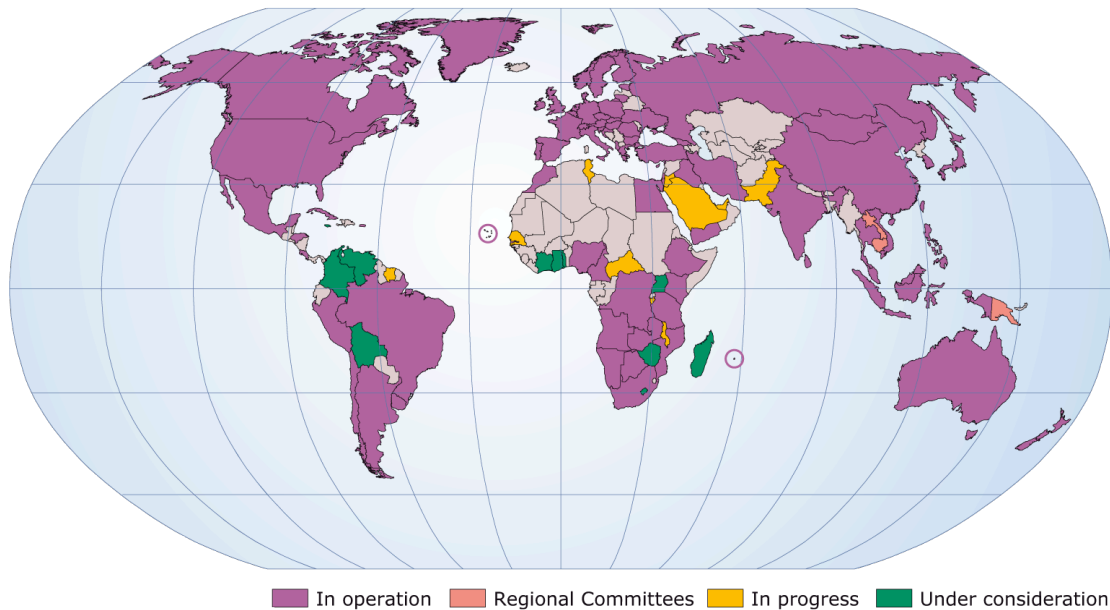
After completion of the triennium, a period of 6 months is required for 'winding up' activities in 2010 and to report to the stakeholders, the United Nations General Assembly and the many geoscience communities involved.

Tax exemption is currently being applied for. All major stakeholders are represented in the Board, responsible for (strategic) decision-making. Day-to-day operations are conducted through the Secretariat, based at NGU, in Trondheim, Norway and are led by the Executive Director. The International Year of Planet Earth has been placed under the patronage of UNESCO and UNEP as the UN's Executive Agencies.

National & Regional Committees

Implementation of the Year's ambitions will be on international and national levels. To that end, National Committees of the Year of Planet Earth have been launched, or are in the process of being launched. By 20 June 2009, National Committees are operational in 79 countries: Albania, Andorra, Angola, Argentina, Australia, Austria, Belgium, Botswana, Brazil, Bulgaria, Cabo Verde, Cameroon, Canada, Chile, China, Congo (DR), Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Ethiopia, Finland, France, Gambia, Georgia, Germany, Greece, Honduras, Hungary, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Japan, Kenya, Korea, Latvia, Lithuania, Luxemburg, Malaysia, Mauritius, Mexico, Mongolia, Morocco, Mozambique, Namibia, Netherlands, New Zealand, Norway, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Tanzania, Thailand, Turkey, Ukraine, United Kingdom, Uruguay, USA Vietnam, Yemen and Zambia.

Several nations, including Pakistan, Malawi, Serbia and Saudi Arabia are under way in creating such committees. In addition, the IYPE Board granted permission to develop Regional IYPE Committees for specific regions where these would be more feasible to establish than National Committees. One Regional IYPE Committee was established in East and Southeast Asia, covering the 11 nations where the geosciences are addressed by the Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP). Through Memoranda of Understanding, the national and regional initiatives are formally linked to the Corporation.



Financial aspects

Attainment of the aims and objectives of the Year will depend upon attracting substantial financial income from a variety of sources around the world. Cash contributions to the International Corporation in the years 2001-2006 reached a total of US\$ 550,196; in 2007 466,352 USD was generated. By January 2009 4 million USD in cash has been collected or committed. In-kind support over that period for the International Corporation may be capitalized as approximately US\$ 20 M.

The targeted budget for the *Implementation* of the IYPE for the Corporation is US\$ 5 M. By January 2009, at least US\$ 40M (in-kind and in-cash) has been raised by National Committees.

Three potential main sources of financial support may be identified:

1. Multinational industry (private companies)
2. Multinational intergovernmental institutions/Development Banks/science organisations (donor organisations)
3. National/regional/local governmental & non-governmental organisations (private companies and donor organisations)

Contributions from these bodies are anticipated both 'in kind' and in cash.

Eduardo F.J. de Mulder, Executive Director IYPE Secretariat