



CORE PROGRAMMES

CRRP

APN supports regional research on global change through its Collaborative Regional Research Programme (CRRP). This programme, formerly known as Annual Regional Call for Research Proposals (ARCP), is one of the scientific pillars of APN to encourage and promote global change research in the Asia-Pacific region, in addition to improving the understanding of global change and its implications in the region, and to contribute to the establishment of a sound scientific basis for policymaking with regard to issues for which global change and sustainability is an important factor. An ARCP project is featured on the right-hand side.

CAPaBLE

The Scientific Capacity Development Programme (CAPaBLE) was launched in April 2003. Funding under the programme is provided through an annual, open and competitive calls for proposals. The CAPaBLE programme aims to develop scientific capacity of early-career scientists, particularly from developing countries, to successfully address global change issues within the Asia-Pacific region. Further, it aims to enhance collaboration between scientists and policy- and decision-makers, and promote science-based decision-making.

FRAMEWORKS

CAF

In response to an urgent request from member countries to address climate adaptation, APN developed and adopted the Climate Adaptation Framework (CAF) in 2013 to enhance science-based adaptation activities of its developing member countries:

- Regional research with a capacity development element
 - Capacity development activities at national and sub-national scales
 - Collaboration with other organisations and networks
- A CAF project is featured on the right-hand side.

LCI

The Low Carbon Initiatives (LCI) Framework was launched with a view to enhancing mitigation actions across countries in the region to help achieve the global vision for a low carbon and sustainable future. Starting in 2012, the LCI was a three-year programme supporting regional research, capacity development and networking activities related to low carbon development. The outputs of LCI framework can be found at <https://goo.gl/j41TdJ>.

B&ES

Under the Biodiversity and Ecosystem Services (B&ES) Framework, stakeholders are invited to propose and engage in collaborative activities with APN in key thematic areas that will also contribute to the work of IPBES in the Asia-Pacific region.

ARCP2014-12CMY-Sellers

Objectives

To examine the increasingly important regional dynamics of urbanization in China and India.

Methodology

This project employs remote sensing images and GIS to analyze matched Chinese and Indian regions. The analysis demonstrates divergent region-wide dynamics of urban land conversion in the two countries, and distinctive needs for policies to enhance sustainability in each setting.

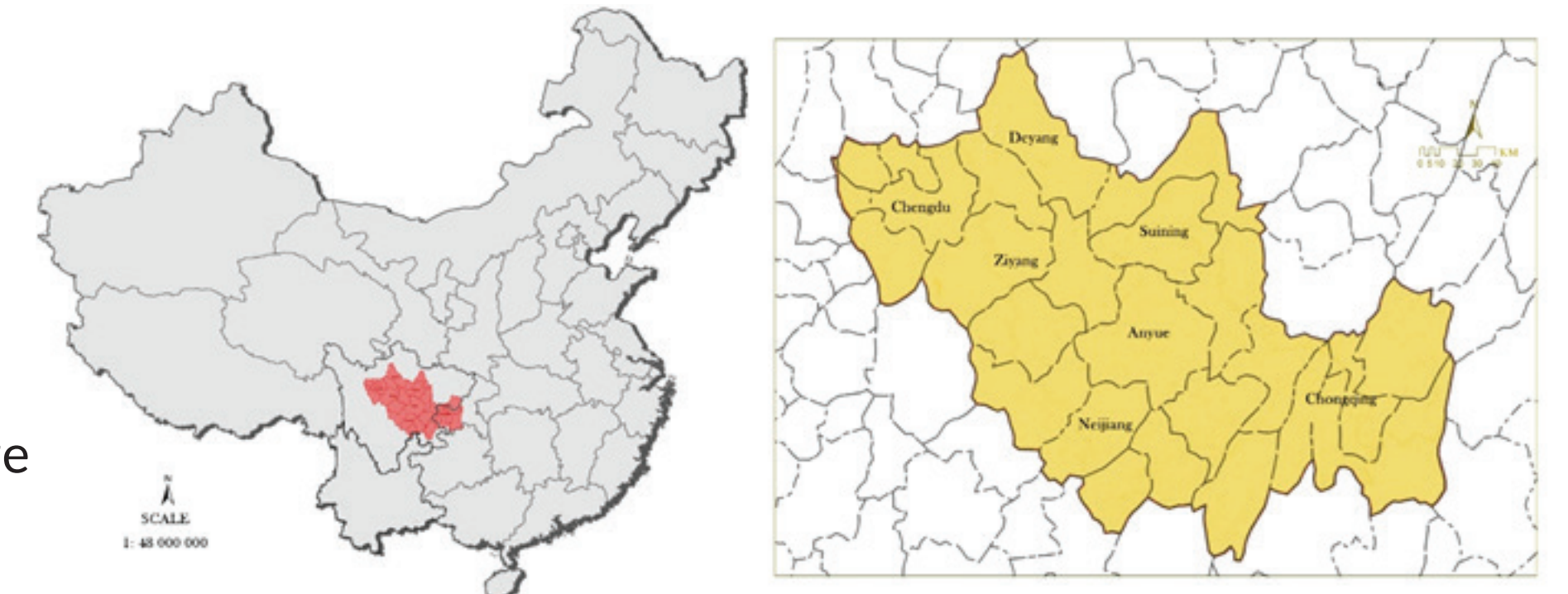


Fig. 1. Locations of Chongqing and Chengdu Region

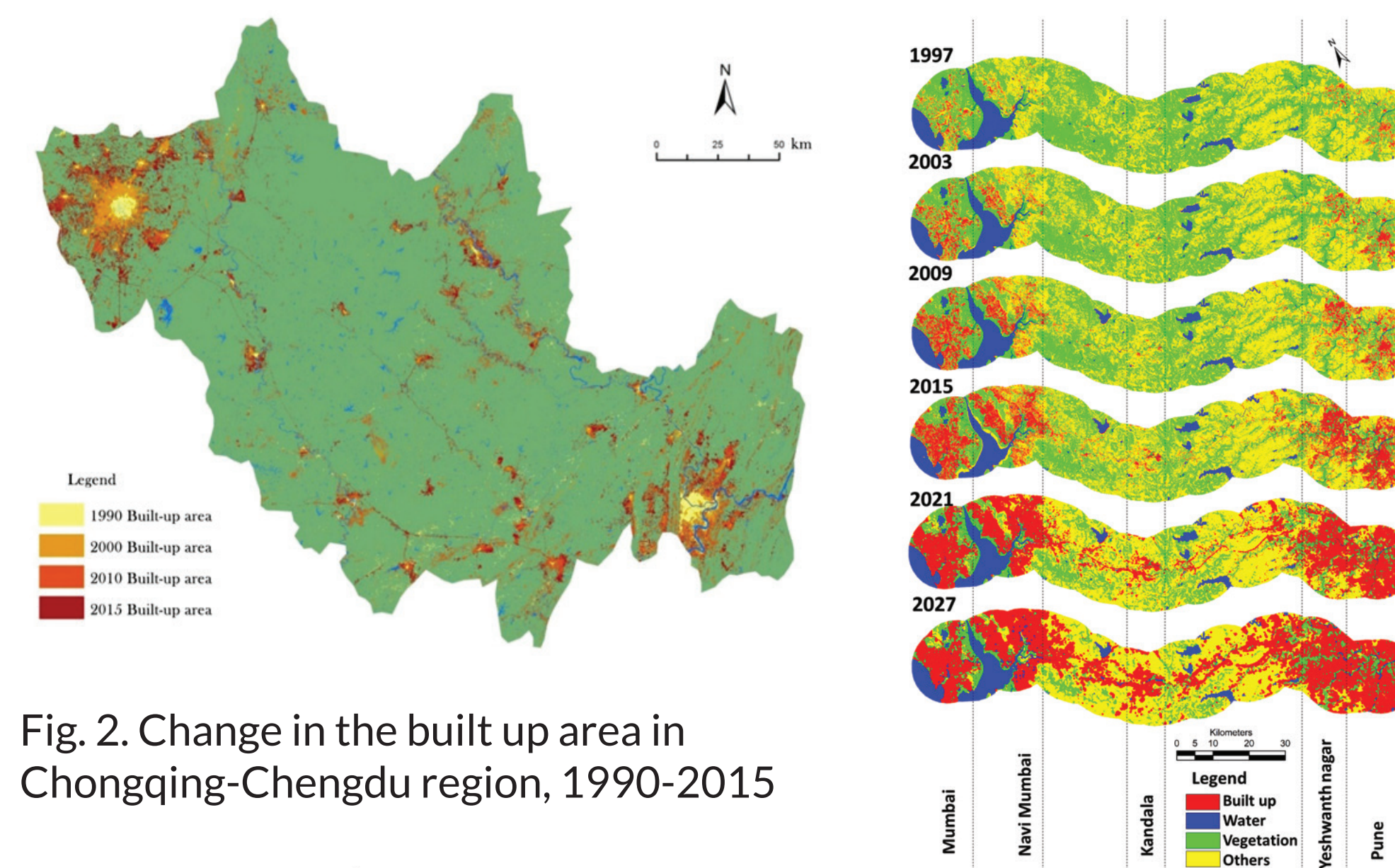


Fig. 2. Change in the built up area in Chongqing-Chengdu region, 1990-2015

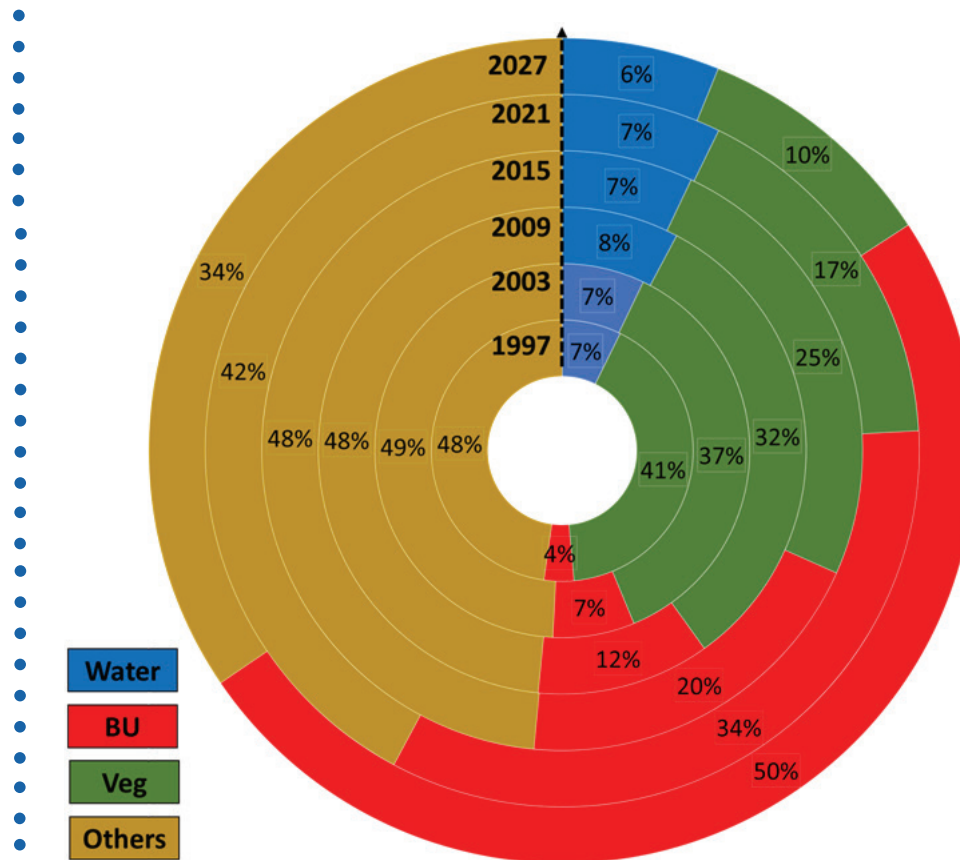


Fig. 3. Land Use in the Mumbai-Pune Corridor, 1997-2027

Results

In China, the research explores land use change in the Chengdu-Chongqing urban agglomeration. Remote sensing images show that built up areas increased by several times over the period over 1990-2015. The overwhelming proportion of this expansion occurred in proximity to the big cities of Chengdu and Chongqing (Fig. 2). Between two centres, small new urban areas developed along newly established transportation corridors and in low lying areas with gentle terrain.

In India, regional development over the same period concentrated in the corridors between urban regions. New infrastructure and industrial policies have reinforced this concentration.

The matched Indian study visualized growth along the rapidly developing 140 km corridor between the large cities of Mumbai and Pune. The analyses there focused on a 10 km buffer on either side of the highway (Fig. 3). The built up proportion of land in the corridor grew from 3.66% in 1997 to 19.81% in 2015, expanding both along the expressway and around smaller urban nodes. Agent based models predict expansion of built up land to 50% of the total in 2017. Without new, more sustainable policies, vegetation in the corridor will decline dramatically from 25% in 2015 to 10% in 2027.

<http://www.apn-gcr.org/resources/items/show/1893>

CAF2015-RR04-CMY-Thomalla

Objectives

To identify the main loss and damage (L&D) systems involved in disaster recovery processes of 3 of the most significant disasters to have struck the region, using 4 case study locations; and analyze their effectiveness in terms of building resilience following major disaster events.

Methodology

Qualitative research consisting of a literature review and document analysis, interviews with key recovery actors in each case study, and 4 project synthesis workshops.

Results

The research revealed a wide range of post-disaster L&D systems seeking to ensure effective recovery and building of resilience. L&D systems involved in 4 recovery case studies are classified into 5 types as shown below.

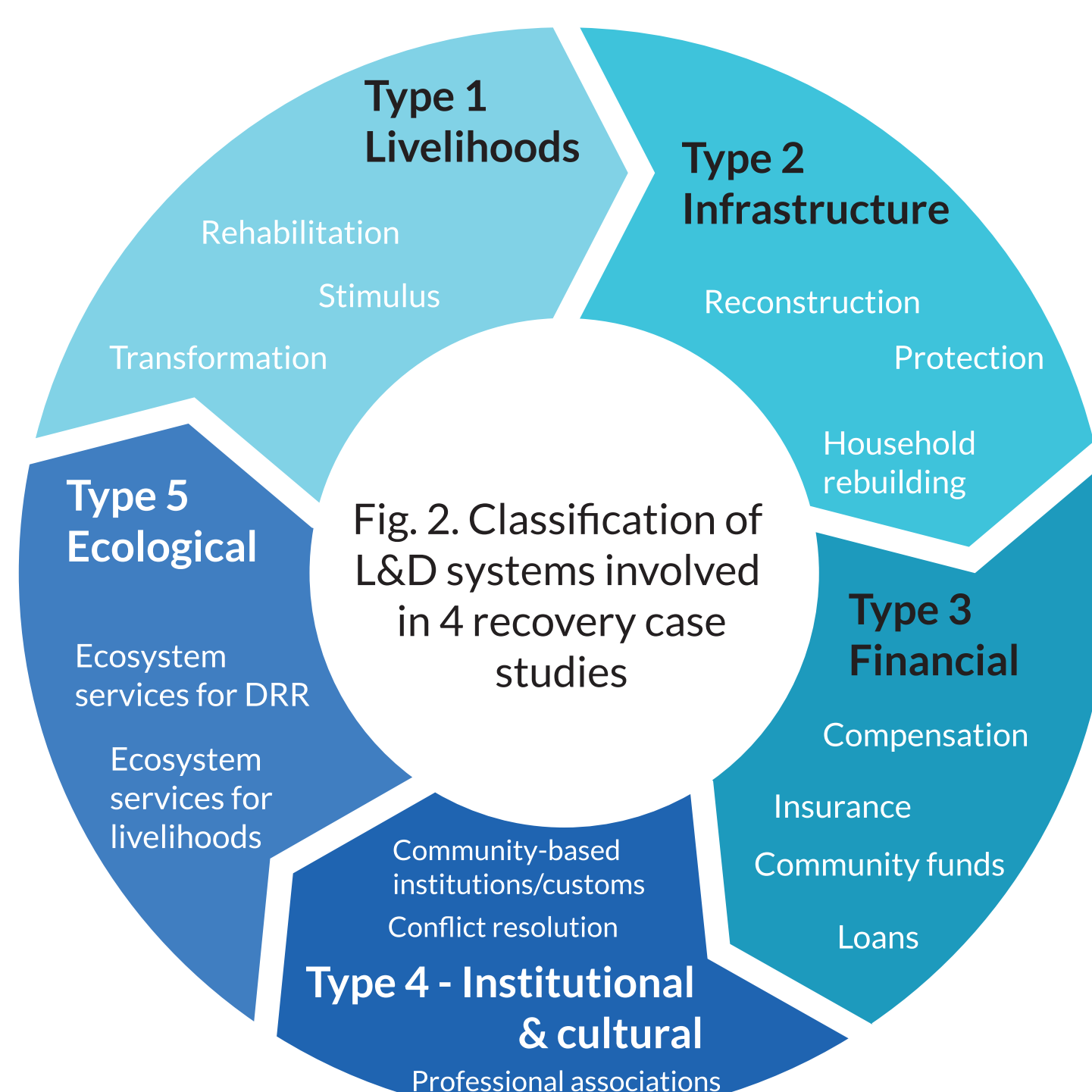


Fig. 2. Classification of L&D systems involved in 4 recovery case studies

Thailand floods, 2011

At least 800 deaths
Up to 10 millions affected
USD 40 billion economic L&D
Recovery of SMEs in Nontaburi, Thailand

Mekong river floods, 2000-2001

Vietnam & Cambodia
At least 900 deaths
Up to 10 millions affected
USD 440 million economic L&D
Living with floods, An Giang, Vietnam
Local recovery, Prey Veng, Cambodia

Indian Ocean tsunami, 2004

Indonesia
At least 165,000 deaths
700,000 more affected
USD 4.5 billion economic L&D
Panglima Laot customary institution in fisheries community recovery, Aceh, Indonesia

Fig. 1. Project case study locations and L&D data from the disasters

Based on the results, it is suggested that disaster recovery narratives provide a frame for preferentially promoting particular L&D systems and approaches over others, and therefore can influence the effectiveness of such recovery interventions. Specifically, key limitations or barriers are identified, along with opportunities for addressing them.

Key limitation or barrier	Consequence	How the limitation or barrier might be addressed
Insufficient resources	Incomplete implementation	Decentralization to improve allocation priorities Take into account private-sector contributions
Weak recovery planning	Key services not provided in timely manner	Prioritise water, electricity, health, education, income-generation Integrate DRR and development
Poor accountability	Corruption Poor coordination No long-term responsibilities	Improve transparency Simplify disaster procedures Monitoring & review
Social injustice in recovery programmes	Key resources and services not accessible by low income & socially marginalised groups	Target assistance and safety nets to low income groups Strengthen representation in decision-making processes Secure human rights in law

Table 1. Limitations and barriers of L&D systems, their consequences for recoveries, and how they might be addressed