

IFRTD – COLIN RELF YOUNG VOICES AWARD – ROUND TWO

“Poor rural farmers are central to any solution to today's global food crisis and the long term problems of hunger and poverty”.

Lennart Båge, President of IFAD, April 2008.

Discuss, with examples, the role that rural transport interventions can play in achieving sustainable agricultural development and poverty reduction.

THIRD PLACE WINNING ENTRY – ADAMA D COULIBALY– MALI

(submitted in French)

The question is very pertinent. It is discussed here in the light of strategies that rural populations have put in place to adapt themselves and their production systems to agro-climatic and socio-economic changes (ie the financial crisis and food crisis). The role of rural transport interventions in achieving sustainable agricultural development and poverty reduction in rural areas is very clear; although, it is difficult to measure the impact of bicycles on poverty reduction and sustainable development because it is an informal means of transportation. For example, it is impossible to get statistics on the number of bicycle users and the quantity of foodstuffs transported, at local, national and global levels even though bicycles play a central role in the transportation of foodstuffs from rural to urban areas.

Through the use of bicycles, farmers who live in the hinterland can access urban markets, and in this way bicycles have an economic function and are an efficient way to fight against poverty. Urbanisation and urban population growth have created a potential consumer market for foodstuffs (vegetables, animals and fruits); and the development of peri-urban livestock farming (cattle, poultry) is inextricably linked to urban development. This livestock production has developed at the outskirts of secondary and main towns in Mali and most Sub-Saharan African countries. The state of roads and tracks that connect villages makes the transportation of goods difficult and these roads and tracks are impassable during rainy season. It is in the rainy season that abundant pastures and milk production prevail. The poor in rural areas prefer bicycles because they are easy to use on these tracks. This paper focuses on the role of bicycles in the transportation of milk to urban markets. It also examines the strategies farmers use to buy bicycles.

The role of bicycles in supplying milk to the Sikasso urban market in Mali

In developing countries, animal proteins, especially milk, play a major role in food security and in the fight against malnutrition. Nevertheless, dairy industries are vulnerable to massive milk importations from developed countries such as New Zealand, Europe, USA... . Sub-Saharan African countries constitute a potential consumer market for the surplus dairy produce of these countries producing milk at an industrial level. It is difficult for rural farmers to transport the milk they produce to urban markets; and with this unfair competition and the state of roads and tracks, farmers have turned to collectors with bicycles to transport the milk they produce.

Previously, Fulani women who live in villages situated 7 km away from Sikasso were the only people supplying this town with fresh raw milk and processed dairy products (curdled milk, butter, *féné*). They would go to the town twice a week during dry the season and three times in the rainy season depending on the milk production season. The quantities of milk transported were low and could not provide a sufficient supply to the market because demand was increasing. So, new economic players, milk collectors with bicycles, emerged in the local milk industry. Milk collectors with bicycles are gradually replacing Fulani women and now, they transport farmers' milk production from villages to urban markets.

Milk collection within a radius of 25 to more than 30 km around Sikasso has seen an unprecedented growth thanks to bicycles. The local milk collection sub-sector has been born. Today, this sub-sector is the major way to collect and sell locally produced raw milk and dairy products (curdled milk, butter, *féné*) within the peri-urban dairy area. This system relies on mechanised transportation (bicycles), and rarely on motorised vehicles (bikes, cars, public transport). All together, collectors form a dense network that completely covers the dairy area they have created. In fact, the size of the Sikasso supply zone corresponds to the area covered by the network of collectors. The road network forms a cobweb-shaped milk collection network around the town.

Each collector with a bicycle visits 2 to 5 villages and collects milk from 5 to 8 points along his/her path. Therefore, collectors go through the villages of the dairy area everyday to pick up milk that they convey to urban markets. In total, the milk gathered daily by the collectors makes up huge volumes. During high milk production periods (rainy season), up to 1, 500 litres of milk can be collected daily by 50 collectors. Some producers stop milking during the dry season and low quantities of milk are obtained (one or two litres), but this does not deter collectors, who are satisfied if each day they can get the quantity needed to keep their business active. Inevitably, though, business does slow down and the number of collectors reduces during the dry season (transhumance).

Collectors with bicycles are a real business opportunity for all farmers who live in villages near towns. The time needed to get to the town depends on the state of roads and season of the year (one to two hours), but is not an obstacle to milk collection as when villages are far away, collectors ask farmers to boil their milk. With the help of the bicycle collectors, rural farmers sometimes succeed in selling their milk in periods of low production; Therefore, bicycles help rural populations to access urban markets and guarantee regular income for the families.

Once in town, collectors resell their goods to processors or suppliers, who can be men or women, fixed or mobile resellers (sometimes both). Some collectors go through the town to supply consumers directly with milk to their homes (door to door), businesses, offices and along roads in the evening.

Collecting and transporting milk with bicycles encourages farmers to produce more milk and make better use of the opportunity given to them by the urban market. Compared to motorised means of transportation, bicycles have the advantage of reducing transportation costs as the price of fuel and lubricants determine the selling price of milk because it is taken into consideration in the price given to the urban consumers. Milk collection creates permanent or seasonal jobs for collectors in towns and villages.



Picture 1: Collecting and selling milk using bicycles across the town of Sikasso. The role of recovered, used bicycles and repairs workshops

Used bicycle recovery and repairs workshops are central to bicycle acquisition by rural populations. Due to the poor management of income generated by the milk business, maintaining or changing a bicycle is always a problem. When spending the money produced by such family activities, collectors never think of bicycle maintenance or replacement costs, and any income is allocated primarily to domestic expenses. For collectors, buying a new bicycle is a major constraint to the sustainability of their business, so consequently, they prefer to buy second-hand bicycles.

Follow-up surveys on the transportation of milk included the buying of bicycles by collectors. The surveys showed that most collectors use second-hand or old bicycles, and that is why repairs workshops for used bicycles are multiplying in towns. The survey focused on a workshop owned by Souleymane Maïga in Sikasso, Mali. In an interview, Maïga talked about his job as a bicycle repairer. After training in a Koranic school and carrying out an apprenticeship period in bicycle repairing (welding and assembly), Maïga settled in Sikasso. Two young apprentices assist him in his workshop. The idea is very simple. He buys worn-out bicycles at very low prices (F CFA 5, 000), and sometimes even cheaper. The workshop is made up of a hastily established shed. The very modest equipment consists in a blowtorch, a butane gas bottle and a toolbox (spanners, wires, hammers, shears, brushes...). When bicycles are sent to the workshop, the frames are cleaned. The broken parts are welded before painting. Spare parts are then installed. Once refurbished, the bicycles are resold to rural farmers who use them to transport foodstuffs to urban centres. With these basic technical means, these craftsmen strive to make good use of their expertise and insure a better living for their families. In so doing, they help farmers access markets and contribute to poverty alleviation in rural areas.

Nevertheless, these stakeholders (milk collectors, bicycle repairers) work in an informal system. Unfortunately, their activities are not considered by development policies and interventions. They receive neither technical nor financial support, even though they play a major role in the fight against poverty in rural areas. Poverty alleviation and sustainable development policies should take into consideration the role these milk collectors and bicycle repairers play in exchanges between villages and towns.





Picture 2: Maïga's bicycle repairs workshop in Sikasso, Mali