

Linking Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in Asia and the Pacific

Linda Anne Stevenson, Asia-Pacific Network for Global Change Research (APN)
 East Building, 4F, 1-5-2 Wakinhama Kaigan Dori, Chuo-ku, Kobe 651-0073 JAPAN.
 Email: lastevenson@apn-gcr.org, Website: www.apn-gcr.org



Abstract

Climate change adaptation is receiving increased attention, particularly among developing countries party to the United Nations Framework Convention on Climate Change (UNFCCC) as highlighted in the recent series of COP meetings from Cancun (2010) to Durban (2011) to Warsaw (2013), that led to the development and formation of the UNFCCC Adaptation Committee and the Warsaw International Mechanism for Loss and Damage (L&D). In line with the APN's goals and strategies, and ensuring that the work of APN aligns with the work of regional and international bodies working towards scientific solutions for climate impact and vulnerability for least developed countries, APN's Climate Adaptation Framework was developed in 2012, in collaboration with APAN, UN-CECAR, ICCCAD, UNU and WCRP. Implemented in 2013, CAF aims to assist its member countries' based on needs, gaps & lessons for climate adaptation in the Asia-Pacific region and is addressing adaptation through approaches that support research, data collection, enhanced coordination, enhanced regional cooperation, capacity development and strengthened institutional arrangements.

There is significant overlap of concepts and shared goals between DRR and CCA as climate change brings a series of disaster and societal impacts to vulnerable countries and communities. Climate adaptation and disaster risk management and decision-making practices need to be integrated across sectors and scales. For this to happen, strong partnership approaches among scientists, governments, communities and other stakeholders' are required across local, national and regional scales.

The selected two activities from the 15 projects that follow aim to do just that.

Integrating CCA, DRR and L&D to Address Emerging Challenges due to Slow Onset Processes

The project brings together biophysical and socio-economic scientists to leave a legacy of enhanced capability and collaboration in multi-disciplinary research that links DRR, CCA and L&D. Local pilot studies are being conducted in five Southeast Asian countries involving researchers, policy makers and practitioners from various disciplines whilst acquiring knowledge on economic and non-economic valuation from Japan.

Specific objectives of this three-year project are to:

- Identify characteristics, priorities and emerging issues related to slow onset processes in low-lying coastal areas, floodplains and highlands of Southeast Asia;
- Assess limits to adaptation based on the

"best available science" and propose risk based approaches that integrate CCA and DRR;

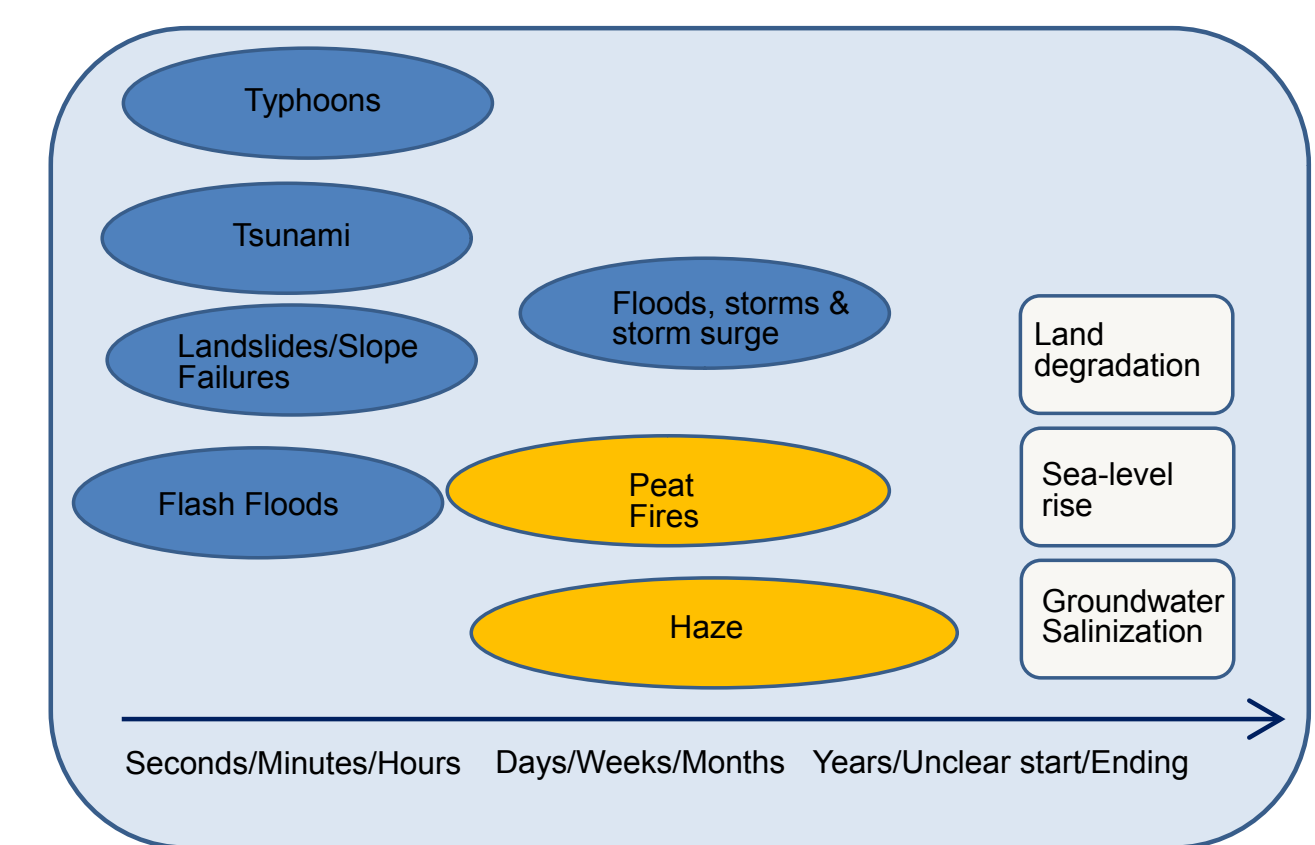
- Develop methodologies to evaluate prospective L&D associated with climate change, drawing on lessons from DRR and discerning natural/anthropogenic causes of climate change;
- Recommend policy and planning strategies to integrate CCA, DRR and L&D in development plans in line with existing governance systems.

Outputs to date:

- Nop S. & Chhinh N. 2015. Impacts of disasters on agricultural sector: A case of Kampong Speu Province, Cambodia. In: Pereira, J.J, Khairul et al. 2015 (Eds.).

Enhancing Climate Change Adaptation in Southeast Asia. SEADPRI Series. Bangi, Malaysia: Lestari Publishers (in review)

- Pereira, J.J. 2015. Integrating DRR, CCA and L&D: Issues and Challenges in the Klang Valley. In: Pereira, J.J, Khairul et al. 2015 (Eds.). Enhancing Climate Change Adaptation in Southeast Asia. SEADPRI Series. Bangi, Malaysia: Lestari Publishers (in review)

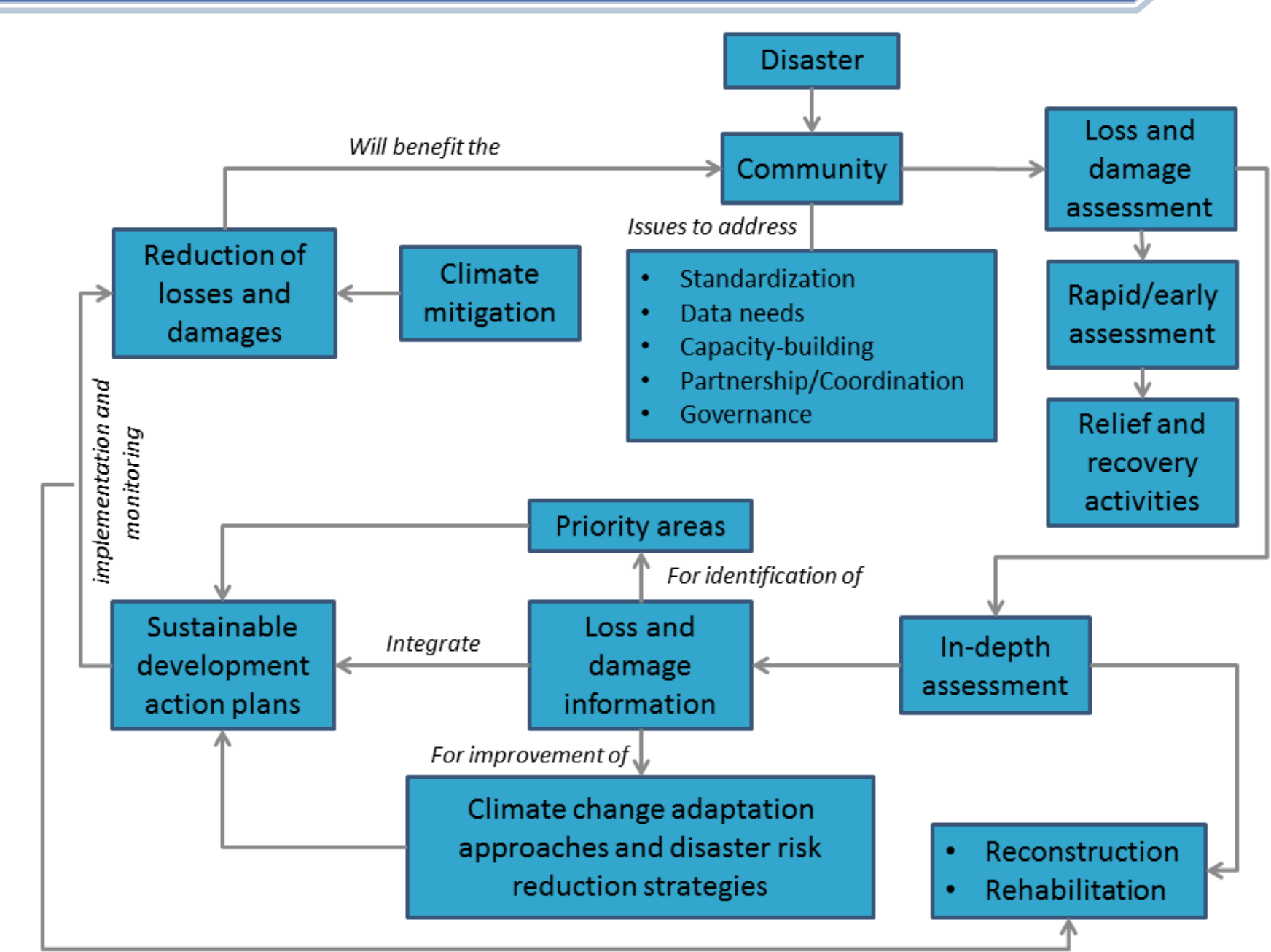


Examples of rapid & slow onset events

Assessing the Linkages between CCA, DRR, and L&D: Case Studies in Southeast Asia

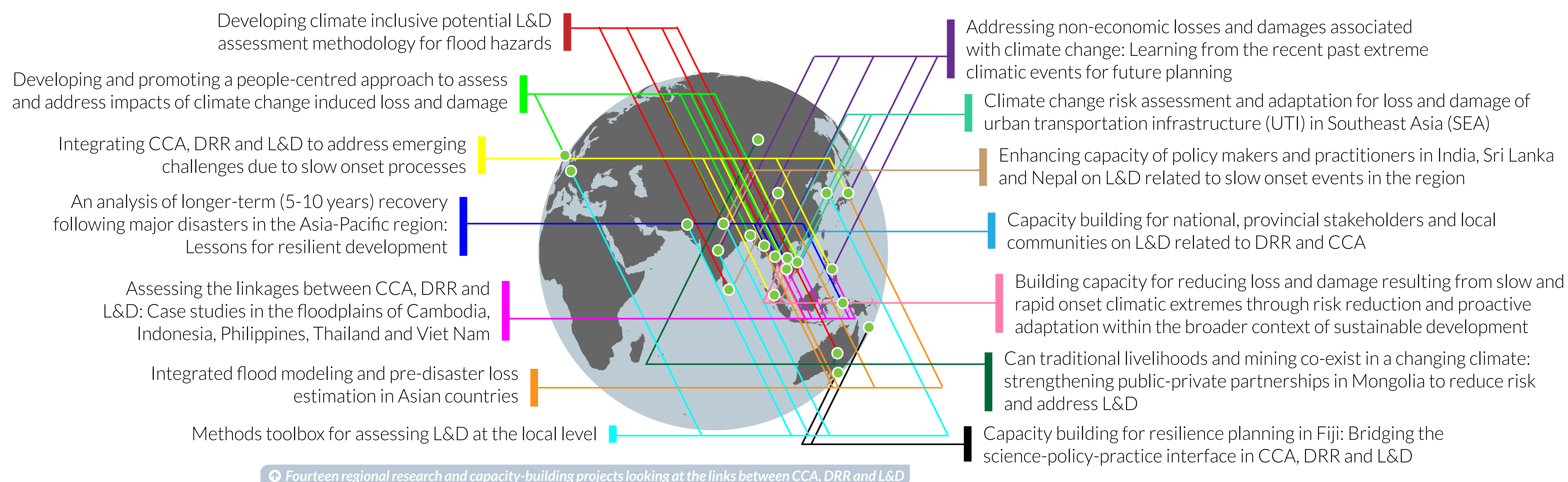
Projected changes in climate are expected to worsen the impacts of climate-related disasters in low-lying areas in Southeast Asia. This project will review existing frameworks for assessing L&D due to climate-related disasters; identify emerging issues, gaps and opportunities in linking CCA, DRR and L&D assessment; develop a robust framework to link CCA, DRR and L&D assessment; and recommend research, development and policy agendas for implementation.

The diagram shows the framework of L&D system in the Philippines, which aims to quantify L&D of climate-related disasters and assess the recovery needs of communities, creating a holistic approach to viewing the importance of L&D knowledge for policy-making and effective action.



Framework of L&D system in the Philippines

Projects under the Climate Adaptation Framework (CAF)



Fourteen regional research and capacity-building projects looking at the links between CCA, DRR and L&D

Asia-Pacific Network for Global Change Research (APN)

Celebrating 20 years since its establishment, APN is a network of 22 country governments with a vision for an Asia-Pacific region that is successfully addressing the challenges of global change and sustainability. The mission of APN is to enable investigations of changes in the Earth's life support systems and their implications for sustainable development in the Asia-Pacific region through support for research and science-based response strategies and measures, effective linkages between science and policy, and scientific capacity development. In order to achieve its mission, APN has identified four goals:

- Goal 1.** Supporting regional cooperation in global change research on issues particularly relevant to the region.
- Goal 2.** Enhancing capabilities to participate in global change and sustainability research and support science-based decision-making.
- Goal 3.** Strengthening appropriate interactions among scientists and policy makers, and providing scientific input to policy decision-making and scientific knowledge to civil society and the public.
- Goal 4.** Cooperating with other global change and sustainability networks and organisations.

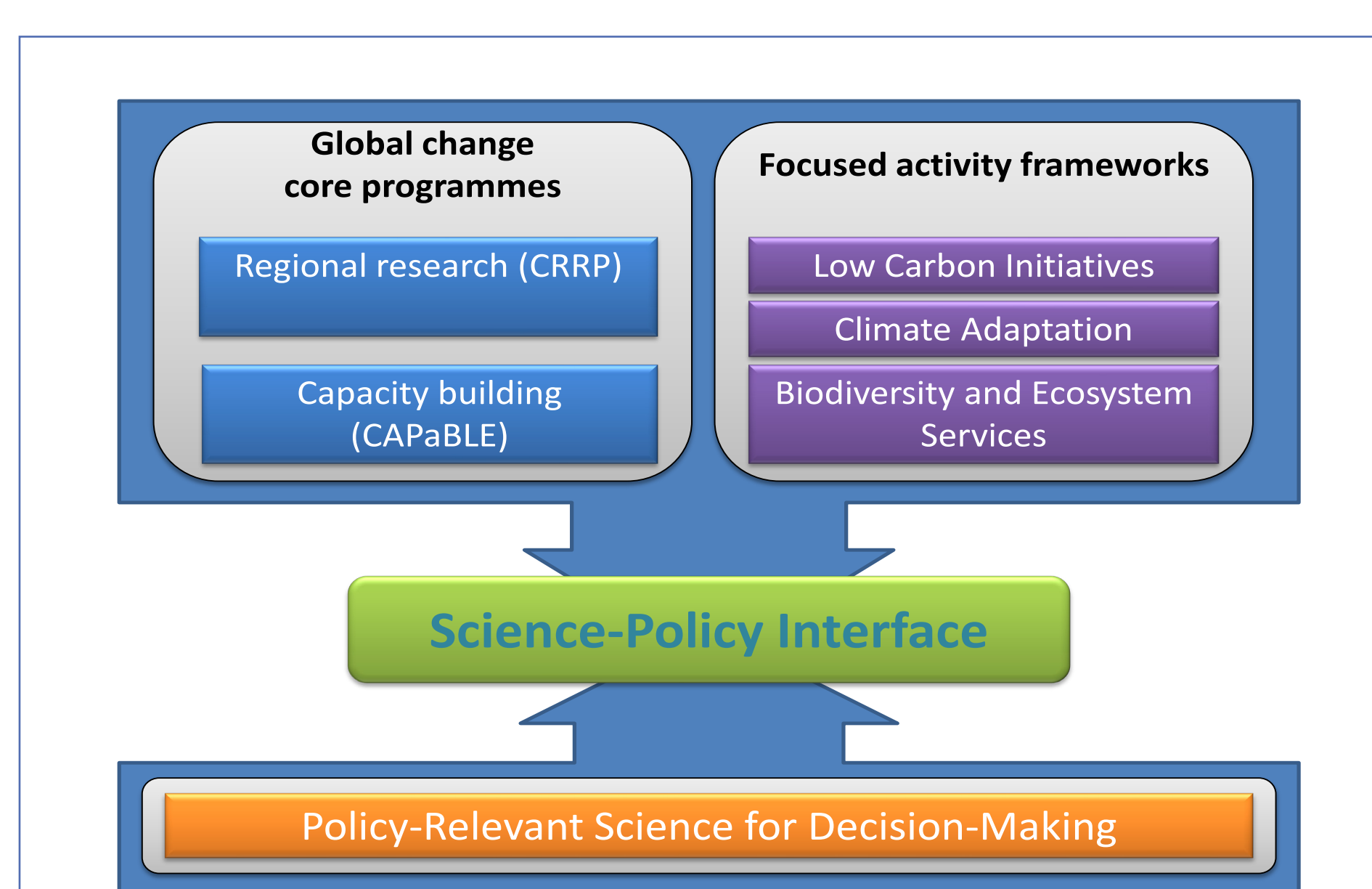


Diagram of APN core programmes and frameworks



APN Donors

100+ Regional research & capacity building projects	6500+ People in the science and policy communities directly engaged	160+ Peer-reviewed research papers produced	800+ Tangible outputs delivered
---	---	---	---

APN Third Strategic Phase (2010-2015) in Numbers

References/Further Reading:

- "Climate Adaptation Framework Brochure (2014)." APN E-Lib, accessed June 17, 2015, <http://www.apn-gcr.org/resources/items/show/1934>.
- "Linking Disaster Risk Reduction, Climate Change Adaptation and Loss & Damage: Activities under the APN Climate Adaptation Framework," APN E-Lib, accessed June 17, 2015, <http://www.apn-gcr.org/resources/items/show/1971>.
- "Integrating CCA, DRR and L&D to Address Emerging Challenges due to Slow Onset Processes," APN E-Lib, accessed June 17, 2015, <http://www.apn-gcr.org/resources/items/show/1949>.
- "Assessing the Linkages between Climate Change Adaptation (CCA), Disaster Risk Reduction (DRR), and Loss and Damage (L&D): Case Studies in the Low-Lying Coastal Cities of Cambodia, Indonesia, Philippines, Thailand and Vietnam," APN E-Lib, accessed June 17, 2015, <http://www.apn-gcr.org/resources/items/show/1945>.