

Briefing

Water, climate change

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Policy pointers

Resource users can drive participatory, credible and scientifically based strategic planning for water, energy and climate change in arid and semi-arid areas.

International partners, national governments and devolving local governments in Kenya can invest in and build the capacity of local associations and other institutions to engage with strategic planning.

County technical officers can work with local associations to identify the most appropriate approaches to both deliver and sustain inclusive access to water and energy in the local context.

Local associations that have sufficient capacities can identify, implement and maintain clean, affordable and user-friendly solutions to manage water, energy and climate change.

Cracking the climate-water-energy challenge in the drylands of Kenya

This policy briefing summarises priorities for devolved strategic planning for water, energy and climate change in arid environments, identified through local-level consultations in Isiolo County, Kenya. It demonstrates how devolved county governments in Kenya can fulfil their responsibility to enable sub-county and ward level planning around water, energy and climate change. This can play an important role in supporting the implementation of the Sustainable Development Goals (SDGs) and nationally determined climate change commitments. It also has relevance for authorities in other water-stressed areas, particularly in the context of the SDGs.

Engaging affected communities ensures that planning responds to the needs of communities and the challenges and opportunities of the local context. This briefing highlights priorities for strategic planning for water, energy and climate change in arid environments, identified through a local level consultation process. It is intended to inform national planning debates in Kenya, and in other countries where arid regions have not yet realised their full potential to contribute to prosperity, security and well-being.

The Kenyan County Governments Act (2012, 104 [3])¹ requires county governments to designate departments, sub-counties and wards as planning authorities in order to plan how best to protect and develop their natural resources. These planning structures have not yet been

established in Kenya's largest and driest catchment, the Ewaso Ng'iro North Catchment Area (ENNCA). But at the centre of the catchment, Isiolo county government officers have recognised the need to consult the diverse communities in this vast rural area.

The County Executive for Water, Energy and Climate Change approached IIED and requested technical support for a Sector Strategic Plan for Water, Energy and Climate Change. IIED and the Resource Advocacy Programme (RAP), a local community trust, outlined a devolved scientifically-based planning process involving county- and ward-level adaptation planning committees (CAPCs and WAPCs). The aim was to ensure that the prioritisation of planning issues was driven from the local level.²

The process brought together county officers and representatives from more than 100 local natural resource management associations

The process brought together county officers and representatives from more than 100 local natural resource management associations³ to discuss priority challenges and to identify ways forward. Three sub-county-level consultations included representatives of the Isiolo Water and Sewerage Company, as well as more than 100 water management committees, resource user groups, women's groups, community leaders and religious associations, mobilised

through six ward adaptation planning committees. These ensured that people unable to travel to the town in Isiolo from which the county government works (such as those with child care responsibilities, or older people) would be able to participate. Technical support was provided by the officers of the Kenyan Water Resources Management Authority (WRMA), Kenya Meteorological Department (KMD) and various research institutes through a series of technical meetings.

The climate, water and energy challenge in Isiolo County

In dryland areas such as Isiolo County, water availability and quality can be unpredictable. Access to energy is also a challenge with 85 per cent of households relying on firewood as their main source of power.⁴ Most trading centres, schools and health centres do not have access to electricity. The Sustainable Development Goals (SDGs) include goals to improve access to both water (SDG6) and energy (SDG7), and call for the participation of all stakeholders to ensure effective water and sanitation management.⁵

Water resources in Isiolo County are shared with other users upstream and downstream in the surrounding catchment, which is home to around four million people.^{6,7} Just under two thirds of this population live in the water-stressed downstream counties of Isiolo, Marsabit, Wajir, Garissa and Mandera. Water and grazing resources in the catchment are also shared across boundaries with the populations of neighbouring areas of Ethiopia and Somalia.

Following the rains in the highest parts of the catchment, water flows down to the Ewaso Ng'iro riverbed at the centre of Isiolo County, making the population in the low-lying areas vulnerable to floods. Water-users, including humans and livestock, from the surrounding counties and countries also migrate towards the

riverine areas at the centre of Isiolo, particularly during dry seasons and droughts.

This extra demand can put pressure on resources. Each year, in water-stressed areas of Isiolo County, vulnerable households have to survive on as little as eight litres of water per person, per day, according to the National Drought Management Authority.^{8,9} The Isiolo Water and Sewerage Company provides water services for around 20 per cent of the population of Isiolo County, but outside of towns, the population depends on boreholes, shallow wells, pans, sand-dams and water taken directly from the river, with supplies managed by resource user associations.

The costs to water users in all of the supply systems are mainly determined by the energy costs for pumping and transporting the water. While investment in solar-powered water pumping systems has reduced costs in some areas, energy remains a key factor in improving access to water.

The importance of strategic planning in Isiolo County

Strategic planning is particularly valuable in dryland contexts, not least to address the threats and opportunities created by the annual cycle of droughts and floods and to coordinate the efforts of local, national and international actors.

Through its work with partners in dryland contexts, IIED has identified three key elements for strategic planning:

- 1. Scientific tools, databases, systems and capacities** to observe and monitor climate effects, extractions and flows through of water and renewable energy
- 2. Clean, affordable and user friendly solutions** to conserve water and energy supplies and redistribute them where needed within the catchment, particularly during droughts and floods
- 3. Locally accessible and inclusive institutions** (both formally established and customary bodies)¹⁰ to guide the process, and maintain the necessary information systems and infrastructure.

All three elements are interdependent and of equal importance, each one being reliant on the others. These three elements would be needed to enable any strategic plan to succeed in Kenya's arid and semi-arid lands (ASALs).

The planners and resource users in Isiolo were able to review their collective experiences and identify a series of priority actions related to



Merti town, Northern Isiolo, Kenya

Credit: Caroline King-Okumu/IIED

these three elements. Although these priority actions are specific to the context of Isiolo, they may well also be of broader interest in other parts of the ENNCA and surrounding counties.

1. Scientific tools, databases, systems and capacities

For downstream ASAL counties, improving the current incomplete assessments of the extent, value and development potential of water and energy uses is critical.^{11,12} Without these assessments, it is impossible to make an economic case for national level action to prevent continuing over-extraction upstream.

The consultation identified the following emerging priorities for strategic action:

- **Improve local observation networks** for climate, ground and surface water levels and quality. These must be connected to a centralised county database and to educational and capacity building institutions, as well as to national agencies responsible for water resource management, drought management and meteorology
- **Improve forecasting and 'ex-post' analysis** (analysing what is expected to happen) of drought and flood events and decision-support for necessary actions — eg diversion of floodwaters, water harvesting, etc

- **Improve databases** on water resource extraction and economic uses of energy and water (feeding into the national report on SDG 6.4 and SDG7).

2. Clean, affordable energy and water solutions to deliver and conserve water

Water and energy users and technicians know which solutions are practical but managing and maintaining them still often proves difficult.

The consultation identified the following emerging priorities for strategic actions:

- Increase investment in human capacities, reduce operating costs to individuals and public authorities by converting to low-cost and renewable energy sources, and avoid breakdowns and high-cost emergency solutions
- Continue to increase the extent, duration, quality and affordability of access to water and energy for household and institutional uses, including by settled, mobile and transient households in consultation with the users
- Plan for and invest in the volumes of water and energy needed for present and future commercial and industrial uses. Assess their value and identify opportunities for cost-recovery.

3. Inclusive local institutions to plan, implement and adapt energy and water systems

Where public institutions are not considered to be sufficiently transparent and inclusive in their delivery of services, they may be challenged, or undermined.

The consultation identified the following priorities for strategic action:

- Improve the transparency and accountability of water management committees through public vetting systems, investment in institutional processes and staff training
- Improve coordination at the county level between different agencies and other institutions involved in managing climate, drought and water resources
- Improve connections and strengthen existing local associations and link upward through ward, sub-county, county, catchment, national and transboundary level institutions.

Beyond Isiolo

Devolved planning — driven by local level consultation and participatory scientific information systems — has never been tried by a county government in the Kenyan ASALs before. Many people did not believe that it would be possible. But the county government in Isiolo has shown that it can be done and that it was not very difficult for them. Their experience suggests that other neighbouring county governments could convene similar sub-county and ward level planning forums and lead their own participatory planning processes.

Many of the challenges for strategic water, energy and climate action planning faced in Isiolo County

are also experienced by the surrounding counties. And many of these are transboundary challenges. The generic insights gained in Isiolo (and even some of the practical ones) may therefore also be relevant to these neighbouring counties and they may be able to draw on them for their plans for 2017 — at both the county level and the catchment level.

The strategic planning process could be extended to the rest of the catchment, starting through the CAPCs and WAPCs that have recently been established in the neighbouring counties of Wajir and Garissa. There is also scope for a transboundary resource management dialogue with resource users from the neighbouring counties of Marsabit and Mandera where there are not yet any CAPCs or WAPCs. This should be accompanied by a corresponding expansion of necessary technical support and capacity building.

The need to build the capacities of the current cohort of county officers to deliver and sustain water and energy under a changing climate is well-recognised. There is also an opportunity to use the lessons already learned in Isiolo to train a new cadre of water, energy and climate technicians and managers for the drylands.^{13,14}

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Knowledge Products

The International Institute for Environment and Development (IIED) promotes sustainable development, linking local priorities to global challenges.

Isiolo County Government for a secure, just and prosperous County, where people achieve their full potential and enjoy a high quality of life.

National Drought Management Authority, Kenya (NDMA) is a government agency mandated to ensure that drought does not result in emergencies.

Water Resource Management Authority (WRMA) is a state corporation under the Ministry of Environment, Water and Natural Resources.

Ada Consortium enables communities to prioritise investments in public goods that build their resilience to climate change.

Merti Integrated Development Program (Mid-P) is an NGO based in Merti, Isiolo County, Kenya.

Resource Advocacy Program (RAP) is a local community trust based in Garba Tula, Isiolo County, Kenya.

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Notes

¹ GoK (2015) County Governments Act. NO. 17 OF 2012 (pp. 79). Nairobi, Kenya: National Council 622 for Law Reporting with the Authority of the Attorney-General. www.kenyalaw.org / ² GoK (2016) Strategic Planning for Water, Energy and Climate Change Objectives, Isiolo County (2017-21) (pp. 2). County Government of Isiolo and Ada Consortium, Isiolo, Kenya. www.adaconsortium.org/images/publications/Strategic_Planning-Water_Energy_&_Climate_Change.pdf / ³ For a full list of organisations involved, see the Isiolo County reports at: www.adaconsortium.org / ⁴ GoK (2013) Isiolo County Integrated Development Plan 2013-2017 (pp. 221). Isiolo County Government. / ⁵ Sustainable Development Knowledge Platform. Sustainable Development Goals. <https://sustainabledevelopment.un.org/sdgs> / ⁶ WRMA (2013) Part G: Ewaso Ng'iro North Catchment Area National Water Master Plan 2030 (pp. 112). Nairobi, Kenya. / ⁷ WRMA (2014) Ewaso Ng'iro North Catchment Area (ENNCA) Catchment Management Strategy 2015-2022 (pp. 120). Water Resources Management Authority, Republic of Kenya, Nairobi, Kenya. / ⁸ GoK (2015a) The 2015 Long Rains Season Assessment Executive Summary (pp. 11). Collaborative report of the Kenya Food Security Steering Group (KFSSG), Nairobi, Kenya. / ⁹ GoK (2016a) The 2016 Long Rains Food Security Assessment Report (pp. 22). A joint report by the Kenya Food Security Steering Group (KFSSG) and the Isiolo County Steering Group. NDMA, Nairobi, Kenya. / ¹⁰ Tari, D and Pattison, J (2014) Evolving Customary Institutions in the Drylands: An opportunity for devolved natural resource governance in Kenya? IIED, London. / ¹¹ GoK (2015b) Resource Atlas of Isiolo County, Kenya: Community-based mapping of pastoralist resources and their attributes. IIED, London and ADA, Isiolo County, Kenya. / ¹² WRMA (2013a) Final Report — Surface and Groundwater Assessment and Planning in Respect to the Isiolo County Mid Term ASAL Program Study, Volume 1, Main Report Report No. 47/2013 (pp. 462). Earth Water Ltd. / ¹³ King-Okumu, C (2015) Inclusive green growth in Kenya: Opportunities in the dryland water and rangeland sectors. IIED, London. / ¹⁴ See www.iied.org/four-challenges-powering-local-economies