## Recognition of Rural-Urban Linkage through Understanding the Potential Impact of Growth Center: A Case Study of Paragram Hut, Nawabganj, Dhaka

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#### **ABSTRACT**

The growth center enhances the linkages between rural and urban area through providing opportunities and scopes for both areas as well as by promoting facilities for agriculture, fishery, livestock etc. by ensuring market accessibility and socioeconomic interactions among rural and urban people in context of the exchange of goods, ideas, information and facilities of different markets. The growth center plays the role of transaction point between urban and rural area and thus help to reform the economy of both areas and bring changes in financial and fiscal policy and macro transformation as well as the transformations in agriculture and livelihood diversification. It has become the channel to replace the rural urban dichotomy in rural urban continuum. Therefore the paper tries to find out the existing nature and pattern of the linkage by investigating the potential impacts of growth centers. It also reveals the way how agricultural transformation is taking place in response to changing urban market demand and vice versa. It focuses on the input and output side scenario in rural and urban economy and find out the flow pattern and the contribution of communication sector on it.

It also tries to find the interrelation between rural urban linkage and the influence of growth center on linkage by identifying the stimulus such as infrastructure development, complementary investment, and NGO investments occurred in growth centers and the surrounding area. The study finally provides some arena of potentialities for further improvement of rural urban linkage through more efficient policies.

# Keywords: Growth Center, Rural-Urban Linkage, Livelihood Diversification, Agricultural Transformation.

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#### **STUDY BACKGROUND**

Traditionally, development policy and related research have adopted a simplified concept of rural and urban areas, with the words rural referring to more "remote farming areas" and urban to "crowded cities." (Von Braun, J. 2008). As Bangladesh is mainly agriculture based country, most of the people are living in rural areas. But this country is facing a high level of urbanization in least two decades results into the changes in rural and urban economy (Sarker, n.d.). Most of the time policies of this country are divided either as rural development policies or urban development policies. Lack of integration of these polices and focus on the inter linkages between rural and urban areasare restraining the successful implementation of any policies for development. As rural and urban areas are dependent on one another and they are inseparable while considering them integrated for inclusive development can help both successful implementation of policies and programs. The cities are highly dependent on the farming areas (Rural areas) for acquiring the basic life supporting raw materials and the rural areas are dependent on the urban areas for information, monetary transactions, finished industrial products, technology and other supporting elements. In a brief elements of the changing conditions include (a) increasing trade and capital flows, which prompt rapid changes in the agriculture and food system as urban consumers increasingly influence the nature and level of interactions among the various stakeholders in the agro-food chain; (b) the information revolution, as more and more rural communities benefit from enhanced access to communications technologies that carry relevant information and facilitate new market institutions and services; and (c) increasingly decentralized governance structures across the developing world, as national governments and policymakers, as well as private investors, are involved in regional development and interregional competitiveness (Von Braun, J. 2008). Due to the interactions of rural and urban area livelihood patterns and the income level are modified in both urban and rural areas. Flow of goods, materials, people, capital, information

has brought radical changing the life of both urban and rural people in Bangladesh now and then. Here as center for interaction Growth center is playing the most vital role. Considering all the drawback of lack of integration Bangladesh government took a development strategy to improve the rural urban linkage under LGED to develop Growth center (GC) to improve the condition of rural area through the interactions within the growth centers and the surrounding areas (LGED, n.d.). When the government understood the gap between rural and urban policies and the problems generated due to this gap; they tried to make it up through Growth Center based development polices. Though Growth centers are basically rural markets, but after facing by physical development by LGED these rural markets are tried to convert as small urban centers. Despite all this developments by LGED in the rural markets rural and urban linkages are not yet been utilized in Bangladesh properly. This is because the impact of growth center and rural urban linkage is yet not established properly here. As a result the changes in livelihood pattern, physical development and socio-economic development cannot be able to solve the poverty problem.

In this context, this research has tried to find out the impact of growth center on rural urban linkage and the impact of the constraints affecting the activities of the growth center as well as in the rural-urban linkage of the study area. The study focused to find out the existing nature and pattern of urban-rural linkages based on the income generating activities and the outputs of the farmers as well as it tried to develop the relation between the urban traders and wholesalers of the rural and urban area to understand the flow of goods, materials, capital and over all the cash. The study also tried to find the physical and socio-economic changes and try to link it up with connectivity with urban areas.

#### **RESEARCH METHODOLOGY AND DATA**

The study aims to reveal the entire rural urban linkage approach for the studied area and link it with the impact of growth center and finally to find out some problems which are restraining the development of the area considering rural urban linkage. To conduct the study, Paragram Hut of Nawabganj Upazila under Kailail union has been selected as the study area which located inside Dhaka district and sounding of Dhaka city. For fulfilling the objectives, primary data has been collected through questionnaire survey. For the purpose of this study, the target group of the questionnaire survey is comprised of two broad groups, the Grower sellers and the Wholesalers. Two identical questionnaires have been prepared for the collection of data relevant to agricultural production, diversification, intensification and marketing the products to make out the nature and pattern of urban-rural linkage existing at the growth center. The field survey has been conducted in "Hat bar", the market day for Paragram Hut. In thus study to total ten (10) grower sellers and ten (10) wholesalers are surveyed randomly in the study area. The sample size has not been determined by following any strong statistical procedure. The secondary data such as the map of growth centers of Dhaka district and the database of the respective union of the growth center has been collected from LGED and BBS. Some relevant information related to different NGOs is collected from internet sites.

#### THEORETICAL FRAMEWORK

#### The Virtuous Circle Model of Urban and Rural Development

A number of testable hypotheses could be derived from the virtuous circle model of urbanrural development of the empirical studies by Evans (1992). The hypotheses are: Farmers in the hinterland of small towns have better access to inputs and are encouraged to use the inputs and services required to raise agricultural productivity; Farmers in the hinterlands of small towns are encouraged to market their produce and hence a significant proportion of their output is marketed; Rural households have: a) demand for urban goods and much of these goods are provided in the small towns; b) demand for urban services and much of these services are provided in the small town; Rural household exhibit financial linkages with town based financial institutions in the forms of securing loans for different purposes and saving deposits; Urban households are linked to the hinterland through the purchase of farm produces from their surroundings; Small urban centers are major destinations of migrants from the surroundings; Increased job opportunity in the small centers are the main causes of migration to the surrounding; Town business activities create demand for rural raw material and labor from the surrounding areas; thereby generate increased "income for rural households; There is a predominance of backward production linkage in cash crop regions than in non-cash crop regions; Urban households meet most of their demands for rural produces from the surrounding hinterlands in non-cash crop regions than in the cash crop regions(Funnel, 1976; Hinderink & Titus, 1988).

#### **Rural-Urban Continuum**

The exchange of unprocessed and processed products link the rural and urban areas through the mutual participation in marketing. Bertrand Renaud says there are strong two-way interactions between urban and rural development as a town provides the farmers large market, scope to develop more intensive cash crops, easier access to suppliers, and closer touch with government extension services. A dynamic rural hinterland contributes to town development through raising farm incomes, purchasing power, and demand for both household goods and farm inputs. Stagnant movement of farm incomes affects urban development by leading to a low level of demand for both population and consumer goods by the majority of the population (Braun. J. V., 2007.

#### **STUDY AREA OUTLINE**

The selected study area, Paragram Hut located in Nawabganj upazilla in Dhaka district Nawabganj upazilla is located on 23.860 degree north latitude and 90.526 degree east longitude. Along the east boundary of the upazilla, river Kaliganga flows and on the west side of the river Kailail union is located.Paragram is one of the villages in the Kailail union.The river is the main reason making Paragram Hut as a growth center. The width of the river is 592.99 feet.



Figure 1: Location of Paragram Hut

(Source: LGED, 2008; Google earth, 2012 & Google Map, 2012)

#### Profile as a growth center

In the context of Bangladesh, growth centers are rural markets that have been identified by the Planning Commission on the basis of socio-economic and administrative criteria for making development investment (LGED, n.d.). There are in total about 8000 rural markets or growth centers that are popularly known as "hat" or "bazaar" (The World Bank, 1996). Among these 8000 growth centers the study area named "Paragram Hut" is one of them. Paragram Hut is situated beside the Kaliganga River which is the easy way of transporting goods and people to the area from other different rural or urban areas and vice versa. On the other side of the river there is also another hat flourishing called "Sirajpur Hat", that is also an important place that has made Paragram Hut more influential. That's why, now it has become a very well-known growth center. Being a rural area, most of the people here and its adjacent villages are farmers producing agro-products that have direct contributions in the rural economy which is an

important characteristic of growth center. Besides, the inputs (seeds, fertilizers, pesticides) for agricultural production are easily available which increases agricultural productivities. Not only the agricultural products, but also many other products and different types of traders are involved in marketing those products in Paragram Hut. It is also a place of social gathering and interactions, which is another important target of Growth centers. In the hat day (Saturday & Wednesday) many traders and consumers gather here and exchanges products. This increases social relationship among people of different characteristics and also different areas. Besides the commercial and social aspects, this growth center also creates temporary non-farm employment opportunities in hat days and at the same time increases communication between traders with the farmers and also with consumers.

#### Infrastructure Facilities Available as a Growth Center

In Paragram Hut the infrastructure facilities inside the market area is quite good. In 1994 LGED has planned and provided these infrastructures in the area. This area is being provided with infrastructures mainly following the guidelines and standards set in the "Manual for Growth Center Planning". The structural facilities include brick built shed with the provision





Figure 2: Shading Structures and Paved Roads of Paragram Hut

#### (Source: Field Survey, 2012)

of electricity supply; well structured drainage system and toilet facilities; pavement of the whole area. Not only in the market but also mosques, primary schools and madrasha are developed here. There is also a maintenance committee for observing and monitoring proper care and maintaining of all the infrastructures, that is a very good sign of an influential growth center.

#### **Influence Area of Paragram Hut**

As a growth center, the adjacent areas of Paragram Hut are also important for the flow of products and people.Some of the areas are: Darikanda & masai (1km); Katakhali, Raipur & Madhupur (2km); Mollakanda, Noakanda & Doulatpur (3km); Malikanda (4km); Kailail (5 km) etc. All these area including Pragram hut are in the dominance of Kailail union of Nawabganj district. Traders of these adjacent areas come to Paragram Hut for completing their business and this trend creates monetary flow from one area to another which increases rural-urban linkage. The location of Sirajpur Hat on the opposite side of Pragram Hut increases product flow between these two areas. As there is a direct connection of Sirajpur Hat with the urban areas, products can be easily flown to the main city Dhaka. Besides, the connection of river Kaliganga to Paragram Hut urban products are also passed from Sirajpur Hat to the study area. Raw materials which are not available in Paragram Hut, mainly come from Shambazar, Kawranbazar by troller or truck to Sirajpur Hat and then to the study area. From Paragram Hut agricultural products are also supplied to Mirkadi and Narayanganj. These influence areas have a very positive effect on the development of Paragram Hut as a growth center.

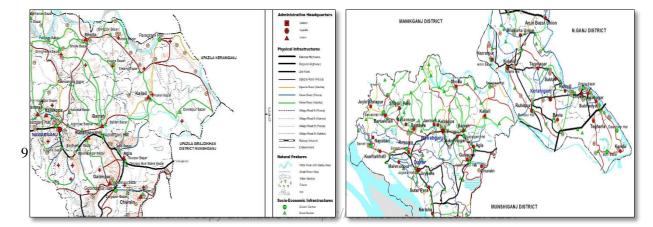
#### Role of Non Government Services (NGO's) in the Development of Paragram Hut

As a rural area and also an influential growth center, Paragram Hut has experienced different activities of NGOs like Bastab which invested in toilet and sanitary construction works mainly ensuring cleanliness; Prashikha gave loan to the poor farmers for investing in better agricultural production and gave fund to the poor women for improvement of their own financial status; BRAC, invested two crores taka in the rural market for commercial purposes and also for some infrastructure development activities; ASA invested about 25000 taka for the grower sellers to buy more raw materials for good agricultural production which helped much to the poor farmers to increase their agricultural productivity (Field survey, 2012).

#### **Transport and Communication Network**

Rural urban linkage is solely based on the efficiency of transportation and communication network. The study area has been established as an important rural market and progressed to growth center not only for its socio-economic demand but also for its communication network. The study area is connected with several urban centers, the main upazilla sadar and Dhaka city with different types of upazilla roads (i.e. pucka, Katcha) constructed by LGED. As it is located on the edge of Dhaka district and just beside Manikganj it has accessibility with Manikganj district. As Paragram Hut located just beside the river Kaliganga, it has a well-connected river network which is the main reason for the flourishing of this growth center. This river is connected to mainly Amin Bazar area of Dhaka and Narayanganj district. Through this river network most of the heavy products are transported from the study area to other areas. This river is also acting as the connector between Paragram Hut of Dhaka and Sirajpur Hat of Manikganj.

Besides these entire communication network the area still lag behind in terms of smooth and most efficient communication in the view of road transport sector as poor maintenance of the damaged roads. Area inspection shows that in the connection way form Dhaka to Pargram Hat at Malikanda in Kailail, road is highly damaged and no heavy traffic can pass this way to reach Paragram Hut as a result they have to use a much longer route that involves extra cost for transportation of the area.



### Figure 3: Transportation (Left) and River Network (Right) from Paragram Hut to Surrounding Areas (Source: LGED, 2008)

#### **RESULTS AND DISCUSSION**

#### Nature of Rural-Urban Linkage of Paragram Hut

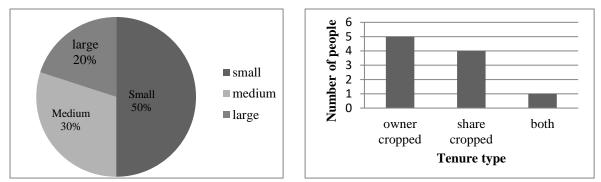
In the studied site grower sellers and wholesalers are the most vital parts for maintaining ruralurban linkage. The grower sellers initiate and manage the rural urban linkage from the studied area to other urban centers. Besides, wholesalers play important role in diversified aspects of rural urban linkage and the impact of growth center. In this study, the nature of rural-urban linkage has mainly indentified through analyzing the activities of grower sellers and wholesalers in the rural market.

#### Profile of Grower seller of the study area

Grower sellers in the study area are mainly from different villages in the area. Among these villages some are:Charpail, Modhupur, Dorikanda, Shinghar, Katakhali, Noyakanda etc (Field survey, 2012). Different types of crops the grower sellers cultivate in their own village and the cultivated product are then brought in Paragram Hut to sell. The average distance of all these villages from the study area is 1.97 miles. Hence the catchment area of the hat is having a radius of around two (2) miles. From the study, it has been revealed that starting from five (5) bigha, grower sellers cultivate different types of crops up to 100 bigha areas (Field survey, 2012). The average amount of area to be cropped is 21.2 bigha (Field survey, 2012). High average value of net cropped area exhibits that agriculture is still predominant in this area as the main source of income (Field survey, 2012). Te analysis of the farm size of the grower sellers reveals three types of farms:small, medium and large (Field survey, 2012). From the study it has been

founded thatin most of the cases, the grower sellers have small sized farm. It indicates the poor financial status of the grower sellers (Field survey, 2012). It has been found that the grower sellers do not get enough financial support from any bank, NGOs, land lords etc. for the cultivation of different crops (Field survey, 2012). As a result they invest their own capital for that and cannot afford large farm (Field Survey, 2012)

When analyzing the tenure status of the grower sellers it has been found that, owner cropped tenures are larger than the shared cropped type tenure. Also a few numbers of grower sellers own both of the tenure.



**Figure 4:** Farm Size and Tenure Type of Grower Seller of Paragram Hut (Source: Field Survey, 2012)

Grower sellers of Paragram Hut are involved in commercial farming practices mainly and they

produce such products those products that ensure high profit in the market.

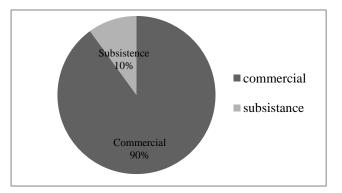


Figure 5: Farming Practice of the Grower Seller of Paragram Hut (Source: Field Survey, 2012)

By selling different types of crops (cereal, vegetables, spice, oil, potato, jute etc.) monthly

average profit of a grower seller is 5900 taka per month. The study shows that the income of

the grower seller is not high. It is around 6000 Tk per month, and which is not enough to lead a standard life and ensure basic needs.

Types of output	Average production	Average	Average production sold per	
	per grower seller per	cultivated area		
	week (Ton)	per grower	grower seller per	
		seller (Acre)	week (Ton )	
Cereal (paddy, wheat)	7.18	5.51	4.72	
Vegetables	0.83	.55	0.83	
Spices and oil	1.76	1.15	0.46	
Others (potato, sugarcane, jute)	0.272	.88	0.24	

Table 1: Types And Marketing of the Outputs

(Source: Field Survey, 2012)

#### Wholesaler Profile of the study area

Considering the living status some of the wholesalers live in urban areas while most of them live in rural areas of Paragram hut who are mainly the local people of the area (Field Survey, 2012). They either bought products from urban area to the studied site or they bought products from the studied site and sell them to urban area (Field Survey, 2012). Moreover the other wholesalers, who live in urban area come to the hat for buying products only, that means; the studied site attract the urban wholesaler to buy products, hence the studied growth center creates a linkage of urban and rural business. There are two (2) groups of wholesalers are identified in the study area; one group (around 30%) buy products from other are (i.e. Urban area) and sell them in Paragram hut (Rural area), while the others (around 70%) buy products from Paragram hut (Rural area) and sell to other areas (i.e. Urban area) (Field survey, 2012). The figure below depicts the capital investment capability of the wholesalers of the study area

(Field survey, 2012). Most of the wholesalers have monthly benefit within the range of 10000-20000 taka (Field survey, 2012).

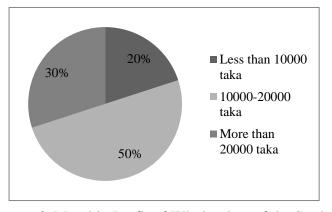


Figure 6: Monthly Profit of Wholesalers of the Study Area (Source: Field survey, 2012)

#### **Input-Output Analysis for Grower Seller**

As cereal crops (paddy, wheat) are the main cultivated crops of Bangladesh, both the average amount of production and average cultivated area for cereal are higher than other crops. From the survey it is founded that a large number of farmers produce paddy only for their yearly use and they do not sell paddy in market. As a result there is a large gap between average amount of production and average amount of sale of these cereal crops. On the other hand, on an average all vegetables are sold in the market and other crops (spices, oil, potato, sugarcane, jute) are also sold according to their production. On the other hand the inputs necessary for cultivation are mainly collected only from local market. It represents that in case of getting inputs Paragram hut is self sufficient to grower sellers. The grower sellers need not to go to other urban area and Dhaka for their inputs of cultivation (Field Survey, 2012).

### Product and Monetary Flow In Case of Marketing of Products by the Wholesalers Product Flow Analysis

Exchange of product from rural to urban area and vice versa is inevitable part of Rural-Urban linkage. The study tried to find the types of products and the amount of products that flow from rural area to urban area and vice versa. From the surveyed wholesalers the study shows that agro-based products, which are not grown a lot in urban area, are exported from rural area to urban area. Paddy, Jute, Garlic, Mustard and cows flow from rural market to urban area (Field survey, 2012). The study also shows that finished goods are flowed from urban area to rural area. Rice, Tin and Animal feed are traded to rural market and these are imported from other urban areas to Paragram hut for selling to the rural customer (Field survey, 2012). Hence it is clearly understood that industry based products or other form of finished goods or locally unavailable goods are being imported to rural areas by the wholesalers who buy products from urban area and sell them in rural area (Field survey, 2012). The schematic diagram of product flowing from urban market to rural market and from rural market to urban market can be drawn as the following.

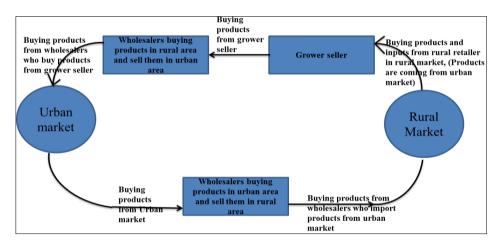


Figure 7: Schematic Diagram of Product Flow (Source: Field Survey, 2012)

#### **Monetary Flow Analysis**

Transfer of the money from wholesalers (who buy products from grower seller in rural area) to the grower seller indicates the monetary flow from the urban areas to rural areas. Again the money transfer from the grower seller (Who buy products from urban area and sell in rural area), to buy products and inputs from retailer the money flows from rural area to urban area.

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The following table shows, the flow of money from the wholesalers (who buy products from grower seller in rural area) to the grower seller in the studied site (Paragram hut). In the studied site total 3,589,250Tk had been spent by the wholesalers (who buy products from grower seller in rural area) to buy the products from the grower seller, now these products are exported to urban wholesale market by them, as a result they obtained money from urban area and they spent them in rural areas.

Product	Amount Per week (Mond <sup>1</sup> )	Unit price BDT.	Total price BDT.	e Total Money flow		
Jute	75	1150	86250			
Garlic	900	720	648000			
Paddy	2000	600	1200000	3.58 Million		
Mustard	1000	800	80000	BDT.		
Jute	500	1150	575000			
			(0			

**Table 2:** Monetary Flow from Wholesalers to Grower Seller

(Source: Field survey, 2012)

The grower seller buys products from the local retail shop. Total 376,000Tk needed to be spent by the grower seller of Paragram Hut to buy these products from the hut. Hence, this money will be flowed to the urban areas as these products were bought from urban areas to this rural site by the wholesalers (Who buy products from urban area and sell in rural area).

Product	Amount per week	Unit	Unit price	Total price (Tk)	Total money flow (Tk.)
Rice	300	Kg	20	6000	
Animal feed	250	Mond	800	200000	
Tin	50	Bundle	3000	150000	376,000
Rice	1000	Kg	20	20000	

**Table 3:** Monetary Flow from Grower Sellers to Whole Seller or Local Retailer

(Source: Field survey, 2012)

<sup>&</sup>lt;sup>1</sup> Mond is a weight measurement unit used in Bangladesh which equals 40 kilogram.

The schematic diagram represents the monetary flow of the wholesalers.

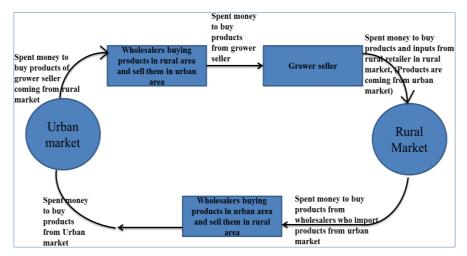


Figure 8: Schematic Diagram of Monetary Flow

(Source: Field survey, 2012)

## Communication Aspects for Grower Seller and Wholesalers Regarding Product and Monetary Flow

An efficient communication system can strengthen rural-urban linkage. For the analysis of the communication pattern of the grower sellers and the wholesalers, two types of communication system have been considered: face to face communication and communication via telephone. Grower sellers mostly communicate face to face with wholesalers at the Paragram hut. Only a few numbers of them communicate with urban market. Through wide spreading use of telephone, at present days when communicating with urban market grower sellers use only telephone without going to urban area (Field Survey, 2012).

The wholesalers maintain two way communications. Firstly they buy products from the rural area and sell them to the urban areas. In this case the wholesalers have to communicate with the urban traders who are the buyers of the product that they bought from the grower seller. In most of the cases the wholesalers communicate with the urban traders through both telephone and face to face (83%) and only 17% of the wholesales communicate through telephone only. On the other hand, face to face communication is maintained with the grower sellers mainly (83%) and in some cases both telephone and face to face communication is maintained (17%).

Secondly, the wholesalers buy product from urban areas and sell them in the rural areas. In this case, the buyers of these products are the local retailers and the sellers are the urban traders. 50% wholesalers' way of communication with the local retailer is face to face communication and other 50% communicate through both phone and face to face meeting. Again for communicating with the urban traders (seller) 50% of the surveyed wholesalers use phone and other 50% communicate through phone and face to face meeting.

# Impact of Growth Center and Existing Constrains of the Study Area for the Marketing of the Wholesalers

Paragram Hut is a recognized rural market and the provision of infrastructure as market facilities has created positive impacts booming of business in this area. In this study, all the wholesalers are agreed with the idea that market accessibility and facilities can provide more opportunities to them for conducting their business. Besides, some problems have also been identified by the wholesalers. The problems has been ranked on a scale of zero (0)-six (6). Here ranking six (6) indicates more problematic issue and zero (0) indicates the least problematic issue. It is clear that Problems associated with money transaction in rural market has been obtained the first ranking as it is the most problematic factor. Because, is there is no public bank or even a private bank in the rural market, as a result the transaction of money becomes difficult for the wholesalers. Again poor transport facility and high transport cost have been marked as constraint. The reason is the road network of the site is not well connected with other areas though there is a river networks which helps as the main factor of flourishing this rural. As a result of poor road network the wholesalers have to pay high cost for carrying the products. Other constraints include: price fluctuation in urban wholesale markets is , lack of storage facility in or around grower's market, poor market facility at growers end and problems related to dealing with individual grower sellers etc.

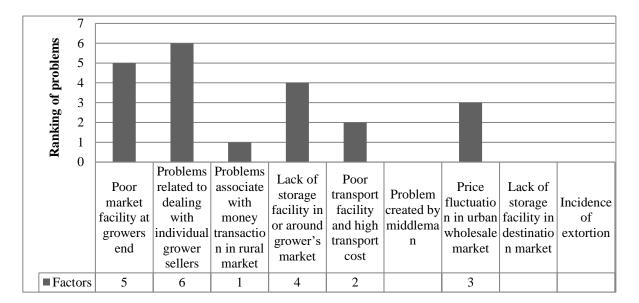


Figure 9: Rank Wise Existing Constraints Affecting the Linkage of the Study Area (Source: Field survey, 2012)

#### CONCLUSION

Urban-rural linkages largely depend on the impact of growth center which, in turn, are likely to affect the livelihoods of the rural and urban people. Whilst, to some extent, flows and linkages exist between all rural and urban areas, their scale and strength are determined by the nature of structural, economic, social and cultural transformations. The attempt of the study was to identify urban-rural linkage including flows of agricultural and other commodities from rural based producers to urban markets both for local consumers and for forwarding to regional, national and international markets; and in the opposite direction, flows of manufactured and imported goods from urban centers to rural settlements. These spatial flows include backward and forward linkages between the grower sellers and wholesalers. Most growth centers, especially small and intermediate ones, rely on broad-based demand for basic goods and services from surrounding populations to develop their secondary and tertiary sectors. Some factors can be generalized as having a key role in the increase in the scale of rural–urban linkages: improved transport and communication network, better access to market, availability of fund through government and private organizations and NGOs, ample government

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investments and public private partnership programs for the improvement of growth center. The study highlights the need for new attention to the spatial dimensions of development of urban-rural linkages for inclusive growth that is, growth that includes rural areas and the poor.

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