



Peri-cene Policy-Lab - Summary

The 'peri-urban' hinterland, the area between and around cities, shows the extended footprint of human settlements. Both poor and rich sprawl into the peri-urban, often in the line of flood, fire, storm, sea-level rise and other climate hazards. To improve the climate resilience of cities we have to start in the peri-urban.

The Peri-cene project aims to provide the first ever comprehensive assessment of global peri-urbanisation, with its climate impacts, risks and vulnerabilities.

We aim to provide new peri-urban spatial mapping with an interactive [P-CAT tool](#). Then we engage stakeholders in dialogue to explore the nature of the problem and possible ways forward. We explore the likely 'adaptive pathways' in a [Policy Lab](#) of 21 city-regions from around the world. And we look in detail and compare the [Case studies](#), from the global south in [Chennai](#) (India), and the north in the [Manchester Region](#) (UK).

1.1.1 Policy Lab Overview

At the centre of the Peri-cene project is an international 'Policy Laboratory'. This is a space for (a) diagnosis / mapping of problems, and (b) design of responses and 'adaptive pathways'. Its activities include:

- Interviews with partners and dialogues by webinar;
- International workshop in mid-2021 (Stockholm / online);
- Peri-cene Analysis Tool ('P-CAT'): for spatial mapping of urban / climate interactions;
- Peri-cene Pathways Tool: for system mapping of peri-urban problems / pathways.

The **output** will be an online resource library, with policy reports and academic papers.

The **outcome** aims at new insights on peri-urban / climate interactions, both in the problems and responses. This includes an outline global assessment, and in a set of 'adaptive pathways' in each of the partner city-regions. Alongside we develop a practical framework and toolkit, to help prepare and set up more detailed studies in the future.



1.1.2 Who are the partners?

- 21 city-regions are currently partners: (from east to west), Melbourne, *Tokyo*, *Guangzhou*, Changsha, Surabaya, Bangkok, *Dhaka*, Cairo, *Doha*, Johannesburg, Kumasi, Helsinki, *Stockholm*, Naples, *Granada*, Belo Horizonte, *Santiago*, Toronto, Mexicali, San Diego, (*associate partners shown in italics*).
- 2 major in-depth studies are running in Chennai, India: and the Manchester wider region, UK.
- These are supported by 3 inter-governmental organizations: UN Habitat, UN Global Compact on Cities, and ICLEI (International Council for Local Environmental Initiatives). Many of the partners have also been members of the Rockefeller 100 Resilient Cities community.



Together these partners represent the major urban types and climate risk types, from both developing (urban South) and developed countries (urban North). See the next section for an outline of types, and the Annex for a full list.

1.1.3 How does the Policy Lab work?

With the 'Lab' as an experimental zone, each city/region is invited to participate in a collaborative process. This is based on the Peri-cene Framework, which helps to make sense of complex problems and emerging opportunities / pathways.

First in phase 1a, we explore the 4 main themes of peri-urban / climate interactions, with mapping of the problems, and their direct causes and effects (i.e. in a 'Causal model'):

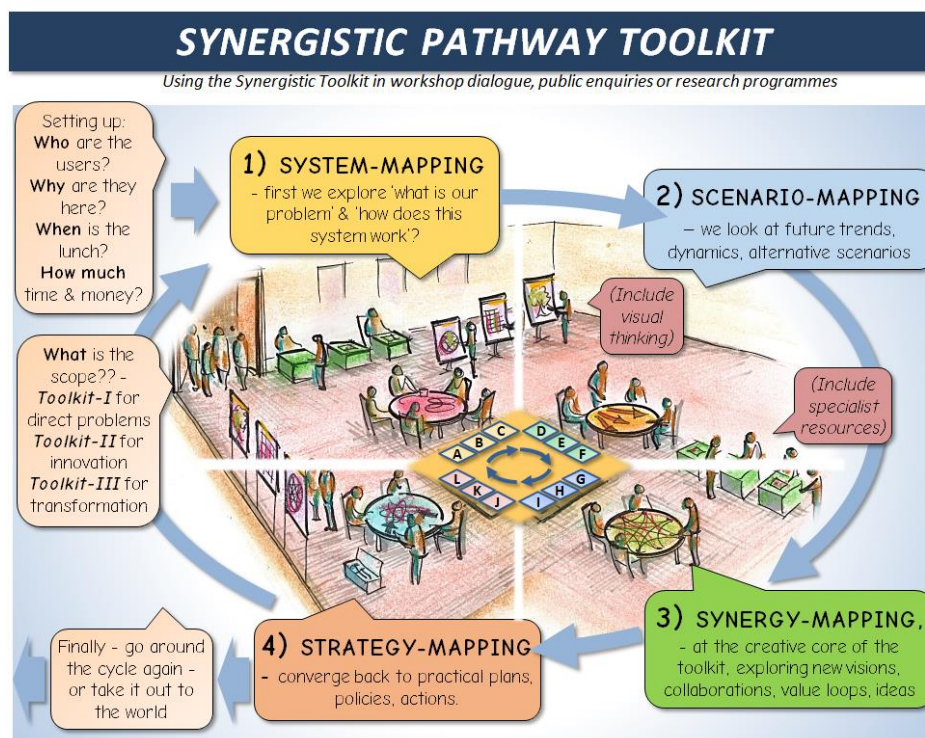
- a) peri-urban development and multi-level urban systems
- b) climate change impacts, hazards and risks, social and technical
- c) climate change, vulnerability and sensitivity, social and technical
- d) governance and adaptive capacity

In Phase 1b, we extend the scope to indirect, intangible and system effects, using a 'Synergistic model' (with the system / scenario mapping methods). For example in peri-urban Manchester, where fluvial flood risk is growing:

- we can assess the direct 'causal' flood risk and returns, and the interaction with peri-urban developments and landscapes;

- to follow up we explore more ‘*Synergistic*’ indirect problems, such as land ownership upstream, or the structure of local government:
- this includes ‘stress-testing’ scenarios with the SSP (‘Shared socio-economic pathways’) alternative futures framework from the IPCC.

In Phase 2 we use the Synergistic Model again (with synergy / pathway mapping methods), to explore the potential visions and ideas, synergies and collaborations, innovations and opportunities: and then how to put these into practice. We put all cards on the table in the international Pathways workshop, and then follow up with a final round of interviews.



- In peri-urban Manchester, we work with stakeholders to explore system level responses & opportunities, such as new forms of community land stewardship, ecosystem markets, digital platforms etc.

A set of ‘*adaptive pathways*’ is the practical outcome of such discussions, combining both levels of responses: in the Manchester example the pathways might include:

- ‘Causal’ and functional level responses, such as building flood defences
- ‘Synergistic’ and strategic level responses, such as new forms of land stewardship.

1.1.4 What are the outcomes?

For policy and practice, the Policy Lab will help to build capacity, highlight the adaptive pathways, and point towards a ‘*collective eco-urban intelligence*’, in 5 main sectors:

- Urban-rural / climate-environment planning, (mainly public sector);
- Development / real estate, (mainly corporate sector);
- Social economy & community enterprise, (mainly civic sector);
- Resource management & urban infrastructure, (various sectors).
- A global assessment of peri-urbanization and climate risk (inter-governmental sector)

For academic agendas, the Policy Lab will provide:

- Insight on peri-urban / climate change interactions
- Demonstration of ‘adaptive pathway’ development

- Mapping methods for situations of collective intelligence, and/or, 'cognitive systems of deeper complexity'
- A global resource for others to build on.

1.1.5 When does this happen?

The Policy Lab program stages include:

- **Jan 2021:** launch of Policy Lab and platform: includes partner profiles & baseline analysis:
- **Jan-March:** phase 1a: first interview program for the policy-lab database, for the 'causal model': we follow the '20-questions' template with spatial analysis.
- **April-June:** phase 1b: follow-up interviews on systemic & indirect problems, for the 'Synergistic Model', with scenario analysis.
- **July:** phase 2: international Pathways Workshop: Stockholm and/or online, depending on the Covid-19: (signed partners are travel funded, associate partners are strongly invited).
- **Aug-Sept:** phase 2 interviews continue on adaptive pathways:
- **Oct-Nov:** synthesis of adaptive pathways: final reports & dissemination materials: prepare for follow-up research.

NOTE - The COVID-19 situation has caused major delays to the program, which now runs to 30th November 2021.

1.1.6 What next?

The Peri-cene team will be in touch shortly to arrange an interview / small group discussion. This will generally follow the '20-questions' framework (see Annex), and start with the baseline picture and potential scenarios. As far as possible we will follow up recommended sources, maps, papers etc.

We are building up materials for each city-region on www.peri-cene.net/policy-lab - with online pages in progress:

- 'global page': results from the global mapping, together with any local maps.
- 'resource page': shortlist of policy reports & academic papers, to be checked with local knowledge.
- 'PCAT page': 20 question template on the peri-urban / climate risk / vulnerability.
- 'Pathways page': results of the synergistic Pathways Toolkit, and the pilot 'adaptive pathways'.

In April-June 2021 a further interview / small group discussion will then explore the wider systems and indirect problems: together with first ideas on potential synergistic / adaptive pathways. In July we aim to come together for the Policy Lab workshop in Stockholm, for collaborative thinking on the adaptive pathways, comparing between locations, peri-urban effects and climate effects. (if on-site meeting is not practical we will work online over several sessions). A final round of interviews will follow this up in August-September and prepare for the final reports.