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SUMMARY REPORT: **GHANA BICYCLE MARKET SYSTEM**

AN ASSESSMENT OF DEMAND, SUPPLY, AND SUPPORTING SYSTEMS
FOR THE BICYCLE MARKET IN GHANA



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This report is a summary of findings from the Bicycles for Growth Final Report: Ghana Bicycle Market System (USAID, 2023). Bicycles for Growth (BFG) is a five-year USAID-funded initiative that aims to reduce poverty by improving sustainable uptake of affordable, fit-for-purpose bicycles in sub-Saharan Africa.

The BFG project team, co-led by J.E. Austin Associates (JAA) and World Bicycle Relief (WBR), conducted bicycle market system assessments in 2022 in Malawi, Ghana, Rwanda, Uganda, and Zambia. Based on the findings, BFG has provided recommendations for tools, approaches, partnerships, and incentives, as well as pilot project development, to improve uptake and access to fit-for-purpose bicycles.

This summary report is part of a series of project reports.

Other reports in the series include:

- Summary report and Final report: Ghana Bicycle Market System
- Summary report and Final report: Zambia Bicycle Market System
- Summary report and Final report: Rwanda Bicycle Market System
- Summary report and Final report: Uganda Bicycle Market System

Full reports and summaries can be downloaded at <https://worldbicyclerelief.org/impact-reports/> under Bicycle Market System Profiles

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CONTEXT: WHAT IS A BICYCLE MARKET SYSTEM?

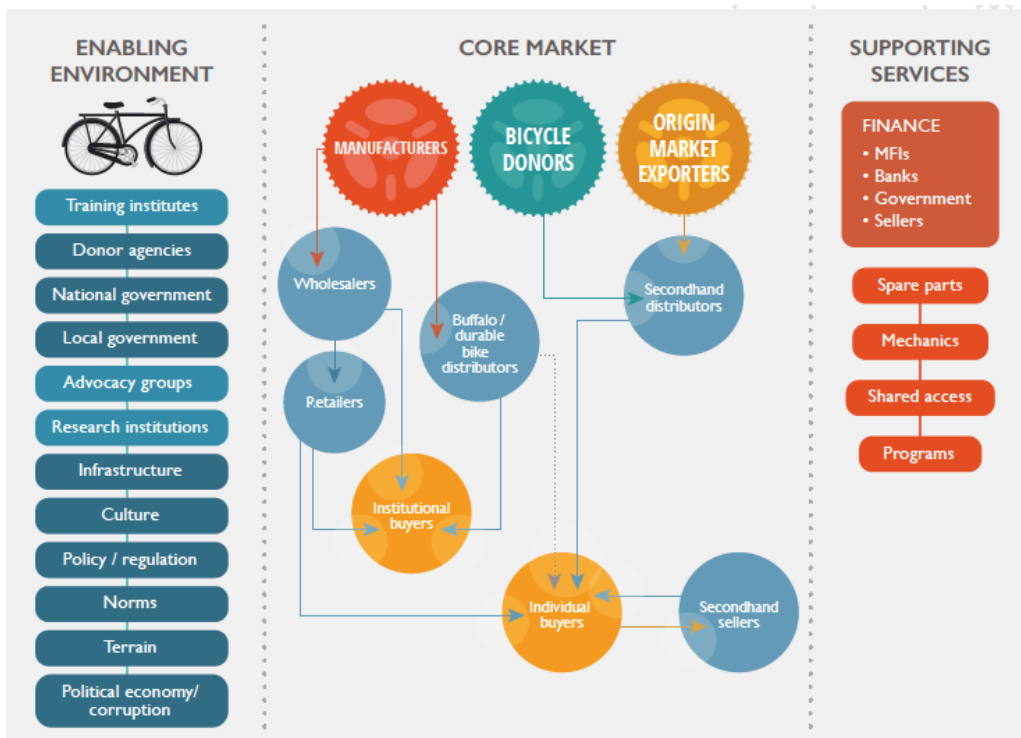


Figure 1: Bicycle Market System showing enabling environment, core market, and supporting services

A market system includes demand, who uses, buys, or owns a product or service; supply, the channels through which the product or service reaches users; and systems, entities that support, enable, or facilitate both demand and supply, such as provide infrastructure, enact policies, or provide finance. In a bicycle market system, the players include individual and institutional purchasers (demand); importers and resellers (supply); and mechanics, spare parts sellers, government departments, training institutes, financiers, advocacy organizations, and international agencies (systems). In a functional bicycle market system, the needs of users and suppliers are both met.

The BFG project takes a development approach to a market system. Such an approach provides a strategy for intervening in a market, so that it functions more efficiently and sustainably to meet the needs of vulnerable or marginalized people. A development approach addresses the causes of markets failing to meet people's needs and preferences. The research findings presented here investigate where the bicycle market system is not functioning, and propose opportunities for intervention.

This summary report shares key findings about who uses bicycles and why (demand), how bicycles are supplied to users in Zambia (supply), and what systems enable, encourage, or discourage bicycle sales and use (systems).



<p>DEMAND:</p> <p>Bicycle owners, bicycle renters, bicycle-taxi users, bicycle-taxi operators, mechanics, people walking (non-users)</p>
<p>SUPPLY:</p> <p>Bicycle owners, spare parts retail shops, bicycle retail shops, institutions distributing bicycles, vocational institutions, wholesalers</p>
<p>SUPPORTING SYSTEMS:</p> <p>Among other examples, ministries of finance, trade, education, health, transport; shipping companies, transport companies, advocacy organizations, bicycle-taxi associations</p>

Figure 2: Bicycle Market System players – Demand, Supply, and Supporting Systems

RESEARCH METHOD: HOW WAS THIS MARKET SYSTEM RESEARCH CONDUCTED?

The BFG team collected information to conduct this bicycle market system assessment through 24 key informant interviews and 8 focus groups (qualitative data), and 383 surveys (quantitative data), Savelugu and Tolon in the Northern region, East Mamprusi and West Mamprusi in the North East region, Nadowli and Wa Municipal in the Upper West region, Ejura Sekyedumase and Ejisu Municipal in the Ashanti region, and I, Shai Osudoku and Ga West Municipal in the Greater Accra region.

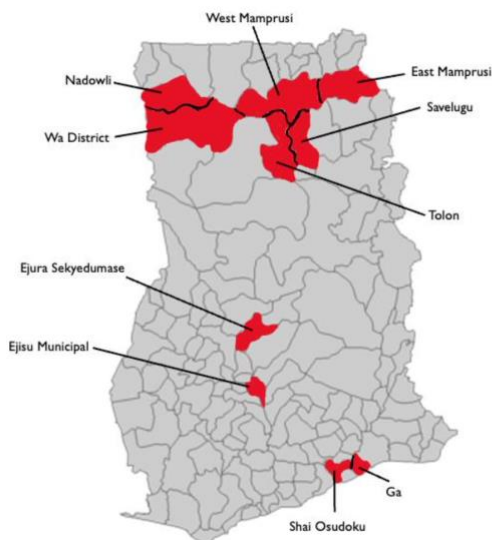


Figure 3: Primary research sites districts in Ghana.

Half the focus groups included women only, to explore women’s mobility needs and challenges; in the survey, enumerators made sure that at least half of the respondents were women.

The research sites were chosen so that a variety of areas were represented. Full details of data collection methods and approaches are in the Final Report (which can be downloaded at <https://worldbicyclerelief.org/wp-content/uploads/2023/04/Ghana-Bicycle-Market-System-Report-Revised-Mar-31-2023.pdf>)

SUMMARY OF OVERARCHING FINDINGS

Overall, the Ghana bicycle market system is well functioning, with high bicycle ownership across much of the country (particularly in the north). There are suppliers across the country offering bicycles to meet that demand, and spare parts and mechanics widely available. However, the cost of bicycles is the main reason why many people do not own their own bicycles.

Bicycles are the most common way in which people travel to work or to market, as well as the most common way to travel during the harvest season. When people do not make their entire trip by bicycle, they still use bicycles to get to another form of transport, such as a taxi (tro tro). Although there are no cultural barriers for women to use bicycles, they are much less likely to own and use bicycles, because of the cost of ownership.

Most bicycles for sale in Ghana are pre-owned (used) bicycles imported from Japan. Ghana is also a hub for the sale of bicycles to neighboring countries.

The Ghanaian government is committed to providing dedicated, safe, reliable and appropriate infrastructure for people who walk and cycle, but the focus is mostly on urban areas. There is also a backlog of road maintenance that makes it difficult for government to meet its commitments to non-motorized road users.

WHY THIS RESEARCH MATTERS

In 2021, there were about 30.8 million people living in Ghana. The country is mostly urban, with 57% of the population living in towns and cities. Women make up just over half the population. 38% of people are between 15 and 24 years old, and 35% are under the age of 14. Around 14% of people are unemployed. Most people (67%) who are employed work for themselves. At least a quarter of people in Ghana live on \$2.15 a day. This poverty is worse in the north of the country.

Walking and cycling are the most common modes of transport in rural Ghana. The BFG study found that about 75% of people surveyed, mostly living in the Northern rural regions, either walked or used bicycles get to markets or to their places of work.

Motorized transport in Ghana is common, particularly motorbikes and minibus-taxis (tro tros). Nearly half of BFG survey respondents in Ashanti and Accra regions used motorized transport as their main modes for travel during the harvest season. Minibus taxis were the second-most popular mode in Ashanti and the most popular in Greater Accra.

But bicycles can still help people move more easily, travel further distances, save time and costs, and improve their livelihoods and life potential. Cycling is affordable, accessible, reliable, and efficient compared to walking as well as to public transport. Bicycles can also contribute to low-carbon and inclusive economic growth and improve development outcomes.

KEY FINDINGS

- 80% of all households in Ghana have at least one bicycle.
- 66% of people surveyed either walk or cycle as their main mode to work or market.
- 41% of people surveyed used a bicycle as their main mode of travel to work or to market. Among women who were surveyed, 29% used bicycles as the main mode. In comparison, more men (52%) said they used a bicycle as their main mode.
- 79% of men and 65% of women owners are satisfied with using a bicycle for transport.
- 84% of people surveyed said that owning a bicycle would increase their economic activity. Both men and women equally felt this way.

SUMMARY OF DETAILED RESEARCH FINDINGS

DEMAND: WHO USES BICYCLES, AND WHY?

There is a high demand for bicycles in Ghana, with 54% of people surveyed currently owning a bicycle, while 27% said they used to own a bicycle. There is higher demand for bicycles in rural Ghana than in the cities, although bicycle use is growing in urban areas.

Bicycles tend to be used by poorer people. For example, 80% of rural farmers owned bicycles, and used their bicycles to carry inputs to their farms, and to carry produce to market. But even among people who are not farmers, almost half of people surveyed owned a bicycle.

Bicycles are such a popular mode of transport as they are more affordable than motorcycles or other forms of public transport. Bicycles are also easily available, and have lower operating costs than motorized transport.

53% of bicycle owners use a bicycle to transport goods. An almost equal share of women (54%) and men (53%) owners used their bicycles to transport goods.

When people do not make their entire trip by bicycle, they use bicycles for part of the trip. At least a quarter of people surveyed who did not use bicycles to travel to work or market said they still used a bicycle to get to another form of transport, such as a taxi (tro tro).



Table 1: Uses of bicycles in Ghana

Uses of bicycles	All	Men	Women
Transportation	65%	69%	60%
Economic	49%	53%	41%
Fetching water	29%	26%	35%
Exercise	21%	26%	13%
School commute	19%	16%	26%
Access energy	14%	13%	15%
Access health facilities	9%	13%	15%
Shopping	8%	7%	10%

KEY SURVEY FINDINGS

- Bicycle owners spend on average 9.3 hours a week using their bicycle.
- 85% of bicycle owners use their bicycles every day or many times a week.
- People who use a bicycle that they do not own, spend only 2.9 hours using a bicycle a week.
- 72% of bicycle owners felt bicycles met their transportation needs.
- People who own bicycles are more likely to be satisfied with using a bicycle than people who borrow a bicycle.

WOMEN AND BICYCLE USE

In most of Ghana, there are no cultural barriers to women owning, riding, or using bicycles. However, women are very much less likely to own a bicycle, although this is different depending on the region and the type of work women do. When women are farmers or traders, they are less likely to own a bicycle than if they are earning a salary. The cost of a bicycle is the main reason people do not own bicycles, and women on average earn 30% less than do men.



KEY SURVEY FINDINGS

- Among all people surveyed, 70% of men own bicycles, but only 36% of women owned bicycles.
- In the Upper West region, 70% of women surveyed did own a bicycle.
- 46% of women used their personal savings to buy a bicycle, compared to 81% of men.
- 41% of women said that even though they did not own a bicycle, they could use the household bicycle.
- 64% of women walked or used bicycles as their main mode of travel to work or market, while 66% of men reported doing the same.
- Compared to men, women spend fewer hours using bicycles and used them less frequently. On average, women spent 6.5 hours per week using a cycle, compared to an average of 7.6 hours among men. While 68% of men used their bicycles every day or many times a week, far fewer women (38%) reported doing the same.

WHAT PREVENTS MORE BICYCLE OWNERSHIP AND USE?

If bicycles were less expensive, more people in Ghana would own bicycles. Road safety is another reason people use bicycles less than they would like to. People interviewed for this study also said that if there were bicycle paths and safe bicycle parking in the country, they would increase their bicycle use.

Table 2: What would encourage more bicycle use in Ghana? Findings from the BFG surveys

Main reasons (% of respondents):	All	Men	Women
Cheaper bicycles	78.3%	85.4%	70.8%
Bicycle paths	45.2%	48.0%	42.2%
Better road safety	41.0%	47.0%	34.6%
Better bicycle design	29.5%	38.9%	19.5%
Improved bicycle repair accessibility	23.5%	30.3%	16.2%
Secure bicycle parking/storage	20.6%	25.8%	15.1%
Improved bicycle quality	1.0%	1.5%	0.5%





KEY SURVEY FINDINGS

- 58% of people surveyed in Greater Accra and 42% in Ashanti said they did not own a bicycle or were concerned about safety.
- 66% of people surveyed said they were concerned about bicycle theft.
- 60% of survey respondents said they do not own a bicycle because they cannot afford one.
- 87% of people surveyed said they have concerns about road safety when using a bicycle.

SUPPLY: BICYCLE IMPORTS AND SALES

Ghana is a hub for bicycle trade in West Africa. Sometimes wholesalers in Accra and other urban areas take pre-orders and deposits, so that retailers can be sure to have access to stock. Some wholesalers also have WhatsApp groups to let retailers know that shipments of bicycles are on their way.

Most bicycles sold in Ghana are used (pre-owned), and imported from Japan. Most of the bicycles are very similar to one another in respect of style and type of bicycle. People therefore modify their bicycles to ensure they fit their needs, for example by adding a carrier, a basket, or a new custom seat, or strengthening the bicycle frame. Retailers use bicycles in poorer condition for spare parts.

SYSTEMS: WHAT ENABLES, ENCOURAGES, OR DISCOURAGES BICYCLE DEMAND AND SUPPLY

Finance, the spare parts and maintenance industry, and government policy and civil society advocacy, are all important supporting services for the bicycle market system.

Financial systems

There are few opportunities for individuals to borrow money from a bank to purchase a bicycle. Bicycle suppliers also do not borrow money from banks to buy their stock, but there is an extensive provision of credit to suppliers by wholesalers. Sometimes suppliers are permitted to pay for goods in instalments, or pay on delivery – it all depends on the relationship between retailers and wholesalers.

KEY SURVEY FINDINGS

- Only 3% of individual bicycle owners said they had repayment arrangements with retailers.



Table 3: The way in which people in Ghana pay for bicycles

Mode of payment	% of bicycle owners
Own savings / sale of goods or assets	67%
Money given by family / friend	16%
Making payments to seller	3%
Village Savings and Loans Associations (VSLA)	3%
Borrowed from family / friend	1%
In-kind payment	1%
Microfinance	1%
Did not pay	13%

Transport policy

Ghana's National Transport Policy (of 2020) focuses on bicycle travel in urban areas, and aims to develop bicycle lanes and other infrastructure to encourage people to walk or cycle to public transport stations. There is not enough focus on the needs and concerns of rural bicycle users.

Government officials say that there is not enough bicycle advocacy in Ghana, and that more social pressure would be welcome to push for cities and rural areas to be more bicycle-friendly.

Maintenance systems

Spare parts suppliers and mechanics are important supporting services, as they keep bicycles on the road. The spare parts market in Ghana is well developed, and bicycle owners say it is easy to find spares. Unlike in many other countries in Africa, spares are not imported separately but are stripped from poorer quality imports.

Demand for parts (tubes, tires, spokes) and repairs is high, as many cyclists need to repair their bicycles at least once a month. Bicycle owners say that they need to replace parts often because of the poor quality of the roads, the poor quality of spare parts, and because they use their bicycles to carry heavy loads. Bicycle owners say it is very easy to find a mechanic.



KEY SURVEY FINDINGS

- 97% of bicycle owners said it was easy to find spare parts or bicycle accessories.
- 87% of bicycle owners use a local mechanic to fix their bicycle.
- 26% of bicycle owners say that it was difficult to find a mechanic.
- 32% of bicycle owners have to repair their bicycles at least once a month.
- 69% of survey respondents worry about the cost of bicycle maintenance.
- Bicycle owners spent an average of GHS 86 (US\$10.75) on maintenance in the six months before the survey.
- Import duty is 20% for tires and tubes, and 10% for other spare parts, such as wheels and brakes – excluding VAT.

Table 4: Most purchased bicycle spare parts – findings from the BFG survey in Ghana

Spare part / accessory	% of bicycle owners
Tire / Tube	92%
Chain	42%
Brakes	40%
Patch / Puncture Kit	39%
Wheel / Spoke	32%
Pedal	31%
Pump	15%
Hub	13%
Saddle	9%
Frame	8%
Fork	7%
Carrier	6%

POTENTIAL SOLUTIONS TO BICYCLE MARKET SYSTEM CHALLENGES

Based on the research presented in this summary, and in the full research reports, the Bicycles for Growth (BFG) team developed this summary of potential interventions to address these challenges.

Table 5: Overview of challenges and potential interventions

Challenges	Causes	Potential interventions
DEMAND		
<p>High cost of bicycles</p> <p>Demand for bicycles depends on the season</p>	Households have low income	Develop loans for bicycle purchases through microfinance institutions or banks
Bicycle users worry about the security of their bicycles	There are few secure places to lock/park	Develop appropriate bicycle storage facilities at key destinations
Women are less likely to own or use bicycles than are men	Women often have less access to finances to purchase a bicycle or to borrow a bicycle	Consider women in particular when developing loan products or other bicycle I programmes
There is lower demand for bicycles in urban areas	<p>Urban areas are seen to be more dangerous</p> <p>Bicycles have lower status in urban areas</p> <p>Walking and cycling infrastructure (such as sidewalks) is used by motorized traffic and traders</p>	<p>Enforce rules of use</p> <p>Engage with and advocate to government to build bicycle lanes and other infrastructure</p>

Challenges	Causes	Potential interventions
Bicycle users are concerned about road safety	Drivers can drive dangerously There are very few dedicated lanes for bicycles	Engage with and advocate to government to build bicycle lanes and other infrastructure




SUPPLY

Suppliers, wholesalers and larger retailers do not always know what customers want	Retailers do not collect much information about their customers There is poor communication between retailers and wholesalers	Create deliberate market information collection processes Strengthen the links between retailers and wholesalers Create market information systems
Because most bicycles are imported from Japan, the country is	Ghana is dependent on Japan for bicycle imports	Diversify the sources of imports

dependent on the Japanese export market staying the same		
There are limited ranges of bicycles for sale	Shops have working capital (savings) to take risks to purchase different types of bicycles There is poor communication between	Offer support to shops/retailers to improve business process and skills to facilitate access to finance

SYSTEMS

There are few options to borrow money specifically to purchase bicycles	There is limited MFI and bank awareness of bicycles as income generating tools Loose structure of associations for bicycle-based businesses	Support MFIs to develop bicycle lending products to offer directly to buyers or to sellers as intermediaries Support to associations of bicycle-based businesses to formalize and engage with MFIs
In urban areas, bicycle infrastructure is under-used	Bicycle lanes are used by motorized traffic users and by streetside traders Infrastructure does not have clear signage	Enforce restrictions on bicycle lanes Support the development of separated bicycle lanes Improve bicycle infrastructure signage

<p>Road infrastructure does not consider bicycle and pedestrian needs</p>	<p>Budget constraints mean that decision-makers put the needs of motorized vehicles first</p> <p>Engineers are not trained in bicycle and pedestrian infrastructure design</p>	<p>Advocate for bicycle infrastructure</p> <p>Develop holistic bicycle design courses for engineers</p> <p>Include walking and cycling design in continuing education for engineers</p>
<p>Transport policies do not always pay enough attention to the needs of bicycle users</p> 	<p>There is not always enough awareness of cycling issues and viewpoints on part of policy makers</p>	<p>Engage with and advocate to policymakers</p> <p>Increase the level of organization of civil society groups</p> <p>Support existing bicycle organizations</p>