

Challenges in Global Cooperation: Practices and Pitfalls – Science Programs



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Looking back in history

**It was
SPUTNIK**

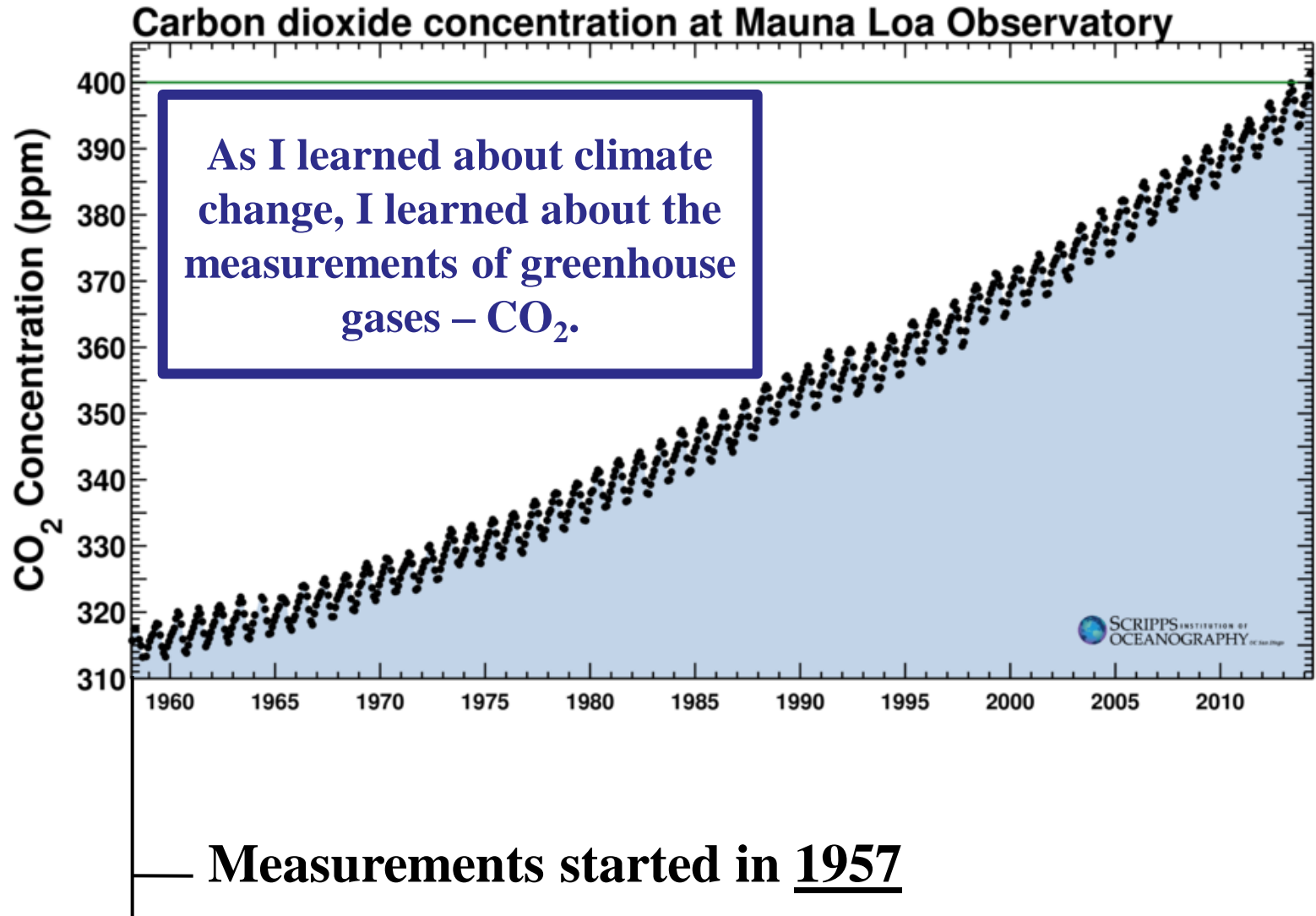
**Sputnik was the beginning of
space-based observation which
has totally changed our way of
seeing our planet.**



**In 1957, I stood with my parents and
brothers, looking up to the sky.**

**Something was passing overhead –
far up there and barely visible.**

Changing the greenhouse effect

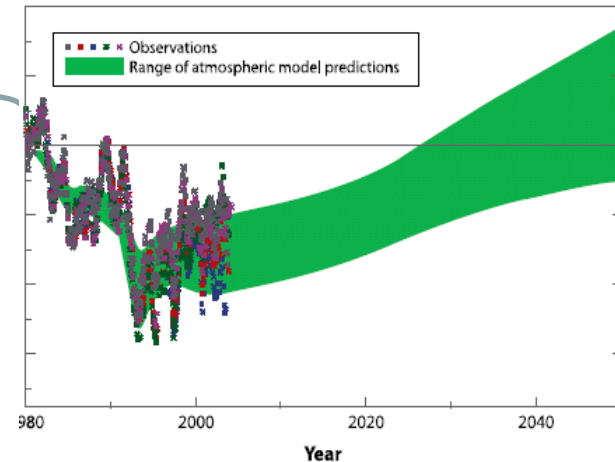


Stratospheric Ozone Depletion

Then the ozone layer, I learned about the measurements of stratospheric ozone.

First systematic measurements of the ozone layer. Started in 1957 and continue today

Stratospheric Ozone



1957 –quite a year

- Sputnik
- First systematic global carbon dioxide measurements
- First systematic global stratospheric ozone measurements
- WHY?
- The International Geophysical Year (IGY) of the International Council of Scientific Unions - ICSU

Mission of the International Council for Science - “to strengthen international science for the benefit of society”; for all societies - to deliver benefits in all countries.

- **national scientific bodies (120 Members, representing 140 countries) and International Scientific Unions (31 Members).**

Vision - for a world where excellence in science (all sciences) is effectively translated into policy making and socio-economic development.

– universal and equitable access to scientific data and information ... all countries have the scientific capacity and to contribute to generating the new knowledge ...

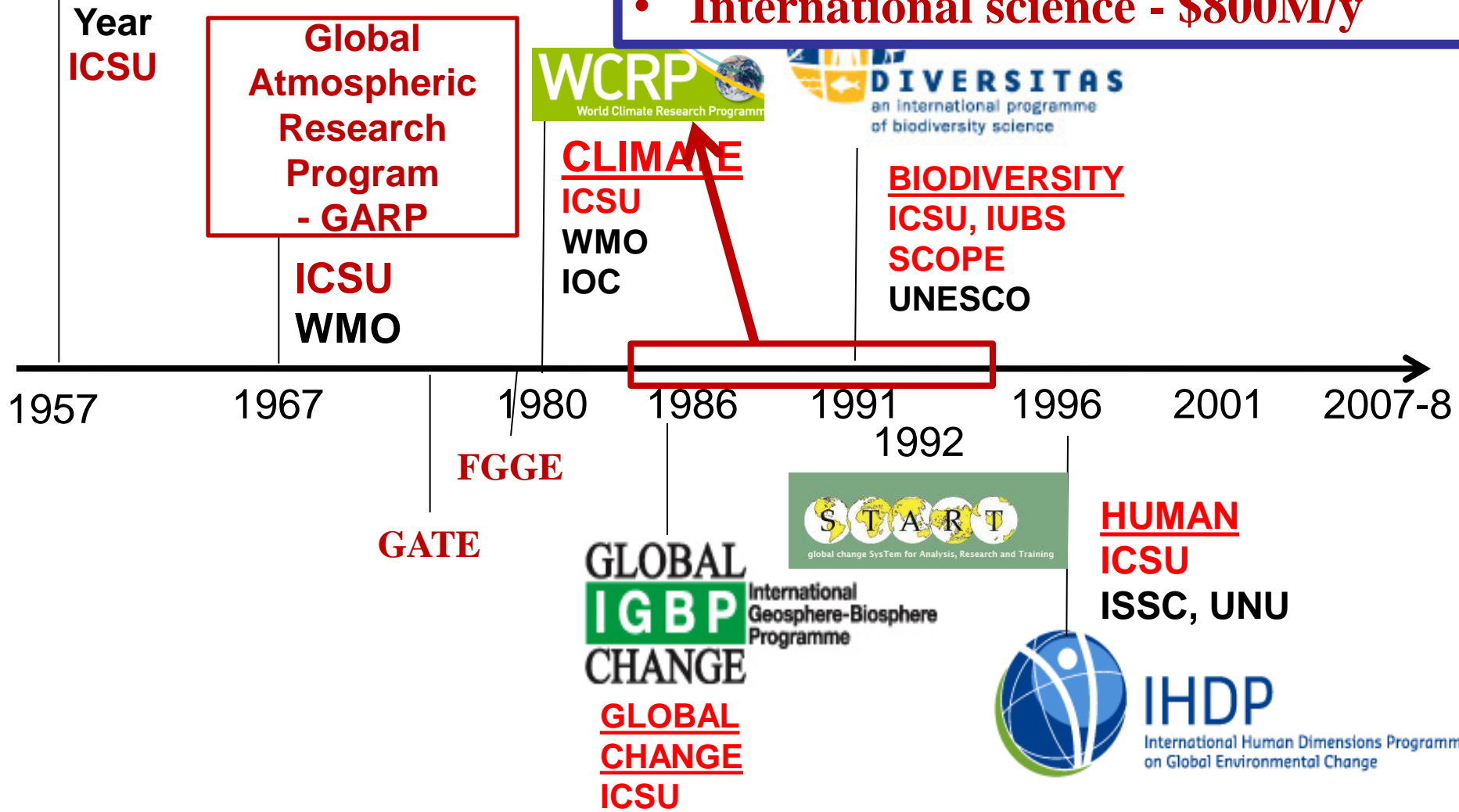
- **Science for Policy**
- **Universality of Science**
- **International Research Collaboration**
- **Participation of early career scientists across its activities.**

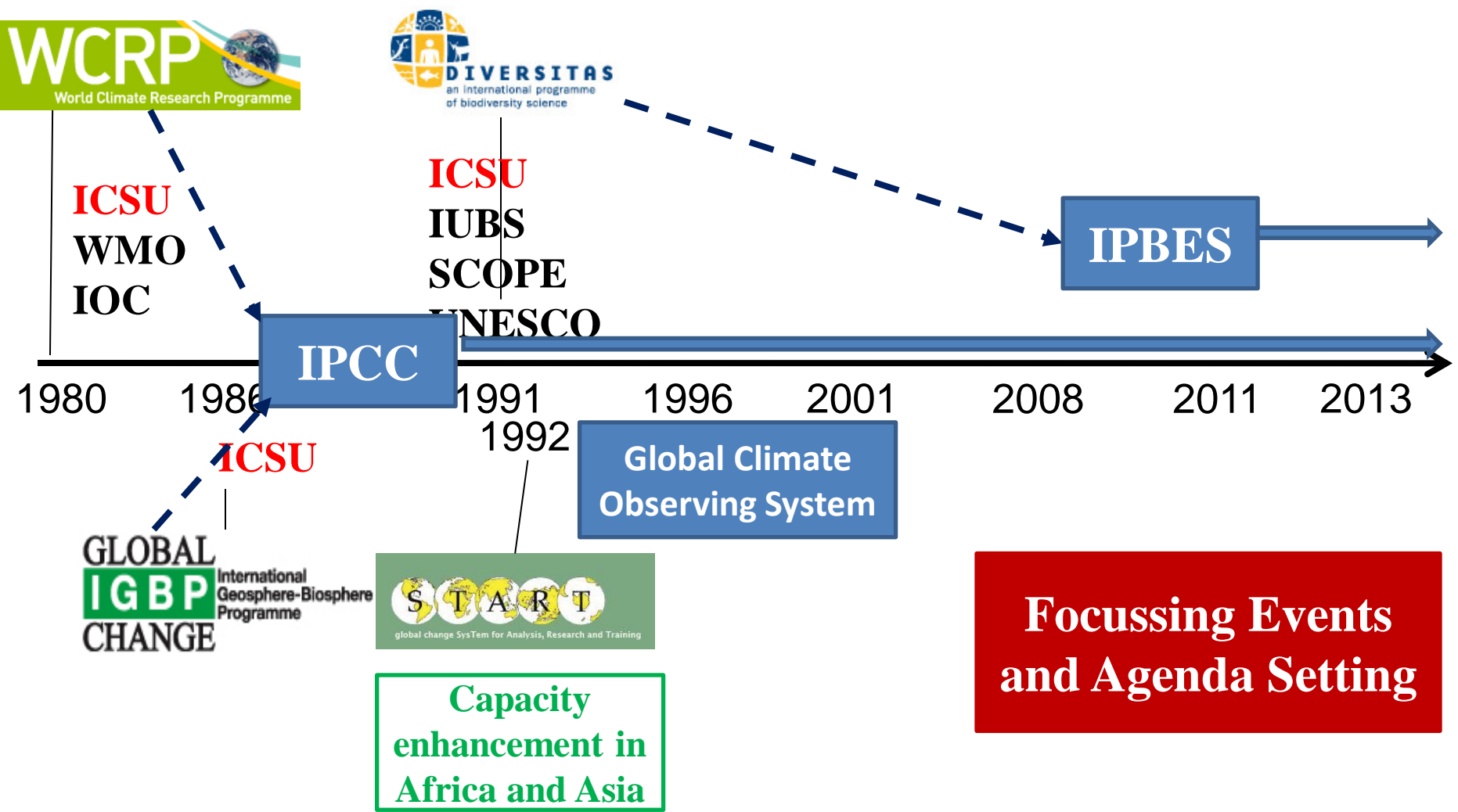
**Global Collaboration in
And for Science**

International Research Collaboration

- International coordination - \$5M/y
- International science - \$800M/y

International
Geophysical
Year







global change System for Analysis, Research & Training

Enhancing scientific capacity to inspire informed action on global environmental change



Climate Change & Cities

Rapidly growing urban areas in the developing world provide opportunities for economic growth and yet these cities face significant challenges associated with rapid growth, diminished environmental quality and climate change. START is creating opportunities to

facilitate knowledge generation and sharing for cities at risk, particularly coastal cities in Asia. START is also expanding these efforts into Africa.

START Promotes Capacity Building through...



Supporting Regional Research & Assessments



Promoting Innovation in Education



Enhancing Knowledge Sharing for Action



Global Change System for Analysis, Research and Training: START

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International Research Programmes

International
Geophysical

Year
ICSU

**Global
Atmospheric
Research
Program**

WCRP
World Climate Research Programme

DIVERSITAS
an international programme
of biodiversity science



**ICSU
WMO**

**ICSU
WMO
IOC**

**ICSU
IUBS
SCOPE
UNESCO**

1957 1967 1980 1986 1991 1996 2001 2007-8

International Polar Year – IPY
1882-83; 1932-33; 1957; 2007-08

Planning (2003-04: <100k)

International Coordination (2005-10: <2 million)

Implementation (2007-08: >US\$1 billion)

DP

International Human Dimensions Programme
on Global Environmental Change



Integrated Research on Disaster Risk

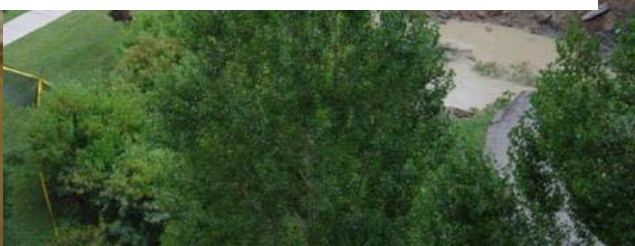


An integrated approach to research on disaster risk through: an international, multidisciplinary (natural, health, engineering and social sciences) collaborative research programme.

Objectives:

1. ... hazards, vulnerability and risk
2. Effective decision making ... risk interpretation to action
3. Reducing risk and curbing losses ...

Forensic Investigations of Disasters - FORIN





futureearth
research for global sustainability

Themes

Goal:

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



INTERNATIONAL
COUNCIL
for SCIENCE



United Nations
Educational, Scientific and
Cultural Organization



BELMONT
FORUM



UNITED NATIONS
UNIVERSITY

Dynamic Planet
projecting environment

Dynamic Planet -approaches- models

polar regions

Global Development

Global Development -Equitable access

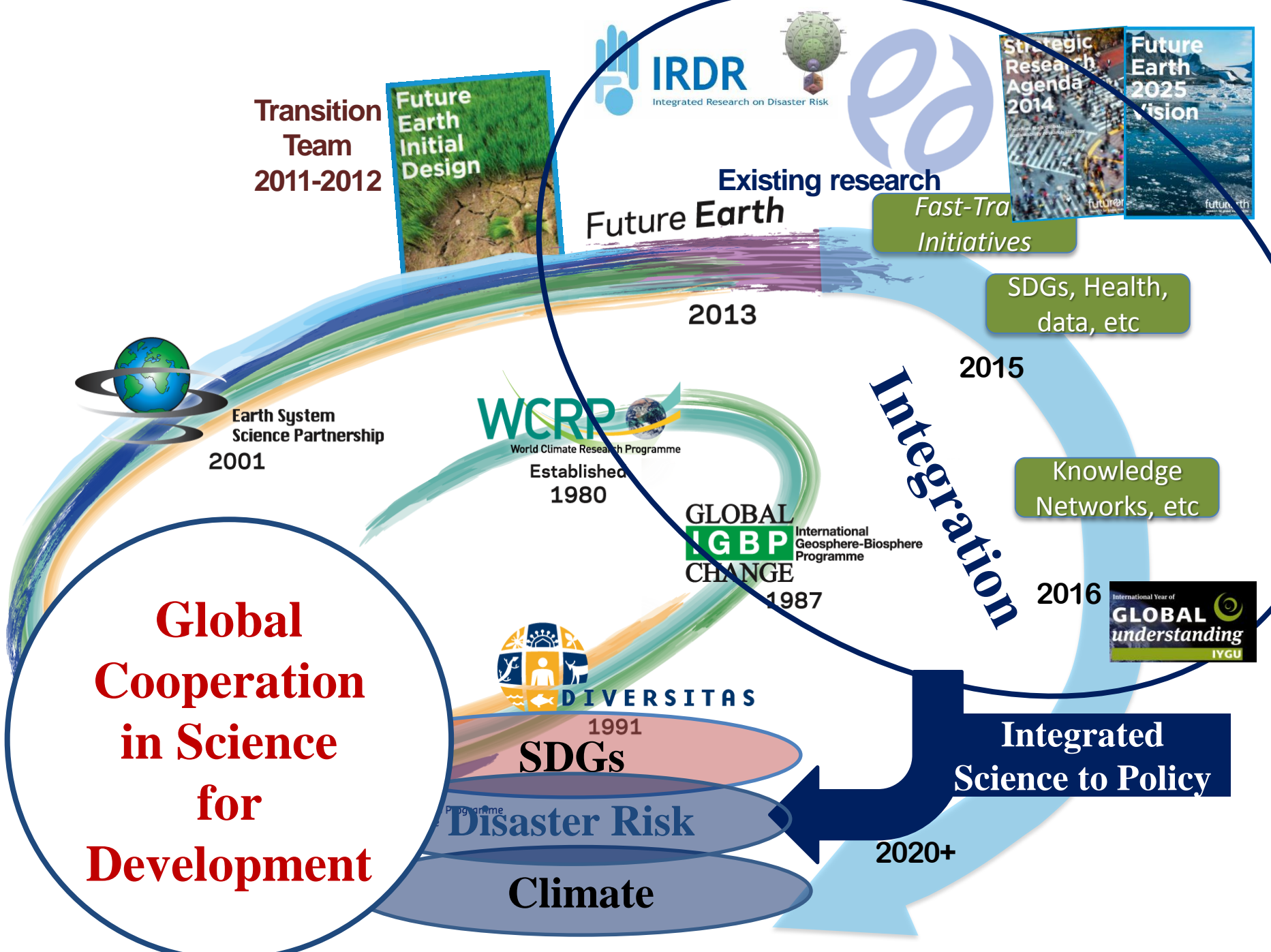
Equitable access
food security
water avail
healthy environm

Transformations towards Sustainability
decision making

Transformations towards Sustainability -Governance -innovation, ideas

Science Committee + Engagement Committee





Science for Policy-International Network for Global Science Advice



**Science-Policy Advisers
Meeting, Auckland, 2014
International Council for
Science + ...
- Major events and
Workshops**

Challenges in Global Cooperation: Practices and Pitfalls – Science Programs



**Focussing Events
and Agenda Setting**



**Thank you
for your
attention**