

ASSESSMENT OF THE CHANGES BROUGHT BY TEGINA–MAKERA ROAD TO RURAL DWELLER’S WELFARE

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Abstract

This study assesses of changes brought by Tegin-Makera road to rural dwellers welfare to the residential housing types, ownership and changes in farm sizes, involvement in secondary occupation and status of social infrastructures. The data were obtained through inventory survey, focus group discussion, oral interviews and administration of 150 copies of questionnaires to respondents in the survey villages of Tegin, Tashan Bala, Gada, Dogon Hawa, Kangan Inga, Manigi and Makera. These villages were selected based on their location along the road. The sampling technique adopted in this study is purposive sampling. The finding of is that construction and shortening of Tegin to Makera via Kontagora road from 238km to 120km had brought Tegin to Makera closer, thereby reducing the distance and cost between them. Also improvement in the housing types and construction materials from 23.3 percent to 70.7 percent; increment in farm land for 80 percent and occupational diversification for 46.5 percent of respondents are other welfare benefits attributable to the road. Tegin and Makera have the highest number of infrastructure while Dogon Hawa has the least infrastructure. Key recommendation is that government and non-governmental organisations should develop sustainable housing policy for rural dwellers who cannot afford to own modern housing types and provision of farming materials at a subsidized rate.

Key words: Changes, Communities, Road and Rural Development,

1. Introduction

World Bank (2001) indicated that a significant improvement in socioeconomic living conditions of rural dwellers was estimated with rural roads investment such as improved accessibility to social infrastructure [schools and health centers], increased opportunities to access education and health facilities and improved social interaction and mobility, which are important for social and economic development. Rural development is to improve the quality of life of rural people. This makes it essential to go beyond the income-related factors such as prices, production, and productivity to a range of non-income factors that influence quality of life and hence inclusiveness of rural dwellers (Chino, 2000).

Inclusive rural development is a more specific concept than the concept of rural development. In broad terms, inclusive rural development is about improving the quality of life of all members of rural society. More specifically, inclusive rural development covers three different but interrelated dimensions (UNDP, 2005). The first is the economic dimension that encompasses providing both capacity and opportunities for the poor and low-income rural households in particular to benefit from the economic growth process in such a way that their average incomes grow at a higher rate than the growth of average incomes in the sector as a whole. Second is the social dimension of supporting social development of poor and low-income households and disadvantaged groups, eliminating inequalities in social indicators, promoting gender equality and women's empowerment, and providing social safety nets for vulnerable groups. Third is the political dimension of improving opportunities for the poor and low-income people in rural areas, including women and ethnic minorities, to effectively and equally participate in the political processes at the village level and beyond.

Rural infrastructure provides rural dwellers with access to the markets and basic services that they need. Second, it influences rural economic growth and employment opportunities and thereby incomes and social development. For example, "good feeder roads can allow the supply of perishable foods to high-value urban markets, and the income generated can be invested in health and education to improve the productivity of eventual migrants to the cities" (ADB, 2005).

Jalan and Ravallion (2002) noted that the differences in rural infrastructure across counties have strong explanatory power for subsequent consumption growth at the farm household level in rural China. The impact of high quality rural infrastructure on the quality of life of the rural population can be substantial.

Road can play an important role in the structural transformation of the rural economy and rural welfare. This is because the construction of good roads serves as a stimulus for economic growth, easy interaction and in the provision of basic facilities such as schools, markets, health centres and farm inputs (Mabogunje, 1980 and Olawepo, 2003). In other words, a good network of rural roads is most important to rural development. This is because without roads, the provision of other infrastructures becomes extremely difficult, if not impossible. Once a road is provided, other facilities can follow (Redclift, 1991 and Aluko, 2000).

The *raison d'être* of transport is the movement of goods and people from an origin to a destination which can be achieved through various modes of transportation. These modes include water, air, railways, road and pipe line. Of all these modes, road transport is the most beneficial to rural areas because of its flexibility and diversity of the means for moving people and goods. Road development in Nigeria has a long history and since independence, the rate with which Nigeria has pursued road construction is encouraging. Many roads linking cities and region have

been constructed to make accessibility easy. Most of the roads were constructed to link state capitals, local government headquarters, major urban centers and natural mineral producing areas. But for a long time since independence rural areas benefited little from road development (Usman, 2006).

Rural transport is viewed as an integral part of the national transportation system. And the various types of road(s) are constructed to permit movements and different kinds of flows that are discerned. The Tegin-Makera “new” road is an inter-regional highway which links northern and southwestern Nigeria. The purpose of this road is to reduce the distance between Tegin and Makera from 238km to 120km, which is from almost two and half hours to less than one hour journey on a normal day. The road was designed to cut across Rafi, Mashegu and Lavun local government areas (LGAs) respectively and its alignment took it through a few isolated rural settlements.

The construction of Tegin-Makera road started in 1983 and was completed in 1988. Prior to the construction of the road, one can only go from Tegin via Kontagora to reach Makera, a distance of 238km. the new road (Tegin-Makera) reduce the distance to 120km.

The thrust of this paper is to assess the changes brought by Tegin-Makera road to rural dwellers welfare on residential housing types, ownership and changes in farm sizes, involvement in secondary occupation and status of social infrastructures.

2. The study area

The study area, Tegin-Makera road passes within the middle belt region of Nigeria and lies between latitudes $8^{\circ} 20^{\prime} \text{N}$ and $11^{\circ} 30^{\prime} \text{N}$ and longitude $3^{\circ} 30^{\prime} \text{E}$ and $7^{\circ} 20^{\prime} \text{E}$. Tegin-Makera road is the road linking the northern with the southwestern Nigeria, (see fig 1 and 2).

The road is not a completely new road, but that portion of interest which justifies this study is the shortened distance between Tegin and Makera settlements, by-passing Kontagora town, which covers a distance of 120km. The road is two-lane track which can conveniently permit vehicular movement that passes through many settlements.

The Tegin-Makera road has become one of the busiest roads in the Nigeria since after construction. It is always busy with different modes of vehicles carrying both raw and finished products (agricultural commodities, livestock, industrial goods, petroleum products and spare parts) from the north to the southern part of Nigeria and vice versa.

3. Materials and methods

Data were generated for the study using the following; Primary and inventory methods, and the secondary and focused group discussion methods. Tegin, Tashan Bala, Gada, Dogon Hawa, Kangan Inga, Manigi and Makera villages were identified along the road were considered for this study. One hundred and fifty questionnaires were developed and administered to the respondents purposively. They constitutes district heads (*maiunguwa*), heads of household, religious and NGOs leaders, heads of business and people who are willing, because their houses were not numbered and some were afraid. They provided information on the effects of Tegin-Makera road and state of welfare infrastructures. The selection of respondents was based on those who were willing to be interviewed; meaning that when a respondent refuses the next willing respondent is interviewed. All information collected was subject to percentage calculation and summarized using tables for discussion in this study.

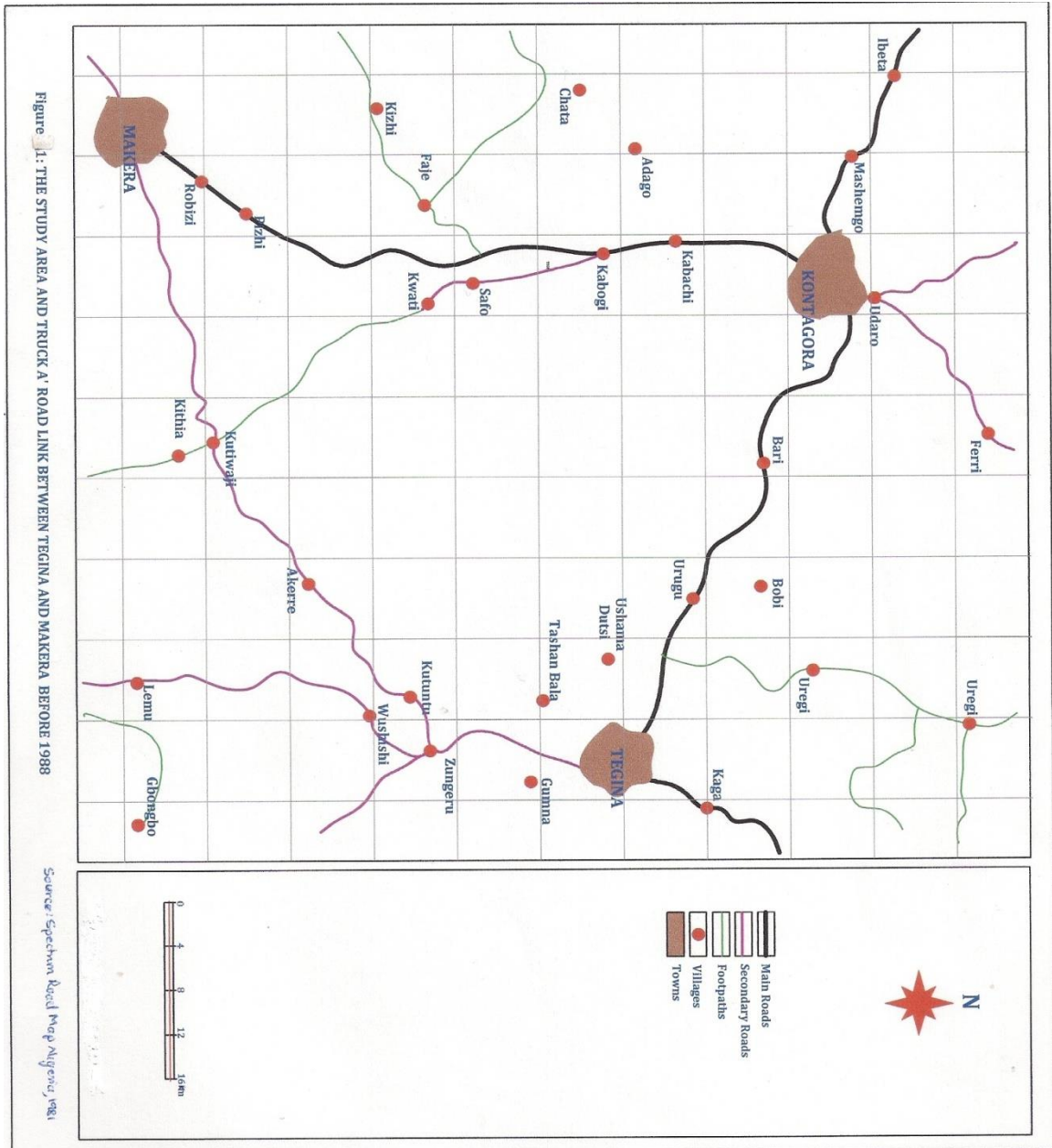


Figure 1: THE STUDY AREA AND TRUCK A' ROAD LINK BETWEEN TEGINA AND MAKERA BEFORE 1998

Source: Spectrum Road Map Nigeria, 1981

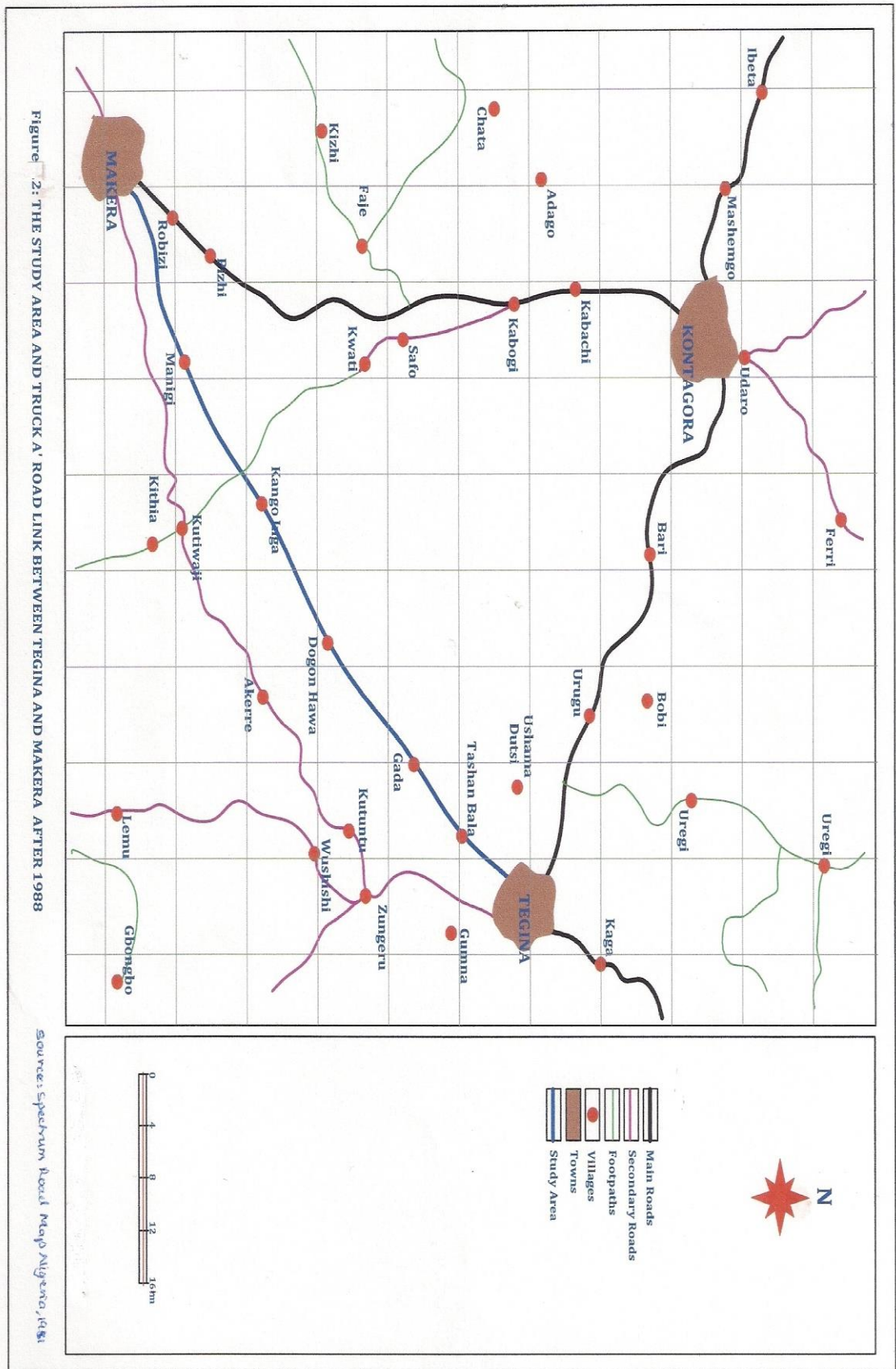


Figure 2: THE STUDY AREA AND TRUCK A' ROAD LINK BETWEEN TEGINA AND MAKERA AFTER 1988

Source: Spectrum Road Map Algeria, 1981

Inventory of business activities and welfare infrastructures such as farm produce sellers, provision shops, craft traders, tailoring activities, saw mill, fire wood seller was also developed. Others include schools, hospitals, health centres, cinemas, viewing centres, police stations, courts, fuel stations, churches and mosques were also identified by their location and date of establishment, to determine those established before and after new Tegin-Makera road was constructed.

Secondary data sources comprise road map which was obtained from Kwara state ministry of works. It was used to show the road before and after construction, the location, and size and pattern settlements. This map was then updated through field survey to show changes in the settlements (pattern and construction materials) and status of welfare infrastructures as at the time of this study. Relevant information was obtained from unpublished thesis and projects, journals, text books and websites to support literature.

4. Results and discussion

The result obtained shows that the reconstruction and up grading of Tegin-Makera road took a linear pattern along its course. It was found out that most settlements both from within and elsewhere have moved closer to the roads and are now aligned along road corridor, thereby changing the former settlement pattern from nucleated to linear pattern. It was found out that after the construction of the road, houses changed from mud with thatched roofs to cement wall or brick with corrugated and galvanised iron sheet roofs. The shape of the houses changed from round to rectangular houses. It was also observed that recent settlers have built their houses in the form of bungalows or duplexes with kitchens, toilets and garages.

Table 1. Distribution of Residential Housing before and after Road Construction

Villages	Before road construction	After road construction	Percentage change
	Mud wall and thatched roof No of respondents (a)	Cement wall and zinc roof No of respondents (b)	(b-a/a x 100)
Tegina	07	23	228.6
Tashan Bala	02	08	300
Gada	05	20	300
Dogon Hawa	03	12	300
Kangon Inga	10	10	-
Manigi	04	16	300
Makera	13	17	30.8
Total	44	106	
%	29.3	70.7	

The result on Table 1, revealed a decline in the use of traditional construction materials of 29.3% and increase in the use of modern ones of 70.7%. The improvement is more in Tegin, Gada, Makera, and lowest in Tashan Bala settlements. The percentage change is 41.4%.

The construction of Tegin-Makera road has enable farmers to expand their farmlands and produce more crops than they did before. More variety of food and cash crops are now

cultivated in greater quantities because fear of wastage has been removed by the construction of the new road. This is evident by the presence of many farm products such as yams, cassava, maize, millet, beans, groundnut, vegetables and fruits, which are seen displayed all-year-round along the road corridor.

The farmers in the study area practice both irrigation and rain-fed farming, so land is of great importance to them. It was discovered that land used for agricultural purposes is obtained through many sources which include inheritance (41.7%), gift (23%), rent and purchase. These forms of ownership have effects on the degree to which the land is used before and after the road construction. After the construction of the road, value of land for farming increased and new dimensions of ownership were introduced apart from inheritance. The non-indigene migrants acquire land through purchase, pledge, loan, rent and gift from the indigenous land owners.

Table 2. Ownership and Change in farm sizes before and after Road Construction

Farm land Sizes (Ha)	Number of respondents		Percentage change (b-a / a x 100)
	Before road construction (a)	After road construction (b)	
1/2	13	00	-
1-2	46	13	-71.7
3-4	39	46	17.9
5+	52	91	75
Total	150	150	

The result on Table 2, shows increase number and size of farm (above 80% of those interviewed own between 3-5 ha of land), this means that smaller farm sizes before the road was constructed gave way to ownership of larger farm sizes after the road was constructed. This could be, because the road has opened up the areas, increased demand for primary produce facilitated establishments of new markets and develop agricultural marketing.

Agricultural land in this study comprises all the land used fully or partly for purposes of crop cultivation, livestock rearing, poultry management and felling of trees. It was found out that the development of Tegin-Makera road has improved awareness of the importance and ownership of land for all the purposes, leading to increase in farm size (see Table. 2). This confirms that there is increase in area cultivated and growing importance in cash crops and grains farming, introduced by migrant from the northern Hausa land to this area.

Table 3. Involvement in Secondary Occupations before and after Road construction

Occupation	Number of respondents		Percentage change (b-a / a x 100)
	before road construction	after road construction	
Farming	53	58	9.4
Wood selling	42	45	7.1
Trading	23	25	8.6
Hand work	18	05	-72.2
C / Motorcycle	14	17	21.4
Total	150	150	

Note: C / Motorcycle = Commercial Motorcycle

The construction of Tegin-Makera road has encouraged creation of secondary occupations. The results on Table 3, show that significant percentage of the people are engage in off farm activities like commercial motor cycle operator 11.3%, fuel wood selling 30% (Plate 1), trading 16.7%, mechanic work and other hand works 0.3%.



Plate 1: Firewood for sale at Makera

This occupational diversification which came with construction of Tegin-Makera road provided additional income which has multiplier effects on the welfare of the people. It was found out that commerce and food vendor activities have catalyzed growth of Gada settlement. Gada is presently a major stop over for travelers and different socio-economic activities have increased because of daily movement of people.

The Tegin-Makera road was constructed between 1983-1988. Before then, it was reported that there were no social infrastructures like food canteens, film house, and drug shops. But after the construction a number of these welfare infrastructures like health centers, motor park, mechanic workshops, police station and worship places were constructed.

Table 4. Status of Social infrastructures before and after Road Construction

Social Infrastructures	Tegin	T/Bala	Gada	D/Hawa	K/Inga	Manigi	Makera
Bank	-	-	-	-	-	-	-
Central Mosque	1963	1997	1985	2008	1992	1985	1970
Church	1970	-	-	-	-	1985	1974
Court	-	-	-	-	-	-	1995
Fuel Station	1978	-	-	-	-	1990	1980
Health Centre	1999	-	2002	-	-	2000	1994
Hotel	1998	-	-	-	-	-	1995
Market Place	1975	1998	1989	-	1989	1973	1976
Mechanic Workshop	1970	1998	1989	-	1989	1973	1976
Motor Park	1975	-	2000	-	-	1980	1978
Patent Medicine store	1988	-	1989	-	2000	1989	1989
Police Station	1990	-	2005	-	-	1998	1990
Primary School	1970	-	1989	-	-	1995	1975

Secondary School	1978	-	1999	-	-	2003	1989
Tertiary Institution	1978	-	-	-	-	-	-
Viewing Centre	1997	2008	2007	-	2005	2005	2006
Well / Borehole	1981	-	2005	-	2001	1986	1980

Note: T/Bala= Tashan Bala, D/Hawa=Dogon Hawa, K/Inga=Kangon Inga.

Table 4, present the information on status of socio-economic infrastructures in settlement along Tegina-Makera road. This confirmed that Tegina and Makera settlements have highest number of the socio-economic infrastructures before and after the road construction. This is because they are old settlements, which have better chance or political opportunities to attract additional infrastructures. While others like Gada and Manigi settlements evolved after the road was constructed.

The cutting of trees for sale as firewood is one of the major occupations practiced by residents in all the seven sizeable settlements not more than 5km from the road during the research in the study area. The firewood is use for cooking at home, burnt to produce charcoal and sold to travelers or lorry drivers (Plate, 2).



Plate 2: Firewood of fuel Tanker at Dogon Hawa

SUMMARY AND CONCLUSION

This research on the effects of Tegina-Makera road on rural people's welfare is an attempt to identify the opportunities that usually accompany road construction in rural areas and how it provides opportunities for increased livelihood growth. It focused on how rural people availed themselves of these opportunities and its adverse environmental effects.

The settlement pattern has changed and housing types have improved; ownership and size of farm land has increased; new job opportunities have developed and people in the area are currently involved in secondary occupations, like fuel wood selling, trading and commercial motorcycle operation.

There are improvements in the location of social and welfare infrastructures. The continuous cutting down of trees for firewood and charcoal for supply to urban centres has

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resulted in loss of forest vegetation, biodiversity reduction and erosion. This road has generated many opportunities and it is as well, creating challenges for the people and authority concerned.

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