

# Role of Small Towns for Integrated Development of Sub-Region: A Case of Siraha District

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## Abstract

The uncontrolled urbanization and rural-to-urban migration have increased the possibility of expansion and provided much greater levels of social and economic benefits in large cities. It has increased the gap between small towns/market center and their hinterlands village. By supporting small towns and upgrading their amenities, these issues can be resolved. The current research examines the role of small towns for integrated growth of sub-region by studying the small towns within Siraha district. The Siraha district contains 17 small towns. Due to their backward and forward linkages, towns primarily function as market centers for the surrounding villages. In this article, questionnaire survey was conducted through random sampling method and altogether 233 people were interviewed with 119 from traders or shopkeepers and 114 from customers/farmers. The data was analyzed using MS Excel, SPSS, and QGIS software. If strengthening the small towns within the district then towns act as market center, service center and creating industrial and other off-farm employment for their surrounding areas. For this reason, small towns play crucial role for integrated development of the district.

## Keywords

Small towns, Integrated development, backward-forward linkage, Sub-Region

## 1. Introduction

In many countries around the world, the trend of continuing population concentration in metropolitan areas and larger cities is seen as a serious issue linked to continuing inter-regional developmental inequalities [1]. The uncontrolled urbanization, which cause many problems in large cities such as the problems of housing, lack of resources, pollution, basic infrastructure facilities like roads, drainage, water supply, solid waste management and electricity. Small towns and market centers have poor communication with their hinterland villages, and as a result, rural residents migrate to large cities looking for better facilities. However, large cities have much higher levels of social and economic services and have a high potential for development. It has increased the gap between small towns/market center and their hinterlands village, leading to regional imbalances. Regional imbalances leading to the lack of access to market towns in rural regions not only limit the ability of farmers to sell their goods and increases their transport costs, but also limit their

access to the social services and consumer goods that provide important incentives for increasing production and household income.

Planners have focused their efforts to strengthening and developing small towns as a result of problems raised on by the growth of large cities, population density, and rural migration to these metropolis[2]. Small towns and market Centre acts as bridging the gap between rural and urban development and these towns are promoting balanced economic growth between rural and urban areas. Small towns serve as the rural population's first point of interaction with urbanization; by improving linkages to rural areas, markets for agricultural products can be supported, and basic services can be provided there as well. Small towns can be enhancing economic growth and equity leading to integrated development of sub-region.

To support an integrated rural development strategy for Nepal's hills, the government also promotes small towns.[3]. In Nepal, the 8th year plan promotes rural-urban connectivity through the growth of small towns

and market centers. Small towns and market Centre in Siraha district act as a central place for their hinterland village. Small towns play an important role in the commercialization of the rural agricultural sector by acting as hubs for the delivery of services and the selling of agricultural products, as well as by creating industrial and other off-farm employment.

The development of small towns and its hinterlands village can be seen due the linkage and functional integrity between small towns/market Centre and hinterlands village with the support of large cities such as Birgunj, Biratnagar and Kathmandu. Small towns and market Centre can be enhanced accessibility, social networks and increase economic opportunities within the sub-region and also support the integrated development of the study areas.

## 2. Literature Review

### 2.1 Small Towns

Small towns are referred to as centralized settlements with 5,000 to 20,000 people [4]. Nevertheless, due to differences in population density and economic growth, no single definition is applicable to all countries. Small towns provide access to local and national transportation networks as well as goods and services to the people living in the surrounding areas. Small towns tend to have lower concentrations of public services like schools and health centers, as well as a significant proportion of the employees of a city working in non-agricultural occupations.

In Nepal's hills, where people are scattered, even a central area with less than 5,000 people can be considered as a small town[3]. Therefore, for the purposes of the research, it is believed that small towns in the hills are all central places that provide crucial urban functions to the rural hinterland population, such as retail market, administrative support, agricultural commodities facilities, and employment prospects. This would typically include Nepalese hill towns with a population of between 2,000 and 20,000.

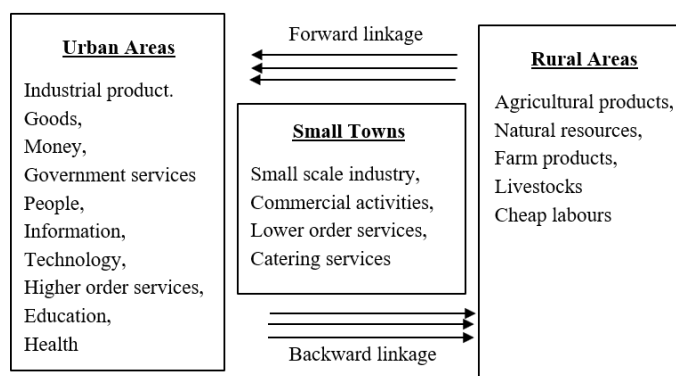
In 2002, the Department of Urban Development and Building Construction had declared 132 small towns in Nepal. The basic requirements for the designation of small towns included the presence of municipal facilities (even though they might not have been designated as municipalities), district headquarters, health post facilities, electricity, telecommunications,

higher secondary schools, Baniya banks, post offices, pharmacies, hotels, lodges, and retail stores, among other things and according to planning norms and standard (2013), small towns are those that have a population more than 10,000 and less than 40,000 along with functions like marketing, retail shop etc. and market Center is defined as having at least 50 shops or outlets within 100 meters of the center.[5].

### 2.2 Concept of Integrated Development Planning

Integrated development planning is a method of planning that incorporates the entire municipality and its residents in identifying the best options for achieving sustainable development [6]. A super plan for a region that provides a broad framework for development is called an integrated development plan. It tries to coordinate the efforts of local and other sectors of government into a comprehensive strategy to enhance the standard of living for everyone residing in a region. It should consider the circumstances, issues, and resources accessible for development. The whole economic and social growth of the region should be considered in the strategy. It must establish guidelines for how land should be utilized, what facilities and services are required, and how the environment need to be safeguarded.

### 2.3 Concept of Backward and Forward Linkage



The forward linkage is the connection between the goods and services of a market center and the large cities of destination, whereas the backward linkage is the connection between a town and its hinterland areas.

### 3. Objectives

The main objective of the study is to analyze the role of small towns for integrated development of sub-region: A Siraha District.

For that, the specific objectives of this study are:

- To examine the physical, social and economic infrastructural linkage between small towns and its hinterlands for integrated development of study area.

### 4. Study Area

Sihara is located in Nepal's terai region. The district, which has Siraha as its administrative center, has a total area of 1,188 km<sup>2</sup>. A 2011 census found that there are 637,328 people living there. The districts of Saptari on the East, Dhanusha on the West, Udhayapur on the North, and Madhubani in India on the South border the district. The average length and breadth of the district is 29.9km (East-West) and 42.4km (North-South) respectively. In this district, the main highway runs about 43 km. from the Balan river in the east and the Kamala River in the west. Siraha is highly populated with the people belonging to the Madhesi, Tharu and Muslims communities. According to population size and functional base of district, there are 17 small towns/market Centre.

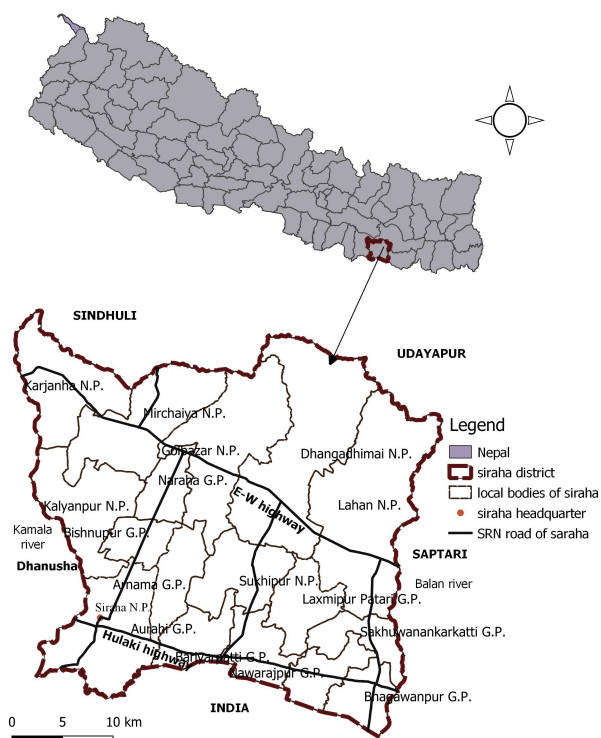


Figure 1: Locational map of the district

### 5. Methodology

There is a lack of data and literature on small towns, so this study was conducted to examine their contribution to the integrated planning of the sub-region in Siraha district. Both primary and secondary data have been gathered in order to conduct the research according to the objectives and research topic. Here, relevant literature on small towns/market centers and rural-urban relations is examined from the university library, the internet, books, journals, and other libraries. The first step was to identify the small towns and market center within the district based on the population size and functional units such institutional, social, and commercial units with the potential for growth. The primary information was gathered by observation, questionnaire survey, key informant interview (KII), and focus group discussions (FGD). To find out the forward and backward linkages of small towns/market centers and their hinterlands in the Siraha district, a sample survey method has been adopted. The customer and trader/shopkeepers survey were conducted in small towns and market Centre within district are separately questioned and also the respondent opinion about the problems they encounter along with their future prospect of the town. In order to meet the objective of the study, the interview questionnaire was prepared accordingly. The sample size for the research area is estimated to be around 384 based on a 95 percent confidence level and a 5-point confidence interval with a population of 637,328. But with the time limitation, altogether 233 people were interviewed with 119 from traders or shopkeepers and 114 from customers/farmers from different parts of the small towns and their hinterlands area of the district. The range of interviewers varies from farmers, businessmen, teachers, servicemen and professionals whose responses are tabulated and used to meet the present prospect of the study. Secondary data have been collected from different sources from the published books on official records, libraries, CBS, line agencies, government policies, journals, maps, related reports and newspapers. The sources of the data were duplicated and the sources were quoted and accredited. Former related reports from DDC, DUDBC, line agencies, libraries were collected. The collected data is compiled using different data compiling and analyzing tools like MS excel, SPSS and QGIS. The outputs are presented in the form of graphs, charts, tables and figures etc. as required.

### 6. Findings and Discussions

Small towns and market center are identified based on the population size and functional unit along with growth potential of the towns. Lahan is the main market center, then Siraha, Golbazaar, Mirchaiya, Dhangadhimai and Sukhipur. They are all situated along the E-W highway, with the exception of Siraha and Sukhipur. The main highway in the district runs for about 43 km between the Balan River in the east and the Kamala River in the west. E-W highways, Postal highways (Hulaki road), Chauharwa-Siraha, Lahan (MRM)-Bhagwanpur-Thadi, and zeromile (MRM)-Sukhipur -Bariyarpatti are major roads of the study area. These road networks which plays the significant backward and forward linkage between small towns/market center and their hinterlands village. National highway function as inter-linkage and intra-linkage to the main market center in district and also their surrounding areas. This linkage is important because they are the main vehicles for spatial integration of human activities and also indicates flow of goods in market Centre and surrounding areas.

The towns in the Siraha district has appeared in four class. There are 2 towns at the highest level such as Lahan and Siraha. The small towns belongs to class-I and class-II, relative more importance based on the number of speciality shops and wholesale trade units and various services including education and health services are available. Lahan, Mirchaiya, Golbazar and Siraha are the prominent potential market centre of the district.

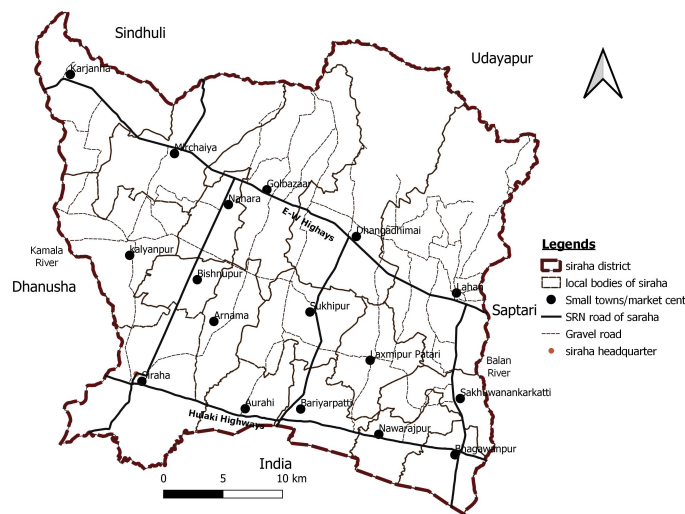


Figure 2: Influence area of small towns and market Centre

Class	Population Size of towns	Number of towns	Towns
I	20000-40000	2	Lahan and Siraha
II	10000-20000	4	Mirchaiya, Golbazaar, Dhangadhimai and Sukhipur
III	5000-10000	7	Kalyanpur, Aarnama, Nawarajpur, Karjanha, Aurahi, Bishnupur and Bariyarpatti
IV	>5000	3	Laxmipur Patari, Nahara and Bhagwanpur

Figure 3: Hierarchical structure of towns

Lahan, Mirchaiya, Golbazar and Siraha are the dominant trading centre, which supplies agricultural products and industrial products to different centres of the districts and outside the district. Trading of Golbazar and Sukhipur are mostly confined to surrounding VDCs of Siraha district. There is trade interaction among the local market centres within the district. Looking at the sources of commercial goods between the market centres, it is found that there is an important interaction between the market centre and its hinterlands within the district. Michaiya has found that 10 percent (zeromile) to 70 percent (Bandipur) of cloth supply in the 9 bazaar settlements under study. Goalbazar is found in the 12 bazaar settlements under study from 5 percent (Kalyanpur) to 60 percent (Dhangadhi). Cloth supply is found in 3 bazaars of Sukhipur. Lahan found 10 percent (Dhangadhi) to 40 percent (Golbazar and zeromile) in 6 market settlements.

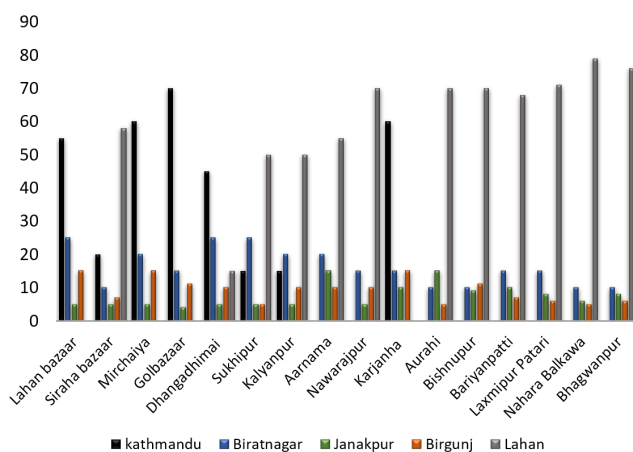


Figure 4: Inter-linkage of towns in district

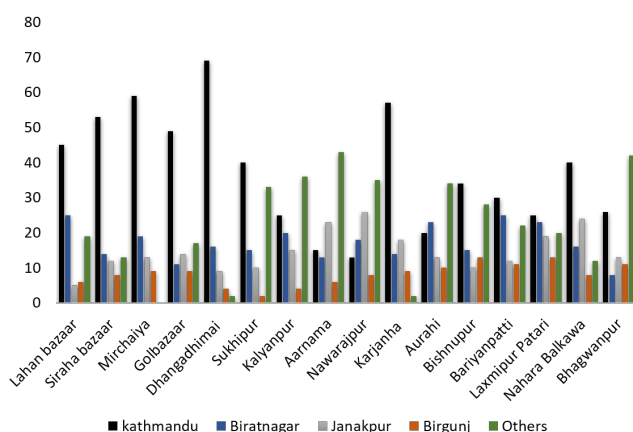


## Role of Small Towns for Integrated Development of Sub-Region: A Case of Siraha District

The survey shows that, main market centre along E-W highways are imports commodity from Kathmandu includes Chinese clothes, and other foreign goods including gold, silver for jewellerys and other commodity, followed by Biratnagar, Birgunj and Janakpur and local market centre are depends on small towns along E-W highways for clothes, medicines, groceries items, stationery items etc. and main market centre along E-W highways are exports commodity to Kathmandu, Biratnagar, Janakpur includes rice, mango, wheats, fish, cash crops and sugarcane etc. and other local market centre acts as collecting and distributing point for local surrounding areas. Small towns within district and the surrounding rural communities are linked for marketing, financial resource, educational, health care service, and administrative service and job purpose.



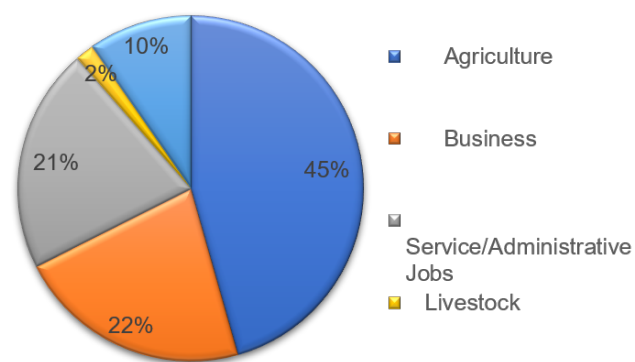
**Figure 5:** Commodity imports to small towns



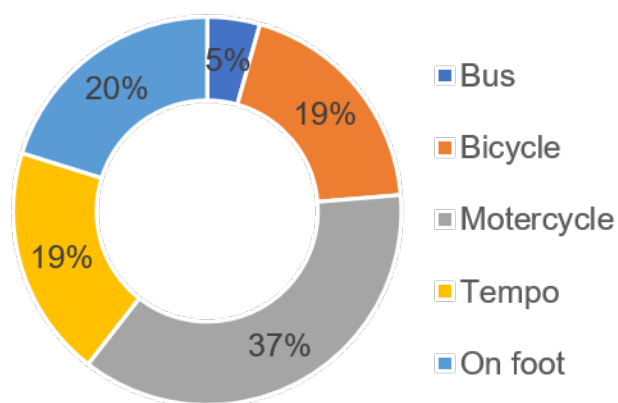
**Figure 6:** Commodity exports from small towns

The main source of the economy of Siraha district is agriculture. The survey show that, Main occupation of customers is agriculture about 45 percent and

followed by business and services. The hinterlands people are mainly based on agriculture and maximum frequency of visit to the towns is twice a week. Maximum respondents have visit the town to sell their surplus products and foods and to buy goods for their daily necessitates. Selling stems included green seasonal vegetables, food grain, bamboo products, clay products, and festivals. Survey showed that 37 percent customers are travelled by motorcycle and followed by on foot. People from the community in the hinterlands walk to nearby towns to sell and buy everyday necessities.



**Figure 7:** Main Occupation of Customers



**Figure 8:** Mode of transportation

In figure 9 show that, 53 percent customer travel time to visit the town on foot is 45 minutes to 1 hours. This show that within 1 hours normally people can travel on the average distance from the towns.

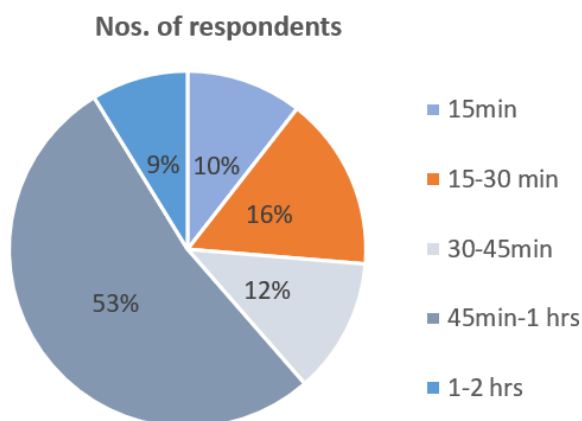


Figure 9: Time travel to visit small towns

In figure 10 shows that, 43 percent of respondents have an educational link with the Lahan town and followed by Kathmandu, Biratnagar, Rajbiraj. 42 percent patients are frequently going for treatment in Lahan and followed by Biratnagar, Siraha, Kathmandu and Birgunj.

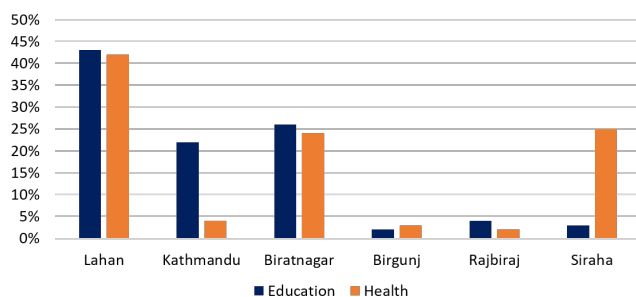


Figure 10: Health and education linkage of consumers

## 7. Conclusions

There are 17 small towns in the Siraha district. Small towns are selected based on their functional unit, population size, and growth potential. Lahan, Golbazaar and Mirchaiya are major towns in Siraha district, followed by Dhangadhimai, Sukhipur Bariyanpatti and Major towns are located along highways and other towns in the fair-weather roads. Therefore, connectivity is crucial to the growth of towns as well as the linkage between those towns and its hinterlands. Siraha is administrative centre in Siraha district.

The largest market town is Lahan, which has 33653 population and 1050 shops that serve various

hinterlands and six other market towns. Likewise Mirchaiya, Golbazaar, Dhangadhi and Sukhipur towns. Agriculture is the prime occupation of the hinterland people and source of income in the district. main towns along highways are imports commodity from Kathmandu, Biratnagar, Birgunj and Janakpur includes Chinese clothes, and other foreign goods including gold, silver for jewellerys and other commodity and local market centre are depends on small towns along highways for clothes, medicines, groceries items, stationery items etc. Towns are exports commodity to Kathmandu Biratnagar and Birgunj includes rice, mango, wheats, fish, cash crops and sugarcane etc. and other local market centre acts as collecting and distributing point for local surrounding areas. Lahan, Siraha, Mirchaiya, and Golbazaar towns serve as major hubs for local market towns and the hinterlands' inhabitants in need of health care, education, and other services. So that, small towns serve as a connection between the towns in a district as well as between towns and their surroundings.

The small towns is not merely a place for the exchange of goods. It is also a place for the exchange of services and ideas a place for agro-processing mills of small-scale industries, a place for community and production services, and a place for fair or hat (periodic market) or social gatherings and a place of transport service or break of-bulk service and other social services like health, education and communication. So that small towns acts as integrated development of the district.

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