The essential results of CDKN's research and learning.
Visit www.cdkn.org to explore the topic in depth.

CDKN ESSENTIALS

October 2017

Building on local knowledge for climate compatible development

Key findings

1. **Offer tailored training to help local government staff understand the links among the various aspects of climate compatible development.** Local government staff need to be able to identify the connections between their communities' challenges and climate change effects, and to translate this knowledge into strategies and actions.
2. **Use locally attuned approaches to raise community awareness, start a dialogue and capture local knowledge.** Connecting climate risks to local development and creating a knowledge pool provides a foundation for long-term climate compatible development. This usually requires cooperation between staff familiar with the local context and researchers with specialised inputs.
3. **Develop an approach to manage local knowledge.** It is vital to have a strategy for collecting, managing and sustaining local knowledge and ensuring its accessibility.
4. **Use local knowledge, information and data as a basis for addressing climate challenges and development.** Though often incomplete, local knowledge is a good starting place for climate compatible development. The community is more likely to 'own' the development process when it is based on their knowledge.
5. **Complement local expertise and experience with scientific information to establish the best possible knowledge base for planning climate compatible development.** Having a thorough understanding of local knowledge makes it easier to know what additional information and guidance is needed from local or external researchers.

All effective action starts with a sound knowledge base. When it comes to increasing resilience to climate change, often decision-makers seek scientific knowledge about climate change effects, while local knowledge is under-used or ignored. While local information and data may not be readily available, awareness raising and capacity-building can sensitise communities and enable them to contribute to their local development processes. Partners in the CDKN–ICLEI Subnational Learning Programme have explored a variety of approaches to identifying and leveraging local knowledge for informed decision-making and planning. Combining local knowledge with scientific data fills information gaps and yields the most effective knowledge base for local governments.

Communities have extensive knowledge about their surroundings, their history, and their current and future challenges, yet making the links between climate change and the local context is often difficult. Scattered information and limited awareness, as well as a lack of capacity, long-established sectoral thinking and problems with data collection, make it difficult to obtain an overall picture of available local knowledge and use it to forge ahead on the climate compatible development path.

Local governments rarely have enough high-quality information to inform their planning. Rather than letting a lack of information limit their planning, local governments are advised to gather **high-quality local information and knowledge**. Local knowledge about climate change impacts and climate compatible development options may not be immediately accessible, but can be captured, generated and analysed through a learning process that involves local government staff, knowledge brokers such as non-governmental organisations (NGOs) and the community.

In Madurai, India, local officials, NGOs and community members discuss flood risk and green infrastructure solutions during a 'water walk'.

Starting off with **building the capacity of local government staff** has proven to accelerate the uptake of climate information and action in communities. In Nepal, local and district government staff participated in training courses on the concept and implications of climate-smart agriculture to help integrate this little-known cultivation approach in local farming communities. In Jamaica, local government staff joined training sessions on disaster risk management and geospatial data, which also introduced the impacts of climate change. This helped them to better formulate their data needs and to seek cooperation with researchers producing the data, thus enabling the development of maps showing present and future flood risks for vulnerable communities on the island.

Informing the community and engaging with them helps to capture and compile their relevant knowledge to address climate challenges. This often scattered or seemingly irrelevant information can provide the basis for government strategies for climate compatible development. To successfully extract this knowledge, it is vital to **engage the community in a dialogue** through events, workshops and information campaigns. In Belize, reliable data and information were scattered and difficult to acquire. So the learning partners at the World Wide Fund for Nature used locally available knowledge and data from socioeconomic and ecological research, as well as from communities living in the cities and towns, to better understand how the interests of tourism can be reconciled with the protection of fragile coastal marine ecosystems. In Jamaica, the learning partners at the University of the West Indies joined forces with local institutions working on geographic information systems (GIS) to obtain information about the probability of flooding in the valleys.[1] This information was then used to discuss the risks with local communities and get their feedback. And in Sialkot, Pakistan, available technical data were used to assess technology options to ensure a reliable power supply for the city's small- and medium-scale manufacturing companies. The learning partners at Ecofys and PITCO then gathered additional data from private sector energy users to assess the potential of the chosen technology. By collecting, compiling and analysing additional data, and through discussions with the data providers, the learning partners validated the results and received feedback on the options with the greatest potential. The debate helped forge the way to installing photovoltaic panels on a large scale – a renewable energy option not previously on the radar of the local private sector.

Every project generates and uses local knowledge, yet this knowledge is rarely held beyond the project's end. Rather than reinventing the wheel, local government staff need to find ways of **managing local knowledge**. In Madurai, India, art and cultural events, as well as water walks initiated by the DHAN Foundation, help the community learn more about the links between the river and their city. The water walks also provide people with a platform to share with the local government their grievances, knowledge and solutions for reviving the river.[2] The community discusses and contributes to local planning in meetings with government staff. In Bogor, Indonesia, the intra-municipal Climate Change Task Force worked together to gather data for the development of a greenhouse gas inventory. The Task Force has taken on additional functions since, including the preparation of Bogor's climate resilience strategy.[3] And further east in Indonesia, in West Nusa Tenggara, CDKN's offer of technical support to local renewable energy producers helped them to capitalise on their already existing expertise and expand it. Now a loose coalition of willing actors has proposed to develop a clearing house at national level to (among other aims) develop local renewable energy producers' capacity to design bankable projects that meet the technical and financial standards of international funding agencies, and to harness subnational funds efficiently and effectively.[4]

In conclusion, our project experiences show that raising awareness of climate issues and engaging in dialogue with communities helps local governments to fill knowledge gaps, and generates additional insights and options, opening up new pathways for climate compatible development. **Complementing this local knowledge with scientific data and insights from local, regional, national and international research institutes** further consolidates and substantiates the development of local, climate compatible action.

Endnotes

1 Mandal, A., Smith, D., Wilson, M., Taylor, M., Nandi, A. and Otuokon, S. (2016) *Climate change and flood risk: Challenges for Jamaican towns and communities*. London: CDKN.

2 Madhan Kumar, A. and Vasimalai, M.P. (2016) *Future proofing of an Indian city: Lessons from Madurai*. London: CDKN.

3 Dedicatoria, R.M.M. and Pulungan, I. (2016) *Treading low-carbon pathways toward sustainability: The experience of Bogor city*. London: CDKN.

4 Indrawan, M., Muchtar, R., Cameron, L. and Arumdati, N. (2016) *Supporting the subnational development of renewable energy: Lessons from West Nusa Tenggara, Indonesia*. London: CDKN; see also related blogs and publications on www.cdkn.org/regions/indonesia

Authors:
Alice Reil (ICLEI) and Mairi Dupar (CDKN) with Aditi Paul and Mochamad Indrawan (CDKN) and Arpita Mandal (University of the West Indies).

Further reading: The case studies on Belize; Bogor and West Nusa Tenggara, Indonesia; Jamaica; Madurai, India; and Sialkot, Pakistan, which contributed to this CDKN Essential, may be found at cdkn.org/cdkn_series/inside-story/

Editing, design and layout: Green Ink (www.greenink.co.uk)