



**P.G. DEPARTMENT OF GEOGRAPHY**  
**UNIVERSITY OF JAMMU**

No: PGD/Geog/ 24/5229

Dated: 18/10/24

To

The Assistant Registrar (DRS),  
University of Jammu,  
Jammu.


**Sub: Reports of Project and details of Utilization of RUSA-2.0 grant of Dr. Inder Jeet Singh**

Sir/Madam,

With reference to your Circular No. DRS/24/3333-3382 dated 11.10.2024 kindly find enclosed herewith the **Reports of Project and details of Utilization of RUSA-2.0 grant of Dr. Inder Jeet Singh**, Assistant Professor in this department who has received Seed Grant/Strengthening Research Grant under the budget head P03 Expenditure on Capital Account, R11 Research and Innovation. This is for your kind consideration and necessary action please.

Thanking you,

Yours Sincerely,

  
(Prof. Mohd. Sarfaraz Asgher)  
HOD Geography

**Head**  
**Department of Geography**  
**University of Jammu**  
**Jammu.**



**P.G. DEPARTMENT OF GEOGRAPHY**  
**UNIVERSITY OF JAMMU**

No: PGD/Geog/22/4020

Dtd: 13/06/2022

To

The Deputy Registrar,  
RUSA,  
University of Jammu,  
Jammu.

**Sub: Reports of Projects and details of Utilization of RUSA-2.0 grant.**

Sir/Madam,

With reference to your Circular No. RUSAJU/2022-23/136/12777 dated 26.05.2022 kindly find enclosed herewith the **Reports of Projects and details of Utilization of RUSA-2.0 of : 1. Prof. Anuradha Sharma, HOD, 2. Dr. Mohd. Sarfaraz Asgher, Associate Professor 3. Dr. Shashi Prabha, Assistant Professor and 4. Dr. Inder Jeet Singh, Assistant Professor** who have received Seed Grant/ Strengthening Research Grant under the budget head P03 Expenditure on Capital Account, R11 Research and Innovation. This is for your kind consideration and necessary action.

Thanking you,

Yours sincerely,

(Prof. Anuradha Sharma)  
HOD Geography

Department of Geography  
University of Jammu

S.O  
13/6



## REPORT

### SEED GRANT ASSISTANCE TO ASSISTANT PROFESSORS FOR FORMULATION OF RESEARCH PROJECT PROPOSAL UNDER RUSA 2.0

**Name of the Faculty** : **Dr. Inder Jeet Singh**  
**Department** : **Geography, University of Jammu.**

It is submitted before your goodself that a grant of Rs. 1, 00,000 /- has been sanctioned in my favour under vide order No. RUSAJU/2/2019-20/36/3886- 87 dated 21.11.2019 (Revised Sanction accorded under vide order No. RUSAJU/2/2019-20/36/4335 dated 18-12-2019). The detail of progress made under this research initiative is given hereunder:

- 1) Base map of the study area has been prepared.
- 2) Secondary data pertaining to different indicators of three pillars of food security has been obtained from different Govt. Department of J&K.
- 3) Secondary data has been tabulated and maps of different indicators were prepared and analysed.
- 4) Final map of food security regions has been prepared.
- 5) Three villages have been selected for field survey from three food security regions and survey of one village has been done while other two villages selected for survey were not covered due to COVID situation.
- 6) Brief report of the work done under this project has been prepared.

#### **Importance of the proposed Work:**

The study of food security is vital to understand the development and quality of human resource of an area. The proposed work is important to understand the food security scenario at regional and household level in the border tehsils of Jammu Province. It will also prove beneficial to know the factors responsible for variations in food security in the study area.

#### **Utilization of the Funds:**

S.No	Item	Amount (Sanctioned)	Amount (Utilized)	Balance
1	Consumables	15,000/-	14030/-	970/-
2	Travel (Domestic & Field)	695/-	695/-	Nil
3	Contingency	49,305/-	48684/-	621/-
4	Any Other Head			
	Hiring Services	15,000/-	14,986/-	17/-
	Books	20,000/-	20,000/-	Nil
	<b>Total</b>	<b>1,00,000/-</b>	<b>98,395/-</b>	<b>1,608/-</b>

Dr. Inder Jeet Singh

# UNIVERSITY OF JAMMU

## ORDER

### FINANCIAL APPROVAL FOR SEED GRANT ASSISTANCE TO ASSISTANT PROFESSORS FOR FORMULATION OF RESEARCH PROJECT PROPOSALS UNDER RUSA 2.0

NAME OF THE FACULTY : Dr. Inderjeet Singh

DEPARTMENT : Geography

Revised Sanction is hereby accorded for the financial assistance for formulation of research Proposals under RUSA 2.0 as per details given hereunder:-

S.No	Item	Amount
1.	Consumables	Rs.15,000/-
2.	Travel (Domestic & Field)	Rs.40,000/-
3.	Contingency	Rs.10,000/-
4.	Any other Head Hiring Services (Rs.15,000) Books (Rs.20,000)	Rs.35,000/-
	<b>Total</b>	<b>Rs.1,00,000/-</b>

You are required to meet the said expenditure as per university norms, GFR-2017 & guidelines issued vide No. RUSAJU/2019-20/36/716-766 dated 16.08.2019.

*Bhuca*  
17/12/19  
DEPUTY REGISTRAR (RUSA)

No: RUSAJU/2019-20/36/4335

Date: 18-12-2019

Copy to:

1. HOD, Geography
2. The concerned is requested to kindly submit the bills after observing all codal formalities and norms under the budget head P03 Expenditure on Capital Account, R-11 Research & Innovation.



**FINANCIAL APPROVAL FOR SEED GRANT ASSISTANCE TO ASSISTANT PROFESSORS  
FOR FORMULATION OF RESEARCH PROJECT PROPOSALS UNDER RUSA 2.0**

NAME OF THE FACULTY : Dr. Inderjeet Singh

DEPARTMENT : Geography

Sanction is hereby accorded for the financial assistance for formulation of research Proposals under RUSA 2.0 as per details given hereunder:-

S.No	Item	Amount
5.	Consumables	Rs.15000/-
6.	Travel (Domestic & Field)	Rs.40000/-
7.	Contingency	Rs.20000/-
8.	Any other Head Hiring services	Rs.25000/-
	<b>Total</b>	<b>Rs.100000/-</b>

You are required to meet the said expenditure as per university norms, GFR-2017 & guidelines issued vide No. RUSAJU/2019-20/36/716-766 dated 16.08.2019.

*Bhacca*  
21/11/19

DEPUTY REGISTRAR (RUSA)

No: RUSAJU/2/2019-20/36/3886 & 7  
Date: 21-11-2019

Copy to:

1. HOD, Geography
2. The concerned is requested to kindly submit the bills after observing all codal formalities and norms under the budget head P03 Expenditure on Capital Account, R-11 Research & Innovation

*Dr. Inderjeet Singh*

*[Signature]*  
25/11/19



## UNIVERSITY OF JAMMU

No. RUSAJU/2/2020-21/36/3694-95  
Dated 29-12-2020

✓  
Dr. Inder Jeet Singh  
Department of Geography,  
University of Jammu,  
Jammu.

Sir,

This is in reference to your letter No.PGD/Geog/4129 dated 11.11.2020 regarding re-appropriation of the unspent amount under head "Travel" to "Contingency" for the purchase of books under RUSA 2.0. In this connection, it is to inform that a meeting was convened on 02.12.2020 under the Convenorship of Hon'ble Vice-Chancellor. As resolved, your proposal has met the approval of the Competent Authority.

This is for your kind information and further necessary action please.

Thanking you,

Yours faithfully,

A handwritten signature in black ink, appearing to be 'AJS'.

DEPUTY REGISTRAR (RUSA)

Handwritten initials 'W' and the date '29/12/2020' written below them.

Copy to:-

- Head, Department of Geography

**REPORT**

**SEED GRANT ASSISTANCE TO ASSISTANT PROFESSORS FOR FORMULATION OF  
RESEARCH PROJECT PROPOSAL UNDER RUSA 2.0**

**Title**

**FOOD SECURITY SCENARIO IN THE BORDER TEHSILS OF  
JAMMU PROVINCE: A GEOGRAPHICAL ANALYSIS**

**Submitted By**

**DR. INDER JEET SINGH**  
Assistant Professor, Deptt. of Geography,  
University of Jammu, Jammu.  
([indergeogju@gmail.com](mailto:indergeogju@gmail.com))



# FOOD SECURITY SCENARIO IN THE BORDER TEHSILS OF JAMMU PROVINCE: A GEOGRAPHICAL ANALYSIS

INDER JEET SINGH  
Assistant Professor, Deptt. of Geography,  
University of Jammu, Jammu.  
([indergeogju@gmail.com](mailto:indergeogju@gmail.com))

## I. INTRODUCTION:

Food security is an important aspect to understand the level of development of an area. It is vital for the growth of region because, without nutritious food we cannot think about healthy human resource. Therefore food security is a prerequisite for the development of an area.

In 1974 the term food security was defined in the World Food Summit as:

**“Availability at all times of adequate world food supplies of basic food stuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices.”**

The definition was further expanded by FAO, World Bank and In World Food Summit in which other dimensions of food security were included. The widely accepted definition was given in the World Food Summit, 1996.

**“Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life”** (Napoli et al. 2010)

Earlier the concept of food security comprised of only one dimension of food grain availability, but later on with the passage of time other dimensions such as food accessibility, food utilization and food stability were added into this concept. Hence, now these dimensions are considered as four pillars of food security.

Food security always remained an issue of concern in India due to its diverse physical, socio-economic and political background. India faced the problem of food insecurity since British period when people encounter with droughts and famines. After Independence due lack of infrastructural facilities and low agricultural productivity, it was difficult for the Governments to feed the masses of the country. Keeping in view the seriousness of the problem Governments formulated various policies and programmes to root out the problem of food shortage in the country. Green Revolution played a significant role in wiping out the problem of food insecurity. Though the centre as well as state Governments is continuously trying to ensure food security in India but still the problem of food insecurity persists in many parts of the country. To eliminate the problem of food insecurity



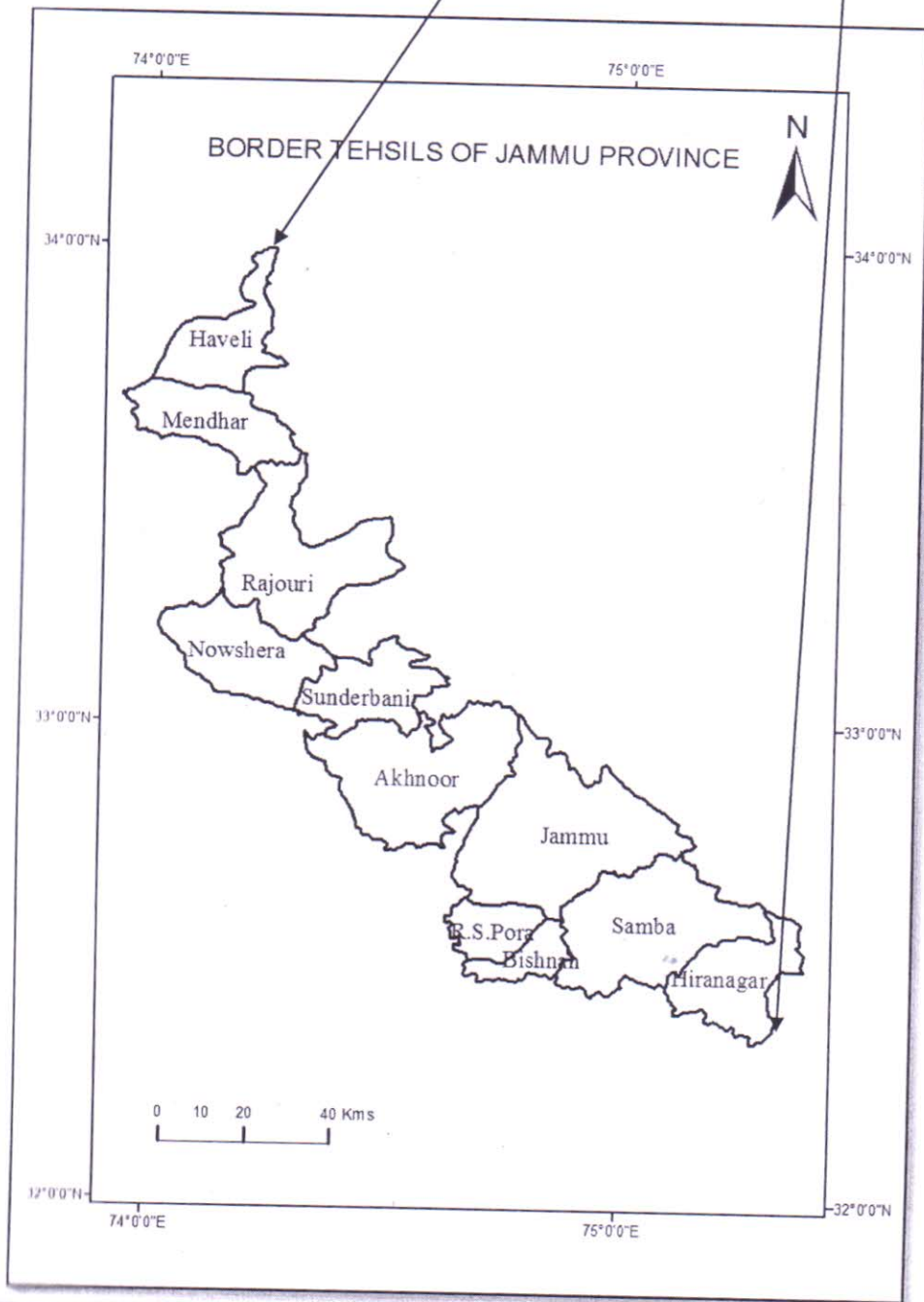
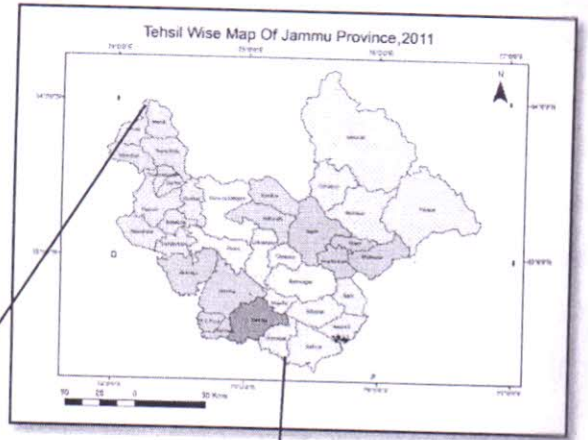
govt. has implemented various schemes such as National Food Security Act, Public Distribution System (PDS), Mid day meal scheme, Antyodaya Ann Yojna etc.

The state of Jammu and Kashmir which lies in the North-Western Himalayan region has many physical, socio-economic, historical and political constraints which lead to food insecurity in many parts. The situation is not uniform in all parts of the state, as some areas are performing better in different dimension of food security but some areas are not able to perform better more than one or two dimensions of food security. In Jammu & Kashmir food grain production is not able to match with population growth (Kaloo & Choure, 2015). Among different parts of the state border areas are more vulnerable to various problems such as cross border fire, war, terrorist attacks, cease-fire violation etc. On account of all these problems it is difficult for border areas to do well in all dimensions of food security. Disturbance on the border areas restricts the agricultural and other economic activities. People move to safe places to save their lives and visit their native place during sowing and harvesting period. As a result they are not able to take care of their agriculture land properly which cause to decline in agriculture productivity. Border areas are also lacking in diffusion of innovations due to which the agriculture of these areas is based on conventional methods. Hence, it is imperative to study the food security scenario in border areas of the state.

## **2. STUDY AREA.**

Jammu Province is one among the three divisions of Jammu & Kashmir. It is stretched between 32° 17' to 34° 12' North latitudes and 73° 58' to 76° 47' East longitudes (Mir, 2002). Jammu Province comprised of 10 districts namely Kishtwar, Doda, Reasi, Ramban, Poonch, Rajouri, Udhampur, Jammu, Samba and Kathua. Jammu Province is surrounded by Kashmir Valley in the North, district Kargil in the North-East, states of Himachal Pradesh and Punjab in the South and South-East and Pakistan and POK in the West (Raina, 2017). The entire region is a complex of plains, hills, mountains and valleys. Drainage system of the area comprised of the river Chenab, Tawi, Ujh and Ravi. Jammu Province is inhabited by 53.5 lakh population (Raina, 2017). Border tehsils of Jammu Province have been under taken for present study which comprised of Hiranagar tehsil of Kathua district; Samba tehsil of Samba district; Bishnah, R.S. Pura, Jammu and Akhnoor tehsils of Jammu district; Sunderbani, Nowshera and Rajouri tehsils of Rajouri district and Mendhar and Haveli tehsils of Poonch district. Out of eleven tehsils 5 tehsils share boundary with International border between India and Pakistan while remaining 6 tehsils share their boundary with Line of Control.

# Study Area





### **3. SIGNIFICANCE OF THE STUDY:**

The study of food security scenario is vital to understand the development and quality of human resource of an area, because availability, accessibility, utilization and stability of nutritious food are very crucial for the healthy development of a society. It is also mentioned in the definition given in the World Food Summit held in 1996 that access to sufficient, safe and nutritious food is needed for an active and healthy life. Border areas, due to its strategic location are prone to various problems; therefore it is very difficult to ensure food security in border areas. India has 15200 kms long border with Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar (Khullar, 2006). Border between India and Pakistan in Jammu & Kashmir state is strategically important because of border dispute between these two countries. It is the most disturbed frontier of the country as it is facing the problem of war, cross border fire, regular cease-fire- violations, terrorism etc. Hence the task of ensuring food security in the border areas is always challenging. Thus the present study will be significant to identify those areas where more efforts are required to ensure food security at regional and household level. It will also prove beneficial to know the factors responsible for variation in food security in border areas of Jammu Province.

### **4. REVIEW OF LITERATURE:**

Literature is very important aspect of any study. In present study review of some important studies has been carried out to understand the concept of food security and recent trends in the literature on food security.

Halasagi & Halasagi (2015); Katnalli (2015); Krishna (2015); Mukhrjee (2015), Purkait (2015); Chadha (2016); Joshi, Sinha & Patnaik (2016), Kalkoti (2017), Kumar (2017) and Sundram (2017) carried out studies on different aspects of food security such as performance of PDS and TDPS, trends of food security in India and food security for marginalised groups in the country. They also studied the National Food Security Act. and its implications on small and marginal farmers.

Narayanan (2015); Rasure (2015), Reddy (2015) and Saurabh (2017) discussed the food security in India and studied the problems of poverty, hunger and nutrition security.

Rao & Hans (2015) and Chakrabarthy (2016) elaborated the cause and challenges of food security in India and discussed the impact of climate change on India,s food security.

### **5. OBJECTIVES:**

Following objectives have been formulated in the present study:

- i) To delineate the food security regions of the study area.
- ii) To comprehend the household level food security in the area of present study.
- iii) To know the factors associated with variations in food security at regional and household level.



## **6. DATABASE & METHODOLOGY:**

Appropriate database and methodology are vital for the success of any study. Therefore, following database and methodology have been adopted to achieve the objectives of the present study:

### **i) To delineate the food security regions of the study area.**

To achieve the first objective of the study data pertaining to the different indicators of the three pillars (Food availability, Food accessibility and Food utilization) of the food security has been collected from various Govt. offices such as Financial Commissioner's office, Revenue, Jammu (J&K); Consumer Affairs and Public Department, Jammu (J&K); Forest Department, Jammu (J&K); Economic and Statistics Department (J&K) and Census of India.

Secondary data collected for different indicators to delineate the food security region has been analysed using Range Equalisation Methods (REM) of UNDP which was used to find out the variable index and composite index. GIS Software Arc GIS 10.5 has been used to prepare different maps.

### **ii) To comprehend the household level food security in the area of present study.**

To fulfil the second objective of the study, it was decided to collect data by conducting field survey in the selected 3 villages from different food security regions of the study area. But due to COVID situation only one village in R.S. Pura Tehsil was surveyed and remaining 2 villages could not cover. Thus objective number two was not achieved fully.

### **iii) To know the factors associated with variations in food security at regional and household level.**

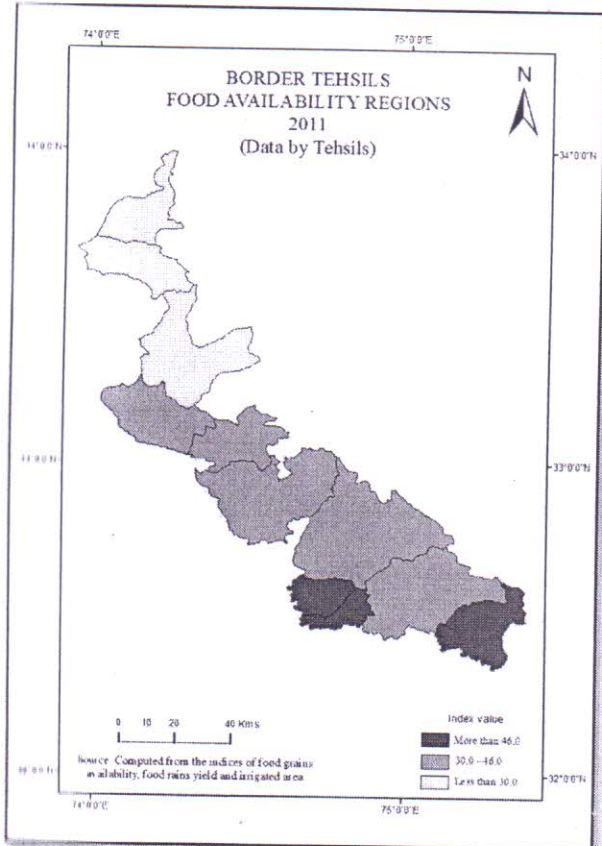
To achieve the last objective primary as well as secondary data was used. To understand the factors of regional level variations in food security data has been collected for explanatory variables from different Govt. departments. To know the factors operating at micro level or household level variations field survey has been conducted at household level in one selected village.

## **7. RESULTS AND DISCUSSIONS:**

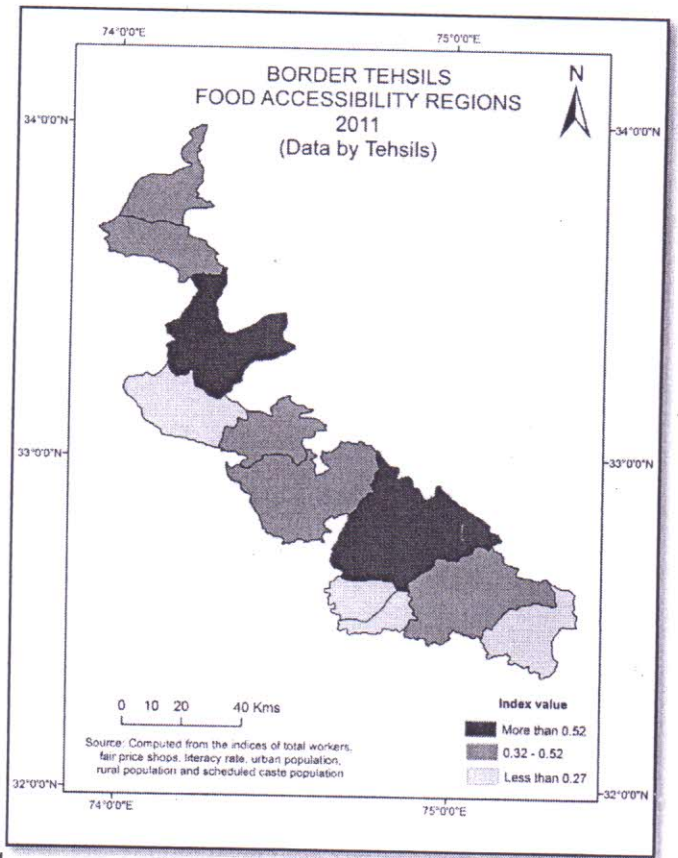
Agriculture is the mainstay of the people inhabiting border areas of Jammu province. But it is not an easy task to perform various agricultural activities in the border areas due to its vulnerability for cross border fire and infiltration of terrorists from Pakistan. Farmers afraid of cross border fire Agriculture land along International border was harvested after 18 years when Govt of J&K gave nod to carry out agriculture near border after situation improved between India and Pakistan (Singh, 2021). Farmers were of fear being attacked by Pakistan army (Raina, 2022). Apart from above mentioned problems people of the border areas also face the problem of natural calamities, poor connectivity, lack of transport facility and non availability of Public Distribution System (PDS).



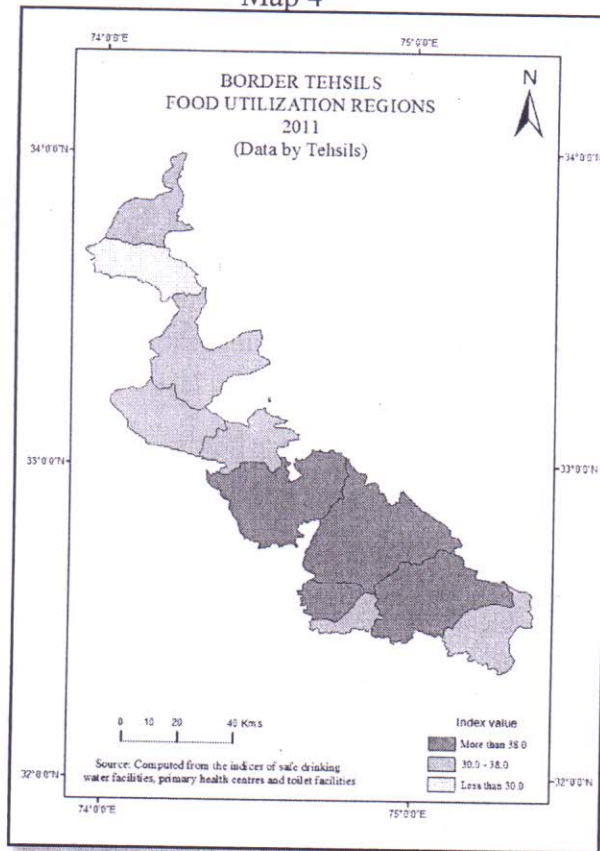
Map 2



Map 3



Map 4



Haque (2022) in his article in Daily Excelsior mentioned that people of Chikri Ban village of border district Poonch of Jammu & Kashmir are not able to get subsidized food grains due to many factors such as long distance from fair price shop, poor road connectivity, extreme weather conditions and absence of proper transportation system. There is little production on the border areas due to unfavorable topographical conditions, tension on the border and poverty, people are dependent on subsidized rations provided by the government through PDS (Masood and Ehsan, 2016). Keeping in view all these problems along International border and Line of Control (LOC) it is imperative to understand the food security scenario in the border areas of Jammu Province which has 11 tehsils namely Hrinagar, Samba, Bishnah, R.S. Pura, Jammu, Akhnoor, Sunderbani, Nowshera, Rajouri, Mendhar and Haveli.

**7.1 Food Security Regions of Border tehsils:** The food security regions of border tehsils have been delineated on the basis of index value of food availability, food accessibility and food utilization. The obtained values have been categorized into three groups of food secure, moderate food secure and low food secure as below:

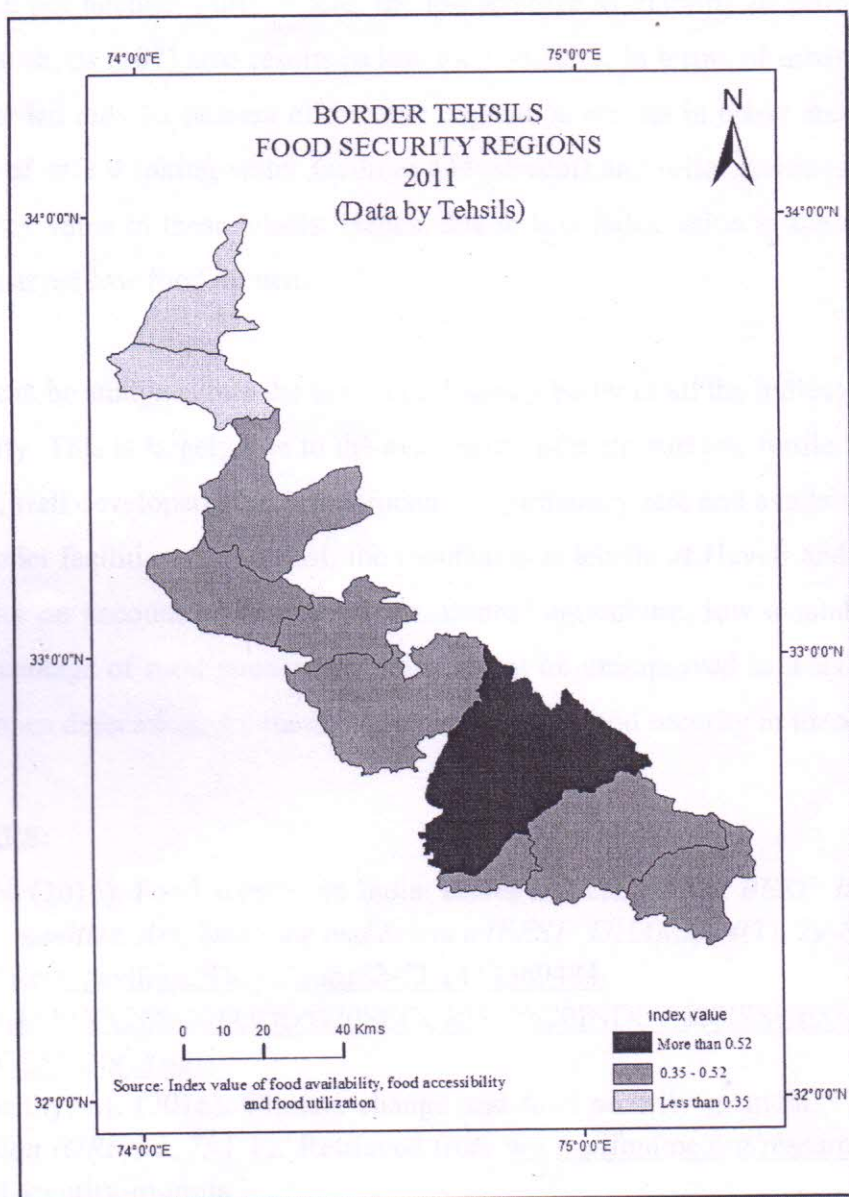
- i. Food Secure Region (More than 0.52 index value)
- ii. Moderate Food Secure Region (0.35 – 0.52 index value)
- iii. Low Food Secure Region (Less than 0.35 index value)

**i. Food Secure Region (More than 0.52 index value):** An isolated patch covering the tehsils of Jammu and R.S. Pura have recorded food security with index value of more than 0.52. This pocket extends in the south and south-east part of the study area. Jammu tehsil has recorded the highest index value of 0.73 followed by 0.60 in the tehsils of R.S. Pura. Both these tehsils are situated in outer plains of Jammu province on account of which high food security has been registered in this part of the study area. Among the factors which lead to high food security in these tehsils are mainly availability of fertile soil, level surface, irrigation facilities, high literacy rate, proportion of total workers, fair price shops and toilet facilities. R.S. Pura tehsil has recorded nearly 86 percent of net sown area under irrigation facilities in addition to a yield of 2456 Kg per hectare. In terms of food utilization indicators, safe drinking water facilities are available for 98.57 percent households while, 98.49 percent households have the access to toilet facilities. Furthermore, the literacy rate of 83.97 percent also contributes in high index value. On the other hand, Jammu tehsil has recorded 1163 fair price shops, 70 percent of urban population, literacy rate of 85.1 percent, 16 primary health centres, 92.4 percent households have safe drinking water facilities and toilet facilities for 62.65 percent of households, a yield of 2205 Kg per hectare and 34.48 percent of total workers. Thus, owing to better performance in above said indicators, these two tehsils have registered high food security.



ii. **Moderate Food Secure Region (0.35 – 0.52 index value):** The region lying in the west, south-west, south and south-east of the study area have recorded moderate food security. This region comprises seven tehsils namely, Rajouri, Nowshera, Sunderbani, Akhnoor, Bishnah, Samba and Hiranagar. The index value ranges from 0.38 in Nowshera and Sunderbani to 0.51 in Bishnah tehsil. These tehsils forms the parts of outer plains and Siwaliks zone of the study area. With regard to the performance in different domains of food security, the average figure for the data reveals that irrigated area constitute 42 percent of the net sown area, cereal production of 2033 Kg per hectare, 333 fair price shops and literacy rate of 80 percent.

Map 5



Among other indicators, safe drinking water facilities and toilet facilities are available for 85 percent and 24 percent of the total households in these tehsils respectively. This zone represents an average of 13 percent of urban population, 1117 grams availability of food grains per day and 7.5



primary health centres. Hence, on account of better performance in most of the indicators and low performance in the remaining indicators these tehsils displayed moderate food security.

**iii. Low Food Secure Region (Less than 0.35 index value):** This zone is located in the northern and north-western part of the study area encompassing the tehsils of Haveli and Mendhar. This region is located in the Middle-Himalayas. These tehsils have recorded low index value on account of poor performance in almost all the food security indicators. As this region is mountainous, the percentage of net sown area is registered low which is only 26 percent of the total reporting area. Also, the average irrigated area constitutes only 18 percent of net cropped area. This, results in low cereal yield of 1217 Kg per hectare. Furthermore, the low average availability of primary health centres (4) and fair price shops (107) also results in low food security. In terms of urban population, these tehsils have recorded only 12 percent of the total population resides in urban areas. In addition, the low availability of safe drinking water facilities (44 percent) and toilet facilities (19 percent) also leads to low index value in these tehsils. Hence, due to low index value in the selected indicators these tehsils registered low food security.

To conclude, it can be analyzed that the tehsils performing better in all the indicators have displayed high food security. This is largely due to the availability of plain surface, fertile land, irrigation facilities, markets, well developed road infrastructure, high literacy rate and availability of safe drinking water and toilet facilities. In contrast, the mountainous tehsils of Haveli and Mendhar showed low food security on account of rugged terrain, rainfed agriculture, low availability of net sown area, higher percentage of rural population, more reliant on unimproved sources of drinking water and practice of open defecation. All these factors lead to low food security in these tehsils.

## 8. REFERENCES:

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