



ROADS FOR SUSTAINABLE DEVELOPMENT

Impact study on labor-based rural road construction in Burkina Faso

The Decentralization and Citizen Participation Support Program (DEPAC), financed by the Swiss Agency for Development and Cooperation (SDC) and implemented by Helvetas and other partners, has been supporting local governments and communities since 2015 with the aim of improving equitable access to basic services and creating economic opportunities. Helvetas focuses on improving access of villages that are not yet connected to an all-weather road through a government-led approach promoting the labor-based construction of rural roads. This method is characterized by the use of light equipment and locally available materials, and the employment of local skilled and unskilled labor. Men and women from the target communities have the opportunity to acquire new skills and earn income by participating in the construction. The local authorities (municipalities, regional council, deconcentrated state services) lead the process throughout all stages: planning, budgeting, procurement, implementation, maintenance and monitoring. Local enterprises are contracted by the local authorities to provide expert services, such as supervising construction.

This impact study reveals that the program has contributed to the development of economic opportunities, increased income, improved access to basic services, improved water retention for agriculture and the environment, and strengthened individual and institutional capacities.

DEPAC Program Results

The program's activities targeted 26 communes in 4 regions of the country:

- **186 km of new rural roads** built and **250 km of existing rural roads** rehabilitated
- **68 villages connected**, representing a population of more than **123,000 inhabitants**
- More than **32,000 people employed** as local labor in construction and rehabilitation (70% of whom are women)
- More than **337,500,000 FCFA** (approx. 500,000 USD) injected into local economies, in the form of remuneration



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BOOSTING THE ECONOMY

The study shows that the construction of the rural roads significantly impacted economic activities and resulted in increased household income.

Benefits to commerce

Improving roads resulted in a reduction in transport costs and time, which in turn led to the emergence of new stores and additional traders.

Prior to the construction of the roads, 60% of traders could not easily sell their goods. The main reason for this was the difficulty in accessing markets. Now 93% have no difficulty in transporting their products. The time needed to reach the market is reduced by half, and the costs (fuel, etc.) reduced by 37%. 83% of the traders noted an increase in profit margins.

Increase in agricultural and livestock production

Agricultural inputs are now more easily available. After the completion of the road, fertilizer use more than doubled (+137%), with 52 out of 100 people reporting that they were unable to find inputs in the market before. Access to agricultural equipment has also improved. This, combined with the prospect of easier access to markets, has led to an increase in annual production of 17%, from 1,357.7 kg to 1,589.2 kg per person. 65% of small-scale farmers said they did not produce enough because there were no roads to transport their produce to the market. Similarly, the number of people who practice livestock farming has increased (from 60% to 67%), as well as the number of livestock.

More income for all families

Connecting the villages to local markets contributed to an increase in household profit margins. The average annual income per person increased by about 25%. The income of those involved in labor-based rural road construction increased by more than 50%.

After the construction of the roads, the average cultivated area per person increased from **1.9 to 2.9 hectares**

« Before the development of the road, it was very difficult to transport my products from Latian to Sapouy because there were many potholes, with the risk of falling, which could cause economic losses. But now I have no more difficulties to transport my goods to the market in Sapouy, said Benao Badouan, a farmer in Latian.

ENVIRONMENTAL IMPACTS



Women laying the stone barrier

The construction of rural roads always impacts the vegetation on the road section. However, more than 300 trees have been planted in compensation, within

the framework of the DEPAC program. According to the study, the reforestation and road infrastructure contribute to the development of agricultural activities by better controlling and retaining road runoff water. According to 86% of the population, the construction of the road improved the retention of runoff water. Moreover, 83% of the population believes that it contributed to soil fertilization. The stone barriers along the road also help control soil erosion, according to 49% of the population.

The stone barriers and other crossing structures have created wetlands that are favorable to the production of certain crops on the edges of the roads. According to Bakouan Bako, a rice producer in Lapou: "Before, the water flowed away quickly. But with the construction of the road, the water is retained longer and this allows us to produce rice, which requires a lot of water."

IMPROVED ACCESS TO BASIC SERVICES



The construction of rural roads significantly reduced the time needed to reach health centers, markets, and medicine depots, and improved access to schools. The study revealed that it used to take more than half an hour on average (35 minutes) to reach a health center. Now, people can get there in less than half the time (17 minutes). This led to **an increase in consultations**: 6% more people say they go to a health center in case of need. This increase is confirmed by health workers, who also point out that it is easier to evacuate sick people and pregnant women.

Along with the new roads implemented **in the partner communes, new pharmaceutical depots have been created**, reducing thus the distance to access medicines. The average distance between settlements and pharmaceutical depots has been reduced from 10.46 km to 3 km.

Most villages do not have post-primary or secondary schools. Families, therefore, enroll their children in the schools of the communes' main towns and have to find a host family or a paid accommodation. Improved access to schools and high schools allows students to live with their families and easily commute from home to school each day.

The number of trips between villages increased from 5 to 7 times per month.

OPPORTUNITIES FOR WOMEN

59% of the local labor force employed on the construction sites are women. This can be explained by the fact that in several of the program's intervention zones, gold mining is considered much more profitable, especially by young men. But mainly, the DEPAC Program took action to motivate and train women to participate and also to raise awareness of men for the involvement of women in construction activities. The study shows that the average income of all women, whether they were involved in the construction or not, increased thanks to the construction of the roads. The average increase in income was significantly higher than for men: **40% for women and 19% for men**. After the construction of the roads, the number of women working as artisans and traders also increased

by 50% and 4%, respectively. Connecting settlements to local markets led to the development of income-generating activities. There are several examples of women who have invested the money earned working on the construction sites to initiate such activities. **"I participated in the construction work, from start to finish, by laying stone barriers and spreading laterite. The money I earned served as startup capital for my business,"** said Fatimata Zebre, a former employee on a labor-based construction site and now a donut seller at the Sanh market.

*The proportion of women on the construction sites (59%) differs from the one mentioned in the Box in p. 1 (70%). The 59% is based on the sample used for the impact study (9 road segments), whereas the 70% refers to the data of all roads constructed during the DEPAC program.

SUSTAINABILITY OF THE ACTION



Mastery and appropriation of the labor-based construction method by local authorities

Following the technical and institutional assistance provided by Helvetas, the four partner regional councils of the DEPAC program (North, East, Central West, and Sahel regions of Burkina Faso) affirmed that they acquired a good theoretical knowledge of the labor-based construction method and a good mastery of the process of implementing rural roads throughout the entire project cycle. There are, however, still differences among the local authorities in terms of technical skills (technical studies and implementation of construction works in the field) related to the experience acquired over time in the management of labor-based projects.

There are good examples of local authorities taking full ownership of the process: the Regional Council of the North Region built two rural roads, one of which is entirely labor-based and 10 km long. The Regional Council of the Central West Region built a rural road connecting Ramongo - Didyr - Godyr without the support of Helvetas.

Committed communities

The Village Rural Road Committees set up within the framework of the DEPAC Program have been trained in rural road management and maintenance. They are trained to diagnose minor degradation of the rural roads passing through their village and to establish and implement an action plan for routine maintenance. The study found that the Committees ensure that people do not pick up sand (after the rains) on the new roads and monitor the condition of the roads. In the event of a deterioration, the Committees carry out routine maintenance. Some of committees show high dynamism and commitment in spite of limited resources.

GOOD PRACTICES AND LESSONS LEARNED

Sustainability of the action

- The labor-based construction method favors developing local institutions and expertise
- The method promotes the development of local enterprises for the supervision of the road construction
- Local masons are trained during the implementation of the construction works and can then engage in other construction sites

Inclusion and social cohesion

- Social mobilization is a powerful lever for social cohesion
- The communities have accepted (enhanced awareness for) the strong participation of women in the construction sites
- There is an important appropriation by the women for the manual tasks to be carried out when constructing a rural road, which contributes to reinforce the sustainability of the action

Protection of the environment

- Through the laying of stone barriers, the construction of crossing structures, and the planting of trees, the development of rural roads contributed to the retention of runoff water

Local economic development

- Some crossing structures on the roads, which retain large quantities of water, promote the development of market gardening and rice growing
- Thanks to the increased income resulting from the road construction (related to both the employment on the construction sites and improved access to economic opportunities), the populations are investing in sustainable income-generating activities

Study Methodology

The impact study was conducted in September 2021 along nine segments of rural roads developed within the framework of the DEPAC program, spread over the four program regions. The quantitative survey was conducted on a sample of 352 people, 53% of whom were women, in 8 of the 9 program communes because of the security situation in the Eastern region. Qualitative data were collected through in-depth individual interviews with the Deconcentrated State Technical Services, local authorities, private sector, social mobilizers, Village Rural Road Committees, Village Development Councils, customary and religious authorities, and managers and users of the newly connected socio-economic infrastructures and production sites.