Indigenous knowledge is often absent from sustainable development debates, partly because those who possess it are unable to assert their needs and rights in negotiation and decision-making processes. ERMIS Africa, ESAPP, and CDE helped to provide such a platform by mapping the ancestral territories and recording the history of the Ogiek community in the Eastern Mau forest of Kenya.

Sustainable development challenge

Most land use planning and decision-making processes in Eastern Africa are steered by actors at multiple scales and levels, often with little regard for indigenous knowledge. Indigenous knowledge is based on different sets of values and linguistic typologies, but is often absent from sustainable development debates (Corbett et al. 2006). This is partly because it is not well documented, but also because those who possess it are rarely in a position to participate or assert their needs and rights in decision-making processes. Lacking the necessary foundations, networks, and platforms to make their voices heard, the concerned communities become further marginalized.

The Ogiek people are among the last remaining forest-based hunter-gatherer communities in Kenya and northern Tanzania. Ogiek communities are struggling to safeguard their ancestral territories, natural resources, livelihoods, and political rights. Since 1997, the Ogiek have been engaged in several litigation cases against the Kenyan Government, to oppose their eviction from the Eastern Mau forest and the resettlement into this area of farmers from other parts of the country. However, the lack of clear and up-to-date spatial data and information regarding their territorial claims has made it difficult for the Ogiek to assert their rights during these litigation processes.

ESAPP’s response

Information is a key resource for equitable and sustainable development and should be available and accessible to all. This is particularly important in the context of enforcement of resource-relevant policies, which can have far-reaching consequences for resource users (Ehrensperger et al. 2011). Indigenous knowledge should be acknowledged in decision-making processes, to make local realities visible and enable local communities to assert their claims. As this knowledge is often tacit and therefore difficult to transfer to another person in writing, innovative tools must be found to facilitate the communication process.

The Ogiek Peoples Ancestral Territories (OPAT) project aimed to map the ancestral territories and record the histories of 25 Ogiek clans in the Eastern Mau forest of Kenya, to help them negotiate their ancestry claims with the Kenyan Government. Interactions with community elders over several months were combined with a Geographic Information System (GIS) using participatory learning approaches; the resulting maps and narratives were bound together as an atlas (Muchemi and Ehrensperger 2011). Published after community-wide consultations, the OPAT Atlas is an instrument for the Ogiek community to make its territorial claims visible during litigation processes with the national government and during negotiation processes with other stakeholders and development partners.

Main messages

- Participatory systematic mapping and comprehensive documentation of indigenous knowledge and assets promote all-inclusive negotiation processes on resource allocation and access equity.
- Such an approach further helps to secure indigenous people’s participation in land use planning and has the potential to help minimize conflicts and enhance sustainability in the concerned communities and beyond.
- Appropriate participatory tools combined with approaches or methods that effectively integrate modern innovative techniques with local knowledge can enable even the most marginalized community to make useful and relevant contributions to complex decision-making and planning processes. This potential remains largely untapped to date.

The Ogiek Peoples Ancestral Territories Atlas was printed in A3 format in Kenya and made available to Ogiek communities and to a wider public. A digital version is available on the ISSUU digital publishing platform (http://issuu.com/; enter “Ogiek” in the search field to find the atlas).
The project story

In 2005, elders of several Ogiek clans of the Eastern Mau forest approached ERMIS Africa – a non-governmental organization based in Nakuru, Kenya – for support in mapping their ancestral territories. With the help of ESAPP and the Centre for Development and Environment (CDE), ERMIS Africa launched a project to map the ancestral territories and record the history, family trees, and cultural practices of 25 Ogiek clans in the Eastern Mau forest.

First, a pilot mapping event was organized with one Ogiek clan in the location of Nes-suit. Community representatives used enlarged and mosaicked aerial photographs and Global Positioning System (GPS) receivers to delineate their clan territory. The drawings done by the community were then processed and mapped in a Geographic Information System (GIS). Experiences from the pilot event were used to design the workflows for the other participatory mapping events. The workflows had to take into account aspects such as the preprocessing of aerial photographs, selection of mapping software, and identification and categorization of information to be mapped and included in the narratives. But the part that needed the most careful preparation was community mobilization, especially because of the political dimension of the project and the stakes of the participating communities.

The subsequent participatory mapping events were prepared, implemented, and moderated by ERMIS Africa over several years; in several cases, more than one attempt was necessary. Mapping teams were formed, each comprising representatives of the clan whose territory was to be mapped as well as its neighbouring clans. The Ogiek communities grew increasingly interested and demanding as to the information to be included in the atlas, making it necessary to gradually expand its scope. A complete second round of visits had to be organized in order for each ancestral territory map to be verified and signed by the elders of the clans concerned.

Production, editing, and layout of the atlas were done at CDE. A professional cartographer took care of the map design and verification. Graphical representations of Ogiek clan family trees were added to the clans’ narratives. Finally, the atlas was printed in Kenya in A3 format and later also made available on the Internet (http://issuu.com/cde.unibe.ch/docs/fullversion_atlas_opat_2011_cde).
Innovation and relevance

The participatory GIS approach used to create the OPAT Atlas combines advanced spatial technologies such as aerial photography, GPS survey, and GIS with an intensive process of community involvement as well as patient ethnographic recording and inventorying of clan narratives. This combination of approaches is innovative and enabled the project team to achieve a unique and highly valuable output.

The maps included in the atlas provide an accurate delineation of ancestral territories, certified by the elders of each clan and its respective neighbouring clans. As such, the atlas goes beyond sketch mapping, which is usually carried out by development practitioners with local communities, but offers less spatial precision and is hence less authoritative. The atlas is of high local relevance as it contributes to the self-determination of the Ogiek by visualizing their ancestral territories and the associated territorial claims, and by telling the stories of their settlement in this region, their cultural heritage, and their livelihood strategies. The use of enlarged aerial photographs and participatory three-dimensional modelling (Rambaldi et al. 2007) improved participation tremendously: spatial features such as houses, rivers, and footpaths were easily recognizable on the photographs, allowing literate and illiterate community members to participate equally in the process (Gabathuler et al. 2012).

The selected approach brought together tacit indigenous knowledge and high-tech information technology within one product, making indigenous realities and claims more visible and explicit. Such tacit knowledge and local realities are found all over Eastern Africa but are rarely considered in negotiations over the enforcement of resource-relevant policies. The experience gained in this project is therefore of high importance at a regional scale and could be used to provide a better basis for negotiation for a number of marginalized communities in the region.
**References and further reading**


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**Highlight profile**

This highlight is based on the achievements of 2 ESAPP priority action projects.


**Total funds contributed by ESAPP:** CHF 57,000

**Implemented by:** ERMIS Africa, Nairobi, Kenya

**With support from:** Centre for Development and Environment (CDE), University of Bern, Switzerland; Centre for Training and Integrated Research in ASAL Development (CETRAD), Nanyuki, Kenya

**Main beneficiaries:** Ogiek communities on the Eastern Mau Escarpment, Nakuru County, Kenya

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**What is ESAPP?**

The Eastern and Southern Africa Partnership Programme (ESAPP) is a research implementation programme funded by the Swiss Agency for Development and Cooperation (SDC), coordinated by the Centre for Development and Environment (CDE) of the University of Bern, Switzerland, and implemented jointly by CDE and a network of partner institutions in Eastern and Southern Africa. Launched in 1999 and completed in 2015, ESAPP implemented over 300 priority action projects in the programme region, which included Eritrea, Ethiopia, Kenya, Tanzania, Mozambique, and Madagascar.

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**What are ESAPP Highlights?**

ESAPP Highlights are a series of 24 project descriptions providing insights into ESAPP’s research and implementation partnerships. Each Highlight describes a succession of demand-driven priority action projects addressing local and regional sustainability issues. The 24 Highlights are collected in a publication that includes additional background information on ESAPP (see citation above). The individual Highlights and the entire publication are also available for download on CDE’s website: www.cde.unibe.ch (keyword search: “ESAPP”).