



Other areas of relevance to the Convention, including capacity building: Results from research by the ESSP on coastal and marine ecosystems-related research

Rik Leemans, Martin Rice, Ghassem Asnar,
Bruce Campbell, Pep Canadell, Anantha K. Duraiappah
Rob Jackson, Anne Larigauderie, Sybil Seitzinger, Barbara
Solich and Ruben Zondervan

UNFCCC-SBSTA meeting Bonn
19-5-2012



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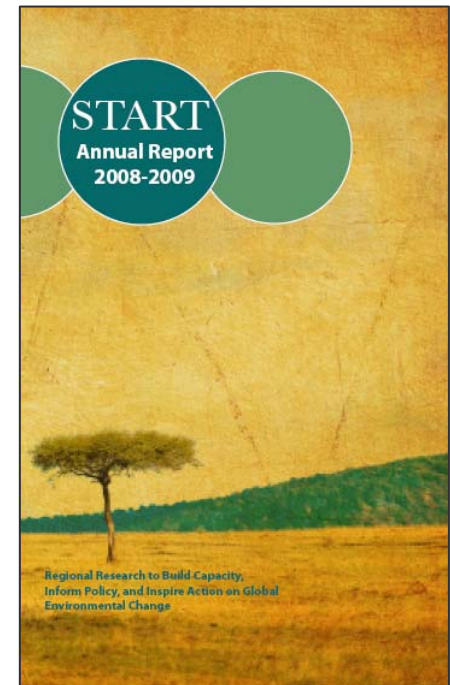
Global Change System for Analysis, Research and Training



The objective of START's research-driven capacity building activities is to engage the scientific communities of developing regions in international collaborative scientific research and policy discussions related to global change.

Through a framework of regional research centers, and nodes, science committees and secretariats, START:

- Conducts research on regional aspects of global environmental change
- Provides fellowship and education opportunities
- Shares knowledge, expertise and data
- Bridges between science & society for policy support
- Mobilizes financial, institutional and human resources.





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START's Fellowship programmes

AFRICAN CLIMATE CHANGE FELLOWSHIP PROGRAM

The Fellowship Program

The African Climate Change Fellowship Program (ACCFP) offers experiential learning, education, research and training opportunities to African professionals, researchers and graduate students that enhance their capabilities for advancing and applying knowledge for climate change adaptation in Africa.

Participating Fellows receive small grants that enable them to undertake Policy Fellowships, Teaching Fellowships, Doctoral Fellowships and Post-Doctoral Fellowships. The Fellowship grants enable Fellows to visit other institutions – Host Institutions – for 2-18 months to learn what others are doing to manage climate risks and adapt to climate change and how they assess and prioritize climate risks, current practices for designing and implementing adaptation projects, and approaches for integrating adaptation with program planning and policy. Some Fellows also undertake research projects that support adaptation decision-making and/or develop and implement curricula for integrating climate change and climate change adaptation into graduate level education.

In November 2008, the ACCFP selected its inaugural round of Fellows. After extensive review of nearly 300 applications, 45 Fellows from 18 African countries were selected to receive awards. The Fellows' Home Countries are highlighted below. More information about their projects and plans is provided on the inner page of this publication.

2009/2010 ACCFP Fellows - Home Countries

Benin (1)
Burundi (1)
Burkina Faso (4)
Cameroun (7)
Cent. African Republic (1)
Chad (1)
DR Congo (2)
Ethiopia (2)
Ghana (1)
Kenya (6)
Malawi (1)
Morocco (1)
Nigeria (8)
Senegal (2)
South Africa (2)
Tanzania (1)
Uganda (1)
Zimbabwe (3)



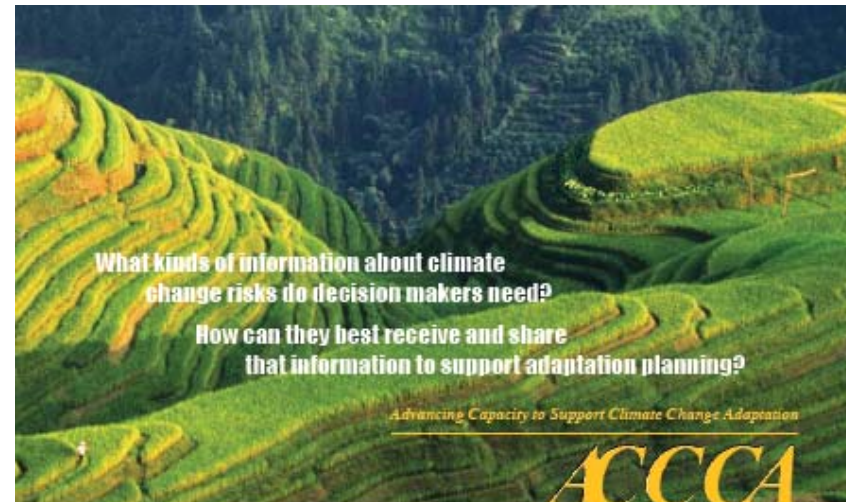
4 Fellowship Types

Policy Fellowships are awarded to early to mid-career candidates who are resident in Africa and are currently working in organizations that play a role in or have the potential to influence policies and decision-making in climate-sensitive sectors in Africa. Policy Fellowships last 6 months or less and offer a maximum award of \$8,000 USD.

Teaching Fellowships are awarded to educators from African universities. The aim of the Teaching Fellowships is to enable recipients to develop and implement new Masters-level courses on climate change related topics or to integrate climate change topics into existing courses. Priority is given to design and development of interdisciplinary courses and those that fit logically within and add value to existing Master's programs. Teaching Fellowships last for 2 months or less and carry a maximum award of \$5,000 USD.

Doctoral Research Fellowships are awarded to students who are studying in a doctoral program and conducting research related to climate change risks and adaptation at an African university. Doctoral Fellows receive an award that enables them to visit a suitable Host Institution for training in innovative methods, models or analytic tools; to participate in supervised research; and/or to access data, models, or tools that would raise their capabilities as a researcher and significantly improve the quality and value of their dissertation research. The Host Institution, not the Host, grants the doctoral degree. Doctoral Fellowships last for 12 months or less and carry a maximum award of \$16,500 USD.

Post-Doctoral Fellowships are awarded to Africans with doctoral degrees in fields relevant to climate change and climate change adaptation. The aim of the Post-Doctoral Fellowships is to enable recipients to participate in research and teaching under the supervision of a more established mentor and to become more productive researchers and teachers in fields that will contribute to improved management of climate risks and climate change adaptation. Post-Doctoral Fellows receive an award that enables them to visit a suitable institution to work with an established, highly qualified researcher/teacher on a well-defined problem. Post-Doctoral Fellows also mentor and help to supervise other ACCFP Fellows placed at their Host Institution. Post-Doctoral Fellowships can last for up to 18 months and carry a maximum award of \$36,000 USD.



Information on climate risks communicated in clear and relevant terms and through credible sources is essential for mobilizing decision makers across society to take actions that will enhance their capacity and willingness to adapt to climate change. An informed public is better able to begin planning for a likely future of more prevalent and more severe droughts, floods, heavy downpours, and heat waves, and a potentially diminished flow of ecosystem goods and services that support and sustain current livelihoods and national and regional development.

The ACCCA (Advancing Capacity to support Climate Change Adaptation) project was developed to address this critical issue of developing risk communication tools and methods capable of supporting multi-sectoral, multi-stakeholder decision making for adaptation in Africa and Asia. The ACCCA project seeks to:

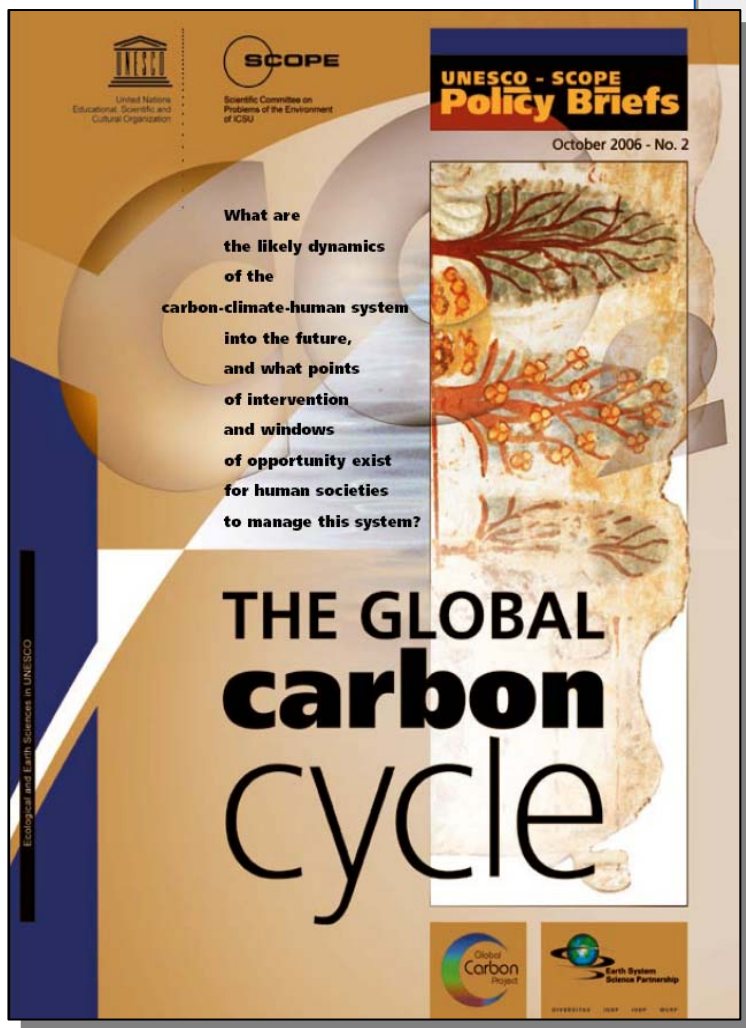
- Identify and prioritize climate risks to stakeholders and the climate influenced decisions that they face;
- Synthesize and communicate information about climate risks in terms that are directly relevant to stakeholder concerns and decision-making needs; and
- Develop, test and disseminate risk communication materials that are designed to assist adaptation decisions.

ACCCA supports 19 pilot actions in 17 countries across Africa and Asia. Climate risk communication methods and tools developed for 5 of these projects (Ghana, Kenya, India, Mongolia, and the Philippines) are featured in this publication.





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Carbon emissions show sharp rise

By Richard Black
Environment correspondent, BBC News website

The rise in humanity's emissions of carbon dioxide has accelerated sharply, according to a new analysis.

The Global Carbon Project says that emissions were rising by less than 1% annually up to the year 2000, but are now rising at 2.5% per year.

It says the acceleration comes mainly from a rise in charcoal consumption and a lack of new energy efficiency gains.

The global research network released its latest analysis at a scientific meeting in Australia.

Dr Mike Rapauch of the the Australian government's research organisation CSIRO, who co-chairs the Global Carbon Project, told delegates that 7.9 billion tonnes (gigatonnes, Gt) of carbon passed into the atmosphere last year; in 2000, the figure was 6.8Gt.

"From 2000 to 2005, the growth rate of carbon dioxide emissions was more than 2.5% per year, whereas in the 1990s it was less than 1% per year," he said.

“ Improvements made in the last 30 years appear to be stalling ”
Corinne Le Quere

The finding parallels figures released earlier this month by the World Meteorological Organisation showing that the rise in

Climate change

[In Depth](#)

Animated guide
 How the greenhouse effect works and its implications for climate

SCIENCE

- Climate threat to mobile species
- Greenhouse gases' continued rise
- Gravity satellites see ice loss
- Stark warning on climate

GLOBAL POLITICS

- Nairobi climate talks end in deal
- UN chief issues climate warning
- Global climate efforts 'woeful'
- Mixed outcome at climate talks

THE STERN REVIEW

- Climate change fight 'can't wait'
- At-a-glance: The Stern Review
- Analysis: A stern warning
- Analysis: Stern's impact
- Climate costs: The global picture
- Reactions to Stern's warning

FEATURES

- Chaotic world of climate truth
- Climate threat to national security
- Diary: Siberia and climate change
- Small climate of concern in US

BACKGROUND

- Q&A: Climate change
- Q&A: The Carbon Trade
- Earth - melting in the heat?
- [OPEN](#) The evidence

HAVE YOUR SAY

- What price to save the planet?

RELATED INTERNET LINKS

- Global Carbon Project

ESSP is a joint initiative of





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ESSP-GWSP on vulnerability of rivers and water security

nature

ARTICLE

Global threats to human water security

GWSP Book Launch

András Szöllösi-Nagy (UNESCO-IHE), Janos Bogardi (GWSP), Charles Biney (Volta Basin Authority) at the GWSP E-Book Launch at the UN-Water pavillon.

E-Book Launch „River Basins and Change“: This electronic book contains the major contributions to the international conference „Global Dimensions of Freshwater Security: Links and Adaptation“ organized by the Global Change Initiative (GCI) of GWSP in Bonn. Addressing especially graduates and young professionals in the field of freshwater security, the book provides an introduction to the issues discussed at the conference. It is structured in two parts: 1. Global and River Basins, 2. Accounting for Human Governance and River Basins. The book is a joint endeavour of GWSP and UNESCO, published in digital form to ensure wide accessibility. Feel free to download the book from the World Water Forum website.

Check out the Liveticker tomorrow again and find out more about current GWSP activities within the World Water Forum.

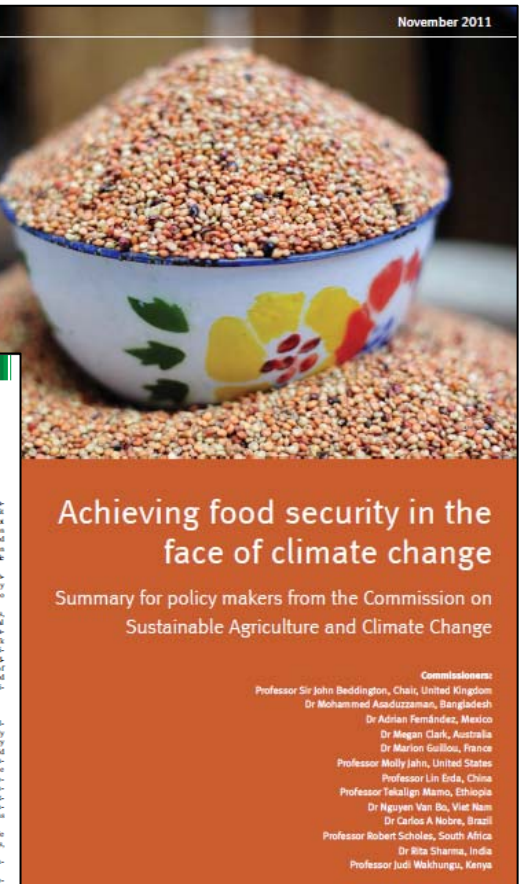
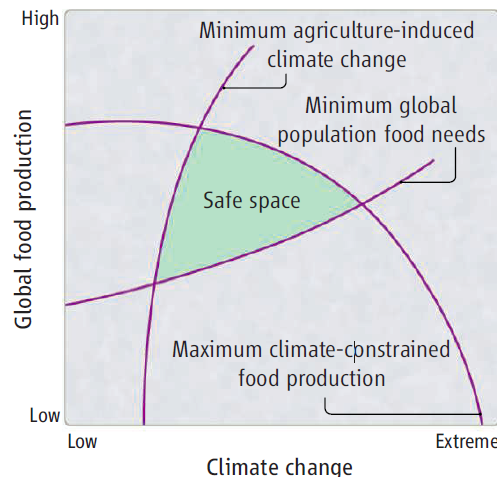


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Commission on Sustainable Agriculture and Climate Change



- o "Business as usual in our globally interconnected food system will not bring us food security and environmental sustainability"
- o "The window of opportunity to avert a humanitarian, environmental and climate crisis is rapidly closing".



Beddington, J. R., M. Asaduzzaman, M. E. Clark, A. Fernández Bremauntz, M. D. Guillou, D. J. B. Howlett, M. M. Jahn, E. Lin, T. Mamo, C. Negra, C. A. Nobre, R. J. Scholes, N. Van Bo & J. Wakhungu. 2012. What Next for Agriculture After Durban? Science 335:289-290.

www.ccafs.cgiar.org/commission





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Impacts, mitigation & adaptation in agriculture



Length of growing season is likely to decline..

Length of growing



-Wetting-
ises 30%
ces
% without

SBSTA can now move forward on agriculture!

- Identify and prioritise options for adaptation in different farming systems – both technical and institutional
- Establish methods to target and protect the most vulnerable households and farming systems
- Collect better measurements of GHG fluxes in different farming systems
- Make decisions on GHG methods (especially those

Adaptation and mitigation in agriculture are both achievable and affordable





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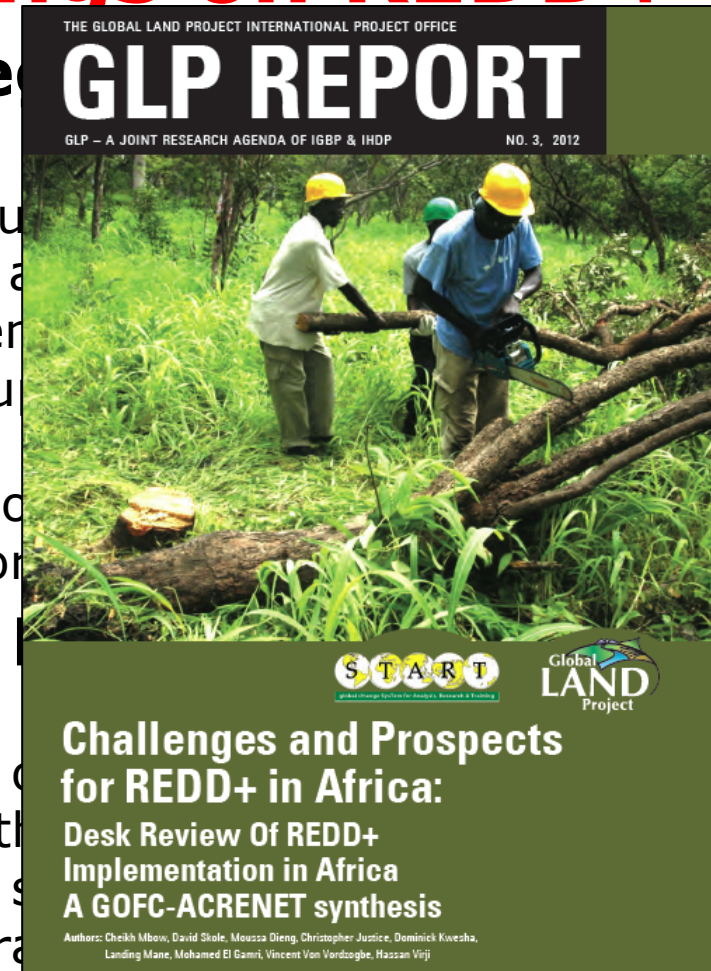
Research findings on REDD+

○ REDD+ will not succeed if safely developed bottom-up

To limit adverse social and ecological consequences of deforestation and forest degradation, the UNFCCC has incorporated a requirement for the implementation of REDD+. But (cash) benefits to local landholders remain small, and setting them up against high transactions costs. Safeguards are deterring local landholders to achieve its social goals. Involving local decision-makers in the implementation of safeguards is necessary for REDD+ to succeed.

○ REDD+ needs to address both ecological and social factors

In its current form, REDD does not attend to the root causes of deforestation: poverty in non-forest regions that drive people to clear forests. To be effective both ecologically and socially, REDD+ needs to be linked more closely to poverty eradication.



People, Places,
and the Planet

Earth
System
Governance

Corbera, E. and H. Schroeder. 2011. Governing and implementing REDD+. *Environmental Science & Policy* 14:89-99; Lund Conference on Earth System Governance: Towards Just and Legitimate Earth System Governance – Addressing Inequalities. Lund, April 2012 <http://lund2012.earthsystemgovernance.org/>



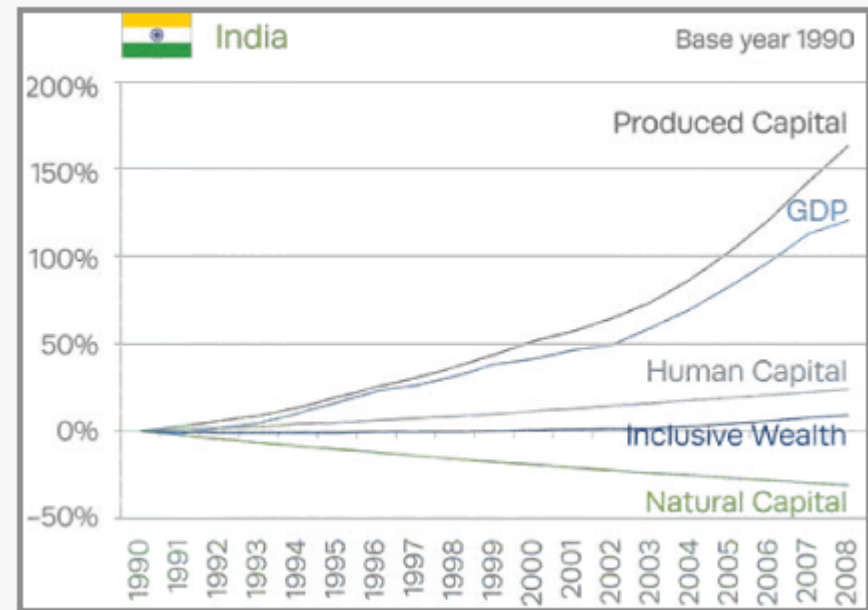
Research on measuring progress beyond GDP

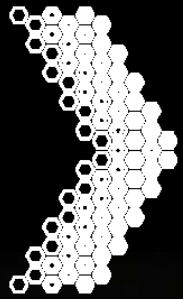
Rationale for Inclusive Wealth Accounting

- Economic production indicators reflect the state of natural resource conditions, and both focus exclusively without indicating whether natural resources are increasing or decreasing over longer periods of time.

The Inclusive Wealth

- The Inclusive Wealth Index measures the total wealth of a country by carrying out a comprehensive accounting of all assets, including manufactured, human, and natural capital, and their corresponding values.
- Shows changes in inclusive wealth from 1990 to 2008 and includes a long-term comparison to GDP.
- Adjusted IWI includes carbon damages, oil capital gains and total factor productivity.





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LONDON

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TOWARDS
SOLUTIONS

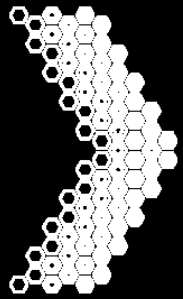


Conference co-chairs, Lidia Brito
(UNESCO), Mark Stafford Smith (CSIRO)

- State of the planet
- Linking communities
- Solutions
- 3000 delegates

SCIENCE POLICY DEVELOPMENT INVESTMENT
INDUSTRY ENGINEERING TECHNOLOGY MEDIA





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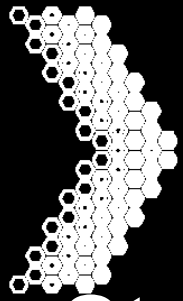
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» Policy

- State of the planet declaration
- **LARGEST** gathering of global-change scientists before **RIO+20**
- 9 policy briefs





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State of the Planet Declaration



RIO+20

United Nations
Conference on
Sustainable
Development

- The Earth is a complex, interconnected system
- Susceptible to abrupt and rapid changes
- Interconnected solutions
- Future Earth (Science-society)
- Running out of time





photos: www.dawide.com

Future Earth

Research for global sustainability

