Briefing

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Policy pointers

Adaptation planning must find ways to allow the poorest and most vulnerable people to influence policy and programmes, since 'top-down' interventions generally fail them.

Transformational, or 'radical' approaches, developed from the bottom up, are needed to ensure adaptation efforts meet the scale of climate change challenges.

National policymakers should set targets for ecosystem health: vulnerable resource-dependent communities cannot adapt when ecosystems fail.

Measures of adaptation 'effectiveness' must assess whether vulnerable communities' needs are being met: the UNFCCC process should record and measure non-carbon benefits, such as strengthened rights.

Vulnerable communities: climate adaptation that works for the poor

Poor and marginalised communities are the most vulnerable to climate change. For many, the impacts have been exacerbated by inappropriate, top-down climate change or development interventions conceived and implemented without local input. These failed interventions leave a legacy of further problems for people and their governments. Experience shows that involving vulnerable communities when developing adaptation approaches is essential for success. Ensuring that interventions are scaled to match the size of the problem, and working with, rather than against, nature are also crucial. This briefing identifies recommendations for the upcoming global climate agreement (UNFCCC COP21), and for national and sub-national adaptation and other sustainable development planning processes.

Climate-vulnerable communities often live in, and rely on, harsh natural environments such as drylands and mountains. The world has about 900 million extremely poor rural people. But vulnerable communities are found in urban areas too, and not just in the poorest nations; an estimated one billion people live in informal settlements globally. Whether in rural or urban contexts, these communities are often best placed to understand local climate problems and identify solutions that governments and others can support. But their resilience has been reduced by weakened local institutions and social networks, degraded ecosystems, loss of traditional knowledge and inadequate infrastructure.

This briefing highlights how involving such communities in climate adaptation planning can benefit both environment and development. While its recommendations focus on climate change policy, they also broadly apply to other sustainable development processes. It is part of a series of IIED publications in the run up to the United Nations Framework Convention on Climate Change's (UNFCCC's) 21st Conference of Parties (COP21) and can be read alongside the briefing *Vulnerable communities: getting their needs and knowledge into climate policy.*[1]

Failures and challenges

'Business as usual' simply won't do if we are to achieve climate-resilient development for the world's most vulnerable people and "Leave no-one behind".[2] The IPCC recognises that "specific livelihood niches such as pastoralism, mountain farming systems and artisanal fisheries are vulnerable and at high risk of adverse impacts … partly owing to neglect, misunderstanding or inappropriate policy toward them on the part of governments."[3]

When vulnerable communities can be part of planning, they adopt a longer-term 'radical' approach

Power structures and practical challenges are both to blame. Policymakers may resist challenges on how pro-poor their policies are, and are sometimes dismissive of vulnerable communities. Some governments and government agencies are actively anti-poor, seeing them as 'backward' or opposition movements. Remoteness, weak community organisation, lack of confidence and fear often make it hard for vulnerable communities to demand a voice.

As a result, short-sighted and under-resourced top-down interventions, devised by external 'experts' have failed vulnerable communities (see Table 1).

Overcoming these failures presents three challenges. Vulnerable communities must be heard. The responses must be 'big enough', and they must work with, not against, nature.

Meeting the challenges

Giving voice to the vulnerable

Poor and vulnerable people are not always a distinctive, cohesive, or static group. Even talk of 'poor communities' sometimes obscures social and cultural differences, political and gender dynamics and power imbalances. And the most vulnerable rarely have a strong 'voice'. But supporting locally-conceived solutions will ensure they are appropriate and effective for the local context, and capitalise on the energy, skills, knowledge and enthusiasm of those at risk. And involving young people early on will reap long-term benefits. As discussed in our companion briefing,[1] six tactics can help get 'vulnerable voices' heard: supporting self-organisation; valuing local knowledge, sharing information, strengthening community-led participatory research, brokering dialogue and securing rights.

Two options for 'thinking big'

Climate change is an enormous challenge, and needs a commensurate response. There are two main options:

Be radical, not incremental. Incremental approaches tend to focus on current climate risks, downplaying the escalating longer term impacts of climate change, and risking locking poor and marginalised people into unsustainable livelihoods or locations.

Radical approaches address the root causes of climate risks both into the future and for the wider population. They aim to tackle the 'inter-generational inequity' of climate change that leaves future generations 'footing the bill' and invest in far-sighted, further-reaching adaptation that pre-emptively spots climate induced 'tipping

Table 1. When 'top-down' development goes wrong

Situation	'Top down' response	Unintended result
Drylands in general	Interventions have encouraged pastoral communities to adopt sedentary lifestyles and use modern farming methods to control their natural environments.	Dryland communities have directly rejected some schemes. Others have underperformed, and many have failed — some repeatedly after attempts to revive them.
Large irrigation projects in North Africa	Large-scale projects have used groundwater to irrigate marginal rangeland and desert.	Projects have provided modest short-medium term incomes but groundwater has become depleted, making these newly dependent livelihoods increasingly precarious.
Water infrastructure in Northern Kenya	Historically, water infrastructure has been designed without local involvement.	Infrastructure was unused. Even with new policies to increase devolved investment, national agencies struggle to coordinate services in remote areas.[4]
More frequent extreme weather in Central Himalayan communities	Development such as dams and roads has overlooked the increased risk from flooding and the area's ecological fragility.[5]	Flooding and erosion has worsened.
Taiwan facing increasingly severe typhoons	Indigenous mountain communities have been relocated to lower altitudes.	Less cohesive communities have lost cultural identity and traditional knowledge for coping with typhoons. Suicides and drug addiction have risen.[5]
Agricultural interventions in coastal Kenya and elsewhere	High-yielding monoculture crops and chemical input packages designed for stable environments were promoted.	Widespread loss of community seed banks, crop diversity and resilient landraces has reduced options for adaptation, especially for the poorest farmers in remote areas.[6]
Tacloban City communities (Philippines) recovering from typhoon Haiyan	Centrally-imposed 40-metre coastal 'no-build zones' lacked consultation. Zones did not consider multi-hazard maps or elevation.	Many residents rebuilt 'illegally'. Others faced prolonged displacement.[7] Some low elevation areas outside the zones were equally 'at risk'.
Water-rich uplands, dry lowlands	Extraction may be encouraged in 'upstream' areas.	Surface and groundwater flows to poorer lowland communities may dwindle. Saline intrusion may increase, deepening and accelerating people's vulnerability to water scarcity.[8,9]

points' threatening development. Radical approaches also aim for widespread and inclusive benefits. Such projects must build on local knowledge and adaptation strategies, as well as on science, or risk more failures, as described in the Table 1.

Experience to date suggests that, when vulnerable communities can be part of planning, they address current risks and also adopt a longer-term 'radical' approach (Box 1). But vulnerable communities rarely have access to the strategic planning processes and financial support needed to develop radical adaptation approaches alone.

Such transformative approaches are already evident in pockets of activity and innovation within cities, often in low- and middle-income countries. Organised groups of the urban poor, often part of international networks such as Slum/Shack Dwellers International or the Asian Coalition for Housing Rights, have formed partnerships with local authorities to identify and then address their needs, such as security of tenure and recognition as city dwellers. In the Orangi Pilot Project in Karachi, Pakistan, residents installed drainage systems which were then connected to municipal trunk infrastructure.

In Colombia's Slope Guardians Programme, participatory processes have reduced vulnerability in Manizales city by relocating settlements away from high-risk hill sides. High-risk areas have become neighbourhood eco-parks maintained by salaried women 'heads of households' (slope guardians) who also raise awareness on disaster risk reduction among vulnerable people. The programme nurtured understanding through workshops and provided infrastructure (health centres, schools) and construction subsidies for relocation sites.

Go mainstream. Scaling up successful community-based adaptation (CBA) initiatives, designed by or with vulnerable communities, can work. NGOs have supported much 'grassroots' initiatives, but 'mainstreaming' CBA (so it becomes the norm in official policy and planning) requires other champions, particularly governments. Mainstreaming adaptation into local, regional and national government structures and processes can be more sustainable, effective and efficient than designing and managing new top-down policies. Nepal provides an excellent practical example (see Box 2).

Embedding climate change responses in national planning processes can protect them when other stakeholders see local adaptation as a low priority, and can help avoid conflict with existing policies. 'Co-produced' projects, such as where urban grassroots groups have worked with officials to improve sanitation, can reduce climate risks while lowering costs. But mainstreaming remains tricky. Government structures are notoriously slow in responding to local needs, especially those of the most vulnerable, and examples such as Nepal's *Local Adaptation Plan of Action* approach remain unusual.

Box 1. The Andean Potato Park, Cusco, Peru

Peru's Potato Park, near Pisaq, is owned and managed by an association of six Quechua communities. The International Potato Centre's gene bank has repatriated 410 potato varieties collected in the 1960s and the park's farmers are testing these, with scientists, at different elevations. Potato diversity in the park has tripled in five years — to about 650 varieties. Planting diverse varieties is an ancestral strategy against crop failure, and is increasingly important as climate change shrinks glaciers, rainfall becomes more erratic and rising temperatures favour pests and contract planting zones.

Although originally set up to conserve agrobiodiversity, the Potato Park has proved vital for climate adaptation. Pooling land lets farmers experiment with varieties in different micro-climates and spread risk. Collective action, ecosystem management, and community-led research has empowered communities to pro-actively engage with policymakers. The Park provides a safety net for particularly vulnerable people such as widows and orphans. The farmers' achievements are largely due to a highly participatory action-research methodology supported by Asociacion ANDES.[10] The next step is to strengthen social networks beyond the park to share seed and knowledge across large distances and between altitudes. This vision's radical ambition and scale is supported by the communities and builds on customary laws.

Box 2. 'Mainstreaming' climate adaptation in Nepal

In 2011, the Nepalese government adopted Local Adaptation Plans of Action as the official frameworks for climate adaptation planning. The government had recognised a gap between national planning (in Nepal's National Adaptation Programme of Action — NAPA) and local settings, where the country's rural poor bear the brunt of climate change impacts.

Nepal's long history of community forestry gave a precedent for the work that followed. Policies such as the Decentralisation Act of 1982 provided a supportive legislative framework in which to cluster 'bottom-up' natural resource management and development activities — in other words, in which to make local adaptation actions a 'mainstream' part of national planning and through which to channel funding for adaptation to the local level (as also required in Nepal's NAPA).

The Ministry of Environment and the Ministry of Local Development facilitated seven pilot projects to inform the planning process and the Nepalese government developed a seven-step framework to integrate local adaptation into national adaptation planning. This framework uses a number of tools, including Participatory Rural Assessments, to ensure that local voices are heard, valued and genuinely influence decision-making.

The Federation of Community Forestry Users, Nepal (FECOFUN) also worked to ensure local communities were integrated into planning processes. It helped communities develop plans of action and put pressure on local and district governments to recognise and support these. Using local languages and techniques that ensure really widespread participation were central to ensuring vulnerable communities had their voices heard.

Work with, not against, nature

Poor people's reliance on natural resources makes them vulnerable to climate change, but also provides adaptation strategies. For example, water harvesting and storage is common where communities depend on rainfall for their drinking water. People commonly collect more wild foods when crops fail. Restoring coastal mangroves can protect against storm surges (but only if given space to move as sea levels rise), and restoring forests on steep slopes can lessen rainfall-triggered landslides. Farming communities in mountain and semi-arid regions increasingly rely on diverse traditional crops to reduce risk (see Box 1), yet protection for these — both against loss and misappropriation — is often inadequate.

Disregarding natural systems, and the stresses on them, is often counterproductive for the most vulnerable because it lessens their ability to provide the 'ecosystem services' needed for adaptation. For example, where extraction is lowering groundwater levels inland, coastal areas suffer more saline intrusion and lose productive land, exacerbating the challenges of sea level rise. 'Ecosystem-based approaches to Adaptation' are needed, and are most effective when planning is community-led, prioritising local and traditional knowledge and local livelihoods, while also thinking at the ecosystem scale. This can be challenging when ecosystems (watersheds, for example) do not correspond with social and political boundaries. However, national policymakers should set targets for ecosystem health or adopt national accounts that incorporate natural resources as well as the more standard measures of capital and growth.[4]

Other examples of working with nature might include: ensuring groundwater recharge and storage during rainy seasons replenishes depleted aquifers; conserving, adapting and restoring natural filtration that cleans wastewater; designing buildings to use natural heating and cooling systems; working with microclimates such as shade to maintain soil humidity; and using natural energy (such as solar) for power.

Towards a global agreement

Climate change will severely compromise development agendas at local to international scales unless the most vulnerable communities can be supported to develop effective ways to adapt. Of the world's 900 million rural poor, about a third[11] are indigenous peoples, who are among the most politically and economically marginalised groups. And according to the UN, nearly one billion people alive today live in informal urban settlements, with that number likely to multiply threefold by 2050.[12] These communities, whether in less developed or richer countries, must be heard in global climate negotiations.[13]

So it is crucial that the UNFCCC process assesses whether vulnerable communities' needs are being met and develops special measures to ensure that they are. Social, cultural and 'non-carbon' measures of success (for example measures of human rights, security of land tenure and water resource conditions) are needed in addition to economic parameters.

Any new global agreement should take into account not only the urgent and immediate needs of developing *nations,* but also those of the most vulnerable *communities:* in the Least Developed Countries and also in low- and middle-income countries. Supporting these communities should be central to any global goal for adaptation, and Parties should be required to ensure vulnerable communities actively participate in planning and implementing adaptation, at international, national and local levels.

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Knowledge Products

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Notes

[1] Reid, H, *et al.* (2015) Vulnerable communities: strategies for raising voices. Vulnerable communities: getting their needs and knowledge into climate policy. IIED, London. http://pubs.iied.org/17328IIED / [2] UN (2013) A new global partnership: eradicate poverty and transform economies through sustainable development. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. UN, New York. / [3] IPCC (2014) Fifth Assessment Report. Working Group II. Impacts, Adaptation and Vulnerability. Cambridge University Press, Cambridge. / [4] King-Okumu, C (2015) Inclusive green growth in Kenya: opportunities in the dryland water and rangeland sectors. IIED, London. http://pubs.iied.org/10137IIED.html / [5] Swiderska, K, and Argumedo, A, (2014) Mountain communities workshop on climate change and biocultural heritage. Bhutan May 2014. IIED, London. http://pubs.iied.org/14635IIED.html / [6] Ongugo, P *et al.* (2014) Smallholder Innovation for Resilience (SIFOR): Qualitative baseline study, Mijikenda community, Kenya Coast. http://pubs.iied.org/G03830.html / [7] Basilio, B (2014) Everything you wanted to ask about Tacloban's 'no build zone' but are too afraid to ask. Recharge Tacloban http://tinyurl.com/phswcsr / 8 Ngigi *et al.* (2008) Hydrological impacts of flood storage and management on irrigation water abstraction in upper Ewaso Ng'iro River Basin, Kenya. Water Resources Management 22 (12) http://tinyurl.com/nfe3ev5 / [9] Mutiga, J K *et al.* (2010) Water allocation as a planning tool to minimise water use conflicts in the Upper Ewaso Ng'iro North Basin, Kenya. Water Resources Management 24(14) http://tinyurl.com/psuygjz / [10] Asociacion ANDES supports participatory action research processes, co-designed with community technicians. This support has built farmers' capacity for data collection, analysis etc using traditional concepts and methods as well as modern participatory techniques. ANDES does not facilitate the research itself. This has built strong 'ownership' amongst the Potato Park communities, strong collective local institutions, and has revitalised traditional knowledge systems. This in turn means communities can enter equitable partnerships with scientists, where their traditional knowledge is respected and valued, and complemented with science (rather than replaced by it). / [11] UNPFII (2010) State of the world's Indigenous People (chapter III). Secretariat of the Permanent Forum on Indigenous Issues. UN Department of Economic and Social Affairs. http://tinyurl.com/qbv7l36 / [12] See: http://ww2.unhabitat.org/about/challenge.asp [accessed 25 June 2015] / [13] Reid, H, (October 2015) Why listen to and support the most vulnerable? IIED, London. www.iied.org/why-listen-support-most-vulnerable.