

A socio-economic atlas for informed decision-making

Kenya is in transition: urban and rural areas are transforming, and its 47 counties are taking over development-related functions, as envisaged under Kenya's 2010 constitution. This combination of rapid development and devolution of power was an ideal time to launch the initiative that resulted in the *Socio-Economic Atlas of Kenya*, a high-resolution information base.

Sustainable development challenge

Many countries of the global South are experiencing considerable economic growth alongside social and political transformation. This rapid development is reflected in manifold changes in all subnational contexts, from urban economic hubs to marginal rural areas. Dealing with these changes in such diverse settings – without jeopardizing options for sustainable development – requires sound contextual information for informed decision-making. While more and more spatially explicit information is freely accessible on the Web, this geographic information is mainly place-based and not comparatively space-based. More importantly, crucial socio-economic information is missing for concrete local contexts.

Kenya is one country whose diversity of transitions requires such information. Its economic centres are rapidly growing; the economies in rural highland settings as well as the arid and semi-arid lands are transforming and diversifying. In addition, Kenya's new constitution – adopted in 2010 – envisages the devolution of some power and governance from the national level to 47 newly founded counties. These counties are currently taking over important functions relevant to development (e.g. spatial planning and environmental management). However, basic data for informed decision-making in these new political entities are missing.

ESAPP's response

Sustainable development is a normative concept that aims at harmonizing multiple goals in the economic, sociocultural, and ecological dimensions of development. How such development looks and how these dimensions are linked can vary considerably between different geographic and sociopolitical contexts. Defining targeted action for sustainable development requires participatory discussions based on contextualized information and knowledge that addresses relevant aspects of all three dimensions. Ensuring the availability of contextual information – combined with sociopolitical debate and social learning – was a cornerstone of ESAPP's approach, especially in contexts undergoing rapid transition.

Kenya's rapid development, together with the devolution of power, has opened a window of opportunity to debate and reorient approaches to more sustainable development in the country. This triggered an initiative by the Centre for Training and Integrated Research in ASAL Development (CETRAD), the Centre for Development and Environment (CDE), and the Kenya National Bureau of Statistics (KNBS) to visually display high-resolution information on a broad range of topics relevant to sustainable development. The resulting Socio-Economic Atlas of Kenya was supported by ESAPP, the Volkswagen Foundation, the University of Bern, and the Swiss National Centre of Competence in Research (NCCR) North-South.



Main messages

- Many countries of the global South are in a process of fast economic and sociopolitical transformation. This leads to a range of problems and options for sustainable development at the subnational level. Integrated contextual information is required to address these issues adequately, and to counterbalance decisions that are mainly power-driven.
- Even if such information is available, it has little relevance as long as it is not built into processes of sociopolitical negotiation and social learning. The format in which information is provided is decisive in making it debatable at different levels and in different contexts.
- Building contextual information systems and integrating them into development-oriented debates in emerging knowledge societies requires a long-term perspective and a socially well-rooted approach. Long-term research and development partnerships are important.



The *Socio-Economic Atlas of Kenya* presents and interprets relevant development indicators for all of the country's 47 counties and 7,149 sub-locations. (Source: Wiesmann et al. 2014)

- 1 Introduction & Background
9 maps
- 2 Population Distribution & Dynamics
14 maps
- 3 Water, Sanitation & Energy
8 maps
- 4 Household Assets & Communication
8 maps
- 5 Poverty & Welfare
7 maps
- 6 Education
9 maps
- 7 Economic Activities
8 maps

The project story

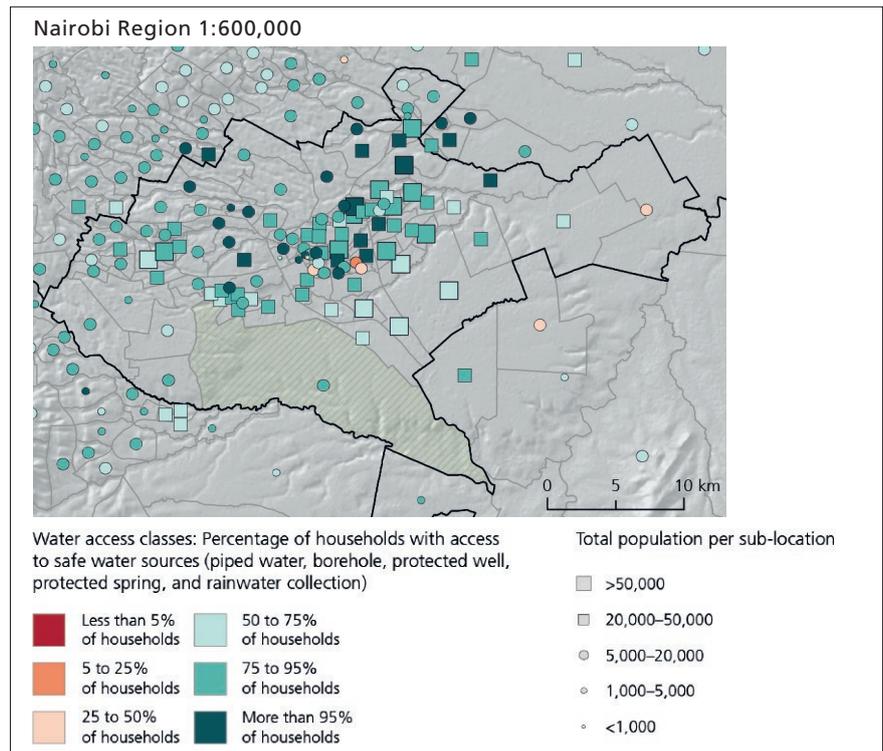
The *Socio-Economic Atlas of Kenya* is a nationwide high-resolution information base for negotiating and promoting sustainable development from the local to the national levels, with particular focus on the newly formed counties. The initiative to compile it was only possible thanks to long-term collaborative efforts and contextual knowledge within the ESAPP network. Access to national census and Kenyan household survey data at KNBS, as well as the comprehensive geographic information base at CETRAD, were enabled by the trust stemming from long-term research partnerships.

In a lengthy process, an inter- and transdisciplinary team negotiated and defined the themes and variables that could be derived from the above-mentioned databases and would provide important insights to trigger sustainable development efforts. In this way, 63 topics were identified and subsequently analysed in detail, classified to represent the variation within the country, mapped at sub-locational and county levels, interpreted in view of trends and required approaches, and finally grouped into seven themes that form the chapters of the atlas (see left). Much effort was also put into developing graphic representations of the information in maps and graphs that are adequate to the different political levels of sustainability negotiations. The final product was launched by the Kenyan Government and received broad media attention; a series of workshops were held for all 47 counties on how to use it for concrete planning and decision-making.

The results brought a wide range of new insights into the diversity and dynamics of aspects relevant to sustainable development in Kenya. To cite just a few examples: (1) demographic transition is variously advanced, meaning that population growth rates and age pyramid distortions vary greatly throughout the nation; (2) the mix of ethnic communities and religions increases along rural–urban gradients and is highest in the dynamic economic centres; (3) the dependency of households on solid biofuels is still very high, and access to safe water and improved sanitation follows clear centre–periphery gradients; (4) as a result of economic transformation, poverty and inequality show newly emerging patterns (see Highlight 8); (5) in high-potential as well as low-potential contexts, rural transformation is much faster than generally assumed, and the role of the informal sector is becoming paramount; (6) with the exception of some marginal areas, Kenya shows comparatively high education levels, and enrolment rates point to an evolving modern knowledge society.

Top: The atlas contains 63 maps organized into seven chapters. The maps in Chapter 1 present background information that was derived from the database at CETRAD. The maps in Chapters 2 to 7 are based on the 38 million records of the 2009 Kenya Population and Housing Census carried out by KNBS. Chapter 5 on welfare and poverty combines census data with data from the Kenya Integrated Household Budget Surveys by KNBS. (Source: Wiesmann et al. 2014)

Bottom: One of the specificities of the atlas consists in its use of symbols representing the population size of each sub-location (see legend). Unlike conventional area shading, this makes it possible to show simultaneously where the largest numbers of people live and which share of these people has access to safe water, for example. This map shows the situation in the city of Nairobi. The type of display used makes it easy to identify those parts of Nairobi where informal settlements prevail. (Source: Wiesmann et al. 2014)



Innovation and relevance

The atlas and its database are innovative because of their: (1) *High resolution*: The information is disaggregated to the 7,149 sub-locations of Kenya. This makes it possible to discuss the findings at the level of individual communities, and enables socio-economic indicators to be linked to remotely sensed land cover, land use, and ecological information. (2) *Comparative display*: Traditional area shades were replaced by symbols that accurately represent population sizes, enabling comparative display and discussion of very different contexts such as urban neighbourhoods and pastoralist communities. (3) *Data integration*: The data of all 63 topics uses sub-locations as the fixed common spatial and socio-economic reference. This allows users to characterize and discuss local situations in an integrated and participatory manner, fostering context-specific approaches to sustainable development. (4) *Diversity and dynamics*: The fixed and high-resolution spatial reference enables the datasets to be combined with one another. This permits the sustainability status of the different regions and contexts in Kenya to be assessed, and trends and dynamics to be interpreted.

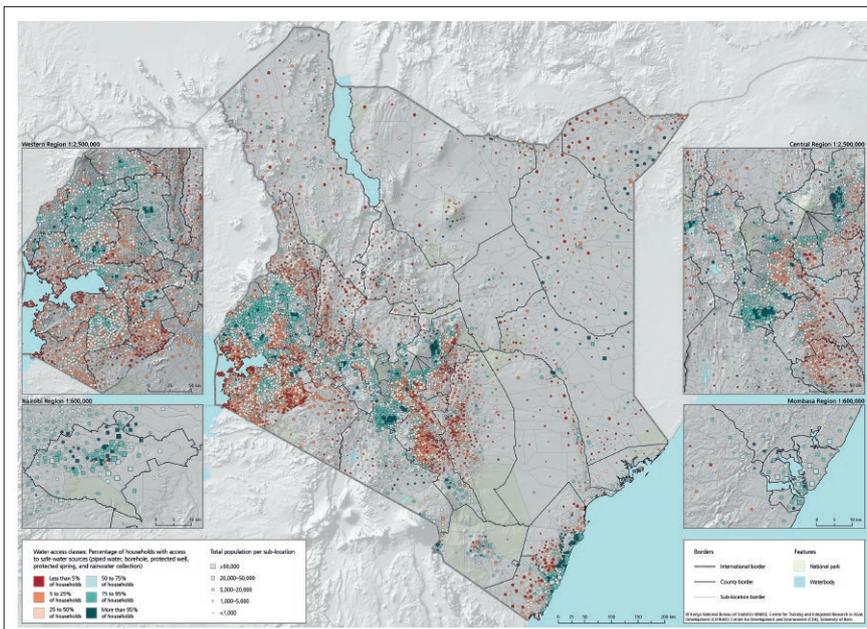
The relevance of these innovations has been demonstrated in workshops and training courses on the practical use of the atlas, in particular with authorities and representatives of all 47 counties. On the one hand, the high-resolution information lays the foundations for contextual negotiation and priority-setting of sustainability-oriented interventions within the individual counties. On the other, the emerging patterns and trends of sustainability issues trigger debate on adequate policies and approaches among counties and at the national level.

The atlas and the dialogue it has triggered at local, county, and national levels have proven the high relevance of integrative and contextually differentiating information in an appropriate format, especially in nations that are in the process of fast and diversified economic and sociopolitical transition. The appropriate format should enable broad-based negotiations on concrete approaches to more sustainable development.



Top and middle: In November 2014, the Kenyan Government officially launched the *Socio-Economic Atlas of Kenya* at an event attended by Kenya's Cabinet Secretary for Devolution and Planning, Anne Waiguru, and the Swiss Ambassador to Kenya, Jacques Piteloud (top). The event attracted significant media attention (middle) and represented a first step towards popularizing the atlas at the level of Kenya's 47 counties. (Photos: Urs Wiesmann)

Bottom: Access to safe water is one of the development indicators displayed in the atlas. It is measured as the percentage of households of each sub-location who have this access (see legend on the previous page). Interestingly, access to safe drinking water does not reflect the distribution of natural water sources: rather, it is linked to the level of economic and infrastructural development. Accordingly, the map indicates where investment is needed to further improve the situation. (Source: Wiesmann et al. 2014)





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Highlight profile

ESAPP contributed to this highlight with one priority action project.

Implemented during:
2013–2014

Total funds contributed by ESAPP:
CHF 50,000

Implemented by:
Kenya National Bureau of Statistics (KNBS),
Nairobi, Kenya; Centre for Training and
Integrated Research in ASAL Development
(CETRAD), Nanyuki, Kenya; Centre for Devel-
opment and Environment (CDE), University of
Bern, Switzerland

Main beneficiaries:
Decision-makers in Kenya at national and
county levels

Funded by



References and further reading

Wiesmann U, Kiteme B, Mwangi Z. 2014. *Socio-Economic Atlas of Kenya: Depicting the National Population Census by County and Sub-Location*. Nairobi, Kenya: Kenya National Bureau of Statistics (KNBS), Centre for Training and Integrated Research in ASAL Development (CETRAD), Centre for Development and Environment (CDE). 159 pp. ISBN 9966-767-46-0.

Website about the *Socio-Economic Atlas of Kenya*: www.kenya-atlas.org; accessed on 2 October 2015.

This highlight

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Citation

Wiesmann U, Samoei P, Trechsel L, Engesser M. 2015. A socio-economic atlas for informed decision-making. In: Ehrensperger A, Ott C, Wiesmann U, editors. *Eastern and Southern Africa Partnership Programme: Highlights from 15 Years of Joint Action for Sustainable Development*. Bern, Switzerland: Centre for Development and Environment (CDE), University of Bern, with Bern Open Publishing (BOP), pp. 95–98. <http://doi.org/10.7892/boris.72023>.

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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.

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").