

# A Study on Issues and Challenges faced by Agro based Business in South Andaman District of Andaman and Nicobar Islands

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## Abstract:

This study aims to identify the challenges that are facing by agro-based business vendors in South Andaman. The study is based on a primary source of data collected from four market places i.e. Mohanpura, Ratna, Junglighat, and Bathubasti vegetable markets. A sample size of 120 respondents was collected for this study. The data is entered in SPSS for analysis by using statistical tools such as frequency, mean, ranking test, etc. The finding of the study results shows that storage facilities, transportation facilities, infrastructure facilities, supply chain inefficiency, and inefficient supply chain cause losses of agro based business in South Andaman. These are the major issues which are seriously affected, due to which an overall growth of agro- businesses is affecting in Islands. The finding of the study revealed improper storage facilities in these islands. The improper storage facilities affect vegetables to spoil its quality. Agro- vendors are facing huge economic losses in Islands. The study suggested that Govt. of India and local administration should intervention on improving storage infrastructure facilities for better yield in Agro-business in Andaman and Nicobar islands.

**Key Words:** Agro-based business, issues and challenges in South Andaman

## INTRODUCTION:

India is the second largest producer of vegetables in the world next to China and India accounts for 14 percent of world production of vegetables. Agriculture and allied sectors like forestry and fisheries accounted for 15.4 percent of the GDP in 2016. India exported \$ 38 billion worth of agricultural production in 2013, seventh largest agriculture exporter worldwide and the sixth largest net exporter. Most of the agriculture export serves developing and least developed nations. India exported to more than 120 countries primarily in the Middle East, South East Asia, SAARC countries, the EU and the United States. The area under cultivation has increased from 5.6 million hectares in 1992-93 to 7.2 million hectares in 2005-06, registering the annual compound growth rate of 9 percent in 1992-93 and in 2005-06 at 8.85 percent.

Agriculture plays a vital role in India's economy 54.6 percent of the population is engaged in agriculture and allied activities and its contribution 17.4 percent to the county gross value added for the year 2016-17.

Agriculture is the largest and the most important sector of the Indian economy. India has made a lot of progress in agriculture since independence in terms of growth in output, yield and are under many crops. It has gone through a green revaluation, a white revolution, brown revolution and a blue revolution. Agriculture has an important role to play in the economic development of an agrarian economy like India. It has in fact done so, although not satisfactorily. The contribution of agriculture may be explained in terms of agriculture accounts for 22 percent of the GDP and provides livelihood to 58 percent of the county's population. It provides gainful employment to a significant large sector of Indian society and provides raw material for a large number of industries in the county. Thus, agriculture has a key position in India economy both from the view of employment and contribution to the national income over the years. The agriculture sector has not received as much attention as other sectors in agriculture like horticulture, floriculture, organic farming, genetic engineering, food processing, branding and packaging have high potential of growth. The development of rural infrastructure of rural extension services, agro based and food processing industry are essential for generating employment and reducing poverty.

Agro-business units should have storage facilities; hygienic food packaging and efficient modern retail to reduce waste can improve output and rural income. The Indian food distribution system is highly ineffective. The difficulties in agricultural productivity are a function of local infrastructure, soil quality, micro- climates, local resources, farmer knowledge and innovation. India has very poor rural roads affecting timely supply of input and timely transfer of output from Indian farms. Irrigation systems are inadequate, leading to crop failure in SME parts of the country because of lack of water. In other areas regional floods , poor seed quality and inefficient farming practices, lack of cold storage and harvest spoilage cause over 30 percent of farmer's produce going to waste, lack of organised retail and competing buyers thereby limiting Indian farmer's ability to sell the surplus and commercial crops. The Indian farmer receives just 10 % to 21 % of the price the Indian consumer pays for exactly the same produce, the difference going to losses, in efficiencies and middlemen. A rural market in India farmers with limited marketing options to sell their surplus produce. India lacks cold storage, food packaging as well as safe and efficient rural transportation systems. This causes one of the world's highest food spoilage rates, particularly during monsoons and other adverse weather conditions. Food travels to the Indian consumer through a slow and inefficient chain of traders. Consumers buy agriculture produce in suburban markets known as Sabzi Mandi such as one shown or form road side vendors. Most of the Indians are directly or indirectly dependent on agriculture. Some are directly attached with farming and some other people are involved in doing business with these goods. India has the capacity to produce the food gains which can make vast differences in the Indian economy. Andaman and Nicobar Islands are also facing storage facilities of Agro-business units. Due to these many small vendors cause losses. In the following part discuss the review of literature relating to agro based business of past studies.

**LITERATURE REVIEW:**

1. **Saurav Negi and Neeraj Anand (2015)** aim of the research paper examined the supply chain of the fruits and vegetable sector in India. To explain the issues are affecting business. This study is based on a secondary source of data thorough review of basic and contemporary literature available and tries to explain the factors affecting the supply chain of the fruits and vegetable sector in India. The findings show that cold storage; transportation and wastage of fresh product are the major reasons affecting the business.
2. **Samson Mtisi, Albert Dube and Teddy Dube (2017)** identified the challenges faced by rural-agro dealers in Matabeleland North Province in Zimbabwe. The main challenges are lack of transportation, lack of demand, poor managerial and marketing skills. This study suggested as intervention, provision of various business support measures such as improving access to credit by rural agro dealers' provision of consignment stocks training in business management and record keeping as capacity building measures.
3. **Khaunt K.A Gajipara H.M and Vekaria S.B (2006)** examined on the price behaviour of major vegetables in Gujarat State. The finding of the study shows that there is seasonality in arrival and prices of all the major vegetables produced in the state which indicates the need for storage facilities. The inverse relationship was observed between prices and arrivals of most of the vegetables. The arrival and prices of major vegetables have increased over the period in most of the regulated markets showing the scope for expansion of vegetable cultivation. There is a lot of scope of inter-market transfer of major vegetables in Gujarat. These activities are promoted through farm co-operatives of farmers.
4. **Marcia M. Croft, Maria I Marshall and Steven G. Hallett (2016)** investigated on market barriers faced by formal and informal vendors of traditional vegetables in Kenya. The most common problem was access to capital informal vendors were more likely than formal vendors to perceive major problems. They suggested that they increase access to capital and improve infrastructure to connect rural growers with urban consumers.
5. **Roselin Basumatary (2013)** examined on personal profile, family profile, migratory status living, working, health condition and economic condition of the women vendors of the town of Kokrajhar district. The finding of the study revealed that the people, especially the policy makers, know the socio-economic condition of the women vendors and proper awareness should be created among the women vendors.

Based on the above previous research papers, It is found that most of the past literature mostly discussed challenges and problems and micro-finance is the major reason which are affecting small vendors. Hence, researchers felt the need for a scientific study of the problem of the agro small business in the South Andaman district. As such, researchers have been interested in studies on issues and challenges of agro based business in South Andaman.

### OBJECTIVE OF THE STUDY:

The objective of the study is street agro-based vendors and identifying their major problems in South Andaman. Following are the specific objective of the research study:

1. To understand the demographic background of owners of agro-small businesses in South Andaman.
2. To identify major problems and constraints facing by agro-small businesses.
3. To suggest suitable remedies for improving agro-small business operation in Andaman and Nicobar Islands

### METHODOLOGY:

The study was carried out in four markets namely Mohanpura, Ratna Market, Junglighat, and Bathubasti market in South Andaman District. The study was conducted from 10 October 2018 to 15 January, 2019 based on a questionnaire. The questionnaire was prepared and pre-tested with several agro-small businesses owners interviewed and give attention to include further information in it to achieve the objective of the study. After pre-testing, the questioners were modified and developed. The final questionnaire includes questions include as age, structure, family size, educational status, daily income, subsidiary occupation, land ownership, housing pattern, religion, training about agro-small business or other related matters, etc. The primary data were collected through personal interviews of 120 respondents. These data were used by SPSS for analysis of the result.

### SAMPLE SIZE:

#### Proportionate Sampling

The proportionate sampling method is adopted for the selection of sample units, initially based on agro-business. For this, information provided by the District Industries Centre of Andaman & Nicobar Islands is taken into consideration

**Table # 1 Details of Agro-based Business in South Andaman**

Name of the Market	Total Samples
Mohanpura Market	30
Ratnam market	30
Junglighat Market	30
Bathubasthi Market	30
<b>Total Samples</b>	<b>120</b>

**STUDY AREA:**

Andaman and Nicobar Islands, a union territory of India lies in the Bay of Bengal. It consists of about 527 islands both small and large. The coastline of the Islands stretches for about 100 km. The Islands consist of two groups, the Andaman and Nicobar, and are mostly covered with dense rainforest. These two groups are separated by about 300 km. The area of the Islands is about 8,249 square kilometers, of which 6,408 sq. km of area is occupied by the Andaman group and 1,841 sq. km by the Nicobar groups of Islands. Of the total land area 92 percent of the land is covered with rain forests and of the 527 islands, only 38 islands are inhabited. The Nicobar Islands are still inhabited by primitive tribes and backward communities and the rest of the land is barren. The important islands from an economic point of view are North & Middle Andaman, South Andaman, Long Island, Neil Island, Havelock Island, Little Andaman, Car Nicobar, Katchal, Nancowrie, Terressa, and Great Nicobar islands. Andaman & Nicobar Islands are blessed with a unique tropical rainforest canopy, made of a mixed flora with elements from Indian, Myanmar, Malaysian, and endemic floral strains. In total 2654 14 species under 237 families and 1083 genera (are found in these Islands. 308 is taxa endemic to these Islands. More than 350 species are of medicinal value as per Traditional Knowledge Practitioners (TKP). The exploitation of these medicinal plants for commercial use is a matter of policy decisions.

**AGRICULTURE RESOURCES IN ANDAMAN AND NICOBAR ISLANDS:**

Agriculture in Andaman and Nicobar Islands are about a century old. As the topography of the Islands is hilly and soil is not fertile enough in all Islands, agricultural activities could not flourish as desired. The major cultivable areas are Diglipur, Havelock Island (Saheed Deep), Neil Island (Swaraj Dweep) and some pockets in south Andaman. The crops produced in these Islands are paddy, pulses, vegetables, bananas, sugarcane, chillies, sweet potato, cauliflower, tapioca, Pulses, etc. As per figures reported by the Directorate of Statistics, 24368.20 MT Paddy was produced in 8005.20 Hectares land; 71.36 Tonnes of sugar cane was 21 produced in 269.5 hectares during 2013-14. Regarding Spices, 641.30 MT Chilly in 329.5 Ha land was produced in 2013-14. Other spices produced include Black Pepper, Ginger Turmeric, Nutmeg, Cinnamon, and cloves, etc. The Coconut and Areca nut continue to be important plantation crops for setting up food-based industries in Andaman and Nicobar Island.

**ANALYSIS AND DISCUSSION:**

This part an attempt is made to understand the socio-economic background of the respondents in three sub-headings; classification based on a demographical a factor of the entrepreneurs, classification based on the socio-economic condition of the owners and classification based on the business profile of the enterprises. Detail discussion on the same is presented below.

**CLASSIFICATION BASED ON DEMOGRAPHICAL FACTORS**

This section of the study presents the information about the demographical characteristics of the respondents like gender, age, religion, caste/community, and family size of the respondents of Entrepreneurs who are involved in micro and small businesses in ANI. The classifications of respondents based on demographic factors are as follows.

**Table # 1.1****Classification of respondents based on Demographical factors**

<b>Demographic factors</b>	<b>Particulars</b>	<b>Total</b>
Gender	Male	103 (85.80%)
	Female	17 (14.20%)
	Total	120 (100%)
Age (Years)	Less than 35 years	16 (13.33%)
	36 to 50 years	76 (63.33%)
	Above 50 years	28 (23.33%)
	Total	120 (100%)
Religion	Hindu	70 (50.30%)
	Christian	29 (24.20%)
	Muslim	19 (15.80%)
	Others	2 (1.70%)
	Total	120 (100%)
Education	Primary	17(14.20%)
	Secondary	37(30.80%)
	Senior Secondary	54(45.00%)
	Degree	12(10.00%)
	Total	120(100%)
Caste / Community	General	78 (65.00%)
	OBC	29 (24.17%)
	Others	2 (1.67%)
	Total	120(100%)
Family size (members)	Less than 3 members	43 (35.83%)
	4 to 6 members	63 (52.50%)
	Above 7 members	14 (11.67%)
	Total	120 (100%)

(Source : Primay data, figures in parenthesis are percentages)



**Gender:**

From Table # 1.1, it is observed that 103 (85.80 %) are male respondents and 17 (14.20%) are female respondents from small vendors. It is also found that majority of male respondents in this study. The result of the study shows that majority of the male are running agro-business in South Andaman.

**Age:**

The age structure of population plays a vital role in the analysis of the social status of an area. The survey stated that only male small vendors were engaged in the study area. The age of the owners, the highest 76 (63.33%) is in 36 -50 years age group whereas 28 (23.33%) in the age group of above 50 and less than 35 (13.33 %) reported in South Andaman District.

**Religion:**

In the present study, vendors are classified based on the religion of small vendors in South Andaman. 70 (50.30%) Hindu religion agro-business vendors, next 29 (24.20 %) Christian religion based sellers, followed by 19 (15.80 %) basically from Muslim religion and remaining 2 (1.70%) are others. The above result shows that majority of the sellers are from Hindu religion in South Andaman.

**Educational Status:**

The educational status of the agro-business have been grouped in four categories viz. primary, secondary, senior secondary and degree etc. 54 (45.00%) belongs to Senior secondary education, next 37 (30.80 %) belongs to secondary education followed by 17 (14.20) belongs to primary education and 12 (10.00%) belong to degree qualified business vendors. The above result shows that majority of the sellers are from senior secondary education background vendors running a business in South Andaman.

**Cast/Community:**

From Table # 1.1, it can be observed that 78 (65.00 %) are general respondents, 29 (24.17 %) are OBC respondents and 2 (1.67%) respondents belong to others cast. It is also found that majority of general respondents in South Andaman.

**Family Size:**

In this study, 63 (52.50%) have come between 4 to 6 members. The next highest 43 (35.83%) is found in less than 3 members group. Only 14 (11.67%) belonging in case of the above 7 members. The majority of agro-based businesses consist of family sizes between 4-5 members in South Andaman.

**Classification based on Agro -Business Supports:**

This section of the study presents information about the mode of suppliers and mode of transportation to reach the respective market in South Andaman. The summarization respondents are presented in Table # 1.2 below.

Table 1.2

**Classification of respondents based on Mode and Commencement**

Demographic factors	Particulars	Yes/No	
		Yes	No
Origin of product	Mainland	89 (74.2%)	31 (25.8%)
	North and Middle Andaman	68 (56.7%)	52 (43.3%)
	South Andaman	77 (64.2%)	43 (35.8%)
Mode of transportation	Truck	84 (70.0%)	36 (30.0%)
	Auto	57 (47.5%)	63 (52.5%)
	Bus	29 (24.2%)	91 (75.8%)
	Motorcycle	74 (61.7%)	46 (38.3%)
	Ship	48 (40 %)	72 ( 60 %)
	Flight	30 (25 %)	90 ( 75 %)
Financial support	Banks	95(79.2%)	25(20.8%)
	Family	58(48.3%)	62(51.7%)
	Friends	30(25.0%)	90(75.0%)
	Private financiers (Pawnbrokers)	55(45.8%)	65(54.2%)

(Source : Primay data, figures in parenthesis are percentages)

Above table # 1.2 shows the origin of products from mainland and other parts of the islands. The respondents' the result reveals that 89 (74.2%) get agro products from mainland, 68(56.7%) respondents agree that agro-products supply from North and Middle Andaman, and 77(64.2%) are received product from South Andaman. In respect of mode of transportation used by Small vendors respondents, the study shows that 84(70.0%) using trucks, 57(47.5%) availed auto service, 29(24.2%) utilized bus, 74(61.7%) used motorcycle, 42 (4 %) of the respondents are used ship services and 30 (25 %) of the respondents are used as flight for medium of transportation of agro- products from mainland. It is further observed that source of financial support to small vendors 95(79.2%) respondents preferred bank is a source of finance, 58(48.3%) are sources of finance from family support, 30(25.0%) are preferred sources of finance from friends and 55(45.8%) preferred to choose from pawnbrokers.

**Ranking of respondents' opinion on challenges relating to Agro-business**

The descriptive statistics of the respondents' perception of problems they face while sourcing raw materials for their business are presented in the following table. For this, the problems encountered by the respondents were categorized into high price, poor quality, lack of transportation, delay by a timely receipt, and scarcity. The respondents' opinions were tabulated, ranked, and presented in the following table.



Table # 4.3

**Descriptive Statistics: Ranking of respondents' opinion on challenges relating to Agro-Business**

	Minimum	Maximum	SD	Mean	Rank
Lack of storage facilities	1.00	5.00	0.98	4.08	1
Lack of credit facilities	1.00	5.00	1.04	3.86	2
Lack of better shops	1.00	5.00	1.23	3.54	3
Lack of poor transportation	1.00	5.00	1.43	3.42	4
Lack of inadequate marketing	1.00	5.00	1.50	3.21	5
Lack of poor road connectivity	1.00	5.00	1.54	3.20	6
Lack of poor loading/ unloading facilities in market places	1.00	5.00	1.60	3.15	7
Lack of packaging facilities	1.00	5.00	1.51	3.02	8

(Source: Primary data), (Ranked are based on mean score / N= No. of respondents)

From the above Table # 4.3, it is observed that the overall mean value of the perception of respondents towards 'storage problems' is (4.08) mean ranked first, second-ranked belongs to credit availability is (3.86) mean. The third highest confirmed that the respondents face considerable problems (3.54) mean related with a better shop. Next problems relating to 'transportation problem' (3.42) mean, consequently followed by marketing problem (3.21) mean, 'road connectivity problem' (3.20 mean), and 'loading and unloading facilities' (3.15) mean and last packaging facility with a mean (3.02). Overall, it is observed that the respondent of agro-business face significant issues relating to storage facilities, leading to wastage cause huge losses for small agro-based business. To curtail there are necessary measures in order to avoid wastage it could be reduced by taking necessary measures by storage facilities to various markets places respectively. The credit facilities also found major problems and better shops are the prior problems facing by the agro-small business.

### CONCLUSION:

Agro-based business vendors constitute an important segment of the trade and commerce activities in Andaman and Nicobar islands. This organized or unorganized sector of street vendors is facing numerous problems in their day-to-day business. It is not only an economy of the Islands but it is one of the job sectors for the people of the islands. Their major problem relates to credit and inadequate infrastructure, marketing facilities, storage facilities, etc. Except these, others problems are also facing by these small traders. Hence, the researcher felt that the need for a scientific study of the problem of the street vendors in South Andaman District, whereas there are many small business vendors involved in different small trade activities. As such researcher has studies their problem under the head of a critical study of the problem of small vendors in South Andaman. The finding of the study reveals that the majority of products are exported from the mainland and the major mode of transportation is trucks and ships. Further, it is observed that poor storage

facility available at various markets in South Andaman. Most agricultural crops are suitable for short-term storage, maybe for few days. Storage in production areas is often not successful because the storage facilities are underutilized or storage facility not available due to this usually vegetables are spoils and agro-based business suffers huge economic loss in these islands.

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