

Access and Mobility to Transportation for the Rural Poor: Examining the Role of Intermediate Means of Transportation (IMT) in Kafin Lemo, Burra District Ningi Local Government Area of Bauchi State, Nigeria

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Abstract

The research examine the role of Intermediate Means of Transportation (IMT) in addressing the transportation needs of the rural poor of KafinLemo ward of Burra district in Ningi local Government area of Bauchi State, Nigeria. The study was undertaken from a qualitative perspective because of the need to ask more probing questions than just limiting the participants to a set of responses. The data was collected through in-depth interviews and focus group discussions. The responses highlight the fact that in the absence of the conventional vehicle,

IMTs can be used as the main vehicle on rural roads as they have the potential to address some of the transportation challenges particularly associated with the rural poor in KafinLemo. IMT are very important and, if managed properly, will serve as one of the best solutions for rural transport services, because people will move from head loading practices to use IMT as their means of transportation. IMT can serve for emergency purposes, because it is used to convey pregnant women in the rural areas to a nearby delivery center. IMTs can be adopted in Kafin Lemo as it is largely cheap, economical, affordable and user-friendly. IMT can be used as the main vehicle on rural roads.

The research concludes that IMTs positively impact on the transportation of small and medium loads which are difficult for human beings to carry and, at the same time, expensive to carry by other means of transport. Among the challenges in the use of IMTs by rural dwellers is the fact that the level of poverty in the area is high and they were unable to finance the purchases of IMT. Most of the rural roads are in bad shape such that donkeys or other animals will struggle to ply.

Keywords: *Accessibility, Mobility, Rural transport, Intermediate Means of Transport, Feeder Roads in Kafin Lemo*

INTRODUCTION

The importance of transport facilities in rural areas can be justified from both social and economic perspectives. Socially, a significant proportion of Nigeria population lives in the rural areas and demands various forms of transport to facilitate socio-political interactions. Secondly, the rural areas are indispensable in the supply of food, raw materials to urban centres and the country's economic growth as a whole. In any rural society, influence of rural transport on the patronage of rural markets plays a pivotal and often a decisive role in determining the overall productivity and development of a rural economy as well as the quality of life of its dwellers. In rural areas throughout the world, agriculture represents the predominant land use and a major component of the viability of rural areas. Farming and related activities make up the basic fabric of rural life, contributing significantly to the overall state of regions in terms of employment and business opportunities, infrastructure and quality of the environment. It is recognised that a good transport system does not only rely on road infrastructure but also the availability of suitable vehicles. These vehicles must be at the right place and the right time, so as to serve the needs of the people or the purpose for which the road was constructed (Porter et al, 2013). In the absence of conventional vehicles, there is the need to consider other alternatives. One such alternative is the use of Intermediate Means of Transport (IMT). This is defined as any form of transport ranging from human walking to large-scale transport. IMT seeks to address some of the transportation challenges particularly associated with the rural poor (Starkey, 2001). They are seen as intermediate because they are between human walking and motorised transport and can positively impact on the transportation of small and medium loads which are difficult for human beings to carry and, at the same time, expensive to carry by other means of transport.

A number of studies have identified different types of small-scale road transport carriers which are suitable for Sub-Saharan Africa. These include wheelbarrows, hand-drawn carts, animal-drawn carts, motorised three-wheelers, tricycles, motorcycles and others (Starkey et al., 2002; Starkey, 2001). These same studies have indicated that despite the suitability of the IMT

identified above, the use of IMT have been very low in most parts of Africa. Countries such as Nigeria, Ghana, Angola, Kenya and Zambia have attempted to adopt IMT but are faced with numerous problems. The reasons for this low patronage include, but are not limited to, low economic activity, lack of expertise in design, high seasonality of cashflows and transport demands, inadequate supply of components among others (Starkey, 2001; Okoth, 2005; Gauthier & Hook, 2005). Most people in rural areas do not have the means to own a car and, therefore, mobility is synonymous with walking or intermediate means of transport (IMT) or, better still, public transport. Transport services in most rural settings along feeder roads are delivered by way of animal-drawn carts, bicycles, motorcycles or tricycles. These are the main transport for the rural population in most countries. An interesting observation is that IMT as a means of transport is often ignored even though it plays a critical role in the mobility of rural people. While providing access to markets, healthcare facilities and educational facilities, IMT also provide employment to the operators of these IMT (Porter, 2002a; Iga, 2002; Okoth, 2005).

The use of Intermediate Means of Transportation (IMT) in the rural areas helps to haul surplus agricultural commodities from productive village thereby helping to minimize shortages of food products and raw materials. IMT as a means of transport in the rural areas increased connectivity network between places and cheapens the cost of transport to the market and thereby brings additional buyers and sellers into contact with one another. The rural transport holds significant potential for creating decent and productive jobs and contributing to development and economic growth. It accounts for a significant share of employment and output in many developing countries.

The inadequacy of public transport linking settlements has resulted in the dominant use of IMT. In the rural areas the scarcity and inadequacy of passenger transport is much more acute than in the urban areas because of low vehicle density which in turn is due to inadequate or lack of road infrastructure and low incomes of residents. Due to low levels activity and income, rural household cannot in general support a public transport system for inter village trips and the only alternative is to use IMT such as cycling and donkey/animal carts. The IMT are still the commonest mode of passenger transport in the areas. Rural areas in Nigeria are dominated by defective road networks and the condition is even made worse as the landscape of several rural areas are made up of hills and valleys and other challenges in the environment like swampy and clayey areas (Olayiwole & Adeleye, 2005). Despite the contribution or the relevance of IMT as a means of transport, African governments have not given it the needed attention. Currently tricycles and motorcycles imported from China and India seem to be making headway as far as rural transport is concerned. The assumption underlying the construction of roads in developing countries is that if roads are constructed, automatically the private sector will take advantage by developing transport services along the road. This continues to be a failure as in most cases the roads have been built but only a few number of people are actually utilizing the roads as there are no conventional transportation systems. It is important for governments in developing countries to look for innovative ways of address the transport challenges facing the rural people through proper and effective planning which was hitherto not the case. Therefore, the study determined the issues of access and mobility transportation in KafinLemo, of Burra district in Ningi local government area of Bauchi State by critically analysing the role that intermediate means of transport (IMT) can play.

LITERATURE REVIEW

Government and Transport Infrastructure

A country with a sound infrastructure base is able to attract investment growth and expansion of its economy as it becomes very attractive for further investment (World Bank, 2008). Transport infrastructure has been in demand for many developing countries; there is the need for new construction and the maintenance of the existing roads. Lack of road access deprives many people access to education, health care and other economic activities. Poor transport infrastructure are the causes of many deaths, for this reason, transport needs have become major discussion for consideration under the United Nations post 2015 agenda (Doczi, Dorr, Mason, & Scott, 2013). Sound investment in the transport infrastructure and services contributes to economic growth; because transport infrastructure is a key to tourism development.

Infrastructural availability influences decision made by individuals, households and entrepreneurs. The costs of transport, for instance, serve as incentives for firms and individuals to locate or relocate activities to a given place. Transport is a necessary input for wealth-creation and transformation of economies from lower income levels to higher ones.

Across Africa, banks, clinics, hospitals, secondary schools, extension agents, produce markets and the likes tend to be located in larger rural service centres, usually served by paved roads. For women, the financial, time and, in some cases, cultural constraints on mobility (and thus on access to these facilities), can be particularly restrictive. A review of three aspects of access to medical care, markets and credit facilities illustrates the difficulties, frustrations and costs of off-road residence. Villagers emphasize the need for access to health care in emergencies, but health facilities of any kind are rare in off-road locations. In Morocco, places with better rural roads reportedly have twice the use of health care facilities (World Bank, 2008). Ironically, off-road inhabitants are often the most in need of medical assistance, since water supplies are frequently poor, and poverty levels are above regional averages. Research in Ghana and Uganda on Participatory Poverty Assessment (World Bank, 2000) suggests that vaccination programs sometimes miss off-road settlements, exposing these residents to further risk. In a nutshell, ill-health is most often worse in rural regions and very poor during wet seasons precisely at a time where travelling conditions even for pedestrian are worse off due to poor roads. This problem constantly persist in most rural areas of northern Nigeria and among many other countries in Africa, although in less densely populated areas the distances to hospital are often much greater and it may be impossible to make the journey at all.

Poor and inaccessible roads traders are often reluctant to move into remote areas to do business unless suppliers from accessible areas are insufficient. Moreover, when urban-based traders visit areas where access is difficult, the competition from other traders is likely to be limited and prices achieved by local farmers will thus be poor, especially for perishable produce (Lyon, 2000). Indeed, market decline and closure in off-road locations appears frequently to be one of the unforeseen effects of road construction programmes. In some parts of sub-Saharan Africa, there are cultural constraints which restrict women's movements. In addition to physical and economic constraints, off-road market closures following road construction have had a particularly severe impact on women living off-road. When vehicles are available, off-road journeys to market by motor vehicle tend to be more expensive, because of the increased costs of maintenance.

The role of IMT in addressing transportation issues

IMT provide solutions to the numerous transportation challenges faced by people to reduce labour cost associated with transport (Starkey, 2001). They are seen as intermediate because they are between human walking and large-scale transport. IMT can improve transport of both small and medium loads which may be a bit difficult for human beings to carry. The recognition of the potentials of IMTs in Sub-Saharan Africa was discovered in the 1980's even though it is only in recent times that research and development have been enormous (Starkey, 2001). The dominant IMT identified in the late 1980's include bicycles, tricycles, ox-carts and water carriers. IMT have been adopted extensively in Asia. It is yet to make similar impact in Africa due to differences in population density, income levels, industrial base, taxation and cultural factors. As earlier indicated, most people in rural areas do not have the means to own a car and therefore mobility is synonymous with walking or IMT. Transport services in most rural settings along feeder roads are delivered by way of animal-drawn carts, bicycles, motorcycles or tricycles (Fasakin, 2001; Porter, 2002a; Iga, 2002; Okoth, 2005).

Benefits of IMT

IMT provide solutions to the numerous transportation challenges faced by people to reduce labour cost associated with transport (Starkey, 2001). IMT can improve transport of both small and medium loads which may be a bit difficult for human beings to carry.

An interesting observation is that IMT as a means of transport is often ignored even though it plays a critical role in the mobility of rural people. IMT present numerous benefits to the rural people which studies have confirmed (White et al., 2000; Gauthier & Hook, 2005; Starkey, 2016). For example, these studies have found that IMT represent a reliable means of transport both for goods and human beings. While providing access to markets, health care and educational facilities, IMT also provide employment for the operators (Fasakin, 2001; Porter, 2002a; Iga, 2002; Okoth, 2005, Lopes, 2005). IMT provide economic and social opportunities and benefits that result in positive effects. In rural areas movement to places of work (farms) fast and in a much convenient manner increases working hours and increased productivity leading to better economic livelihoods. IMT provide a cheaper and affordable means of transport. Furthermore, the operation of this group of transporters has eased the transport difficulties encountered by rural dwellers. In the work of (Gina, 2013) comes out with the view that, using an IMT has many advantages over a car. IMT are cheaper to run, easy to repair, easy to park, more flexible, less boring and can stop anywhere thus providing a door-to-door service.

The increasing growth in the number of tricycles, bicycles, motorcycles has come to solve the mobility needs of many rural dwellers in the light of poor and inadequacy of transport system, poor rural road conditions. It also comes along with a host of opportunities including employment to bicycle, tricycle and motorcycle mechanics and spare parts dealers, local revenue generating sources through taxes on tricycle and motorcycle riders as well as tricycle and motorcycle registration and licensing.

Challenges affecting the adoption of IMT

IMT are not new in Africa as several countries such as Nigeria, Uganda, Angola, Ghana, Kenya, Zambia and others have attempted to adopt them, even though they have been confronted with numerous challenges. A number of challenges hamper the adoption of IMT, particularly in Africa. Literature reveals that economic activity, lack of expertise in design, high seasonality of cashflows and transport demands, inadequate supply of components constitute some of the challenges affecting the adoption of IMT in most developing countries (Starkey, 2001; Okoth, 2005; Gauthier & Hook, 2005). The influence of gender in the adoption of IMT seems to be posing a challenge to its adoption in some countries such as Ghana (Porter, Blaufuss & Acheampong, 2012). It is also believed that the adoption of IMT is challenged by such issues as culture, gender, cost, poor road network and others (Porter & Lyon, 2006; Starkey 2005; Porter et al., 2012). In addition to the above, most government officials in Africa look down on IMT as means of addressing the transportation problems facing rural people (Starkey, 2001). For example, the provision of poor or low quality equipment has been a very significant challenge for most of these countries, especially Nigeria. Most of the equipment provided for the implementation of the Village Infrastructure Projects was all inappropriate (Porter, 2002; Porter and Lyon, 2006). It is important for governments in developing countries to look for innovative ways of addressing the transport challenges facing the rural people through proper and effective planning which has hitherto not been the case. Steven (2016), reveals an evidence of significant negative public health outcomes associated with crashes and pollution attributable to rural transport, poor mechanical conditions of vehicles and risky driving behaviours were reported to be an important source of injury from rural road crashes. The study further revealed that, 60% of traffic related injuries observed in rural northwest Ethiopia were associated with commercial motorcycles. In addition, hospitals in rural areas of Nigeria indicated that 54% of injuries coming into the emergency department were motorcycle related.

METHODOLOGY OF THE STUDY

For the purposes of achieving the study objectives, a qualitative approach was adopted. The study was undertaken from a qualitative perspective because of the need to ask more probing questions than just limiting the participants to a set of responses. The qualitative approach was adopted because there was the need to get a detailed account of the key issues affecting rural transportation and intermediate means of transport (IMT). This approach enabled the participants to freely discuss these issues without any fear or limitation. The interviews and the focus-group discussions focused on what, why and how questions. The study sought to explore the issues surrounding access and mobility of the rural poor, hence the need to adopt an approach which could drive this agenda. As indicated by Teddlie & Tashakkori (2003), qualitative studies are very relevant when a study seeks to explore or gather in-depth understanding of a particular issue such as this.

The study relied on data from both primary and secondary sources. With respect to the primary data, the study collected information through in-depth interviews and focus group discussions whereas the secondary information was gathered from research documents and research reports on rural transport and intermediate means of transport. In all, one hundred and twenty four (124) respondents participated in the study and they were made of up of the community people such as

community leaders, farmers, traders and other members of the community. The focus-group discussions featured twenty (12) participants who were mainly farmers, traders and indigents who live within the study area. Purposive sampling was used to select information-rich cases in qualitative studies (Patton, 2002). Scholars such as Creswell & Klassen, Plano Clark & Smith (2011) have shown that purposive sampling involves the selection of individuals or groups who have experienced an issue of interest. Quite apart from the above, it was also important to consider the willingness and ability of respondents to participate to get the right answers.

The questions for the in-depth interviews and focus group discussions were generated from a critical review of literature on Intermediate Means of Transport (IMT) as well as Rural Transport in general. The data gathered from the interviews and the focus-group discussions were analysed qualitatively by inspecting the data for recurrence. For the sake of clarity, the contents of the interviews and focus-group data were grouped according to the study themes.

As indicated by Wilkinson (2004), content analysis presents a comprehensive overview or summary of the data collected making it possible for researchers to have a broad view of the data collected. The content analysis was undertaken for the purposes of coming out with the key themes as they occur in the data collected. These themes were grouped together in view of coding which made it easier for further conclusions to be drawn. Based on the above the findings were then compared to the literature.

ANALYSIS AND DISCUSSION OF FINDINGS

IMT have emerged as popular interventions to address the challenges associated with accessibility and mobility in KafinLemo, Burra district in Ningi Local Government Area, Bauchi State. The findings gathered from the interviews and the focus group discussions were presented in this section, which contains information on the role and use of IMT, benefits of IMTs and the challenges associated with the use of IMTs.

The role and use of Intermediate Means of Transport in KafinLemo

The study revealed that only two IMT (motorcycle and animal drawn cart) were majorly used by the people of KafinLemo, Burra district. Furthermore, it revealed that motorcycle is the most used with nearly half of the total respondents followed by animal drawn cart with more than two over four of the respondents. The study also revealed that bicycle is the third means of transport which account for almost two of ten of the respondents, Wheelbarrow/hand cart, Donkey, Horse and camel were also used at a lower percentage.

The study revealed that more than half of the respondents used motorcycle for trip to farm during dry seasons followed by those who used animal drawn with about two of ten of the respondents, bicycle account for less than two of ten of the respondents for trip to farm and donkey with less than one of ten. In the same vein, motorcycle is majorly used in rainy season in KafinLemo. Most of the activities done with IMT by rural dwellers for trip to farm in dry season is to convey manure from home to farm and collection of animal feeds from farm to home, while in raining season IMT is used to transport harvested produce from farm to market or home. The study also revealed that about half of the respondents used motorcycle for collection of households needs, followed by animal drawn cart then bicycle. Donkey, wheelbarrow and camel amount to less than one out of ten of the respondents who used IMT for collection of house needs. Collection

of house needs in rural areas include; collection of firewood, collection of water, collection of blocks and sand for buildings, etc. for trip to markets. Motorcycle account for almost half of the responses followed by animal drawn with about three in ten of the responses and bicycle has less than two in ten of the responses, donkey, wheelbarrow/hand cart and camel are also used for trip to market in both dry and rainy season but at a very low percentage.

IMT are generally seen as anything between walking or motorized transport and therefore this section analyses the views of respondents in respect of the role and use of IMT in KafinLemo, Burra district. IMT are for short distance. They are most appropriate to use because the person using IMT don't need to get a certain number of people. In terms of short distances, IMT are needed. Eventually, IMT are used for commercial purposes, therefore IMT is the good transport system on rural roads to carry goods.

Another respondent who happens to be an IMT operator also said: "IMT can serve several purposes as it can even be used in term of emergency. Some communities visited used IMT for emergency services.

Another respondent stated that "IMT are very important and, if managed properly, will serve as one of the best solutions for rural transport services, because people will move from head loading practices which can greatly affect their health to use IMT as their means of transportation".

On the issue of IMT suitability, some respondents indicated that IMTs are suitable in communities where conventional transport systems are absent. To these respondents the suitability depends on the availability of other forms of transport as well as the nature of the road network. A respondent reiterated that: "In communities where they have no commercial means such as buses and taxis, IMT can be used as a means of transport for transportation of both people and goods. IMT can serve for emergency purposes, because it is used to convey pregnant women in the rural areas to a nearby delivery center".

According to some responses IMTs can be adopted in KafinLemo as it is largely cheap, economical, affordable and user-friendly. IMT can be used as the main vehicle on rural roads.

Benefits of IMTs in KafinLemo

IMT is beneficial in the fight against poverty in KafinLemo. To the rural folks, whether it is bicycles, camel or donkeys, the most important thing is that it relieves the hardship of the rural folks. So instead of carrying it on the head, these intermediate means of transportation (IMT) help. It saves the rural dwellers of KafinLemo a lot.

Some respondents noted that in KafinLemo, IMTs, such as bicycles, are very helpful for school children and farmers especially those who travel distances every day before they get to school or farm. A respondent opined "Oh, bicycles are very good for school children and farmers".

Respondents also added that IMTs provide alternative means of transport for the rural dwellers in KafinLemo. A respondent shared his thoughts "it is very good for those of us who are poor because we cannot afford to use motorised transport".

As an alternative means, some respondents revealed that IMTs are very beneficial in term of emergency. A respondent who shared his experience had this to say "we used IMTs a lot for emergency services. Over here bicycles are sometimes used to carry pregnant women who are about to deliver to the nearest hospital because of the absence of conventional vehicles and the nature of the road. Had it not been this, am sure a lot of people would have lost their lives not only in KafinLemo but even Burra the sit of the district head".

In addition, a respondent indicated that “IMTs were very useful to those of us far from the main road because the roads that link KafinLemo to the main feeder road are very bad and therefore IMTs do a great job for us”. What is more interesting is the fact that IMTs is be very beneficial to the people of KafinLemo in times of emergency which is an indication that it has to be improve to make it more useful than it is now.

Challenges with the use of IMTs in KafinLemo

The study revealed that three factors were majorly highlighted by the respondents as their major challenges in the use of IMT within the study area: Reckless driving account for more than one third of the responses, followed by environmental constrains (erosion and the rocky nature of the some areas) and High Cost of transport where each of them are less than three in ten. Few respondents mentioned lack of spare parts, poor maintenance of IMT and road condition as the challenges faced in the use of IMT within the study area.

Respondents indicated a number of challenges confronting their promotion and subsequent adoption. A respondent shared that: “even though the cost of acquisition is not high, as compared to motorized transport, there is the need for subsidies to be provided because a lot of the people of KafinLemo cannot afford to buy on their own IMT”.

In addition to the above, a respondent noted that: “The reason why some people of KafinLemo don’t use IMT is the fact that the level of poverty in the area is high and they were unable to finance the purchases of IMT. An IMT operator who had an issue with the quality of equipment in the market and poor nature of the roads are also affecting the adoption of IMT. He indicated that “most of the supporting equipment was of inferior quality and therefore it doesn’t last. Again, most of the rural paths or roads are in bad shape such that donkeys or other animals will struggle to ply”.

A respondent who complained about the nature of the road had this to share: “No road is in good condition. We are even affected by it as well especially during the raining season”. Adding to the above, a respondent revealed that “we find it difficult to use even IMTs because of the nature of the roads. For me when the road is good I will use IMTs but in this deplorable state I won’t risk my life”.

In addition to the above, a respondent stated that though IMTs can be used by all people, women and children are often discouraged about their usage, because it is perceived that men are the ones who were supposed to use them. He had this to share: “we don’t encourage women and children at all because it is not good for them. Again a respondent noted that “because of our household chores we do not get enough time to learn how to ride a motorcycle, bicycle and other IMTs and is also one of the challenges we are facing. The responses show that IMTs are very useful in addressing the challenges faced by the rural transportation in KafinLemo, though certain issues were affecting the adoption and need to be effectively addressed.

Discussion of Findings

The responses point out that the fact IMTs were very relevant for rural transport and can be used for both short and long distances, depending on the area and activity. Respondents believe IMTs were appropriate because they can be used anytime and for commercial purposes in some cases. It is pretty clear that IMTs provide significant benefits to the rural folks, from transportation of

goods to improving health care. The responses on the adoption of IMTs were not surprising as previous studies have hinted the extent to which countries in the Sub-Saharan Africa have adopted IMTs as a reliable means of transport, both for goods and human beings. This has been supported by numerous studies (White et al., 2000; Gauthier & Hook, 2005; Starkey, 2005).

The challenges, as revealed, differ from what previous studies have found. Whereas some literature have found low economic activity, lack of expertise in design, high seasonality of cash flows and transport demands, inadequate supply of components (Starkey, 2001; Okoth, 2005; Gauthier & Hook, 2005), as key challenges affecting the adoption of IMTs in rural areas of northern Nigeria and some other countries, this study revealed poor nature of the roads, acquisition costs, rural poverty, topography or location and others. This shows that though the challenges identified in literature may have existed in the past, recent dynamics may have shifted the attention from them. For example, the adoption rate in the rural part of Northern Nigeria is higher than the rural areas of the Southern part, primarily because the Northerners have been using IMTs especially animal drawn vehicle, Horse and Camel, whereas the reverse is the case in Southern part of Nigeria. Again, the responses show that the limitations in the use of IMTs in KafinLemo attributed to the perception that IMTs were men's prerogatives and therefore women are not expected to use them.

IMTs generally offer a complementary transport mode for the rural people, particularly for personal travel and carrying loads. Though mostly used by men, because women were normally discouraged from using them, a situation which does not prevail in the southern part of Nigeria. This to some extent confirms the views of some scholars on the influence of gender on IMT adoption (Porter, Blaufuss & Acheampong, 2012). The findings, as presented above, show that IMTs continue to play key roles in many areas. Notwithstanding preference for motorized transport by the respondents, the contribution of IMTs cannot be discounted. Scholars such as Starkey et al. (2016) have indicated that the adoption of IMTs vary according to the regions, due to reasons such as culture, gender, costs, poor road network and others (Porter & Lyon, 2006; Starkey et al., 2016; Porter et al., 2012). Unlike motorised vehicles which were financed by several institutions, IMTs were normally supported by a person who owned it which largely affects its adoption.

CONCLUSIONS

IMTs were assuming significant roles in KafinLemo, Burra district Ningi Local Government Area of Bauchi State. The study has shown that IMTs can be very significant to the rural dwellers in KafinLemo, Burra district though there were a number of issues facing their adoption. These include, but were not limited, to low income of most of the rural communities. It is clear from the above that the adoption rate varies depending on the location and the condition of road. For example, the adoption rate in the Northern part of Nigeria is higher than the southern part, primarily because the northerners were used to them. On the other hand, IMTs are not common in the southern part because the people prefer motorized transport to IMTs, primarily as a result of their cultural orientation and the nature of the area. Most people prefer motorised transport because it is fast and it carries a lot of goods and requires little human efforts as compared to IMTs. Some of the respondents also noted that they prefer motorised transport to IMTs because IMTs are kept for individual use. An interesting observation was the fact that the closer a village or community is to the main road, the lesser the use of IMTs. This implies that

IMTs are very relevant and supportive to communities in the hinterlands, as compared to those closer to main roads. In the absence of conventional vehicles, emergency situations, such as carrying patients in critical condition, most rural poor communities resort to innovative approaches by using bicycles, tricycle, animal drawn vehicle and other IMTs to provide these essential services.

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