Research-Driven Capacity Building for Global Change and Sustainable Development in Developing Countries

NAP EXPO 2014, Bonn

8 August 2014

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START International, Inc.
Washington, DC

www.start.org

START

global change SysTem for Analysis, Research & Training

A ROADMAP OF PRESENTATION

- About START: SysTem for Analysis, Research, and Training

- Perspectives on vulnerability and adaptation: through Illustrative examples of START's effort on building adaptive capacity and resilience to reduce vulnerability to the impacts of climate change

- Distill lessons on integration of climate change adaptation for development planning processes and strategies

- Where we are headed

START Vision & Mission

Vision:

Developing countries empowered with scientific capabilities to effectively motivate and inform societal action to manage risks and address opportunities of global environmental change and sustainable development

Mission:

- To **develop regional networks** of collaborating scientists and institutions that assess the causes and impacts of global environmental change and provide relevant information to policymakers and governments to assist in formulating adaptation strategies;

- To **enhance scientific capacity** in developing countries by strengthening and connecting existing institutions, training global change scientists, and providing them with better access to data, research, and communication technology skills; and

- To **mobilize resources** that will augment existing capabilities and actions on global environmental change in developing countries.

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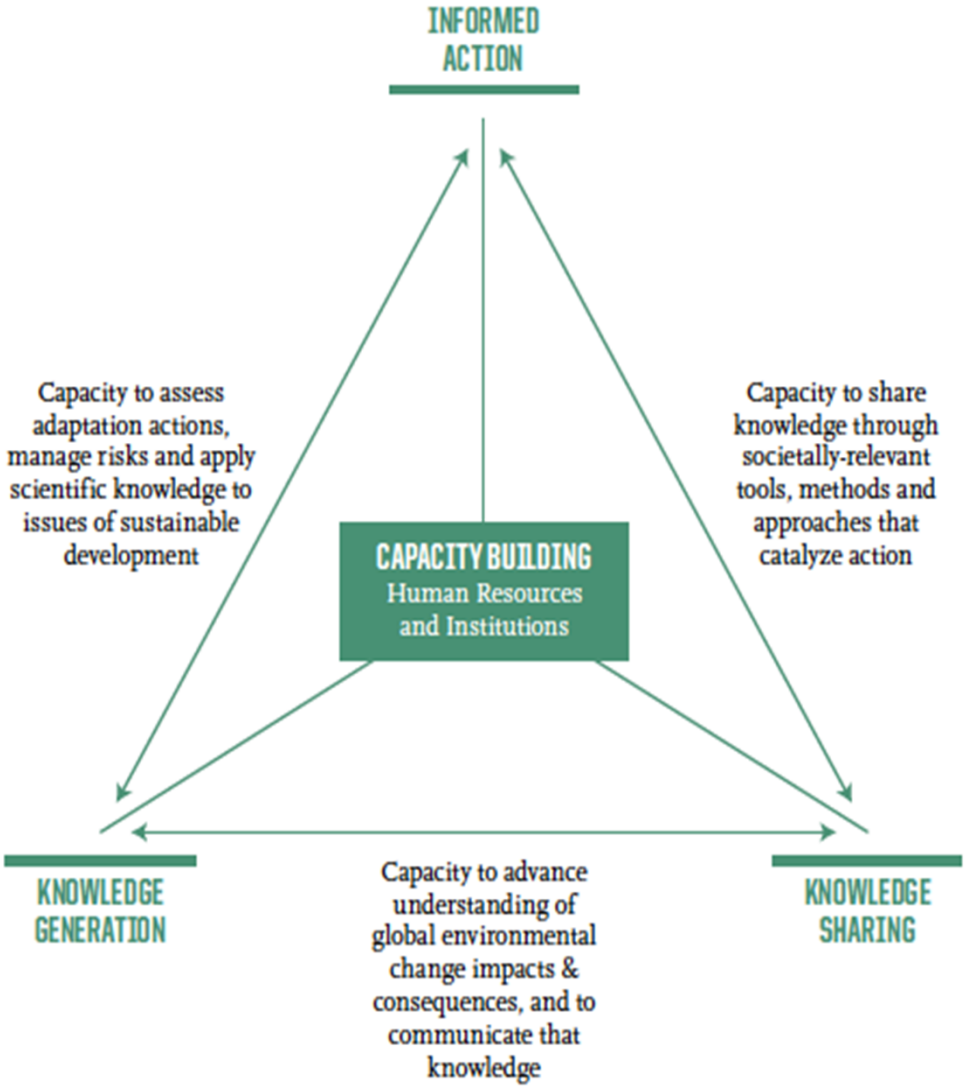
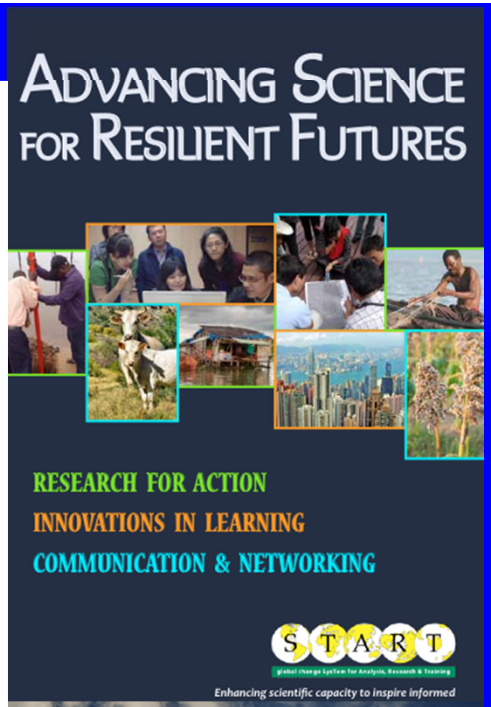
Enhancing scientific capacity to inspire informed action on global environmental change

START: an international NGO





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Dedicated to capacity building

Illustrative examples of START's significant Capacity building actions for adaptation and risk management in Africa and the Asia-Pacific

- **AIACC**: Assessments of Impacts of and Adaptation to CC
- **CBA**: Adaptation to CC in the Greater Mekong Basin
- **CCaR**: Coastal Cities at Risk
- **ACCFP**: African Climate Change (Adaptation) Fellowship Program

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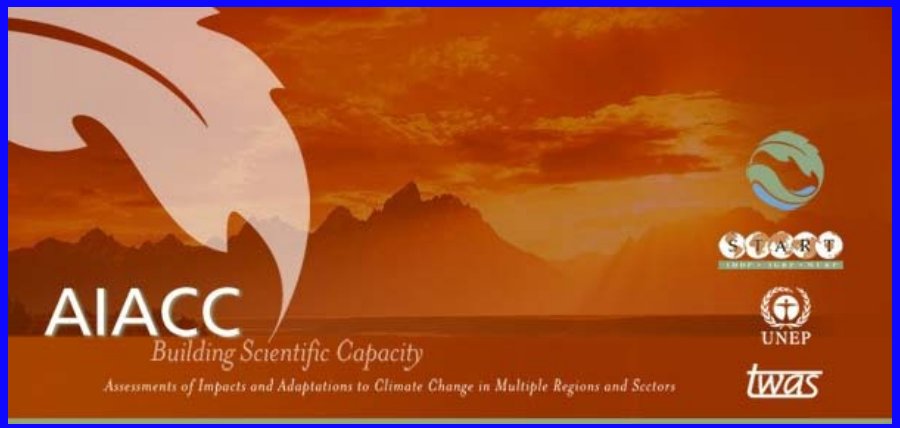
Illustrative Example 1: Completed Project

AIACC: Assessments of Impacts of and Adaptation to CC

Global Program

Multiple sectors and Scales

GEF-funded with supplementary funding from US Agencies and EU



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Assessments of Impacts and Adaptation to Climate Change (AIACC)

- Enhance scientific understanding of climate change science in underrepresented regions
- Develop links between science and stakeholder communities
- Build scientific capacity in the developing world

Using:

Climate and coupled crop-climate models down to household surveys, focus group discussions, and participatory dialogues.

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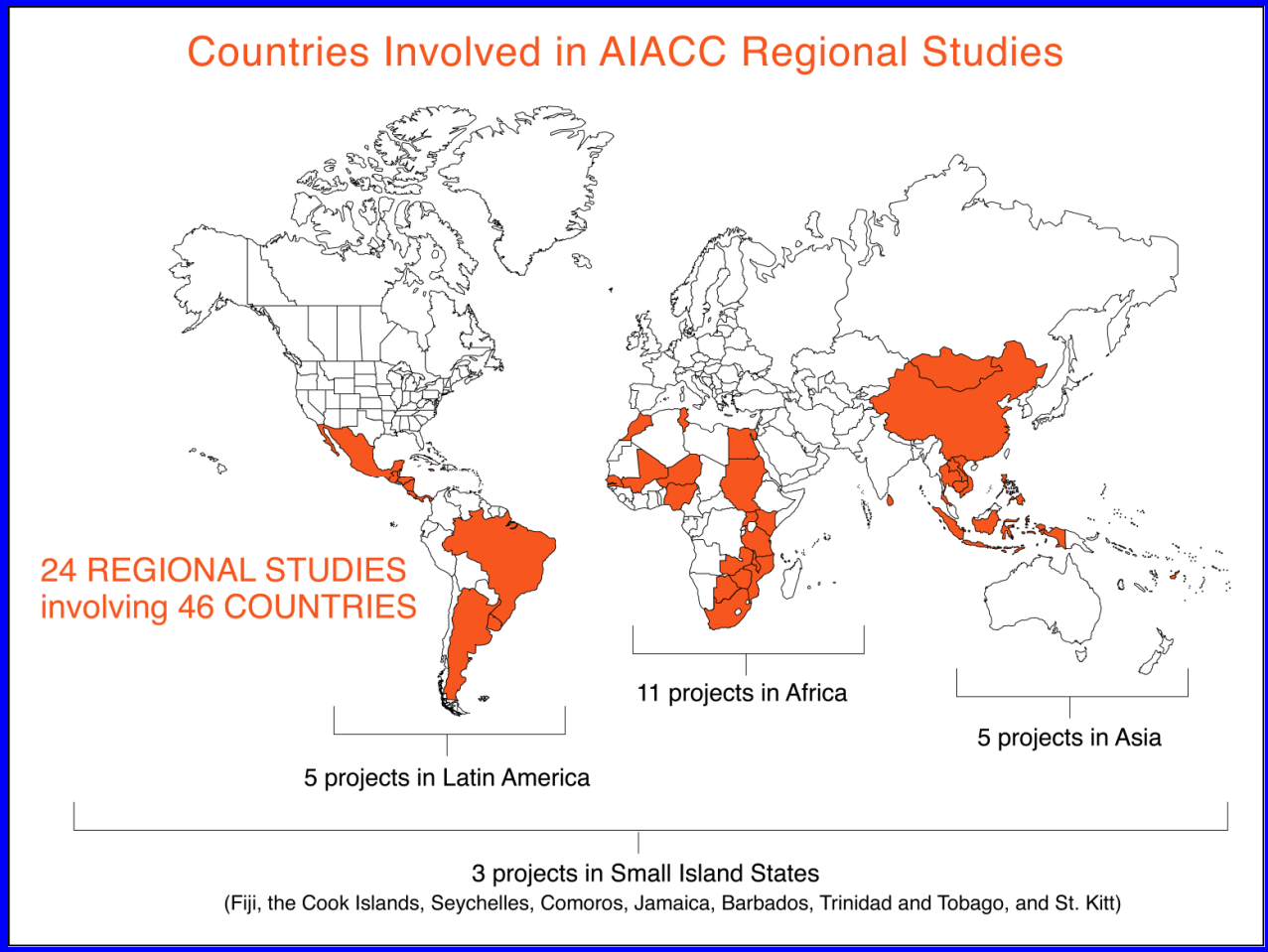
Capacity building and networking under AIACC

Learning-by-doing

- Training
- Technical assistance
- Networking



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- Empowerment through Learning-by-doing: learning essential skills for integrated assessments in a multi-disciplinary/sectoral and multi-stressor environment… and coordinating activities across disciplinary…

- Technical advisors provided guidance on project design, implementation, tools and methods, provided review and feedback.

- Training: broad overview of assessment methods, methods and tools for designing and applying climate scenarios, on V and A assessment methods and tools.

- south-south training workshops on regional climate modeling and hydrologic modeling

- Networking: link scientists across disciplines, institutions across boundaries, scientists with stakeholders… inter-country collaborations: Eastern, Southern and Northern Africa, Southeast Asia, and South America


Agriculture
Water
Ecosystems, land use change & biodiversity
Health
Sea level rise
Tourism
Botswana
Egypt
The Gambia
Kenya
Malawi
Mali
Morocco
Mozambique
Niger
Nigeria
Senegal
South Africa
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- Agriculture
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- Ecosystems, land use change & biodiversity
- **Health**
- Sea level rise
- Tourism

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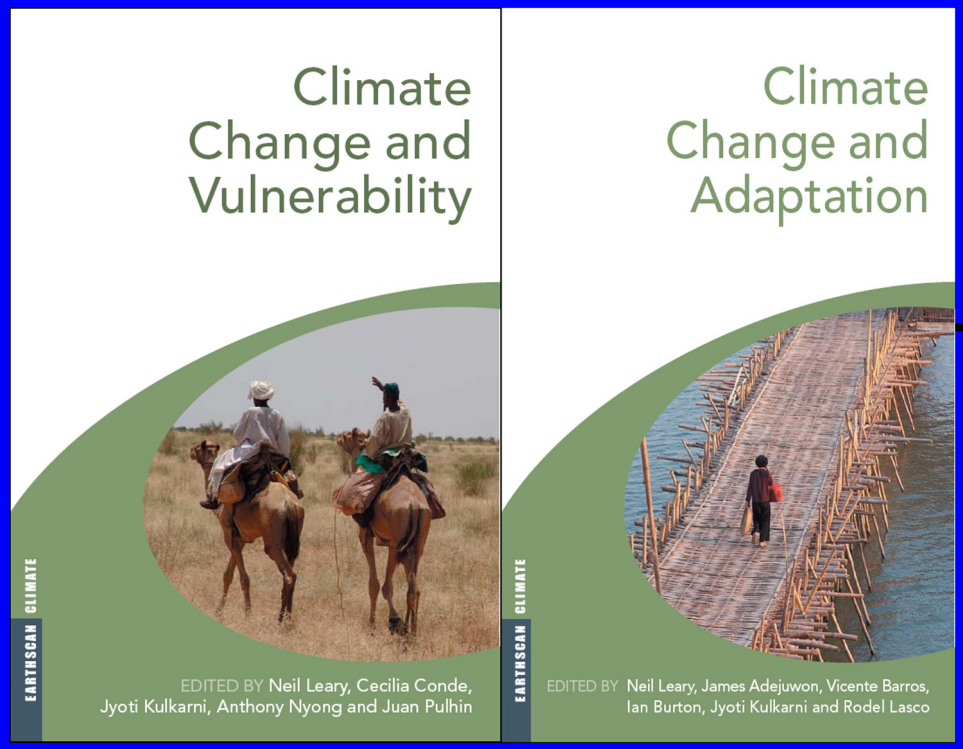
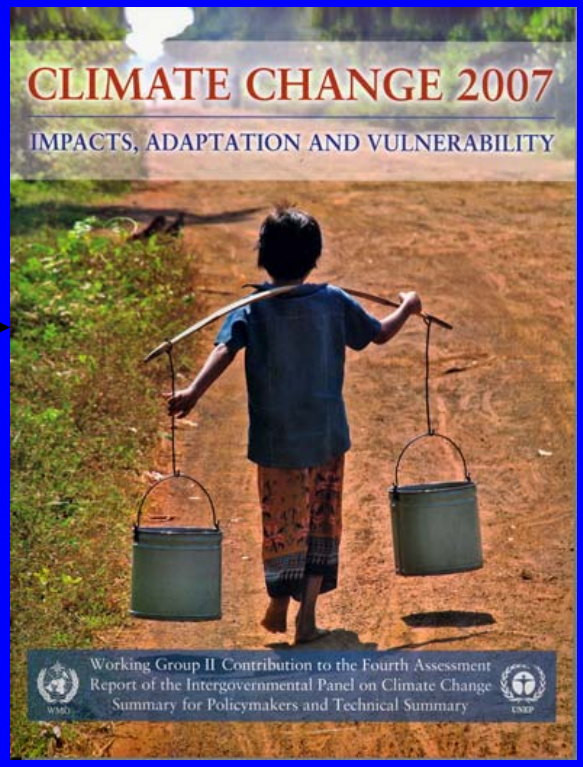
Outputs of the AIACC





- More than 100 peer review publications, 2 books, > 100 citations in IPCC 4AR
- Outputs used in national communications
- More than 30 participants were 4AR authors
- Many participants engaged in preparation of NAPAs, national communications

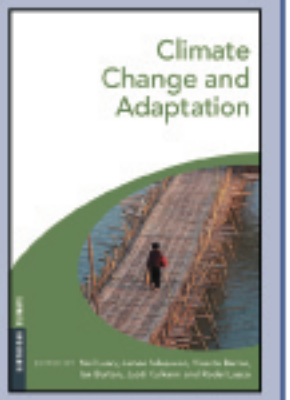
AIACC Outcomes

Capacity Building

- **24** assessment teams established
- **>300** participants from **50** developing countries gained experience in climate change assessment
- **>100** persons trained in AIACC training workshops
- **5** teams organized South-South training workshops
- **25** student theses supported and completed
- **30** participants are authors of IPCC 4th Assessment Report
- Participants taking leadership roles in international science activities
- Successful new grant applications by many of the teams

Scientific Knowledge

- **24** climate change assessments completed
- **>100** peer-reviewed publications
- **2** books published
- **>100** other publications
- **>100** citations of AIACC publications in IPCC AR4

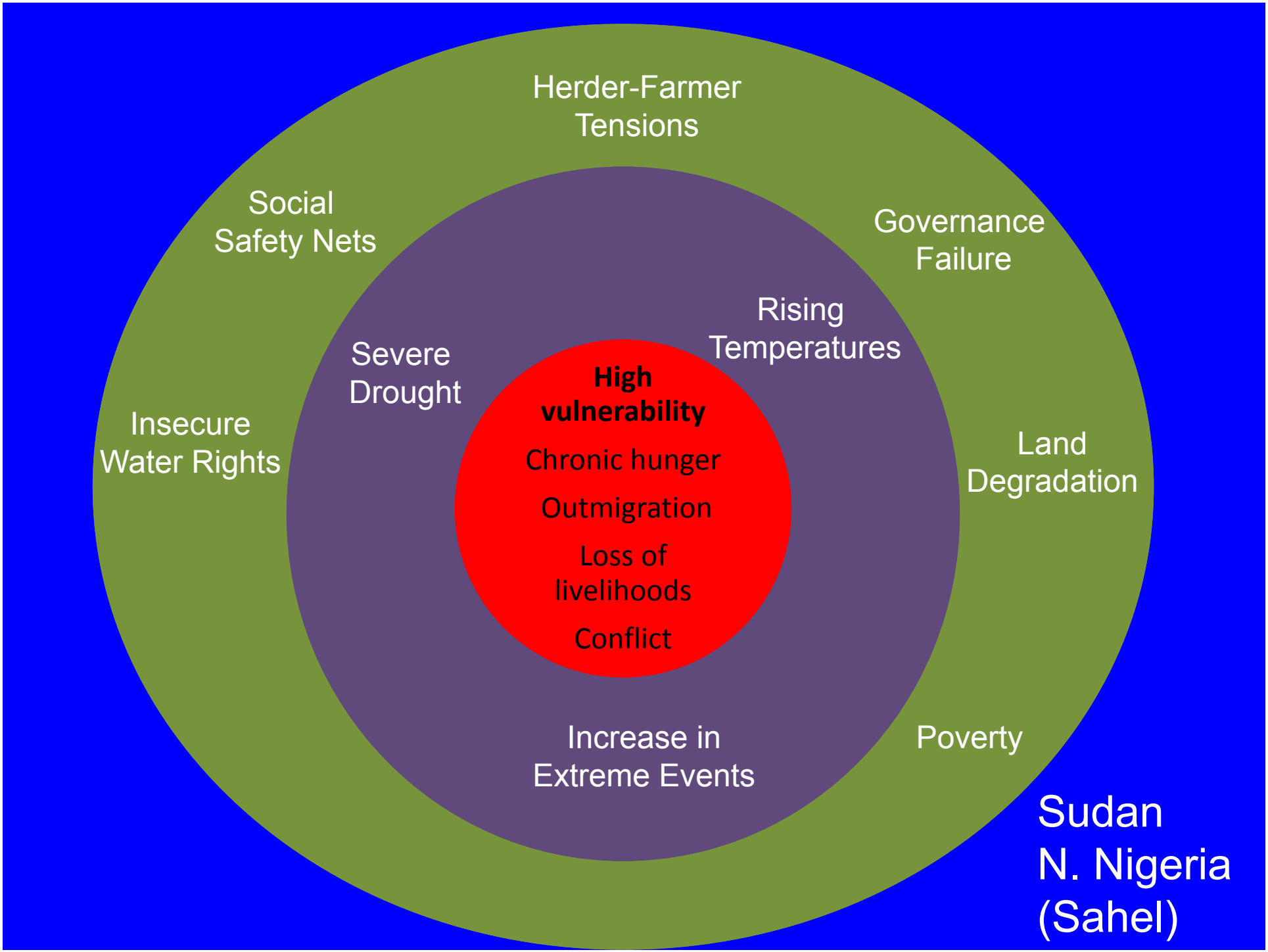


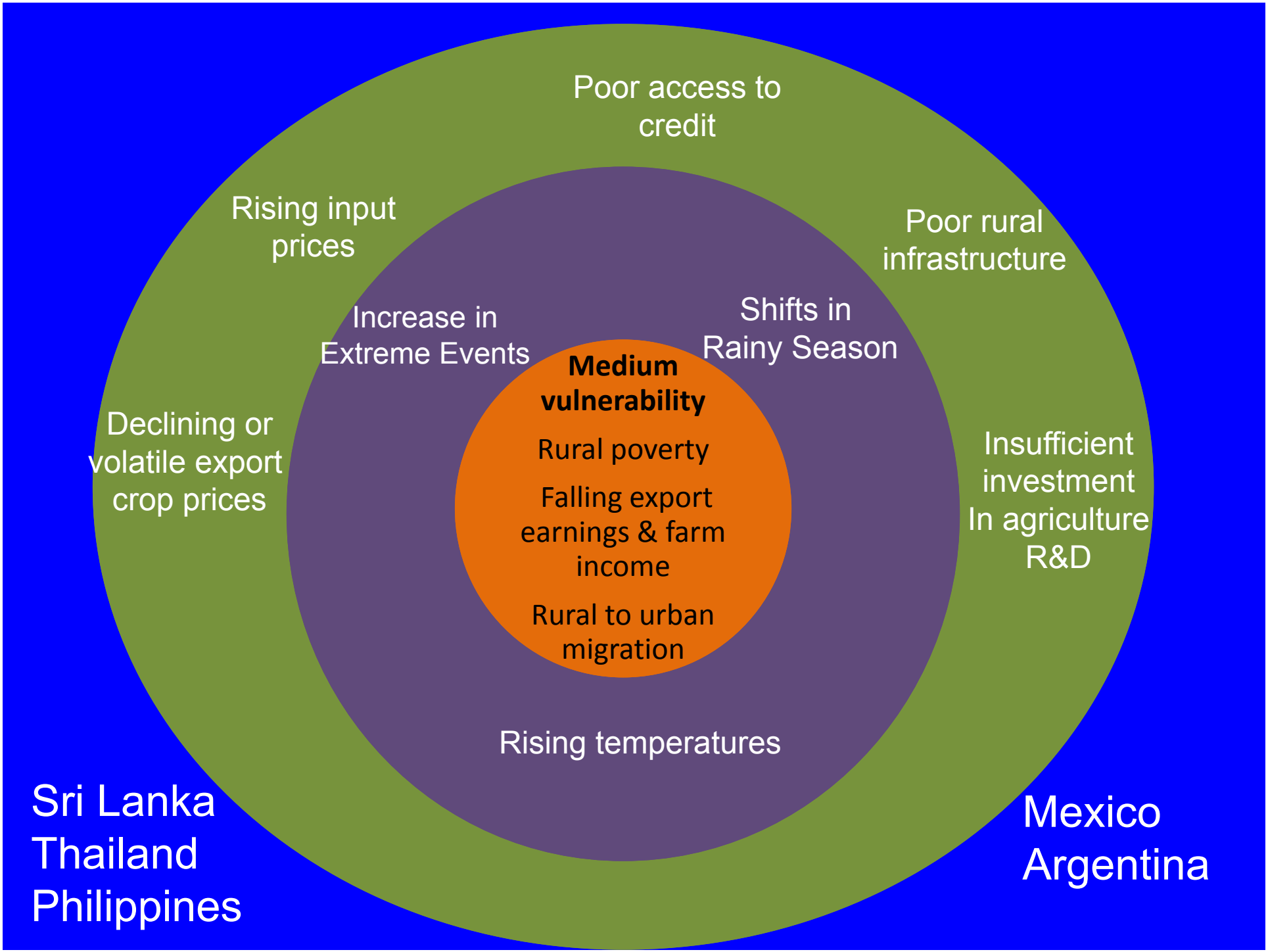
Links Between Science and Policy Communities

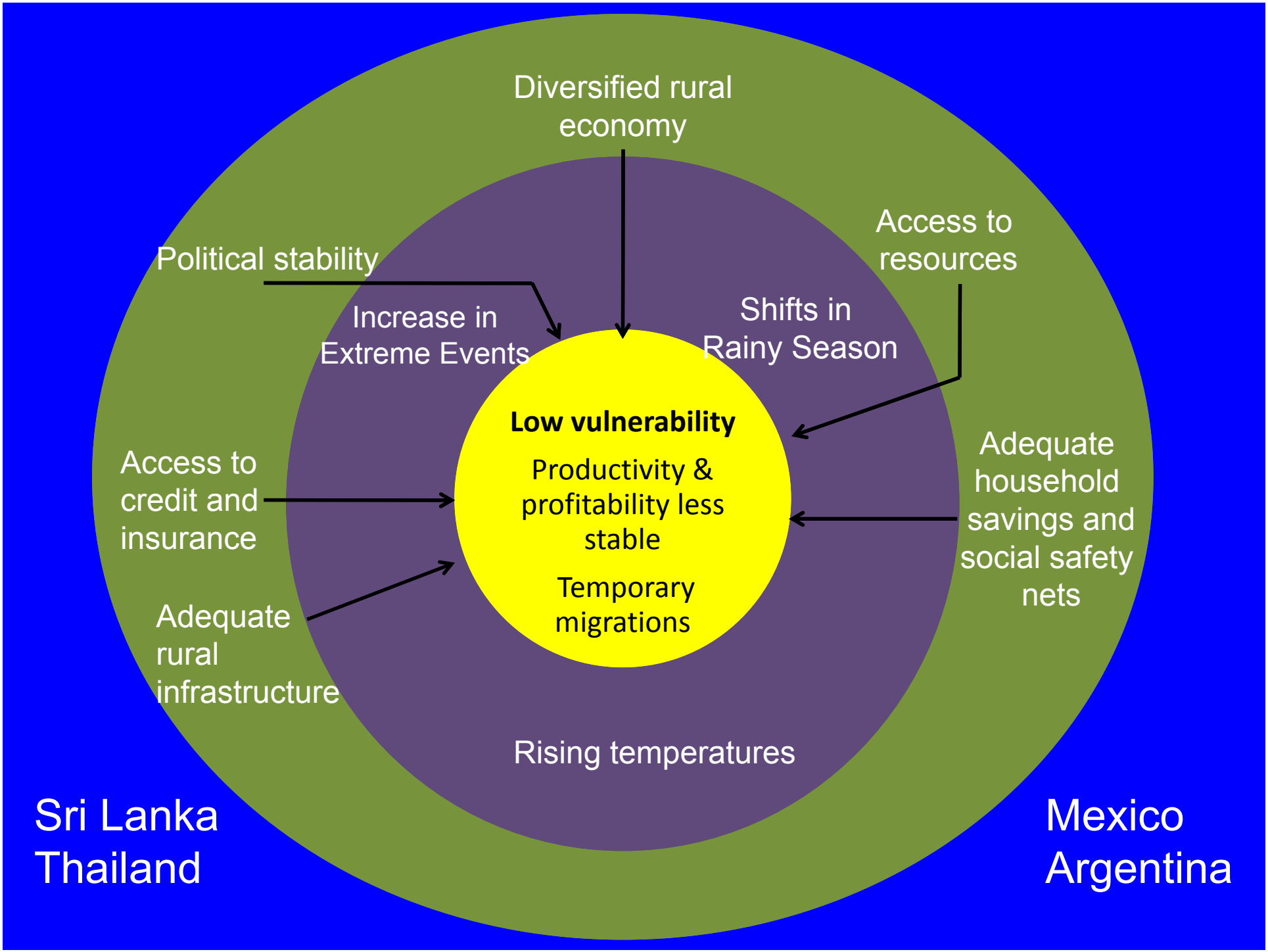
- Working relationships established by all **24** teams with stakeholder organizations
- Scientific outputs being used in National Communications to the UNFCCC
- Most teams engaged in National Communications activities, including the development of NAPAs
- AIACC teams contributed to numerous national and international policy activities

Reflections on lessons learned from the AIACC — vulnerability

- Climate risks are increasing
- Vulnerability has multiple climate and non-climate drivers
  - Poverty, poor governance, lack of social safety nets, access to resources, and resource base degradation
  - Climate impacts on biodiversity and ecosystem integrity are amplified by existing stressors


Herder-Farmer Tensions
Social Safety Nets
Governance Failure
Rising Temperatures
Severe Drought
Insecure Water Rights
High vulnerability
Chronic hunger
Outmigration
Loss of livelihoods
Conflict
Land Degradation
Increase in Extreme Events
Poverty
Sudan
N. Nigeria
(Sahel)


Poor access to credit
Rising input prices
Poor rural infrastructure
Increase in Extreme Events
Shifts in Rainy Season
Medium vulnerability
Rural poverty
Falling export earnings & farm income
Rural to urban migration
Declining or volatile export crop prices
Insufficient investment In agriculture R&D
Rising temperatures
Sri Lanka
Thailand
Philippines
Mexico
Argentina


Diversified rural economy
Political stability
Access to resources
Increase in Extreme Events
Shifts in Rainy Season
Low vulnerability
Productivity & profitability less stable
Temporary migrations
Access to credit and insurance
Adequate household savings and social safety nets
Adequate rural infrastructure
Rising temperatures
Sri Lanka
Thailand
Mexico
Argentina

Reflections on lessons learned from the AIACC — adaptation

1. Address the ‘adaptation deficit’
2. Create conditions that enable adaptation
3. Strengthen institutions
4. Develop place-specific strategies
5. Development under a changing climate

Elements of success in capacity building and networking

- Empowerment of teams through a flexible and bottom-up process
- Multiple, reinforcing activities that helped to consolidate progress in building scientific capacity
- Multidimensional network building important for sustaining the effort beyond the project
- Project scientists able to engage in international fora: IPCC, MEA, and IAASTD

Illustrative Example 2: Ongoing Project

Mainstreaming Climate Change into Community Development Strategy and Plan in the Greater Mekong Basin

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REGIONAL CENTER

Mainstreaming Climate Change into Community Development Strategy and Plan

Southeast Asia START Regional Center and regional capacity building: Mainstreaming Climate Change into Community Development Strategy and Plan

- Capacity building program under Asian Development Bank (GMS-EOC) initiative
- Enhance capacity of local practitioners / planners in Cambodia, Lao PDR and Vietnam to conduct community climate change adaptation planning
- Pilot phase: 2014-2016
  - Develop framework, process and technical support platform
  - Training for local practitioners / planners to conduct pilot assessment at 20 communities in each country

SOUTHEAST ASIA START REGIONAL CENTER

Mainstreaming Climate Change into Community Development Strategy and Plan

Concept and framework:

- Shifting paradigm
  - Climate change is not entry point but focus on current risk from climate threats and community's coping strategy
  - Shifting from minimizing impact of climate change and focus on resilience of community and robustness of development plan to future climate
- Focus on socioeconomic dynamic to understand shifting in community's risk profile and risk management strategy
- Seek for strategy/option that will still function under future climate
- Justify investment with present benefit

SOUTHEAST ASIA START global change SysTem for Analysis, Research & Training REGIONAL CENTER

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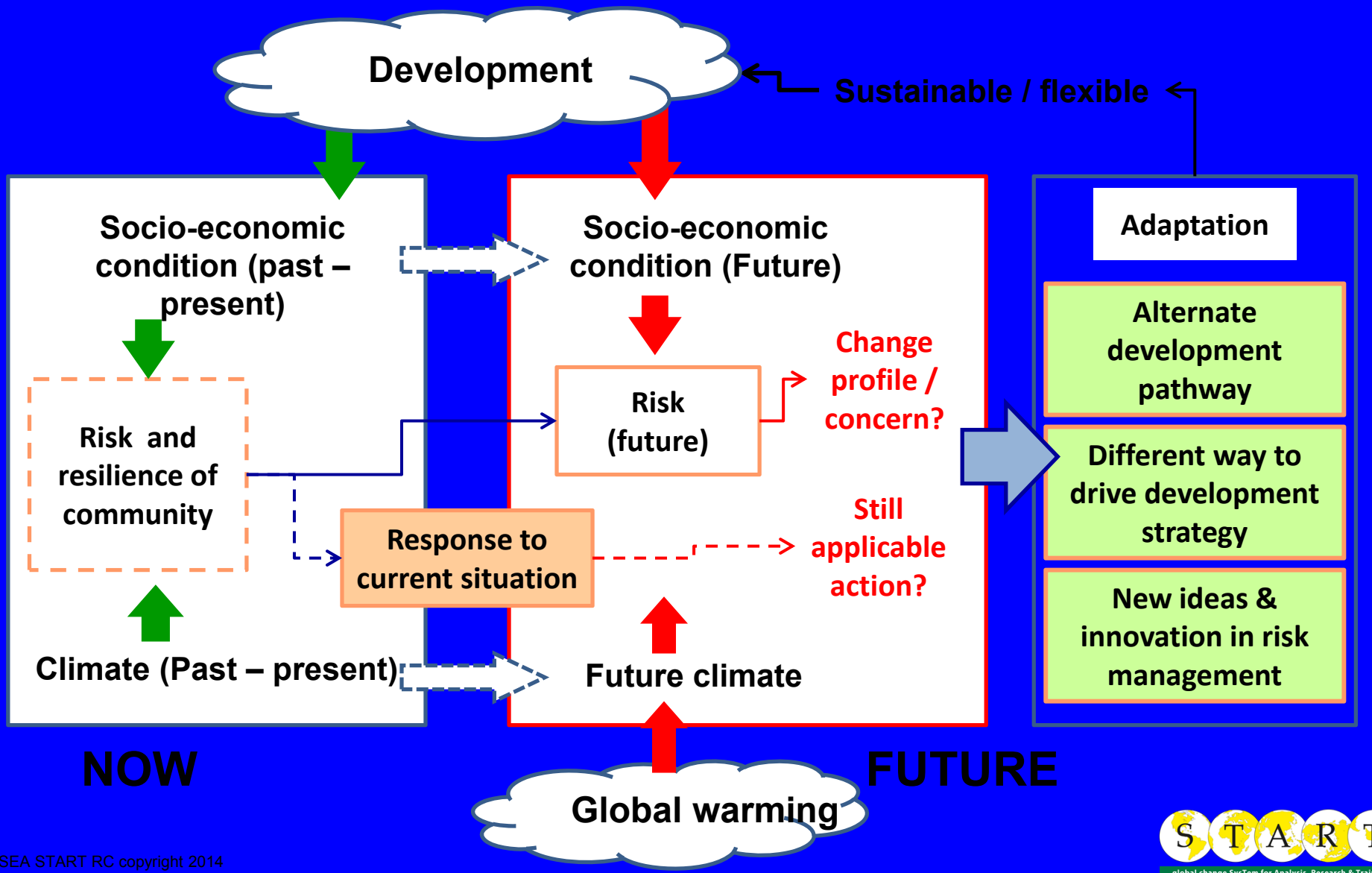
Mainstreaming Climate Change into Community Development Strategy and Plan



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Illustrative Example 3: Ongoing Project

Assessing the Vulnerability of Cities in a Changing Climate

Coastal Cities at Risk – CCaR

Building Adaptive Capacity for Managing Climate Change in Coastal Megacities

CIHR IRSC | IDRC | CRDI | NSERC CRSNG

Social Sciences and Humanities Research Council of Canada | Conseil de recherches en sciences humaines du Canada | Canada

Coastal Cities at Risk (CCaR):

Building Adaptive Capacity for Managing Climate Change in Coastal Megacities

- G. McBean, Western University, London, Canada
- A. Snidvongs, Chulalongkorn University and R. Cooper, Southeast Asia START Regional Research Center (SEA-START)

- Mega-cities in coastal zone and on river deltas: Vancouver, Bangkok, Manila, Lagos
- Natural, socio-economic, health, engineering studies

www.coastalcitiesatrisk.org

- 2011-2016

CCaR Strategy

- Interdisciplinary - natural, engineering, socio-political-economic and health scientists
- Cities - Bangkok, Lagos, Manila, Vancouver - and partnering with other city research teams – Shanghai, +++
- Building on Strategic Canadian and International Partnerships

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MEOPAR

Institute for Catastrophic Loss Reduction
Institut de Prévention des Sinistres Catastrophiques

IRDR
Integrated Research on Disaster Risk

Overall Objective of Coastal Cities at Risk (CCaR)

- To develop the knowledge base and enhance the capacity of mega-cities to successfully adapt to and when necessary cope with risks posed by the effects of climate change, including sea level rise, in the context of urban growth and development.
- The research program integrates climate change adaptation and disaster risk reduction approaches towards building disaster resilient cities.

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Illustrative Example 4: ongoing
The African Climate Change Fellowship Program (ACCFP)

- 4-types of related Fellowship awards: research, teaching, practitioner, policy
- Over 200 Fellows from 40 Home Institutions, matched with 18 Hosts
- Fellowship projects, seminars & conference
- ACCFP Alumni Network
- The START Family
- Management devolved to U. of Daressalaam
- AAS has now CIRCLE Fellowships (5 Year program)

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New Directions

- Pan-Asia Risk Reduction Fellowship Program (PARR)
- Adaptation at Scales in Semi-Arid Regions (ASSAR)
- PROVIA-START Fellowships

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TAKE HIOME MESSAGES

1. Adaptation is a dynamic socio-ecological process that requires continuous innovation, experimentation, and change to meet the challenge of climate change

Hence, M&E is an essential facet of effective Adaptatipn practice

2. Capacity development, in and of itself, is a win-win adaptation response

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3. START's approach for building scientific and technical capacity for adaptation in developing countries through support of research, entraining young cohorts is a successful good practice that can contribute significantly to NAP Process

4. START Alumni who participated in AIACC and other programs are a useful resource that must be engaged in NAP Process

5. START is ready to ebgage in the NASP process

6. Consider an AIACC-style capacity building effort for NAP


Thank you
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