

# CETRAD short professional courses

Many organizations in Kenya lack the technical and integrative skills to plan and implement sustainable regional development. To bridge this capacity gap, ESAPP supported its Kenyan partner CETRAD in developing a set of short vocational training courses for technical officers from government and non-government organizations. The courses are now offered on an annual basis and attract participants from throughout Eastern Africa.

## Sustainable development challenge

The effective governance of natural resources and associated challenges such as food insecurity and drought requires skills and experience. However, many organizations engaged in these fields in Eastern Africa lack adequate staff with the relevant abilities. This leads to uninformed decision-making and planning, especially in government institutions. Lack of experience with inter- and transdisciplinary approaches, in particular, results in decisions that are of little relevance on the ground. For example, extension services are often unable to translate findings from research, seasonal weather forecasts, and early warning services to farmers. In addition, most field officers lack the skills for context-specific spatial data interpretation and assessment, which are critical for land use planning and for designing appropriate interventions to address problems such as food security.

The Kenyan situation has been challenging, largely because of the successive reforms in the agriculture, water, forestry, and environment sectors that have ushered in new institutional arrangements for service delivery. For example, the National Agricultural Extension Policy of 2001 introduced demand-driven extension services; the Water Resources Management Policy of 1999 and the Water Act of 2002 created multilevel institutions with new tasks; and the National Environment Management and Coordination Act of 2004 introduced mandatory environmental impact assessment. However, these changes were never matched with a corresponding effort to develop the capacity needed to fulfil the new institutional mandates.

## ESAPP's response

Recognizing the magnitude of the capacity challenge facing Kenya in particular and Eastern Africa in general, and aware of the potential of tailor-made professional vocational training courses to reduce this gap, ESAPP provided the funds to conduct a nationwide training needs assessment in Kenya. On that basis, ESAPP then also supported the design of a training concept for a first generation of courses.

The aim was to craft a training programme consisting of tailor-made professional courses that impart practical, field-based skills to practising and newly appointed governmental and non-governmental technical officers. The courses were designed to help strengthen officers' ability to deal with the multi-faceted challenges of sustainable regional development at the local, regional, and national levels. ESAPP supported the training programme at CETRAD (Centre for Training and Integrated Research in ASAL Development) for the first five years. Although the goal of self-financing was not fully achieved, the steady increase in self-sponsored candidates was an encouraging development. Today, the programme is run entirely by CETRAD.



### Main messages

- Skills acquired through college-based training and field exposure do not provide the necessary capacity to effectively support sustainable regional development through knowledge-based innovations and decisions. This capacity gap can only be bridged with tailor-made, field-based, and practice-oriented vocational training courses.
- Vocational training helps participants develop the integrative knowledge they need to promote innovation, policymaking, and practice. Trainees, especially from the public sector, learn skills that allow them to become more competitive and have greater job mobility.
- Although the demand for tailor-made courses is huge and capacity gaps are still wide, institutional commitment is minimal, arguably because other pressing needs continue to dominate resource allocation. Core funding is important for initiating the development of training curricula and financing first training sessions before the course can start to attract self-financing students.



CETRAD's oldest course teaches the application of geographic information systems to map resources and resource use. Close collaboration with CDE enabled CETRAD to develop a comprehensive three-week programme that uses exclusively Eastern African data and exercises. (Photo: Albrecht Ehrensperger)



### The project story

CETRAD (Centre for Training and Integrated Research in ASAL Development) received a mandate from the Kenyan Government to develop a training programme to help address the huge technical capacity gaps in the public sector. These gaps strongly affect the government’s ability to play an effective stewardship role in fostering sustainable development. In response to the government’s needs, CETRAD set up a training programme that delivers tailor-made, field-based, and practice-oriented professional courses. Crafting of the programme began with a comprehensive nationwide training needs assessment. The assessment revealed a number of critical thematic areas, including rural livelihoods and food security, drought management, management and governance of natural resources, management of resource use conflicts, and knowledge about how to apply tools for resource mapping, assessment, and planning. Based on these findings, CETRAD designed and launched two pioneer courses: one on food security and drought management, and one on geographical information systems.

Meanwhile, the government concluded reforms in various sectors, including water, forestry, and the environment. The reforms resulted in additional critical capacity gaps, particularly with regard to understanding and implementing the new functions of the different departments. At the government’s request, CETRAD designed new courses to address these capacity gaps. The courses target practising technical officers from governmental and non-governmental organizations. Topics include integrated water resources management and governance, participatory forest management, environmental impact assessment and audit, and resource use conflict management. Participatory instruction methods are used for both coursework and fieldwork. Each course takes two to three weeks to complete. Currently, CETRAD grants ten scholarships annually. The rest of the participants have self-financing arrangements.

Five of the seven courses have since been offered on an annual basis, with very impressive results across the topics addressed. Over 700 people have been trained over the past ten years (see diagram). The training programme has grown very popular and has drawn regional attention, attracting participants from Malawi, Madagascar, Ethiopia, Uganda, and Tanzania. CETRAD has thus become a regional training institution of choice. At the local level, CETRAD short courses have become a major springboard for beneficiaries, promoting their prospects in the job market and advancing their careers.

**Top:** Geo-referenced information on resources, resource conflicts, and other features relevant to sustainable regional development is scarce in Eastern Africa. For this reason, data generation using hand-held Global Positioning System (GPS) receivers is particularly important for decentralized governance bodies. (Photo: Albrecht Ehrensperger)

**Bottom:** Since 2000, CETRAD has gradually enhanced its training portfolio. The courses on geographic information systems and on food security have the longest tradition and have had the highest number of participants so far. But other courses, such as the one on integrated water resources management, have also experienced a keen interest from governmental institutions working on this topic.

Course	Year	2000				2005				2010				2015				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Geographic Information Systems (GIS)																		171
Food Security and Drought Management																		237
Environmental Impact Assessment and Audit																		111
Integrated Water Resources Management																		114
Resource Use Conflict Management																		70
Integrated Natural Resources Management																		31
Participatory Forest Resources Management																		39
<b>Total number of participants</b> ↗																		

## Innovation and relevance

At the time when CETRAD began to offer its training courses, very few organizations in Eastern Africa focused on capacity development among field-based governmental practitioners. Thus, with ESAPP's support, CETRAD was able to make its mark in this field, and the training programme has since been emulated by other academic and development organizations in Kenya. Innovations were also made in the teaching itself. For the courses on geographic information systems (GIS), for example, the Centre for Development and Environment (CDE) and CETRAD developed comprehensive training manuals based exclusively on local project examples and exercise data. They also rely on both commercial and open-source software solutions, taking account of the varying procurement budgets of public institutions for information and communication technologies (Gurtner et al. 2007).

CETRAD has followed the careers of a number of alumni who completed a course or set of courses, and found that the courses helped to improve trainees' competitiveness and mobility. For example, some of the government officers received attractive job offers within or outside their departments soon after their training. The job offers were directly related to the newly acquired knowledge, indicating that course participants benefit from improved career and income opportunities.

Today there is an increased participation of the public and private sectors in the funding of course participants. The courses on GIS and remote sensing, food security, integrated water resources management and governance, and resource use conflict management are especially popular. These developments are proof of the relevance of such courses for building individual and institutional capacity to address sustainable development challenges. However, these developments would not have been possible without the initial funding provided by ESAPP, which helped to establish the training courses and make them known among governmental and non-governmental institutions in Kenya and beyond.



**Top:** Gender aspects in earning a livelihood are an integral part of CETRAD's food security course. For example, participants from agropastoral communities assess men's and women's workloads and seek strategies to improve women's livelihood security and reduce their workload. (Photo: Chinwe Ifejika Speranza)

**Bottom:** Participants in the course on food security and drought management are interacting with the local community of Ilpolei, Mukogodo, during a field visit to analyse the food situation in this area. They are establishing a list of people's livelihood sources and coping strategies to better understand the community's resilience to drought. (Photo: Boniface Kiteme)



**Chinwe Ifejika Speranza, PhD**  
Senior Research Scientist  
Centre for Development and Environment (CDE)  
University of Bern, Switzerland



**Boniface Kiteme, PhD**  
Director  
Centre for Training and Integrated Research in ASAL Development (CETRAD)  
Nanyuki, Kenya

### Reference and further reading

Gurtner T, Ehrensperger A, Hergarten C, Hösli C, Künzler-Roth S. 2007. *Capacity Building in Geoprocessing*. Bern, Switzerland: Centre for Development and Environment.

### Highlight profile

This highlight is based on the achievements of 13 ESAPP priority action projects.

**Implemented during:**  
2004–2014

**Total funds contributed by ESAPP:**  
CHF 400,000

**Implemented by:**  
Centre for Training and Integrated Research in ASAL Development (CETRAD), Nanyuki, Kenya

**Supported by:**  
Centre for Development and Environment (CDE), University of Bern, Switzerland

**In collaboration with:**  
Research and training institutions in Kenya, Tanzania, Switzerland, and other countries

**Main beneficiaries:**  
Over 700 governmental and non-governmental technical officers and their institutions, mainly in Kenya, but also in Malawi, Madagascar, Ethiopia, Uganda, and Tanzania

### This highlight

Language editing: Erin Gleeson (Gleeson's SciencEdit.CH); Tina Hirschbuehl, Marlène Thibault (CDE)  
Design: Simone Kummer (CDE)  
Proofreading: Stefan Zach (z.a.ch GmbH)

### Citation

Ifejika Speranza C, Kiteme B. 2015. CETRAD short professional courses. 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. 91–94. <http://doi.org/10.7892/boris.72023>.

© 2015, the Authors and CDE


This work is licensed under a CC BY-NC 4.0 licence (<http://creativecommons.org/licenses/by-nc/4.0/>).

u<sup>b</sup>

UNIVERSITÄT  
BERN  
CDE  
CENTRE FOR DEVELOPMENT  
AND ENVIRONMENT

CETRAD  
Centre for Training and Integrated Research in ASAL Development

Funded by

 Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Agency for Development  
and Cooperation SDC

### 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](http://www.cde.unibe.ch) (keyword search: "ESAPP").