

Assessing equity and vulnerability in Kenya

Many African countries are experiencing substantial economic growth and sociopolitical transformation. Kenya is no exception. The country is on the rise economically and poverty has declined at the national level. But the gains are not felt the same everywhere and by every population group. Disaggregated data and high spatial-resolution maps can help policymakers better understand and address newly emerging distributional patterns of wealth, poverty, and disparities.

Sustainable development challenge

Achieving equitable societies with low or no poverty incidences remains a key challenge of sustainable development. This is equally true in countries experiencing considerable economic growth and undergoing fast economic and sociopolitical transition, as seen in many African states. In such cases, non-equitable distribution of welfare may become more pronounced, and poverty may appear more complex than before economic growth began. In many African countries, high poverty rates were previously a typical and widespread phenomenon in rural settings and in informal settlements near urban areas. Nowadays, these once-distinct patterns have become more complex, displaying increasing differences between various rural settings and more pronounced disparities along centre–periphery gradients.

Kenya is one such African state that is experiencing rapid economic and sociopolitical transition, and is thus contending with new distribution patterns of poverty and disparities. These emerging patterns mean that approaches and interventions aiming at greater equity encounter new challenges in targeting and addressing poverty and disparities. Contextualized information representing these emerging patterns is needed to reorient poverty-reduction strategies and approaches appropriately.

ESAPP's response

In recent decades, the availability of information on equity and poverty has improved considerably in many countries of the global South. However, in most cases, this crucial information remains highly aggregated contextually. For example, poverty rates are usually only available at district or provincial levels. Against this background, ESAPP partners, in particular the Centre for Development and Environment (CDE), have sought to develop approaches and methods to disaggregate information on poverty and disparities. Higher spatial resolution is needed to establish links between issues of equity and environmental and socio-economic dimensions in concrete settings. This, in turn, makes it possible to target poverty more effectively and appropriately.

Thanks to long-term collaborative links with the Kenyan National Bureau of Statistics (KNBS), the opportunity arose to obtain disaggregated data from Kenya's National Population Census and national household surveys. This made it possible to take tools and methods developed by CDE in Southeast Asia and modify and apply them in Kenya, resulting in high-resolution maps on poverty and disparities. The Volkswagen Foundation and the University of Bern oversaw and funded the scientific activities, while ESAPP supervised corresponding capacity development and knowledge-transfer activities.



Main messages

- Though poverty has declined in many countries of the global South, poverty and inequality remain persistent sustainability challenges. Further, the distribution patterns of poverty and disparities have become more complex, requiring poverty-reduction strategies that are more differentiated and context-specific.
- High spatial-resolution data and maps on poverty and disparities are key tools for effective and adequate contextual targeting of inequality. They make it possible to identify and address vulnerable regions as well as vulnerable populations in less vulnerable contexts.
- Maps that show socio-economic data in granular detail (e.g. communities) are capable of triggering broad-based development debates at all levels of decision-making. They can promote more integrative, inclusive development policies and approaches.



Kenya is experiencing rapid economic and sociopolitical transformation. But not all segments of the population profit equally from these developments, and disparities are growing. (Photo: Urs Wiesmann)



Top and middle: In some rural settings – particularly in areas with high ecological potential – poverty rates are decreasing as a result of rapid agricultural transformation and the development of infrastructure and services (top). But in other, more remote rural areas, poverty rates and livelihood insecurity remain high (middle). Poverty reduction in these settings requires integrated regional development approaches. (Photos: Urs Wiesmann)

Bottom: Forty-five per cent of Kenya’s 38 million people are poor. However, poverty incidences are distributed very unequally among the country’s 7,149 sub-locations. The most decisive factor correlating with the percentage of people living below the national poverty line is the urban–rural gradient. All sub-locations with incidences of less than ten per cent are urban, whereas almost all sub-locations with very high poverty incidences are found in the rural periphery. (Source: Wiesmann et al. 2014)

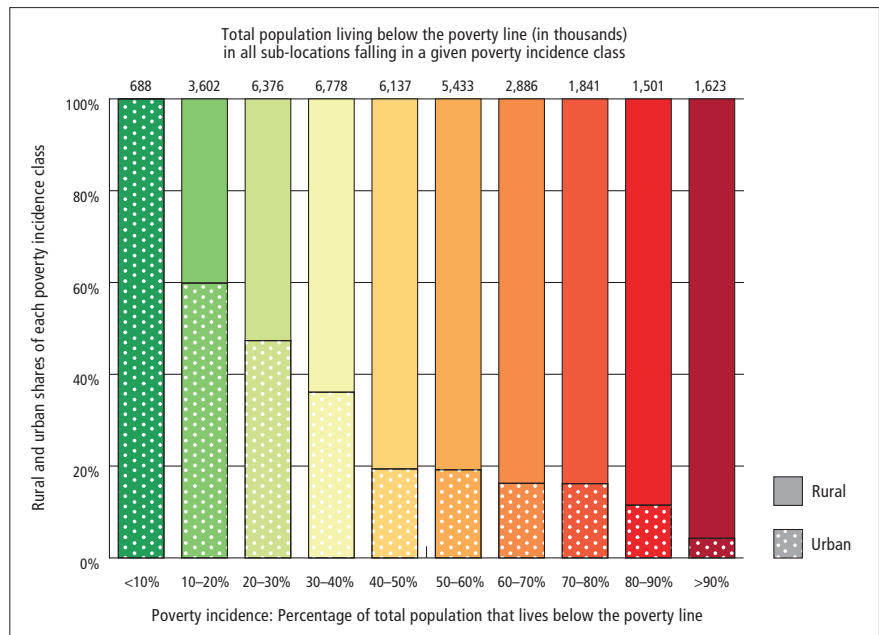
The project story

The initiative to produce high-resolution geographic information on poverty and disparities in Kenya was neither explicitly demand-driven nor commissioned. Rather, it emerged organically from within the ESAPP partner network. An important trigger was Kenya’s new constitution, which devolves power from the national level to 47 newly founded counties. These counties urgently require more detailed information with which to design and streamline their policies (see also Highlight 17). The Kenya National Bureau of Statistics (KNBS) and related authorities were enthusiastic about the initiative, in particular because the distribution of poverty rates partly determines the national allocation of finances to different counties.

The concept of representing selected equity indicators was jointly developed by KNBS, the Centre for Training and Integrated Research in ASAL Development (CETRAD), and the Centre for Development and Environment (CDE) during an intensive training and planning phase. The three institutions decided to use Kenya’s sub-locations (over 7,000) as key spatial reference points, since they represent the smallest administrative units available. In addition, it was decided to present results at various scales in order to adequately represent not only rural areas, but also individual neighbourhoods in urban centres such as Nairobi. Finally, members of the team were trained in aspects of spatial representation and mapping, especially small area estimation, a method used to derive high-resolution poverty and disparity maps.

By applying these tools and methods and combining census and survey data, the team produced a high-resolution monthly expenditure map. This map provided the basis for deriving other maps on the relative and absolute incidence of poverty, on the poverty gap and depth, as well as on the Gini coefficient. These maps revealed that Kenya’s overall poverty rate has dropped to 42 per cent, but that the patterns of poverty have changed, resulting in more pronounced regional differences and important centre–periphery gradients.

The initial high-resolution poverty maps proved highly relevant for policymaking and planning. But the team went even further by analysing the wealth of the non-poor in all sub-locations and calculating the so-called wealth gap: a measure of how far above the poverty line the non-poor are on average. These calculations revealed a small wealth gap in many regions of Kenya. In such areas, economic “shocks” such as drought or fluctuating food prices could push large numbers of formerly non-poor into poverty. In this way, calculation of the wealth gap made it possible to identify not only poor regions, but also economically vulnerable regions in Kenya. This provided an important basis for discussion in many counties (see Highlight 17).

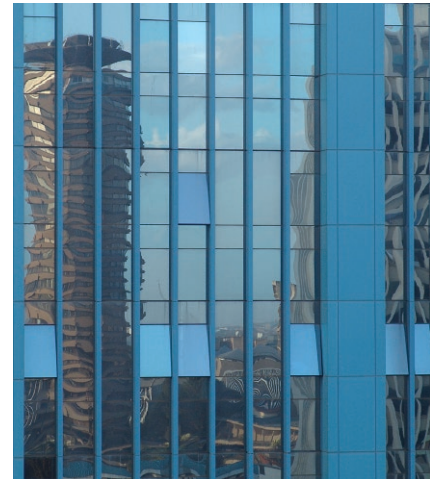
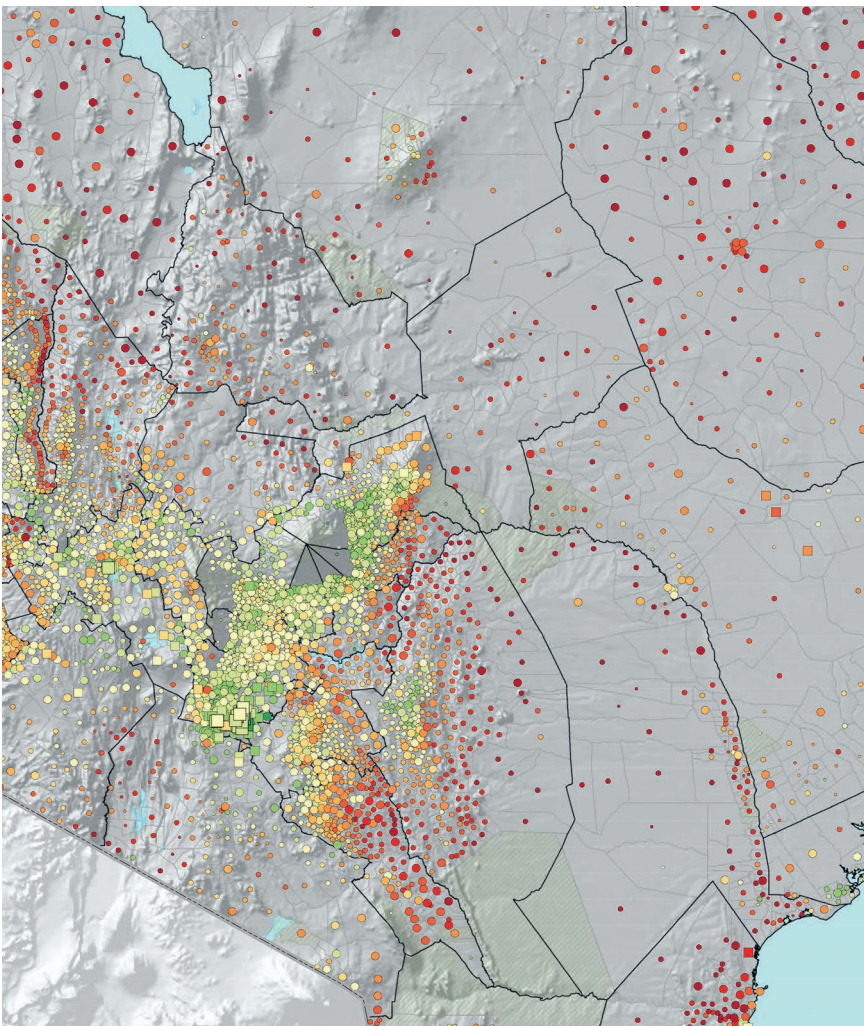


Innovation and relevance

To the best of our knowledge, this project is the first in Africa to produce such high-resolution maps of poverty and inequality, which graphically represent population figures in symbols instead of conventional map area shades. This enables users to compare, on an equal basis, the situation in high population-density areas, such as towns, and in low population-density areas, such as Kenya's vast semi-arid and arid regions. In addition, our wealth gap analyses made it possible to identify two types of areas requiring different poverty-reduction strategies: first, areas with high poverty rates and high vulnerability, where regional development strategies are needed; second, areas with lower poverty rates but high absolute numbers of poor, where targeted social and economic programmes are needed for specific population segments.

In addition, the information tool developed expands people's perspective of economic poverty, enabling a modern multi-dimensional understanding of poverty and equity. For example, the high-resolution poverty maps created may be compared with and linked to other important indicators such as housing conditions, access to safe water, school enrolment and education levels, and gender disparities.

In 2015, the ESAPP team led intensive sub-national workshops using the maps with relevant authorities from all 47 Kenyan counties. These confirmed the potential of high-resolution poverty and disparity information to promote knowledge-based planning and decision-making in a wide range of policy fields. Further, the workshops revealed that such data and maps can trigger broad-based discourses and debates at all levels – local to national – enabling more integrated, inclusive development policies and approaches.



Top and middle: Large and medium urban centres are the hotspots of economic growth and development in Kenya. They offer a dynamic labour market with a wide range of formal employment opportunities and a vibrant informal sector (top). Although poverty rates are comparatively low in these urban centres, a large number of urban dwellers are nonetheless poor (middle). Poverty-reduction strategies in these settings must therefore specifically target poor population segments. (Photos: Urs Wiesmann)

Bottom: The so-called wealth gap measures how far above the poverty line the non-poor population is living. The wealth gap was assessed for all sub-locations and displayed in a map. It is big in sub-locations marked in greenish colours, and small in sub-locations marked in reddish colours. Reddish colours mean that the non-poor population is living just slightly above the poverty line. Those regions of Kenya where reddish colours dominate are highly vulnerable, as shocks such as droughts can easily push the non-poor back into poverty. (Source: Wiesmann et al. 2014)



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References and further reading

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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 Development and Environment (CDE), University of Bern, Switzerland

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

This highlight

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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").