# PEOPLE'S PARTICIPATION IN PHAIZAU MINOR IRRIGATION PROJECT

*A Dissertation Submitted to the Mizoram University in Partial Fulfillment of the Degree of Master of Philosophy in Public Administration*

*(School of Social Sciences)*


**SUBMITTED BY**

**LALTHANSANGA C**

**UNDER THE SUPERVISION OF**

**Prof. LALNEIHZOVI**




**DEPARTMENT OF PUBLIC ADMINISTRATION**

**MIZORAM UNIVERSITY, AIZAWL- 796004**


**MIZORAM, 2012.**

# MIZORAM UNIVERSITY

# AIZAWL : MIZORAM

Post Box No. 190 Gram: MZU
Phone: 2231612,
Fax: 0389-2331606

Prof. Lalneihzovi
Professor & Supervisor
Dept. of Public Administration.
Mizoram University.

No. MZU/PA - M.Phil. 2012/3

Dated: December 12, 2012.

## CERTIFICATE

This is to certify that Mr. Lalthansanga C, M. Phil Scholar in the Department of Public Administration, Mizoram University worked under my supervision on the topic 'People's Participation in Phaizau Minor Irrigation Project' for the award of the Degree of Master of Philosophy in Public Administration. The dissertation is the product of his own original research work and it does not form a part of any other dissertation. He is permitted to submit the dissertation for examination.

Place: Aizawl (LALNEIHZOVI)

Date: 12/12/2012

# DECLARATION

I, Lalthansanga C hereby declare that the dissertation entitled **People's Participation in Phaizau Minor Irrigation Project** is a record of work done by me during 2011 to 2012 under the supervision and guidance of Prof. Lalneihzovi, Department of Public Administration, Mizoram University. The dissertation did not form basis of award of any previous degree to me or to the best of my knowledge to anybody else, and it has not been submitted by me or anybody else for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Master of Philosophy in Public Administration.

(LALTHANSANGA C)
M. Phil Research Scholar
Dept. of Public Administration

## ACKNOWLEDGEMENT

I am thankful to my supervisor Prof. Lalneihzovi, Department of Public Administration, Mizoram University for her guidance and magnanimity during the course of the study.

The Head of the Department of Public Administration with his faculty and staffs are ever supportive and helpful all through the course of the study for which I am grateful.

I thank the officials and staffs of the Department of Minor Irrigation, Govt. of Mizoram for their valuable contribution.

I am thankful to the leaders of Phaizau Water User Association, Champhai and their members for their kindness and support especially during the course of data collection.

I am filled with a deep sense of gratitude to my father for his constant support and my mother for her love and encouragement.

I cannot help but mention Miss Candy, Mr. Dinthara and Mr. Zawma for their benevolence without which this study is unlikely to be completed. Their love and support will continue to linger and motivate me in the journey of life.

Above all, I thank the Lord Almighty for making all this happened.

Place: Aizawl (LALTHANSANGA C)

Date: 11/12/2012

## LIST OF TABLES

## LIST OF FIGURES

## LIST OF PHOTOGRAPH



## LIST OF MAPS



## LIST OF CHART



## ABBREVIATIONS

| | | |
|---|---|---|
| **rm** | : | Running Meter |
| **mm** | : | Millimeter |
| **dia** | : | Diameter |
| **wrc** | : | Wet Rice Cultivation |
| **E.O. to C.E.** | : | Engineering Officer to Chief Engineer |
| **C. E.** | : | Chief Engineer |
| **U. D. C.** | : | Upper Division Clerk |
| **L. D. C.** | : | Lower Division Clerk |
| **F. A. O.** | : | Finance & Accounts Officer |
| **R. O.** | : | Research Officer |
| **E. E.** | : | Executive Engineer |
| **D. P. R.** | : | Detailed Project Report |
| **S. D. O.** | : | Sub-Divisional Officer |
| **T. C.** | : | Technical Cell |
| **J. E.** | : | Junior Engineer |
| **S.A.** | : | Sectional Assistant |
| **AIBP** | : | Accelerated Irrigation Benefits Programme |
| **CADWMP** | : | Command Area Development & Water Management Programmme |
| **OFD** | : | On Farm Development |
| **ha** | : | Hectares |
| **FMP** | : | Flood Management Programme |

## TABLE OF CONTENTS

# CHAPTER I

# INTRODUCTION

- **Concept of People's Participation**
- **Significance**
- **Contexts of Mizoram**
- **Review of Literature**
- **Statement of the Problem**
- **Objectives**
- **Scope of the Study**
- **Research Questions**
- **Research Methodology**
- **Chapterisation**

# CHAPTER I

# INTRODUCTION

## Concept of People's Participation

People's participation in administration can be studied under two heads – participation in general administration and participation in development administration.[1] Participation in general administration is usually indirect and informal while participation in development administration witness direct involvement of people in the process of administering various programmes and development projects which are meant for bringing about socio-economic changes in the society. The present study, 'People's Participation in Phaizau Minor Irrigation Project' is related to participation of people in development administration. In the context of development administration, the word 'People's Participation' has been the main catchword since few decades. The significance of people's participation lies in the fact that it is consistently recommended as a primary tool in the process of integrated rural development.

People's participation implies that people participate in decision-making, design, formulation, implementation, evaluation and monitoring of various programmes and development projects concerning them. People work as partners with the government and various other agencies in

[1] M. Laxmikanth, (2006) *"Public Administration",* New Delhi, Tata McGraw Hill Publishing Company Ltd., p. 230.

initiation and fulfillment of goals.[2] Conventionally, the word 'People' refers to certain target group or beneficiary of particular developmental works and not the citizens as a whole. Hence, in general parlance, people's participation in development can be defined as the involvement and contributory activities of the beneficiaries throughout the different stages of developmental works, programmes or projects which in general, are classified as;

a. Participation in decision-making and plan formulation.

b. Participation in implementation.

c. Participation in monitoring and evaluation.

d. Participation in maintenance and management.

e. Participation in sharing of benefits.

**Significance of People's Participation**

The significance of people's participation can be summarized under the following points:-

(i) It provides administration a wealth of information on local socio-cultural, economic, ecological and technical conditions. This information is highly useful in the process of planning, programming and implementation of development programmes.

(ii) It leads to the selection of those projects which are of direct relevance to the people.

[2] E. Vayunandan and Dolly Matthew, "People's Participation in Governance", *Indian Journal of Public Administration*, New Delhi: IIPA, Volume L., No. 2, April-June, 2004, p.458.

(iii) It facilitates mobilization of local resources.

(iv) It acts as a safeguard against the abuse of administrative authority and thus reduces the scope for corruption in the operation of programmes.

(v) It prevents the hijacking of programme benefits by richer and powerful sections due to the involvement of poorer and weaker sections of the society. Thus it leads to the equitable distribution of benefits.

(vi) It makes the local community easily accept the developmental change.

(vii) It reduces the financial burden on government by sustaining the programmes even after the withdrawal of its support. They can be managed by the volunteers or community-based workers.

(viii) It enhances the ability and competence of the people to assume responsibility and solve their own problems. It develops a spirit of reliance, initiative and leadership among the people.

(ix) It promotes esprit de corps in the community and thus strengthens democracy at the grassroots level.[3]

[3] M. Laxmikanth, (2006) *"Public Administration",* New Delhi, Tata McGraw Hill Publishing Company Ltd., p. 232.

India, from the time of her independence and particularly since it embarked on planned development in 1951, has embraced democratic planning instead of totalitarian planning. Under totalitarian planning, the State has full authority to plan for the development of its citizens as it thinks best, where the plans of development are virtually instruction to be followed and accepted by its citizens. Democratic planning is the anti-thesis of totalitarianism. In democratic planning, it is the people who matter. It is their wishes and choices that the planners have to honour.[4] Under democratic planning the citizens have the right to say, to participate, to plan for their own development and be heard through their elected representatives. As such, in order to fulfill this ideal of democratic planning the government has taken several steps and even established certain mechanisms and institutions. The process of delegation and decentralization through the setting-up of local self-government are the major landmark. Nevertheless, the phenomena of people's participation has never attain satisfactory, not to say maximum heights due to several inhibiting factors.

In the context of Mizoram, the degree of people's participation is at low ebb. There is lack of awareness with regard to its significance and urgency in the process of rural development. This apathy seems to exist amongst the academicians as well as bureaucrats, not to mention the ordinary citizens. There is not enough research on-record regarding this

[4] P.R.Dubhashi in Noorjahan Bava. (1984*), "People's Participation in Development Administration in India",* New Delhi, Uppal Publishing House., p. Foreward (vii)

topic in the context of Mizoram, neither is there fair initiatives undertaken by the bureaucracy which is worth mentioning. Based on a doctoral dissertation by a certain Dr. Kalpana Das, conducting a survey in three towns within the district of Aizawl, there is evidence of low level of people's participation. There are several factors inhibiting effective people's participation according to the study. Factors such as negative perceptions of the bureaucracy by the locals, indifference and lack of leadership on the part of block level functionaries such as Block Development Officers (BDO) Extension Officers and Village Level Workers (VLW), absence of catalyst or local leadership, communication gap or lack of proper interaction between beneficiaries and block level functionaries, etc hinders effective people's participation. With the slow pace of rural development, the significance of people's participation as the main strategy for integrated rural development in Mizoram is yet to be fully comprehended.

On the contrary, there seems to be a good scope for people's participation in Mizoram. In comparison to other States in India, majority of the farmers in Mizoram are literate and owned bigger lands than their counterparts in other states. The fact that community work is intertwined with the Mizo society also provides conducive atmosphere for people's participation.

**Review of Literature**

Noorjahan Bava (1984) *People's Participation in Development Administration in India*. This book is a result of an empirical study on people's participation in development administration in two districts of Tamil Nadu, conducted by the author. It aims to define and conceptualize, in a clear and comprehensive manner, the concept of people's participation. This book is divided into five chapters. The first chapter deals with a theoretical orientation elucidating on the three key concepts of the study i.e., Development, Development Administration and people's participation in development administration as well as survey of literature on the research problem to the theoretical and operational definition of people's participation in development is dealt with in the Second chapter. Methodology of the study along with the parameter and hypotheses are delineated in the third chapter. In the fourth chapter, various findings emerging from the study are analyzed. The fifth and final chapter deals with conclusion and inferences drawn from the empirical findings along with their policy implications.

Kalpana Das (2004) *Rural Development in Mizoram*. The Integrated Rural Development Programme (IRDP) launched in 1980 by the Govt. of India could not deliver optimum results and only had a meager impact on rural poverty. It is in this context that the book under review was prepared by the author. Apart from examining the IRDP in the state of Mizoram, the book highlights the state sponsored rural development programmes and

identifies the motivational factors of grassroots bureaucracy. It also elucidates issues of beneficiary and NGO's participation in the rural development process. The book presents five case studies to unfold the grim reality to the reader. Several factors that hinder successful implementation of IRDP are discussed along with suggested ways and means of improvement. This book will be instrumental for the proposed research to be undertaken as it specifically deals with beneficiary and NGO's participation in development within the state of Mizoram.

Kranti Rana (2001) *People's Participation and Voluntary Action*. This book consists of four chapters primarily emphasizing on issues of popular participation and dimensions of 'Voluntarism' as an alternative model of development. Relevant methodologies of people's participation and voluntary action, both at the national and international level are covered. The role of Civil Society in popular participation and strategies followed by it in organizing voluntary action and implementing social action programmes is dealt with. The significance of voluntary sector in instigating popular movement as well as the role of NGO's towards social upliftment are discussed and evaluated. The merits that accrue out of strengthening voluntary and social action along with the institutional and ethical frameworks of such initiatives are also taken into account. This book will prove to be useful in research work for subjective analysis of issues pertaining to the role and significance of the Third State.

Ram P. Yadav (1980) *People's Participation : Focus on Mobilization of the Rural Poor*. This article emphasizes on issues of people's participation as the main element in integrated rural development strategy. The meaning and form of people's participation such as participation in decision-making, implementation, monitoring and evaluation and sharing of benefits are dealt with concisely. It advocates for direct participation of people rather than indirect participation through elected representatives. It stresses that direct benefit from developmental works facilitates direct participation of the concerned poor. Setting-up of reliable institutions and methodologies to ensure equitable sharing of developmental benefits is emphasized as the gist of the problem of people's participation. This article also presents essential elements for mobilization of the poor based on valuable experience of the small farmers development project in Nepal. This article will help enlighten a research scholar in the field of people's participation in development.

Suresh Mishra (2001) *Institutional Mechanism for People's Participation at the Local Level*. The article describes the significance of rural development as the pivot of administration at all three levels of government i.e, Central, State and District. The article states that people are the means and ends of development and so advocates strengthening of local bodies through the process of decentralization with the intention of bringing the government closer to the people. Empowerment of the people in socio-economic and political terms is deemed essential so as to inject an element

of effective influence and control required in people's participation. Decentralization without empowerment of the people is described as partial decentralization. The article describes Panchayati Raj as an institutional expression of democratic decentralization. The evolution of Panchayati Raj system in India, its structure, functions and problems encountered at the initial stages are discussed along with the salient features of 73rd constitutional amendment act. The article also emphasizes Gram Sabha as the bedrock of Panchayati Raj with the potential of inculcating participative culture in the rural area. Recommendations of the Task Force on Panchayati Raj to make the Gram Sabhas more vibrant and effective are presented briefly. It presented the Panchayati Raj institution as the main mechanism for people's participation at the local level.

Furqan Ahmad and Akhtar Ali (2011) *Decentralized Governance and People Participation in Local Development*. This article focused on the functioning of decentralization as a means of enhancing the effectiveness of people's participation in rural development. Different forms of decentralization as well as goals are discussed briefly. Mere decentralization without enhancing the institutional capabilities and human resources of the local bodies bears no fruit. As such, the article emphasize that decentralized responsibilities have to be complemented with strengthening of local capabilities. Several loopholes such as the absence of proper mechanisms to coordinate people's participation with different tiers of government structure, lack of proper linkage between the rural poor and

market mechanisms, inaccessibility to more productive and upgraded technologies, etc are dealt with. The article also highlights a significant link between people's participation and local development, named as change agents, catalyst, and window of opportunity or leadership. In conclusion, the article emphasize that devolution of power has to be effective so as to bring forth an effective participation of the local people.

**Statement of the Problem**

There is minimal awareness with regard to the importance of people's participation in developmental works within the context of Mizoram. Beneficiaries of developmental works are unorganized. As such, the degree of people's participation is low which in turn acts as bottleneck in achieving desired goals. There is also absence of proper relationship between the beneficiaries and the concern implementing authority. The department of Minor Irrigation has several projects in which certain developmental works such as building water channel, leveling and shaping of fields, construction of link roads, etc are undertaken. It has been realized, for long, by the department that the degree and manner of beneficiary participation is low and not efficacious as it should have been in most of the departmental projects.

**Objectives**

(i) to study the concerned project under the department of minor irrigation and to elucidate needs and importance of people's participation

(ii) to study initiatives of the department as well as manner and level of participation of the beneficiaries under minor irrigation project

(iii) to study problems of people's participation under the concerned project

(iv) to suggest remedial measures for effective people's participation

**Scope of the Study**

The study laid emphasis on issues of people's participation under Phaizau Minor Irrigation Project. For this, the study focused on beneficiary participation under the concerned Project. Champhai is often claimed as the rice-bowl of Mizoram due to its higher productivity and large area of plain arable land. Farmers are better organized in Champhai than any other place in Mizoram. The centre-point of the study is to find and analyze various factors preventing effective participation of people in the concerned project under study.

**Research Questions**

The proposed research will attempt to answer the following questions:-

(i) Is there people's participation in the concerned project under study? If so, what is the mode and manner as well as their level of participation?

(ii) What are the factors that prevent effective people's participation in the concerned project under study?

**Research Methodology**

As there is less precedent with regard to the topic under study in the context of Mizoram, primary method of data collection is extensively applied for the purpose of the study. The study is based on primary data collected through field survey with mixed questionnaire collected from the sample beneficiaries during the month of October, 2012. Drawn from the universe of seventy four (74) farmers, the sample for this study consists of thirty five (35) farmers selected on a random basis. In other words, the sample farmer accounts for 47 per cent of the universe of farmers. Care was taken to ensure that the sample was representative of the universe. Apart from administering questionnaire to the sample farmers, informal interviews were conducted with the following persons:

(i) Mr. Rochhunga Ralte, Former Secretary, Water User Association, Phaizau Minor Irrigation Project, Champhai, Mizoram.

(ii) Mr. Ramchullova, President, Water User Association, Phaizau Minor Irrigation Project, Champhai, Mizoram.

(iii) Mr. Chhuanawma, Secretary, Water User Association, Phaizau Minor Irrigation Project, Champhai, Mizoram.

(iv) Mr. Kawlbawia, Former President, Water User Association, Phaizau Minor Irrigation Project, Champhai, Mizoram.

(v) Mr. Lalrotluanga, Executive Engineer, Minor Irrigation Division, Champhai.

Secondary data are also collected from printed documents and official file of Phaizau Minor Irrigation Project maintained by the concerned department.

**Chapterisation**

The study is divided into five chapters:

**Chapter I: Introduction –** This is an introductory chapter dealing briefly with the meaning and significance of people's participation. It seeks to elucidate people's participation in the context of Mizoram.

**Chapter II: Profile of Phaizau Minor Irrigation Project -** In this chapter the profile of Phaizau Project such as its geographical profile, history, socio-economic profile of the farmers, etc are dealt with.

**Chapter III: Organization and Working of Minor Irrigation Department -** This chapter deals with the organizational structure of the concern department highlighting its divisions and sub - divisions. It throws light on the method of departmental workings with relation to the Project under study.

**Chapter IV: People's Participation in Phaizau Minor Irrigation Project -** In this chapter, the different variables and factors involved in beneficiary participation under the Project is dealt with. It seeks to elucidate the mode and manner as well as the existing bottlenecks to effective people's participation.

**Chapter V: Conclusion -** The final chapter is a summary also dealing with the findings and suggestions of the study.

# CHAPTER II

# PROFILE OF PHAIZAU MINOR IRRIGATION PROJECT

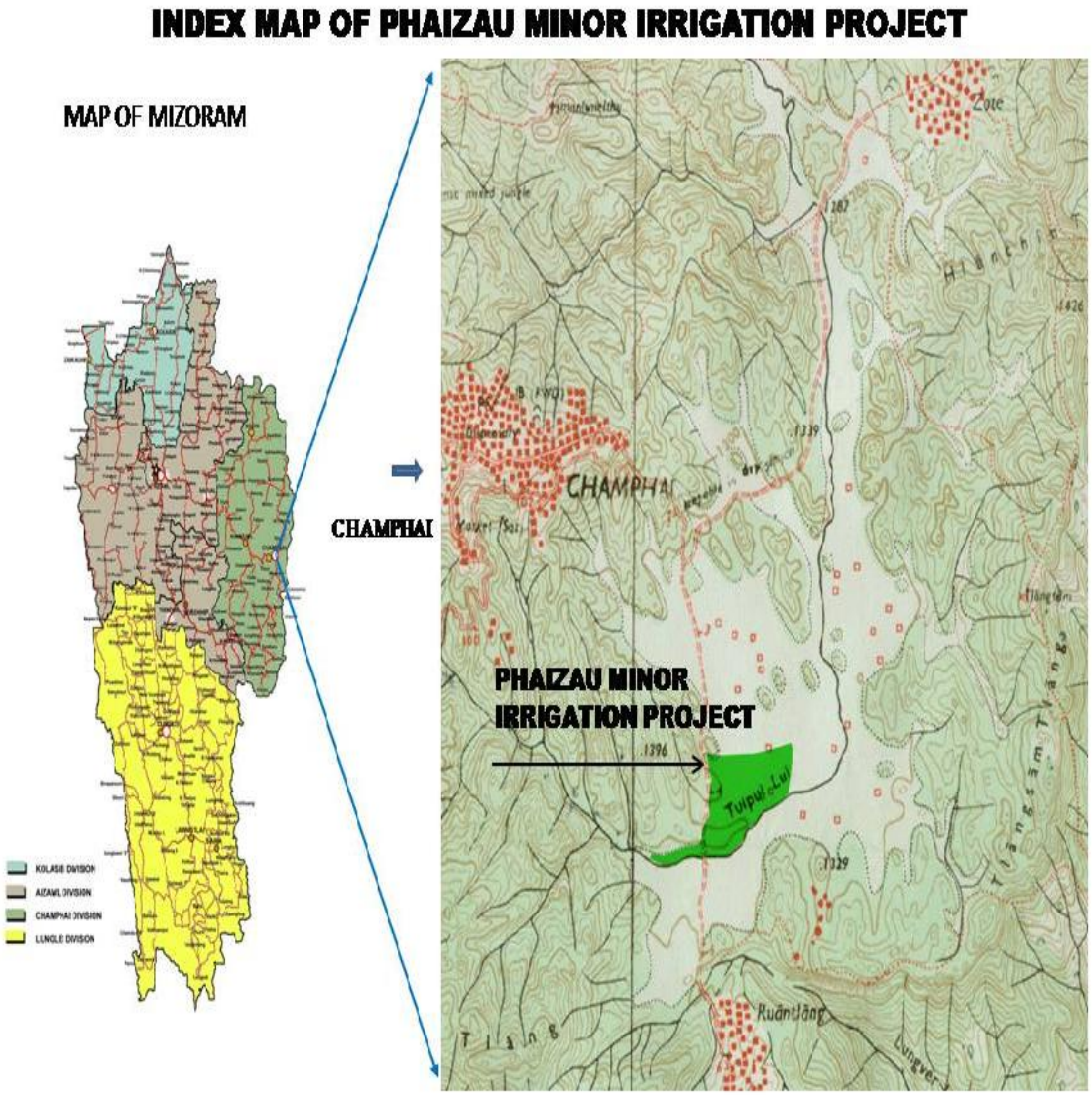
- **Salient Features**
- **Brief Profile**
- **Work Implementation under Phaizau Project**
- **Socio-economic Profile of Sample Farmers**
- **Impact of Project**
- **Water User Association**

**SALIENT FEATURES OF**

**PHAIZAU MINOR IRRIGATION PROJECT, CHAMPHAI**

| **Name of Project** | **Phaizau Minor Irrigation Project, Champhai** |
|---|---|
| Funding Source | Accelerated Irrigation Benefit Programme (AIBP) |
| Implementing Department | Minor Irrigation Department, Govt. of Mizoram |
| Commencing Year | 2004 – 2005 |
| Year of Completion | 2007 – 2008 |
| Project Location | Latitude between 23°31' and 23° 32' |
| | Longitude between 93°24' and 93° 25' |
| Height from Mean Sea Level | 1300 metres |
| Nearest Village | Zotlang (1 km. approx) |
| Nearest Town | Champhai (1km. approx) |
| Number of Beneficiaries | 74 Families |
| Culturable Command Area | 100 hectares |

**Picture: Wet Rice Cultivation in Phaizau Minor Irrigation Project**




**MAP I: Map Showing Location of Champhai**

Source: Minor Irrigation Department, Govt. of Mizoram

# CHAPTER II

# PROFILE OF PHAIZAU MINOR IRRIGATION PROJECT

## Brief Profile

Phaizau is an area of plain land where wet rice cultivation is practiced. It is situated at a height of 1300 meters above mean sea level on the eastern part of Mizoram at the outskirt of Champhai. According to a certain Mr. Kawla (L) f/o Apostle Robuanga, wet rice cultivation in Phaizau was started since 1910 during British colonization of India when Mizoram, then known as Lushai Hills, was also under the British administration. By order of the Superintendent of Lushai Hills, the local Chief 'Butpawla' forced his people to practice wet rice cultivation in Phaizau. Phaizau, though being a vast plain area for rice cultivation, is devoid of reliable water source for irrigation. As such, the quality of the soil is not conducive for wet rice cultivation and apart from this flood during the rainy season often wrecked havoc thereby destroying the rice fields and the temporarily constructed earthen water channel. People were thus reluctant to utilize the land for cultivation and so they were forced by the British Superintendent through the local Chief. Due to unavailability of sufficient water for irrigation failure was a recurring phenomenon. In the 1950's, along with support from the government the farmers organized themselves under their own local leadership and worked voluntarily and manually constructing earthen water channel which diverts water from the nearby perennial stream 'Tuipui'.

Minor Irrigation Project of Phaizau is located at latitude between 23° 31’ and 23°32’ and at a longitude between 93°24’ and 93°25’. The total culturable command area of the Project is 100 hectares. The nearest village from Phaizau is Zotlang, and Champhai which is a District Headquarter is the nearest town. As Phaizau is located at the outskirt of Champhai town, vegetables and crops harvested from this area have good marketing prospect. The transportation cost to the market is low and agricultural produce can be sold in a better condition before they become stale and at a reasonable price. As such farmers in Phaizau put their best efforts in cultivating their fields from their own limited resources.

Before Phaizau Minor Irrigation Project was taken-up, the farmers utilized whatever amount of social capital they had to the optimum extent towards provisions for irrigation. As a result, they managed to provide irrigation for about 70 hectares of the potential area for production of kharif paddy by diverting water from a nearby perennial stream called ‘Tuipui’ and conveying the water through earthen water channel to their fields, which demand hard work of manual labor for days after days under the scorching sun. The farmers also had to forfeit daily wages as their working hours are consumed by days of voluntary work in the construction of earthen water channel. Nevertheless, this arrangement only served its purpose temporarily; even the fields which were irrigated through the earthen water channel could not be utilized optimally specially during Rabi and summer season due to absence of proper land development and lack of water for irrigation as there is

a large seepage lost at the earthen water channel. Various problems faced by the farmers in Phaizau before the concerned irrigation Project was implemented can be elucidated under the following points:

(i) The earthen water channel has to be repaired every year which requires heavy labor force.

(ii) It becomes more and more difficult to divert water as the stream or river gets deeper by the year making the earthen water channel unleveled with the stream at the diversion point.

(iii) Without proper distribution channel water was utilized first by farmers having their fields located upstream which creates inordinate delay for farmers downstream to prepare their fields for cultivation.

(iv) During the dry season availability of water from the stream is less by the year, while each monsoon brings large amount of drainage water from the nearby town and villages.

(v) During monsoon a sudden surge of water creates flood thereby devastating the fields.

(vi) As the farmers are heavily dependent on rain water for irrigation, it is difficult for them to prepare a proper plan of farming.

(vii) Due to unavailability of water during the dry season they cannot cultivate winter crops.

(viii) As their fields are not properly leveled, for wet rice cultivation they require great amount of water than they should had there been proper land leveling and shaping.

(ix) The wet rice cultivation areas prepared by the farmers are too small for farming machines like Tractors and Power-tillers to maneuver as required.

(x) Due to lack of farm roads accessible by vehicles transportation of farm produce from the fields become a burden.

(xi) Draining of water from the fields as and when required is difficult due to lack of proper drainage system.

A sense of necessity was felt to prepare proper framework for execution of the Project for which there was series of consultation between the farmers and departmental functionaries. To consider feasibility of executing irrigation project, it was decided for survey and investigation to be carried-out. Hence, with a view to address the above mentioned problems of farmers in Phaizau the concerned Project under study namely 'Phaizau Minor Irrigation Project' was conceived.

On the basis of the findings from survey and investigation it was suggested to implement the Project as Phase I and Phase II. The probable cost of executing Phase I was estimated at Rs.1,53,00,000 (Rupees one hundred and fifty three lakhs) while Phase II was estimated to cost Rs.1,76,00,000 (Rupees

one hundred and seventy six lakhs). The source of funding for both Phases was under the scheme of 'Accelerated Irrigation Benefit Programme' (AIBP). Under Phase I plans were formulated to create provisions for year- round irrigation facilities to about 70 hectares of land including 100 hectares during kharif season by re-building the existing earthen water channel with masonry wall which will be utilized as the main channel during kharif season as well for storage of water during lean season. As per the Project plan, water will be lifted from the channel to a service reservoir constructed at a vintage point from where it will be distributed by means of sprinkler or drip system through gravitational flow for cultivation of vegetables and other cash crops during winter and summer season. Phase I will also include construction of:

(a) Channel head regulator for control of discharge at main channel and distribution channel

(b) Procurement of two pumping sets including standby

(c) Construction of desiltation tank

(d) Construction of semi permanent building for pump house

(e) 1020 rm (running meter) of 40 mm (millimeter) dia (diameter) GI pipeline for distribution of water

(f) Construction of culvert for crossing of farm road and provisions for maintenance during construction, transportation charge of materials and cost of tools and plants.

Phase I of the Project is designed mainly to facilitate production of kharif paddy. Under Phase II the main component of the scheme was to create provisions for efficient distribution of irrigated water through proper distribution channel and GI pipeline particularly during lean period so as to provide year-round irrigation facilities to the whole command area during kharif as well as rabi and summer seasons. The work under Phase II will also include construction of cross drainage works, drop structure, provisions for maintenance during construction, transportation charge of materials and cost of tools and plants. It was also proposed to include on-farm development works for development of 20 hectares of virgin land as well as land improvement works for 25 hectares of wet rice cultivation area which had already been utilized for paddy production so as to fully utilize the whole irrigation potential for cultivation of kharif as well as rabi crops.

## Work Implementation

As per survey and investigation the Project works are implemented accordingly. Execution of works under Phaizau Minor Irrigation Project can be elucidated under the following points-

### Construction of water channel

Water channel constructed under the Project are of two types:

(a) Main Channel:

Size – 1.50m x 1.30m

Length- 1010m

(b) Distribution Channel:

Size- (1.0 x 1.0)m, (0.80 x 0.80)m, (0.70 x 0.50)m

Length- 1075m, 1620m, 1460m (Total- 4155m)

**Advantages of water channel:**

- It facilitates irrigation of fields.
- Water channels are built using masonry and cement component for permanent durability. As such, repeated repairing of water channels is no longer required.
- Water channels can be used as drainage system especially during monsoon when there is sudden surge of water which, before, creates flood thereby devastating the rice fields.
- Unlike the temporary earthen water channel there is less or no water lost due to seepage underground. Hence, water can be optimally harvested for irrigation.
- The water channels are designed in such a way that they can be used to store water which is crucial during the dry season due to scarcity of water.
- As the water channels mostly connects the rice fields of every farmer, water can be collected or drained as per the individual requirement of each farmer.

**Construction of Water Reservoir**

There are two types of water reservoir constructed under the Project:

(a) Water Pond:

Full Capacity - 105,80,000 litres

Live Storage (that can be drawn) - 91,04,000 litres

(b) Water Channel:

Live Storage – 35,00,000 litres

Grand Total (Live storage) – 126,04,000 litres

**Advantages of water reservoir:**

- It is a useful provision for rain water harvesting which provides water for irrigation during the dry season.

- The water reservoir greatly helps in mitigating flood during the rainy season.

- Apart from using the pond as water reservoir it can also be used for 'Pisciculture' i.e. artificial rearing of fish. This provides additional income to the farmers.

**Land Leveling and Shaping**:

Lands used for wet rice cultivation under Phaizau Minor Irrigation Project were leveled and re-shaped as far as possible. The areas for wet

rice cultivation were expanded and adjusted as much as their geographical location permits. This is necessary for utilizing land resources to its maximum potential.

**Advantages of Land Leveling and Shaping:**

- As the rice fields become uniformly leveled the amount of water demanded for irrigation is significantly reduced thereby facilitating optimum use of water.

- As the areas of wet rice cultivation are expanded, leveled and re-shaped farmers can now utilize machines like Tractors and Power-tillers with better maneuverability and efficiency.

- With the use of farming machines a great amount of time and labor is saved which can further be invested in other productive works.

**Construction of Farm Road**:

The total length of the farm road is 1000 metres. It provides vehicular access to the rice fields. Though the farm roads are easily plied during dry season, there is difficulty in using the roads during monsoon as they get muddy and slippery due to rain.

**Advantages of Farm Road:**

- Each rice field owned by different individual can be accessed by farming machinery like Tractors without having to pass through the neighboring fields. Due to this provision, machines can be used in various aspects of farming as per the time and requirement of the individual farmer irrespective of the consent of his neighbor.

- The farm road facilitates transportation of agricultural produce by vehicles unlike before wherein transportation of produce was labor intensive.

**Installation of Pump Set, GI Pipe and Sprinkler Set:**

For attaining efficiency in irrigation system portable pump set, GI Pipe and Sprinkler set were installed.

**Advantages:**

- During lean period as water level of the stream greatly reduced, water has to be pumped out from the stream for which ten portable Pump Set were installed.

- The pumped-out water is then distributed through GI Pipes which are installed in various vantage points in the fields.

- Sprinkler sets were used to demonstrate efficient and optimum system of irrigation for which fifty sprinkler sets were installed.

**Construction of Site Camp cum Godown**:

A multipurpose farm house which can be used as a Godown or Site Camp was constructed. It is used for safe-keeping of tools and implements of the Water User Association as well as venue for awareness campaign, farmers' meet and other related functions.

## Socio-economic Profile of Sample Farmers

Under Phaizau Minor Irrigation Project, the number of beneficiary family increased from time to time as lands are acquired by inheritance which means that landholdings are divided and distributed within the family from father to his sons. Though the farms are collectively located in Phaizau area, the farmers are scattered living mostly in Champhai town and its nearby hamlets of Zotlang and Tlangsam. Drawn from the universe of seventy four (74) farmers, the sample for this study consists of thirty five (35) farmers selected on a random basis. In other words, the sample farmers accounts for 47% of the universe of farmers. Care was taken to ensure that the sample was representative of the universe.

**TABLE 1**

**Age-wise Distribution of Sample Farmers**

| 20 - 35 Years (Younger) | 36 - 50 Years (Middle) | Above 50 Years | Total |
|---|---|---|---|
| 8 | 12 | 15 | 35 |
| 22.90% | 34.30% | 42.80% | 100% |

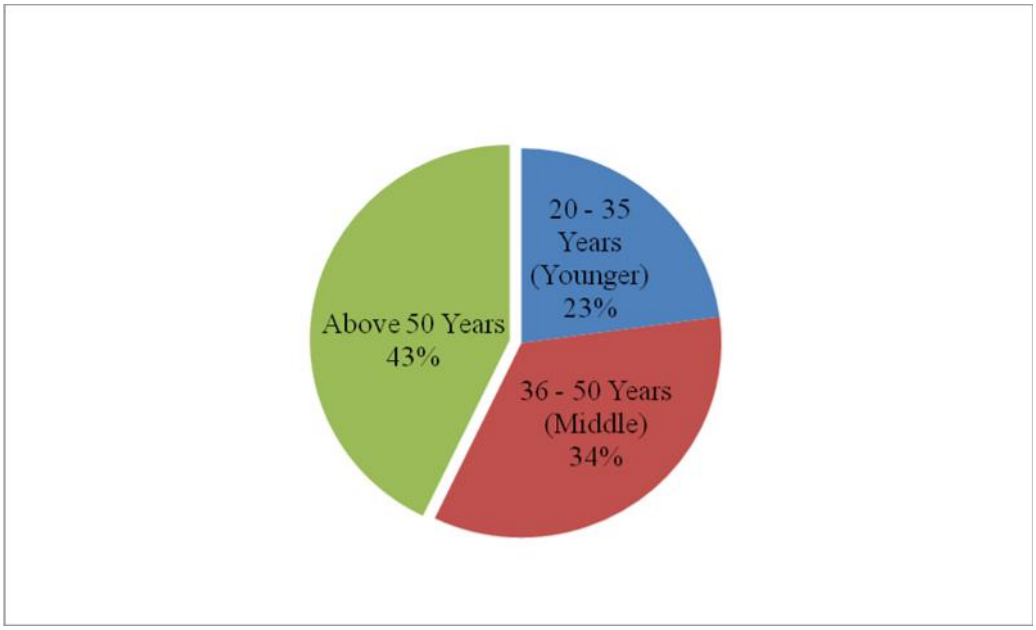



**FIGURE 1**

Table 1 on age- wise distribution of sample farmers shows that 22.9 per cent of sample farmers belong to 25 – 35 years of age, 34.3 per cent belongs to the age group 36 - 50 years and 42.8 per cent of sample farmers belongs to the age group of 50 years and above. It is evident from the table that the younger age group of farmers is less compared to the middle age and old age group. Apart from other factors, this is also because in agriculturally backward State like Mizoram farming is not as profitable as it should be and hence the younger generation is not interested in farming as they do not see farming as a reliable and lucrative career.

**TABLE 2**

**Percentage Distribution of Educational Status**

| Illiterate | Below High School | Higher Secondary | Graduate | Post Graduate | Total |
|---|---|---|---|---|---|
| Nil | 26 | 4 | 3 | 2 | 35 |
| | 74.28% | 11.43% | 8.57% | 5.70% | 100% |

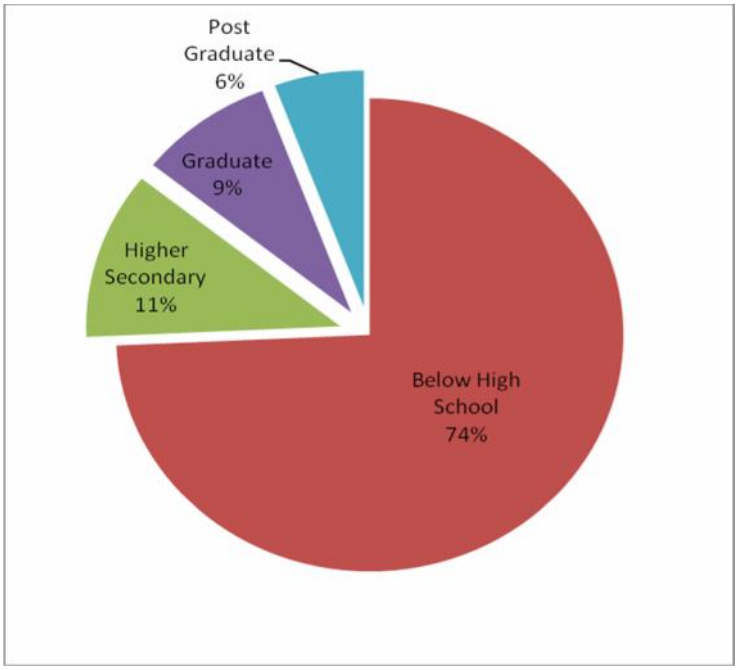



**FIGURE 2**

Table 2 on educational status reveals that all sample farmers are literate. 74.28 per cent of sample farmers have had education till standard 10 or below, 11.43 per cent had higher secondary education, 8.57 per cent of sample farmers are graduates while 5.7 per cent are post graduates. The educational status of farmers has a significant impact in their level of participation as well as their awareness of new farming system and technologies.

**TABLE 3**

**Percentage Distribution of Family Members**

| 2 – 4 Members | 5-7 Members | More than 8 Members | Total |
|---|---|---|---|
| 7 | 20 | 8 | 35 |
| 20% | 57.14% | 22.86% | 100% |

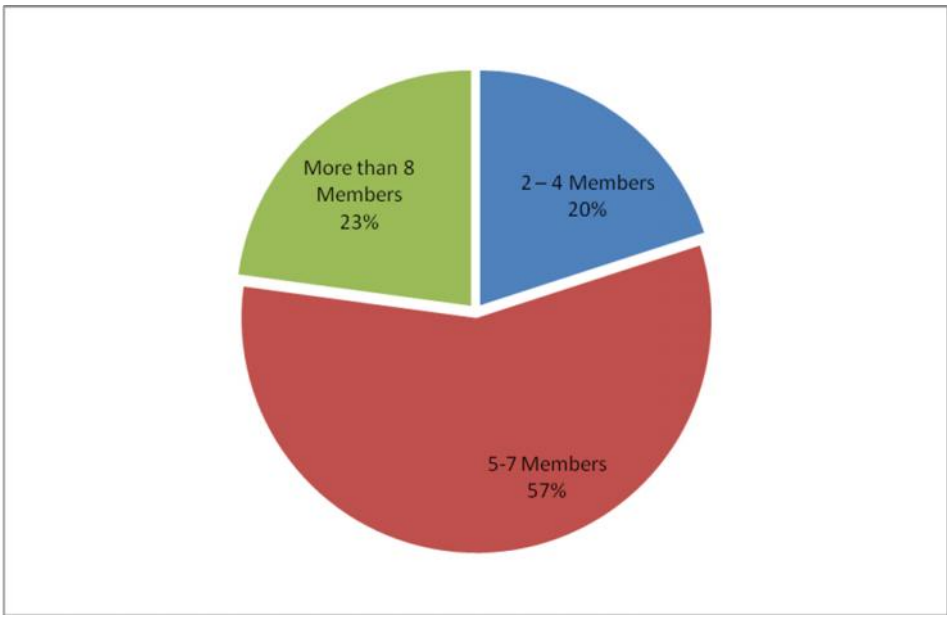



**FIGURE 3**

Table 3 shows that 20 per cent of the sample farmers have families the number of which ranges between 2 and 4 in each, 57.14 per cent have families in which there are 5 to 7 members while there are 22.86 per cent of sample farmers having 8 or more family members.

**TABLE 4**

**Percentage Distribution of Unemployed Members in Families**

| Nil (No unemployed) | 1 – 3 Members | 4 – 6 Members | More than 7 Members | Total |
|---|---|---|---|---|
| 2 | 23 | 8 | 2 | 35 |
| 5.71% | 65.71% | 22.85% | 5.71% | 100% |

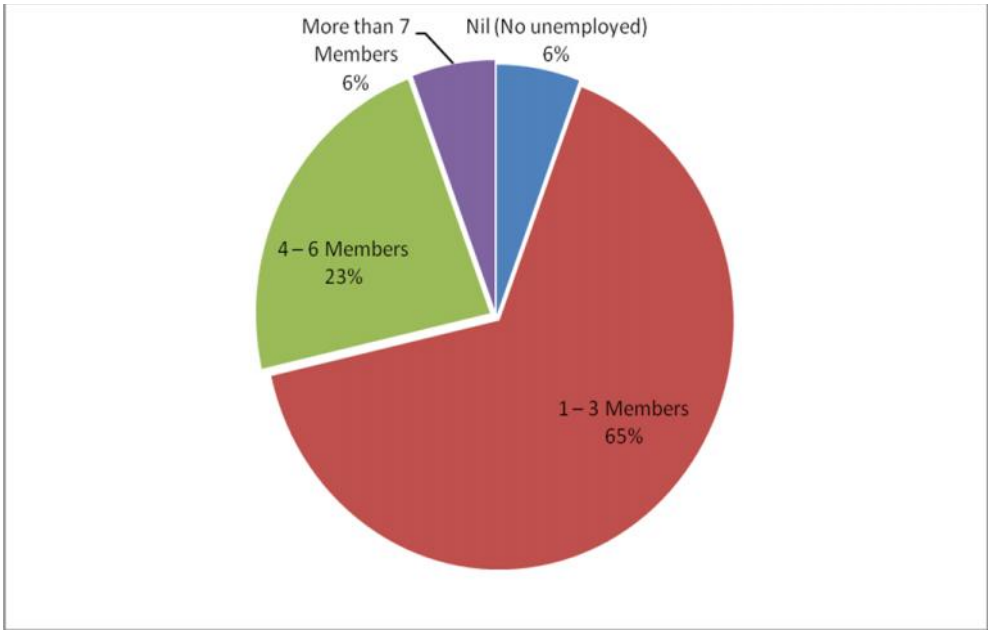



**FIGURE 4**

Table 4 shows that only 5.71 per cent of sample farmers' families have no unemployed members. 65.71 per cent have unemployed family members the number of which ranges between 1 to 3 while 22.85 per cent have 4 to 6 unemployed members and 5.71 per cent have 7 or more family members who are unemployed.

## TABLE 5

### Percentage Distribution of Main Occupation of Sample Farmers

| Only Farming | Farming with other Jobs | | | Total |
|---|---|---|---|---|
| | Govt. | Teacher | Business | |
| 17 | 12 | 3 | 3 | 35 |
| 48.57% | 34.28% | 8.57% | 8.57% | 100 |

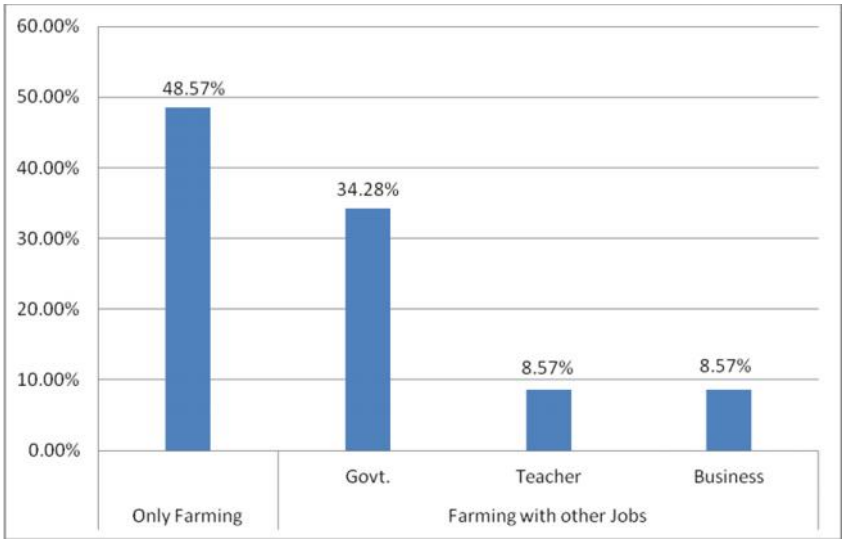



**FIGURE 5**

Table 5 indicates that 48.57 per cent of sample farmers have farming as their main occupation while the remaining 51.42 per cent have other jobs apart from farming. Those who have government jobs apart from farming consists of 34.28 per cent of the sample farmers while 8.57 is the percentage of sample farmers who have teaching jobs with farming and another 8.57 per cent have business and farming as their main occupation. A great proportion of government jobs held by the sample farmers are of lower rank mostly under the classification Grade 3 and 4. Most of the sample farmers having a teaching job are in government-aided or government schools and can also be considered as a government job.

**TABLE 6**

**Percentage Distribution of Farming Machines and Equipments**

| Nil | Only Machines | Machines and Cows | Cows | Total |
|---|---|---|---|---|
| 22 | 9 | 1 | 3 | 35 |
| 62.85% | 25.70% | 2.85% | 8.57% | 100% |

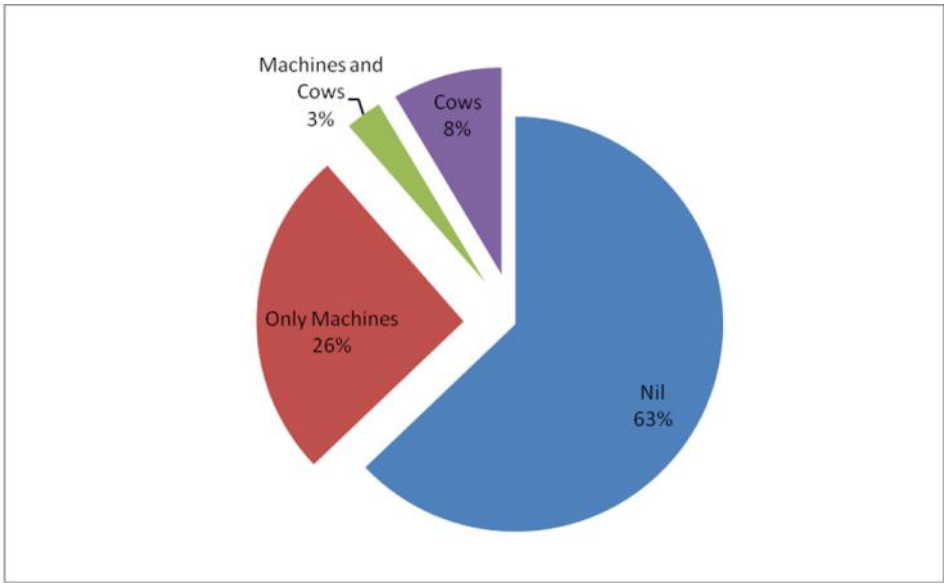



**FIGURE 6**

Among the sample farmers, as Table 6 shows 62.85 per cent have no farming machines or cows to plough the fields while 25.7 per cent of sample farmers have farming machines of one kind or another but without cows. A meager 2.85 per cent have farming machine as well as cow(s) and 8.57 per cent have no machine but cows. From the Table, it is evident that majority of the sample farmers have neither farming machines nor cows. This problem is dealt-with by hiring farming equipments as and when necessary from the farming Society of Phaizau at a uniform rate. A small section of sample farmers have machines of one kind or another such as Tractors, Power tillers, Harvester, Thresher, etc.

**TABLE 7**

**Percentage Distribution of Landholding of Sample Farmers (in hectares)**

| 0.1 – 0.5 ha. | 0.6 – 1 ha. | 1.1 – 1.5 ha. | 1.6 – 2 ha. | Total |
|---|---|---|---|---|
| 2 | 9 | 17 | 7 | 35 |
| 5.71% | 25.71% | 48.57% | 20% | 100% |

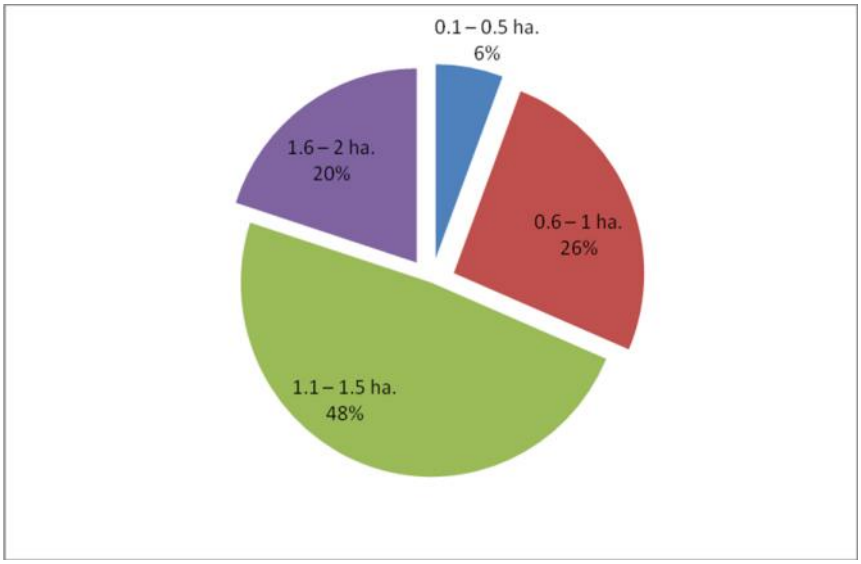



**FIGURE 7**

Table 7 on percentage distribution of landholding shows that 5.71 per cent of sample farmers have landholding the size of which ranges between 0.1 to 0.5 hectare, 25.71 per cent have landholdings with a size of 0.6 to 1 hectare, 48.57 per cent have landholdings the size of which varies between 1.1 to 1.5 hectares and as many as 20 per cent have landholdings of size varying from 1.6 to 2 hectares. In the case of Phaizau, as mentioned before, the size of landholdings decreases while the number of landholder increases. This is due to the fact that lands were divided and allotted by the farmer to his children. As such, size of landholdings shrinks as they are acquired by inheritance from one generation to another.

## Impact of Project

### (a) Cost of Production

Farmers under Phaizau Minor Irrigation Project have benefitted in terms of significant reduction in their cost of production. Before the Project was implemented great amount of time and labor was required during pre-harvest and post-harvest period. Floods that used to wrecked havoc during monsoon have been mitigated by proper water channels which before, causes inordinate delay and demands extensive labor and time in re-preparation of rice fields for cultivation. Farming machines can now be used with the execution of Project works like farm road, land leveling and shaping as rice fields have been prepared in such a way that machine can be used with better maneuverability and efficiency. With the use of machines preparation of rice fields can be executed with lesser amount of time and labor. As construction of farm road provides vehicular access to rice fields agricultural produce can be harvested and transported with ease by vehicle unlike before which was labor intensive. Hence, the Project has enabled the farmers to save valuable time and energy which can be invested in other areas of production.

### (b) Farm Plan

Before implementation of Phaizau Project the farmers were heavily dependent on monsoon for irrigation. The vagaries of monsoon had significant impact on irrigation. As such, farmers could not make a proper farm plan for the year ahead as irrigation is not assured to them. Besides, the absence of proper and permanent irrigation structures nullified the prospect of rain water

harvesting and also makes it difficult for farmers to tap water from nearby streams to the maximum potential. The quality of paddy cultivated as well as the amount of production / harvest also depends to a large extent on the availability of water for irrigation. Due to fluctuation of rainfall from year to year it was impossible for the farmers to predict their likely amount of harvest in monetary terms. With the implementation of Phaizau Project permanent irrigation structures such as water reservoir and water canals came to exist. Provisions for rain water harvesting were made and water from the nearby streams were tapped in full capacity and stored for the dry season. Even though water may not be in abundance during the lean period, farmers in Phaizau are now assured year-round irrigation with the help of economical and efficient system of irrigation. Thus, as farmers can rely on the fact that water for irrigation is available throughout the year they can make proper farm plan for the year ahead.

**(c) Double Cropping**

Due to availability of water facilitated by the Project, farmers in Phaizau have started to practice double cropping system of cultivation. Earlier, the farmers rely solely on profits they gained from paddy cultivation. They had to be contented with whatever amount of paddy is being harvested as there is no other alternative cultivation. Scarcity of water for irrigation was a bottleneck that prevents them from practicing double cropping system of cultivation. As of now, water reservoir constructed under the Project enabled rain water harvesting to be used during the dry season. After harvesting paddy, farmers

started preparing their fields for winter crops. Peas and Cauliflower are the main crops sown during winter season. They require lesser amount of land than paddy cultivation and have better marketing prospect. As such, double cropping system of cultivation is a major boost to their income.

**(d) Paddy cum Fish**

Apart from double cropping system of cultivation, Phaizau Minor Irrigation Project has enabled the farmers to practice paddy cum fish system of farming. With abundant water facilitated by irrigation structures under the Project, fishes are reared amongst paddy in their fields. Unlike pre-Project implementation, there is efficient provision for collection and drainage of water as well as less or no incidence of flood which creates conducive ground for rearing of fish. Besides, the market price of local fish in Champhai is, arguably, the highest in Mizoram. Proximity to fish market also contributes to its marketing prospect. Hence, the paddy cum fish system of farming helps in raising the income level of farmers under Phaizau Minor Irrigation Project.

**(e) Employment**

Phaizau Minor Irrigation Project served as a source of employment for the local people leaving close to the Project site during execution of Project works. It provides them employment for a span of more than three years during which the Project works was carried-on.

**(f) Motivation**

The successful execution of Phaizau Minor Irrigation Project has acted as an eye-opener for the farmers by helping them to understand that farming can be very profitable in the presence of suitable irrigation infrastructures. The benefits that accrue from Phaizau Project have further motivated the farmers and challenge them to work harder so as to attain optimum income from farming.

## Water User Association

Phaizau Water User Association comprises of farmers utilizing water facilitated by Phaizau Minor Irrigation Project, Champhai. It was formerly known as Field Management Committee until 2009, when it was registered under the 'Mizoram Societies Registration Act, 2005', registration no. MSR 302 of 20.11.2009, as *Phaizau Water User Association, Champhai Mizoram*. The membership of the association is open to any farmer within Phaizau who fulfills the terms and conditions of the committee but subject to the approval of the Governing Body of the association. The term of the Governing Body is three years. All members of the association are entitled to elect the members of the Governing Body consisting of :

- President - 1
- Vice President -1
- Secretary - 1
- Assistant Secretary - 1
- Treasurer -1

- Financial Secretary -1
- Advisers (2 to 4)
- Executive Members (5 to 8)

All assets created under the Project have been transferred and handed over to the Water User Association by the Department of Minor Irrigation, Mizoram. The safe custody and up-keep of the assets, operation and maintenance of irrigation systems including collection of water charges or user's fee if and when necessary and ensuring optimum utilization of created irrigation potentials are vested on the Water User Association along with ownership of the assets. The major functions performed by the Water User Association can be summarized under the following:

(a) It ensures equitable distribution of water to all members by making proper distribution routine.

(b) It calls for participation of all members in terms of labor for repairing of minor damages to irrigation structures.

(c) It deliberates on problematic issues with regard to the Project.

# CHAPTER - III

# ORGANIZATION & WORKING:
# MINOR IRRIGATION DEPARTMENT

- **History of Minor Irrigation Department**
- **Organization**
- **Organizational Chart**
- **Map Showing Jurisdiction of Minor Irrigation Department**
- **Working**

# CHAPTER - III

# ORGANIZATION & WORKING: MINOR IRRIGATION DEPARTMENT

## History of Minor Irrigation Department

Irrigation is the life blood of any agricultural activity. It is indispensable as much as blood is to the human body. It may be argued that the process of irrigation, however crude it may be, existed right from the time 'Man' utilized the soil for cultivation. The methods and practices of irrigation only differ from place to place, people to people due to several external and internal factors. External factors such as environmental variables and internal factors due to the dynamics of human personality, i.e., as an individual or race. With the passage of time the significance of irrigation attain greater degree, and consequently and sequentially better and efficient practices of irrigation has evolved.

The people of Mizoram known as 'Mizo's' are a race that practice shifting cultivation. Due to a combination of different factors like racial and regional backwardness, lack of resource, rugged slopes and terrain, etc, irrigation was at a minimal scale. In Mizoram, irrigation works as a governmental scheme started lately in the year 1974-1975* when a scheme for minor irrigation was included in the annual plan of the Department of Agriculture, Govt. of Mizoram. Under this scheme, minor irrigation works were to be implemented by way of Grant-in-Aid Subsidy where fifty (50) per cent of the total cost was granted as incentives to the farmer or group of

farmers. This granting of subsidy was the sole programme under minor irrigation schemes till 1983-1984. A drawback associated with this scheme was the difficulty of building permanent irrigation structures as the poor farmers had to contribute half the total cost. Hence, from 1983-1984 onwards the Government of Mizoram advocates shift in policy wherein minor irrigation projects were to be implemented on a project basis, with the Government bearing the total expenditure of Project works.

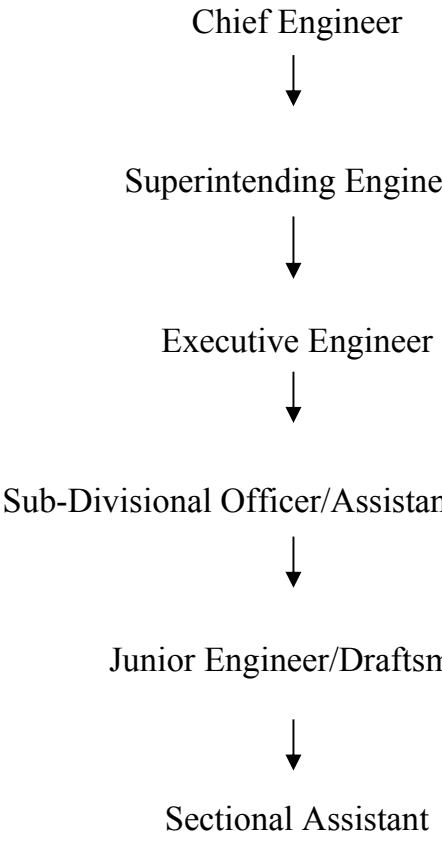
After a year of implementing minor irrigation works on a project basis, the Government realized that irrigation works are basically of an engineering concern. Building of irrigation structures require proper planning and design which further involves heavy work loads. Due to this fact, establishment of an engineering cell or wing under the Department of Agriculture becomes a necessity for successful implementation of minor irrigation schemes. Hence, the Government considered transfer of Irrigation Division to the Department of Agriculture which was hitherto under Public Works Department to facilitate the process of setting-up Minor Irrigation Wing in the Department of Agriculture. Thus, the Irrigation Division under Public Works Department which was created in April 1981 was transferred to the Department of Agriculture in September 1984 as per Government Notification No. A-11018/1/84-PWE/17 dated, 4$^{th}$ of August 1984 (Annexure II). Initially, almost all the posts were manned by the incumbents from Public Works Department except that of SDO Aizawl, Serchhip and few posts of Junior Engineer which were manned by engineering cadres

from the Department of Agriculture. The incumbents from Public Works Department were offered the option of either going back to their parent department or to stay in the Irrigation Division under the Department of Agriculture. The transition process was eventually completed when the Irrigation Division was placed under the charge of an Executive Engineer on the 30th of December 1986.

The Irrigation Division at the time of its transition in 1984 has only one Works Division and two Works Sub-Division. However, there has been incremental expansion of Minor Irrigation Wing in terms of several aspects of its functioning, its administrative structure and financial budget being the prominent areas. As recent as 30th May 2007, the Minor Irrigation Wing was upgraded into a full-fledged Department of Minor Irrigation. Today, there are four Works Division and nine Works Sub-Division.

Minor Irrigation Department was established by bifurcation of Agriculture Department in May, 2007, and the department was strengthened and restructured into Technical Department in October, 2008.

Hierarchy of technical posts under Minor Irrigation Department is as given below:




At present, there are 225 sanctioned posts under Minor Irrigation Department. Head of the Department is Chief Engineer, he is supported by 2 (two) Superintending Engineers, 5 (five) Executive Engineers and Deputy Director (Administration) in the headquarters while there are four working divisions with 10 (ten) Sub-Divisions for execution of various schemes under Minor Irrigation.

For administrative and functional convenience, Chief Engineer's office is divided into six sections viz. (i) Personal Branch of Chief Engineer,

(ii) Establishment Section, (iii) Accounts Section, (iv) Statistics Section, (v) Works & Design Section and (vi) Planning & Monitoring Section.

**(i) Personal Branch of Chief Engineer**

This section is headed by E.O. to CE (Engineering Officer to Chief Engineer), and the section is handling and recording all correspondences and files in and out of CE's table, and managing matters relating to meetings and engagements of Chief Engineer. E.O. to CE also functions as 'Contact Person' while Chief Engineer is out of station.

**(ii) Establishment Section**

Establishment Section is headed by Deputy Director (Administration), who is assisted by Superintendent, Assistants, UDCs (Upper Division Clerks) and LDCs (Lower Division Clerks). The section deals with all matters relating to establishments of the Chief Engineer's office including maintenance of service records of all staff and officers under Minor Irrigation Department.

**(iii) Accounts Section**

Accounts Section is headed by FAO (Finance & Accounts Officer) who is assisted by Divisional Accountant, Cashier and other accounts staff. This section deals with all matters relating to finance and accounts which includes preparation of budget estimates.

**(iv) Statistics Section**

Statistics Section is headed by RO (Research Officer) who is assisted by Statistical Inspectors and LDC. The section deals with all matters relating to various statistical data under Minor Irrigation Department. One major activity of the section is conduct of Minor Irrigation Census under the Centrally Sponsored Scheme of 'Rationalization of Minor Irrigation Statistics' under Ministry of Water Resources, Government of India.

**(v) Works & Design Section**

Works & Design Section is headed by Superintending Engineer (Works & Design) who is assisted by two EEs **(**Executive Engineers) namely EE (Works) and EE (Survey & Investigation), and creation of the post of EE (Design) is under active consideration. This section deals with survey & investigation of new projects, design and preparation of DPR in respect of Anti-Erosion Schemes under Flood Management Programme, scrutiny of DPRs submitted by Divisions and matters relating to execution of minor works like repairing and maintenance of departmental buildings and completed minor irrigation projects.

**(vi) Planning & Monitoring Section**

Planning & Monitoring Section is headed by Superintending Engineer (Planning & Monitoring) who is assisted by two EEs, namely EE (Planning) and EE (Monitoring). This section deals with formulation/preparation of Annual Plan and Budget including Five Year Plan projections, scrutiny of

various reports from divisional offices and compilation/preparation monthly & quarterly progress reports of implementation of plan schemes and monitoring of various schemes implemented by Minor Irrigation Department.

In the fields, there are four working divisions and ten sub-divisions. Working divisions are the main works executing units of the Department. Each Division is headed by Executive Engineer; he is supported by SDO (TC) or Sub-Divisional Officer (Technical Cell), Divisional Accountant, Head Assistant and other support staff like Junior Engineer (JE), UDCs, LDCs, and Grade IV in the Divisional Office. Each working division has two or more sub-divisions and each sub-division is headed by SDO who is supported by JEs and Sectional Assistants (SAs).

The working divisions are also responsible for conducting Survey & Investigations and preparation of DPRs of Minor Irrigation Projects whereas the same in respect of Schemes under Flood Management Programmes and Command Area Development & Water Management Programmes are done from headquarters with active participation for the working divisions and sub-divisions.

The existing four working divisions and sub-divisions under Minor Irrigation Department with their respective jurisdictions are as stated below:

**1. Aizawl Division**

Jurisdiction of Aizawl Division covers Aizawl and Serchhip and Mamit Administrative District areas excluding Zawlnuam R.D. Block.

a) Aizawl Sub-Division: Jurisdiction of Aizawl Sub-Division covers Aizawl and Mamit Administrative District are excluding Zawlnuam R.D. Block.

b) Serchhip Sub-Division**:** Jurisdiction of Serchhip Sub-Division covers the entire area of Serchhip Administrative District.

**2. Champhai Division**

Jurisdiction of Champhai Division covers the entire area of Champhai Administrative District.

a) Champhai Sub-Division: Jurisdiction of Champhai Sub-Division covers Champhai and Khawbung Administrative Sub-Division areas.

b) Khawzawl Sub-Division: Jurisdiction of Khawzawl Sub-Division covers Khawzawl and Ngopa Administrative Sub-Division areas.

**3. Kolasib Division**

Jurisdiction of Kolasib Division covers the entire area of Kolasib Administrative District and Zawlnuam R.D. Block (under Mamit Administrative District).

a) Kolasib Sub-Division: Jurisdiction of Kolasib Sub-Division covers the entire area of Kolasib Administrative District.

b) Zawlnuam Sub-Division: Jurisdiction of Zawlnuam Sub-Division covers Zawlnuam R.D. Block.

**4. Lunglei Division**

Jurisdiction of Lunglei Division covers the entire area of Lunglei, Lawngtlai and Saiha Administrative Districts.

a) Lunglei Sub-Division: Jurisdiction of Lunglei Sub-Division covers Lunglei Administrative District excluding Chawngte Administrative Sub-Division.

b) Lawngtlai Sub-Division: Jurisdiction of Lawngtlai Sub-Division covers Lawngtlai Administrative District.

c) Saiha Sub-Division: Jurisdiction of Saiha Sub-Division covers Saiha Administrative District.

d) Chawngte Sub-Division: Jurisdiction of Chawngte Sub-Division covers Chawngte Administrative Sub- Division.

Chart showing organizational set-up of Minor Irrigation Department and map showing jurisdictions of divisions under Minor Irrigation Department are given in the following pages:

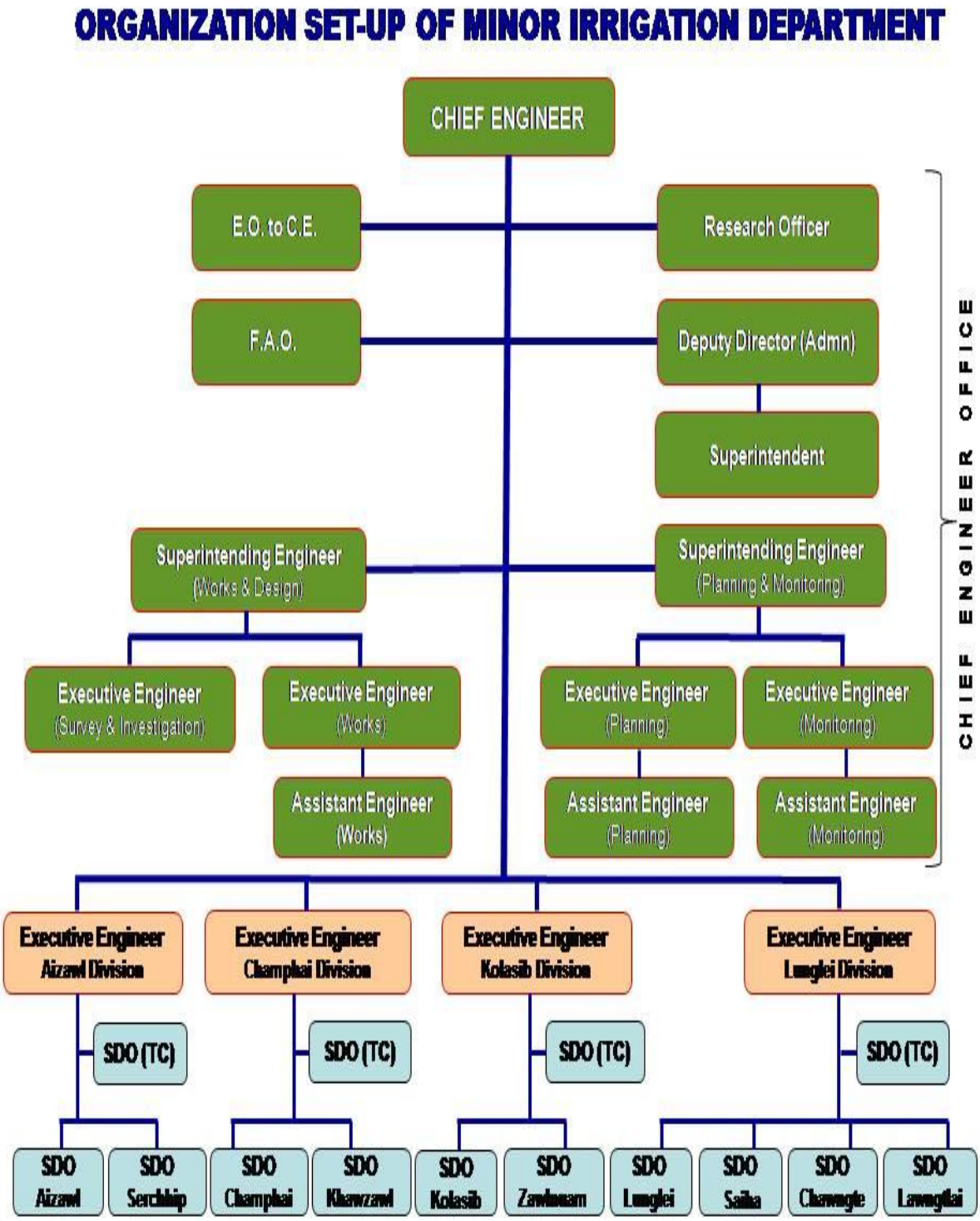
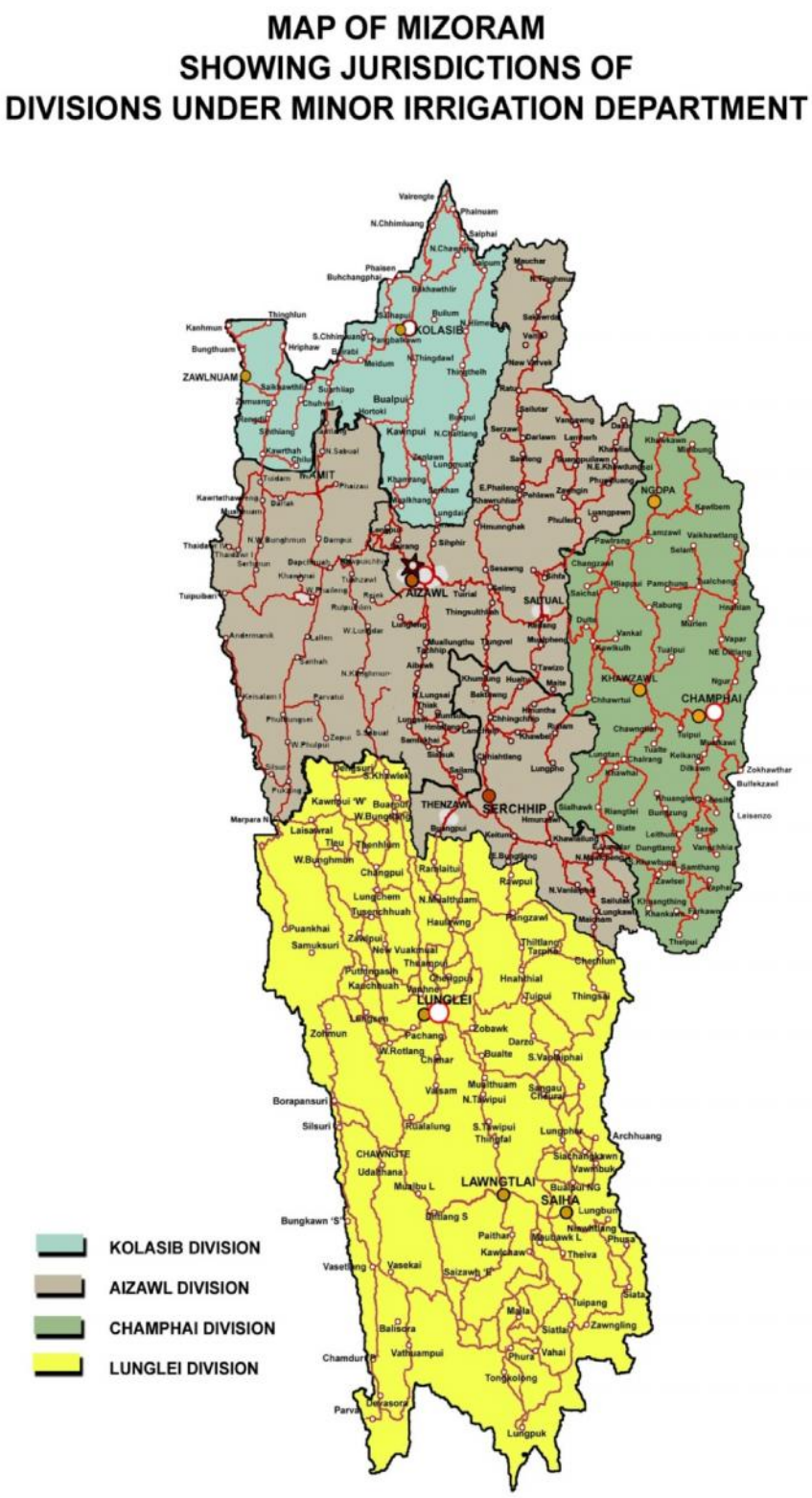



**Chart: Organization of Minor Irrigation Department**




**MAP II: Jurisdiction of Minor Irrigation Department**

Source: Minor Irrigation Department, Government of Mizoram.

Minor Irrigation Department is mainly engaged in implementation of the following schemes:

a) Minor Irrigation Schemes,
b) Schemes under Command Area Development and Water Management Programme and
c) Anti Erosion Schemes.

All the three schemes are funded from the same source of funding – AIBP (Accelerated Irrigation Benefits Programme) and the funding pattern is 90:10 (90% Central Assistance and 10% State Matching Share).

**Minor Irrigation Schemes**

Minor Irrigation Schemes may include the following components:

a) Construction of headworks like diversion weir, pick-up weir, etc.

b) Construction of earthen embankments for rainwater harvesting which generally have dual functions as irrigation water reservoir-cum-headworks and fishery pond.

c) Construction of diversion channels either in the form of G.I. pipelines or open channel lined with concrete and/or bricks.

d) Construction of distribution channels.

e) Construction of project approach roads and farm roads.

f) Land leveling for development of potential areas for Wet Rice Cultivation (WRC) within command area of Minor Irrigation Projects taken up by the Department.

Minor Irrigation Department took several steps to promote beneficiary participations in implementation of Minor Irrigation Schemes. The Department is insisting on involvement of all the prospective beneficiaries right from the stage of initial survey & investigation.

Once prospective beneficiaries of the project are identified, the Department encouraged and helped them to form Water Users Association so that the farmers may be able to extend more unified and meaningful participation right from the stage of project inception and formulation of DPR to the post-project period. Department officials reported that farmers' participation in implementation of Minor Irrigation Schemes is on the increase and is helping to enhance the feelings of ownership and sense of responsibilities amongst project beneficiaries.

On completion of the projects, Water Users Associations share the responsibilities of operation & maintenance of irrigation structures - while Water Users Association assume the responsibilities of operation of irrigation structures and allotment of irrigation water, Minor Irrigation Department execute works on repairs and reconstruction of damaged irrigation structures with active participation and contribution from the project beneficiaries in the form of labor.

A number of completed Minor Irrigation Projects have been formally handed over to Water Users Association after they are officially registered under Cooperative Society Acts. While handing over the projects, the

responsibilities on Operation & Maintenance and Management of the project to ensure distribution of equitable benefits amongst the project beneficiaries are also handed over to the Water Users Associations.

**Schemes under Command Area Development & Water Management Programme**

Command Area Development and Water Management Programme (CADWMP) used to be a separate source of funding under Ministry of Water Resources, Government of India till it was converted into one of the constituent programme/schemes under Accelerated Irrigation Benefits Programme from last year 2011-12.

Schemes under Command Area Development & Water Management Programme or CADWMP Schemes may contain the following components:

a) Survey, planning and designing of On Farm Development Works,

b) On Farm Development (OFD) Works which includes land leveling & shaping, construction of field channels, and re-alignment of field boundaries,

c) Construction of field, intermediate and link drains

d) Farmers Training, Field Demonstrations and Monitoring & evaluation.

e) Establishment/Administrative Costs

During 11$^{th}$ Plan, Minor Irrigation Department had taken up only one CADWMP Scheme covering 222 ha (hectares) of agricultural land under

five completed Minor Irrigation Projects and the Scheme/Project was started in the year 2010-11 and it will be completed in 2012-13.

**Schemes under Flood Management Programme**

Flood Management Programme used to be a separate source of funding under Ministry of Water Resources, Government of India till it was converted into one of the constituent programmes/schemes under Accelerated Irrigation Benefits Programme in 2011-12.

Under Flood Management Programme (FMP), Minor Irrigation Department is implementing Anti Erosion Schemes for protection of agricultural lands, most of which are located along narrow strips of valleys and subjected to erosion by fast flowing mountain streams and rivers during rainy seasons.

Anti Erosion Schemes provide scopes for river training works like river diversion/realignment and construction of stream bank erosion control structures. Detail survey, hydrological analysis, hydraulic and structural designs and preparation of DPRs is presently done by Survey & Investigation Section of Chief Engineers office.

During 11$^{th}$ Plan, Minor Irrigation Department taken up only one Anti Erosion Scheme under FMP; the project was started in 2010-11 and is scheduled to be completed in 2012-13. The Department will take up more projects during the 12$^{th}$ Plan.

# CHAPTER IV

# PEOPLE'S PARTICIPATION IN PHAIZAU MINOR IRRIGATION PROJECT

- **Data Analysis and Interpretation**
- **Mode and Manner of People's Participation in Phaizau**

# CHAPTER IV
# PEOPLE'S PARTICIPATION IN PHAIZAU MINOR IRRIGATION PROJECT

In this chapter, people's participation in Phaizau Minor Irrigation Project is assessed. To facilitate the study, people's participation in the concerned Project is categorized into the different stages of participation. As such, the questionnaire is also divided into five sections.

**Section I**

This section is designed to assess beneficiary participation in the Project formulation stage. It consists of question number 1 to 9.

**Section II**

This section seeks to elucidate beneficiary participation in the Project implementation stage. It consists of question number 10.

**Section III**

In this section, beneficiary participation in the Project monitoring and evaluation stage is assessed. It consists of question number 11 to 16.

**Section IV**

This section deals with beneficiary participation in the Project maintenance and evaluation stage. It consists of question number 17 to 19.

**Section V**

This section attempts to throw light on beneficiary participation in the sharing of benefits stage. It consists of question number 20 and 21.

Drawn from the universe of seventy four (74) farmers, the sample for this study consists of thirty five (35) farmers selected on a random basis. In other words, the sample farmer accounts for 47 per cent of the universe of farmers. Care was taken to ensure that the sample was representative of the universe.

## Data Analysis and Interpretation

1. Before Phaizau Irrigation Project was initiated, are you aware that the department is planning to set-up Irrigation Project in Phaizau?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 23 | 66 |
| No | 12 | 34 |
| Total | 35 | 100 |

**TABLE 8: Awareness Level of Beneficiaries**

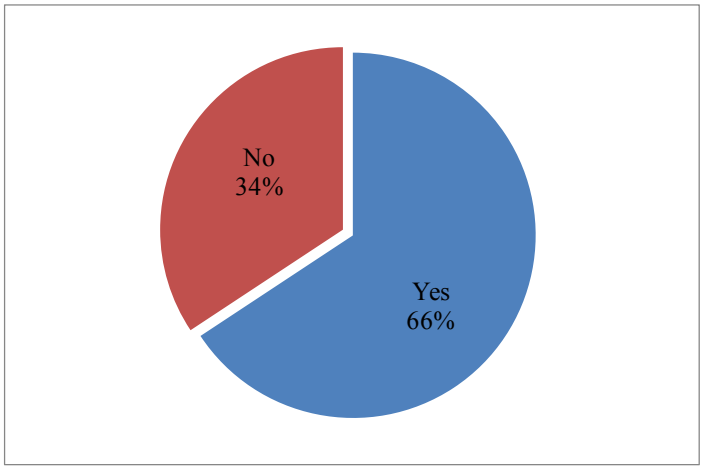



**FIGURE 8: Awareness Level of Beneficiaries**

Table 1 shows that before the work on the Project started, more than half of the respondents i.e. 66 per cent, were aware that the Project was in formulation process. On the contrary 34 per cent of the respondents were not aware until work on the Project was started. The awareness level may be attributed to the fact that the farmers, with their common problem and interest, approach the concerned department seeking departmental intervention in terms of setting-up irrigation project.

2. If you are aware, what is your source of information?

| Member Response | N=35 | Percentage |
|---|---|---|
| Departmental Functionary | 7 | 20 |
| Friends & Neighbors | 0 | 0 |
| Water User Association Leaders | 16 | 46 |

**TABLE 9: Source of Information**

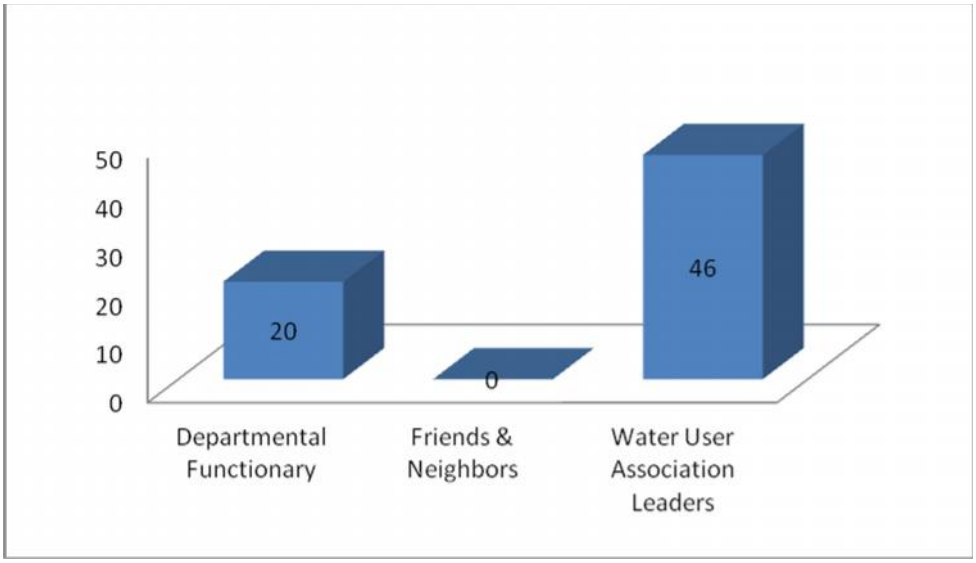



**FIGURE 9: Source of Information**

Table 2 shows that, out of all the respondents i.e. 60 per cent from Table 1 who said they were aware of the Project, 46 per cent had the Water User Association leaders as their source of information while 20 per cent had the departmental functionary as their source of information. This data reveals that interaction with the departmental functionaries in the Project formulation stage was mainly undertaken by the leaders of Water User Association who then passed-on information to their member farmers.

3. With regard to the establishment of Phaizau Irrigation Project, do you contribute any personal ideas or concerns to the Department?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 7 | 20 |
| No | 28 | 80 |
| Total | 35 | 100 |

**TABLE 10: Contribution of Ideas or Concerns in Project Formulation**

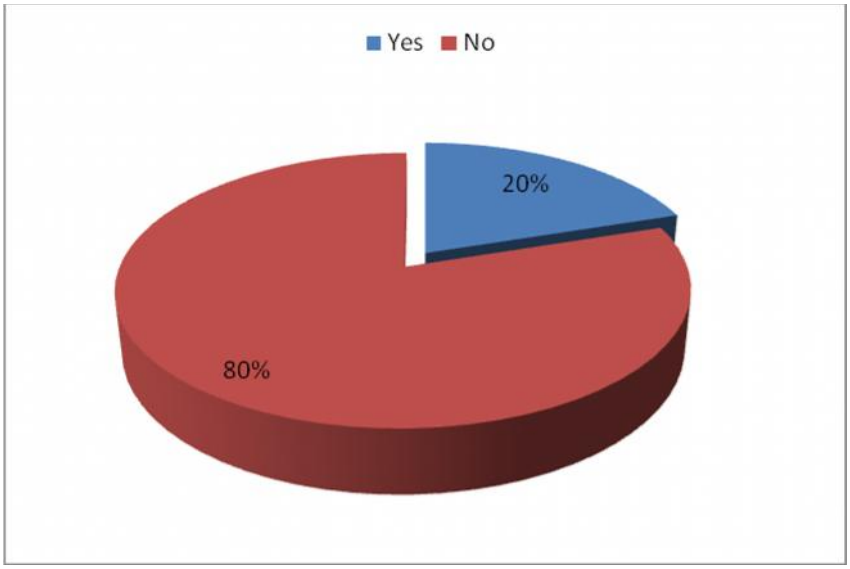



**FIGURE 10: Contribution of Ideas or Concerns in Project Formulation**

In Table 3, only 20 per cent of the respondents said they contribute or put-forth their ideas and concerns with regard to the establishment of the Project while 80 per cent did not contribute. It is evident from this data that only a small proportion of farmers participate in the plan formulation stage. This may be attributed to the fact that the leaders of Water User Association were very representative and played a significant part on behalf of their member farmers.

4. If yes, before works on the Project was started or after?

| Member Response | N=35 | Percentage |
|---|---|---|
| Before | 7 | 20 |
| After | 0 | 0 |
| Total | 35 | 20 |

**TABLE 11: Contribution towards Project Formulation**

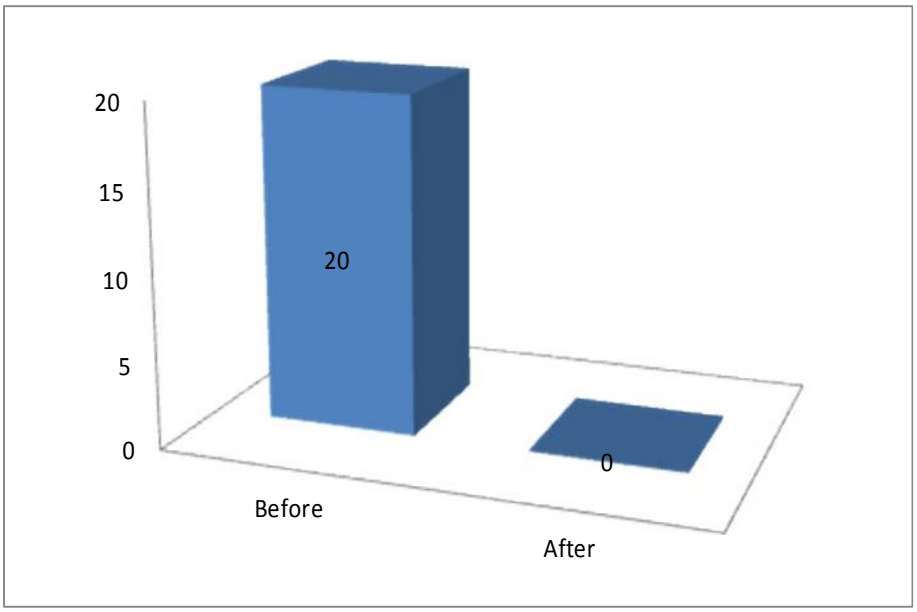



**FIGURE 11: Contribution towards Project Formulation**

In Table 4, out of all the respondents i.e. 20 per cent who said they contributed their ideas and concerns (in Table 3), all of them contributed before works on the Project was started. This data reveals that there is participation in the plan formulation stage.

5. If no, what is the reason?

| Member Response | N=35 | Percentage |
|---|---|---|
| No ideas or concerns | 8 | 23 |
| Negligent | 6 | 17 |
| The proposition of the Dept. was good enough | 14 | 40 |
| Did not know to whom I should voice my concerns | 0 | 0 |
| Did not think the Dept. will give careful consideration to my concerns | 0 | 0 |

**TABLE 12: Reason for No Contribution**

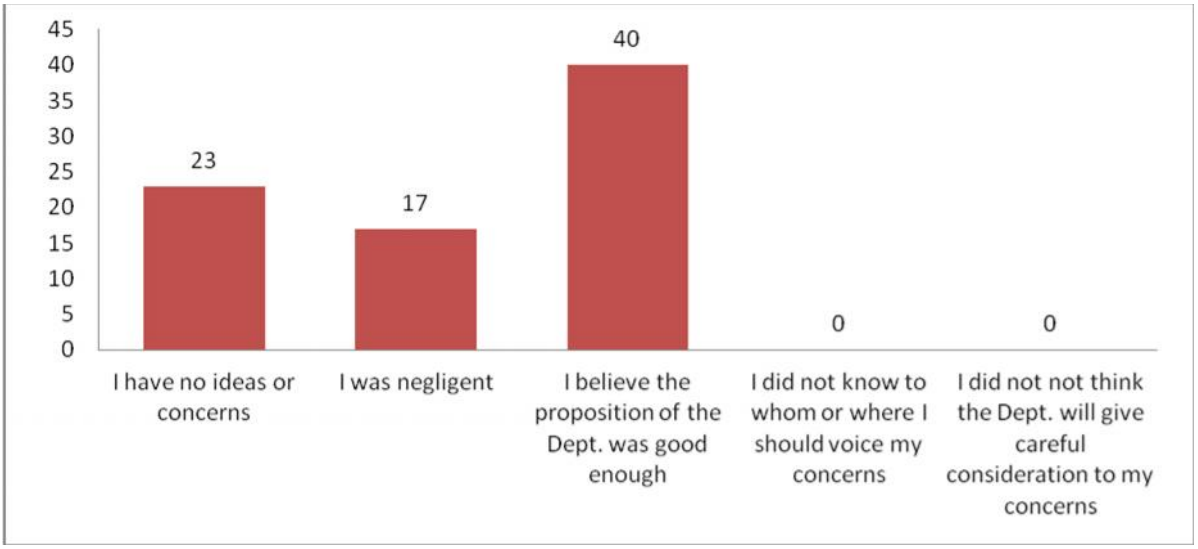



**FIGURE 12: Reason for No Contribution**

Table 5 shows that out of 80 per cent of the respondents who said they did not contribute in the Project formulation stage, 23 per cent cite their reason as having no ideas and concerns to contribute, 17 per cent because they were simply negligent and 40 per cent because they believe the proposition of the Department was good enough.

6. How do you contribute your ideas and concerns?

| Member Response | N=35 | Percentage |
|---|---|---|
| Through interaction with the departmental functionaries | 0 | 0 |
| In a group meeting with the department | 7 | 20 |
| Through letter to the concerned official of the department | 0 | 0 |
| Through media (T.V., Newspaper, Radio) | 0 | 0 |

**TABLE 13: Manner of Contribution**

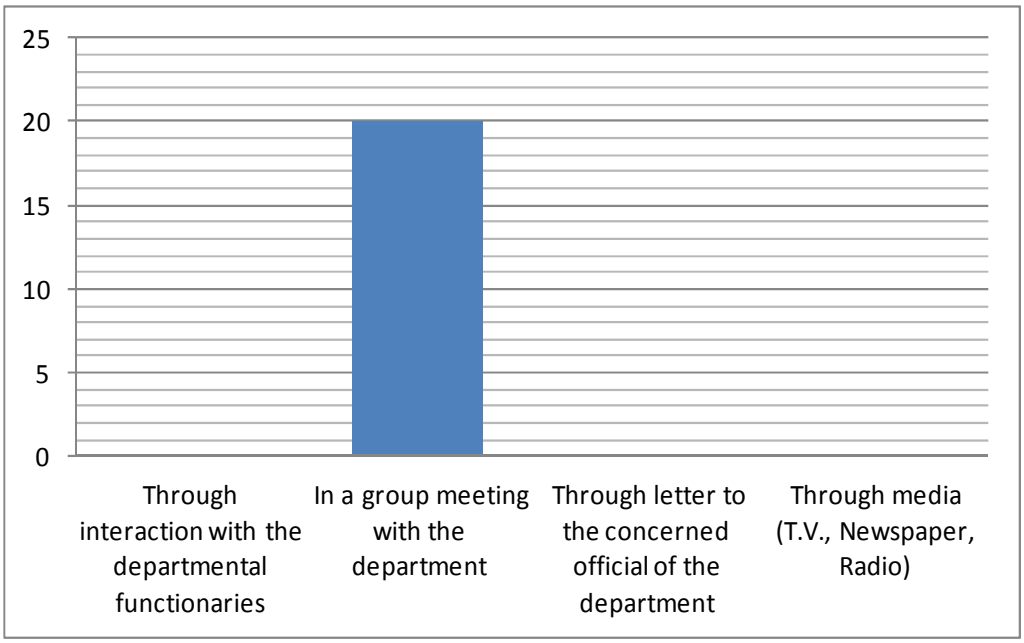



**FIGURE 13: Manner of Contribution**

Table 6 shows that out of 20 per cent of the respondents who contribute in the project formulation stage, all of them contributed their ideas and concerns in a group meeting with the departmental functionaries. This data reveals that there was consultation and interaction between the farmers, who were represented by their leaders in Water User Association, and the concerned departmental functionaries.

7. Do you think your voice was heard and given due consideration?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 7 | 20 |
| No | 0 | 0 |

**TABLE 14: Consideration of Farmers' ideas by the Department**

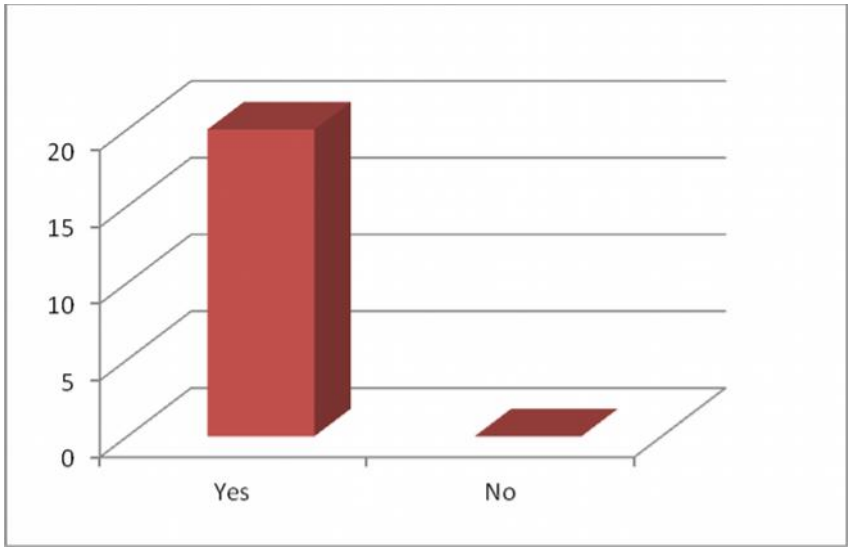



**FIGURE 14: Consideration of Farmers' ideas by the Department**

Table 7 shows that all 20 per cent of the respondents who participated by contributing their ideas and concerns were heard and given due consideration by the concerned Department. This data reveals that the concerned Department through its functionaries was open to the concerns and suggestions of the farmers thereby creating conducive atmosphere for people's participation.

8. Are you aware of the project blueprint?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 9 | 26 |
| No | 26 | 74 |
| Total | 35 | 100 |

**TABLE 15: Awareness of Project Blueprint**

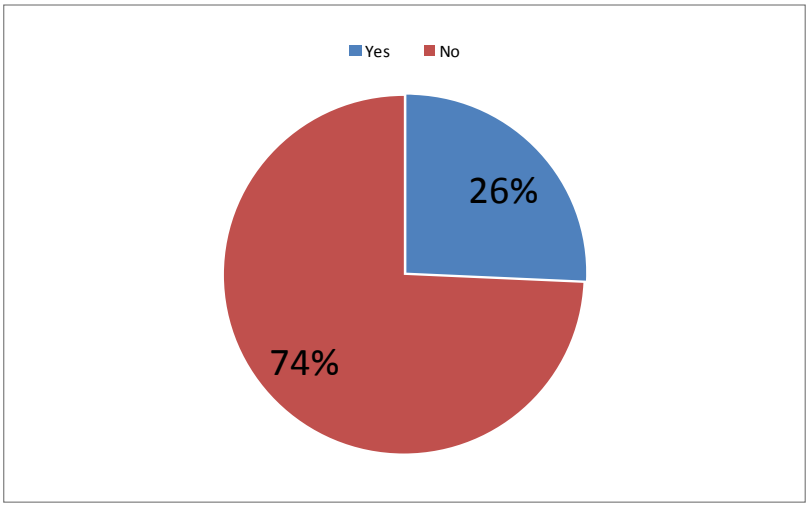



**FIGURE 15: Awareness of Project Blueprint**

In Table 8, 26 per cent of the respondents said they were aware of the Project blueprint while a staggering 74 per cent said they were not aware of the Project blueprint. With relation to the previous analysis of Table 3, this may be attributed to the fact that beneficiary participation in the Project formulation stage was mainly undertaken by leaders of Water User Association on behalf of the majority member farmers.

9. If yes, how or from where did you come to know of it?

| Member Response | N=35 | Percentage |
|---|---|---|
| Through media (T.V., Newspaper, Radio) | 0 | 0 |
| Departmental functionaries | 9 | 26 |
| Water User Association leaders | 0 | 0 |
| Friends and Neighbors | 0 | 0 |

**TABLE 16: Information Source of Project Blueprint**

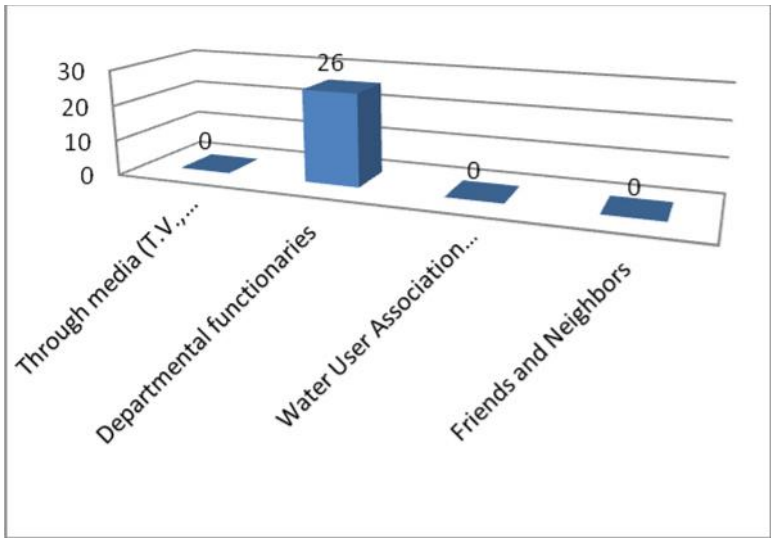



**FIGURE 16: Information Source of Project Blueprint**

In Table 9, out of 26 per cent of the respondents who are aware of the Project blueprint, all of them had the departmental functionaries as their source of information. This data reveals that the Project blueprint was discussed and made known, by the concerned Department, to the beneficiaries who were represented by a small section of the farmers who could possibly be the leaders of the Water User Association.

10. During work implementation, in what manner did you participate?

| Member Response | N=35 | Percentage |
|---|---|---|
| Labour | 31 | 89 |
| Collection of fund | 0 | 0 |
| Raw materials | 0 | 0 |

**TABLE 17: Manner of Participation in Work Implementation**

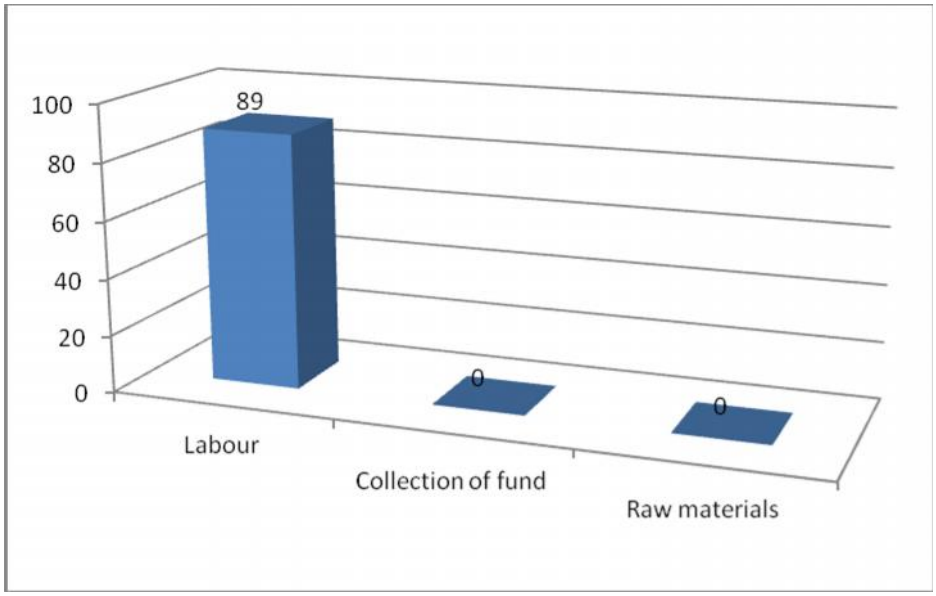



**FIGURE 17: Manner of Participation in Work Implementation**

Table 10 shows that 89 per cent of the respondents participated in the Project implementation process by contributing in terms of labor. This data reveals that unlike other stages of participation, majority of the farmers participated in the Project implementation stage. This may be attributed to the fact that farmers, under the leadership of the Water User Association, occasionally contributed labor.

11. Do you know the amount sanctioned for the project?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 6 | 17 |
| No | 29 | 83 |
| Total | 35 | 100 |

**TABLE 18: Awareness of Amount Sanctioned for the Project**

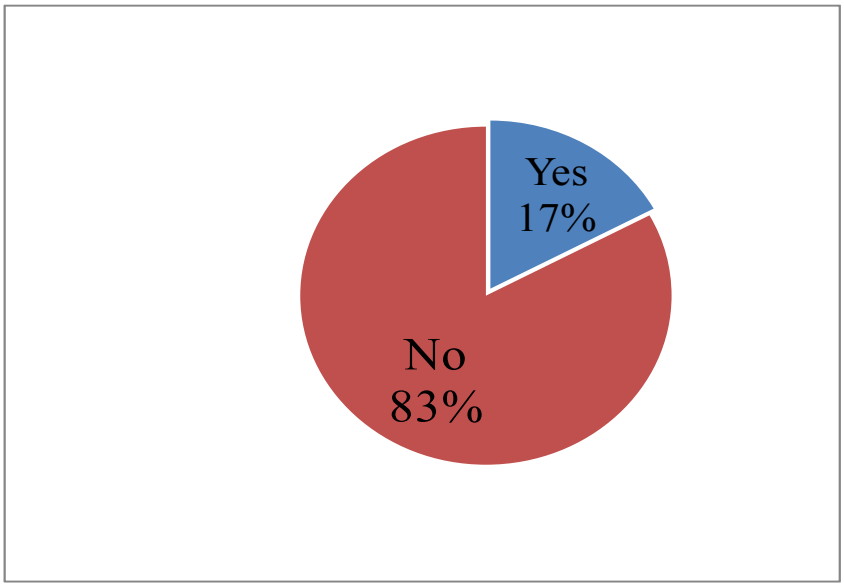



**FIGURE 18: Awareness of Amount Sanctioned for the Project**

Table 11 reveals that only 17 per cent of the respondents are aware of the amount sanctioned for the Project while a massive 83 per cent are not aware. This may be attributed to the fact that, in the evaluation stage of participation only a small section of farmers mainly comprising of leaders of the Water User Association was representative of the majority farmers.

12. Do you know the scheme under which the project is implemented?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 7 | 20 |
| No | 28 | 80 |
| Total | 35 | 100 |

**TABLE 19: Awareness of Scheme under which the Project is implemented**

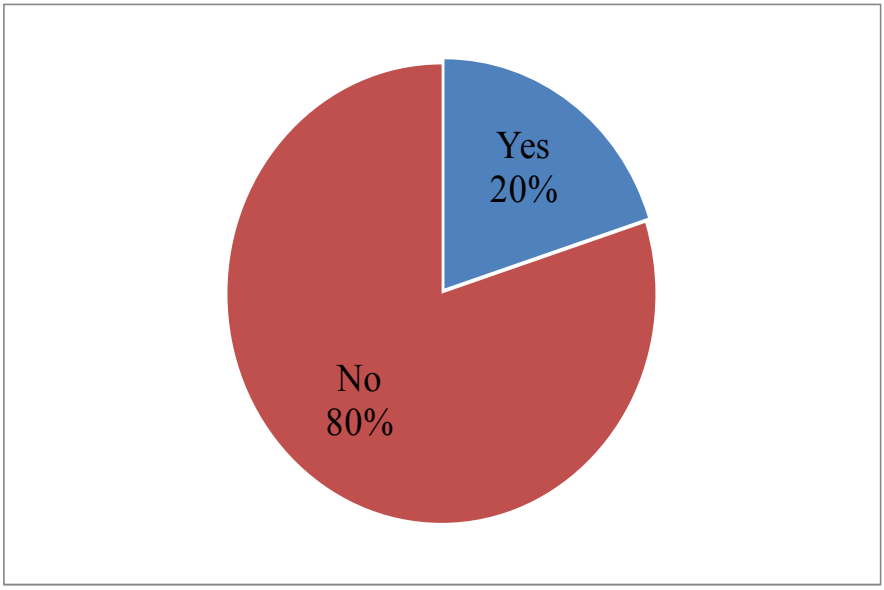



**FIGURE 19: Awareness of Scheme under which the Project is implemented**

Table 12 shows that only 20 per cent of the respondents are aware of the Scheme, under which the Project is implemented while majority of the respondents i.e. 80 per cent, are not aware. This may also be attributed to the fact that a small proportion of farmers were representative of the majority farmers.

13. Do you know the total expenditure incurred for completion of the project?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 5 | 14 |
| No | 30 | 86 |
| Total | 35 | 100 |

**TABLE 20: Farmers' Awareness of Project Expenditure**

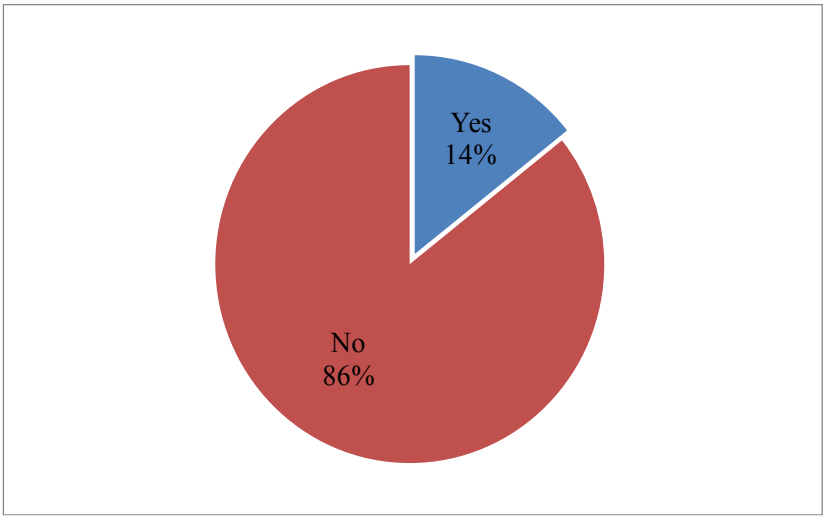



**FIGURE 20: Farmers' Awareness of Project Expenditure**

Table 13 shows that only 14 per cent of the respondents were aware of the total expenditure incurred for completion of the Project while a staggering 86 per cent were not aware. This data helps in determining the fact that beneficiary participation in the evaluation stage is not satisfactory.

14. If No, have you inquire of it in the department?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 0 | 0 |
| No | 30 | 86 |

**TABLE 21: Percentage of Inquiry made by the Respondents**

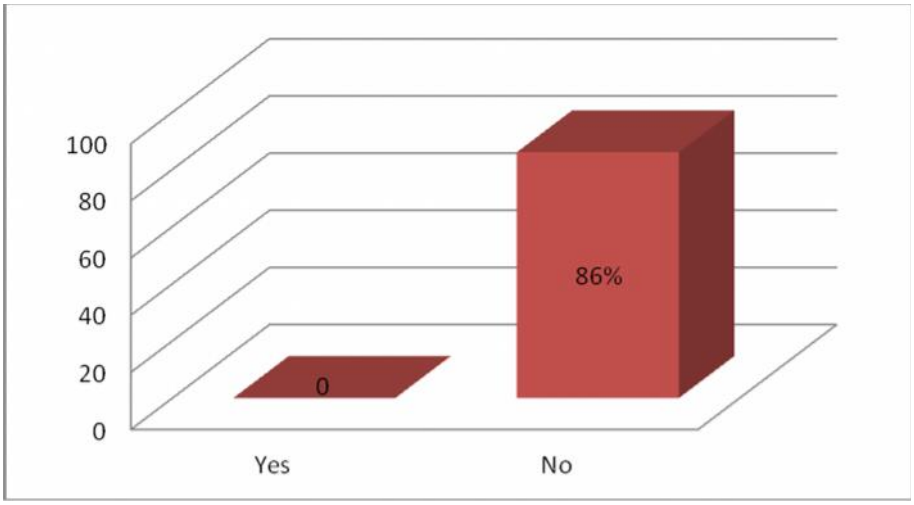



**FIGURE 21: Percentage of Inquiry made by the Respondents**

Table 14 shows that, out of 86 per cent of the respondents who are not aware of the total expenditure incurred for the Project, none of them have inquired of it in the concerned Department. This data may serve as an eye-opener to see the level of ignorance exhibit by the farmers in the area of Project evaluation.

15. In what way do you monitor the project work?

| Member Response | N=35 | Percentage |
|---|---|---|
| Nil (No Reply) | 29 | 83 |
| Reply | 6 | 17 |
| Total | 35 | 100 |

**TABLE 22: Manner of Project Monitoring by the Respondents**

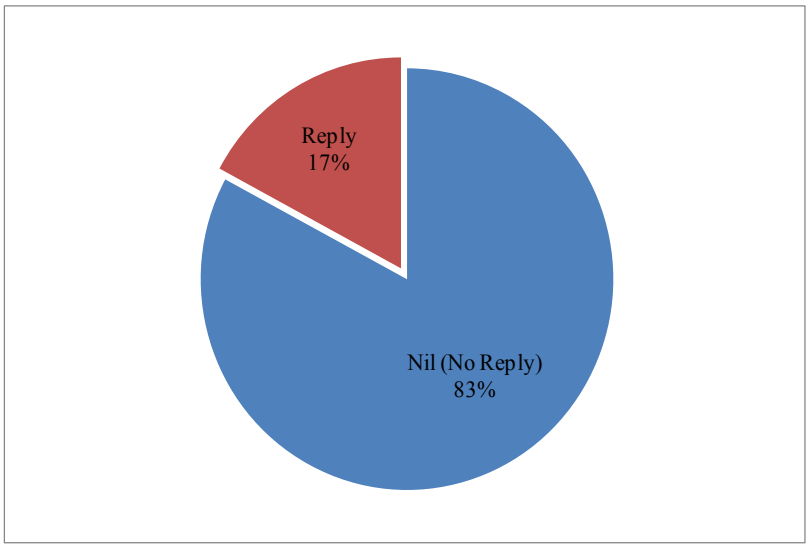



**FIGURE 22: Manner of Project Monitoring by the Respondents**

The question under Table 15 is an open-ended question which 83 per cent of the respondents did not answer. It is answered by 17 per cent of the respondents which can be summarized under the following points:-

- By routine duty of farmers to ensure that works on the Project are implemented by private contractors as per required standards.
- By verifying the quality of raw materials used in Project works.

16. Do you verify the expenditure transaction to check whether the sanctioned amount has been used for the right purpose?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 4 | 11 |
| No | 31 | 89 |
| Total | 35 | 100 |

**TABLE 23: Percentage of Verification of Expenditure by the Respondents**

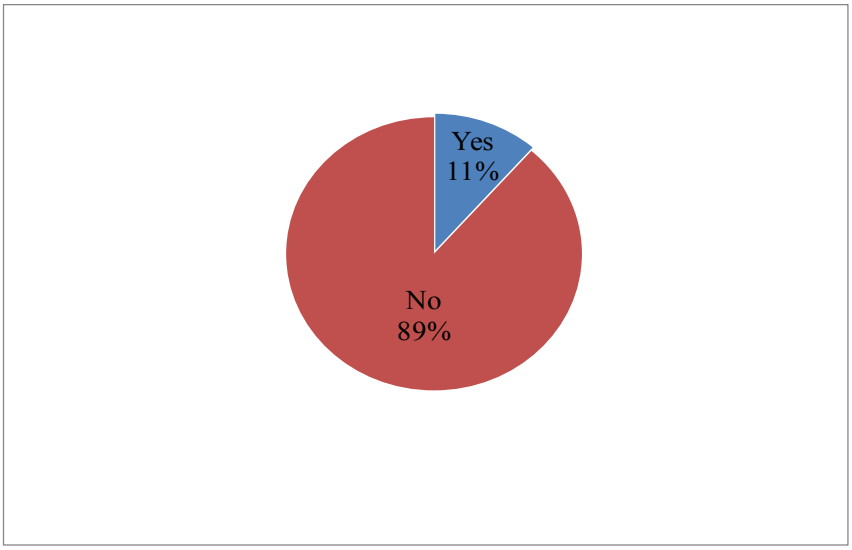



**FIGURE 23: Percentage of Verification of Expenditure by the Respondents**

Table 16 shows that only 11 per cent of the respondents verify the expenditure transactions to check whether the sanctioned amount has been used for the right purpose while a massive 89 per cent did not verify whether money has been used for the right purpose. This data also helps in determining the fact that participation of beneficiaries in the evaluation stage is at low ebb.

17. Do you contribute towards maintenance of irrigation structures built under the project?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 35 | 100 |
| No | 0 | 0 |
| Total | 35 | 100 |

**TABLE 24: Percentage of Contribution in Maintenance of Project**

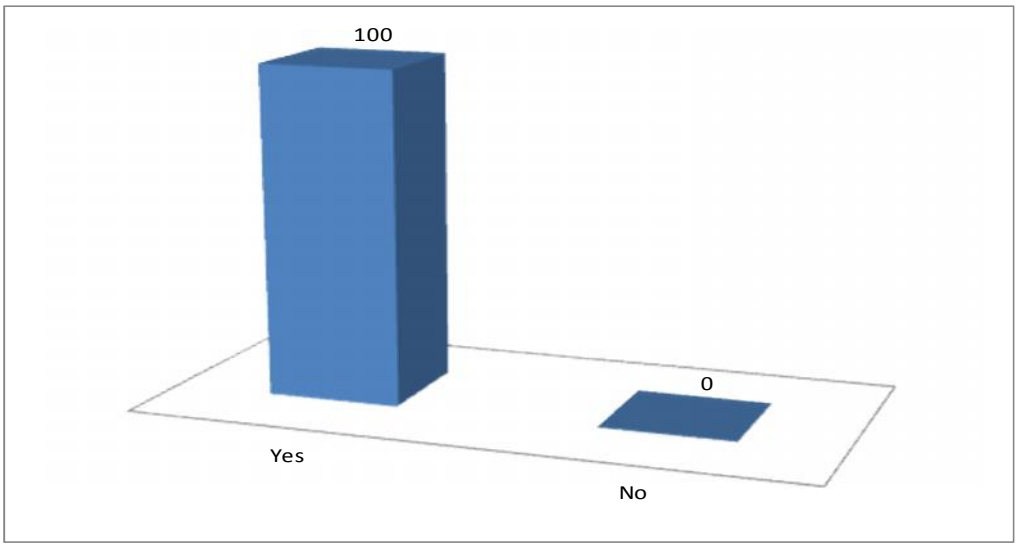



**FIGURE 24: Percentage of Contribution in Maintenance of Project**

In Table 17, 100 per cent of the respondents said that they contribute towards maintenance of irrigation structures constructed under the Project. This data suggest that majority of the farmers participated in the maintenance stage of beneficiary participation.

18. If yes, in what way do you contribute?

| Member Response | N=35 | Percentage |
|---|---|---|
| Contribution of Funds | 35 | 100 |
| Labour | 26 | 74 |
| Raw Materials | 0 | 0 |

**TABLE 25: Manner of Contribution in Project Maintenance**

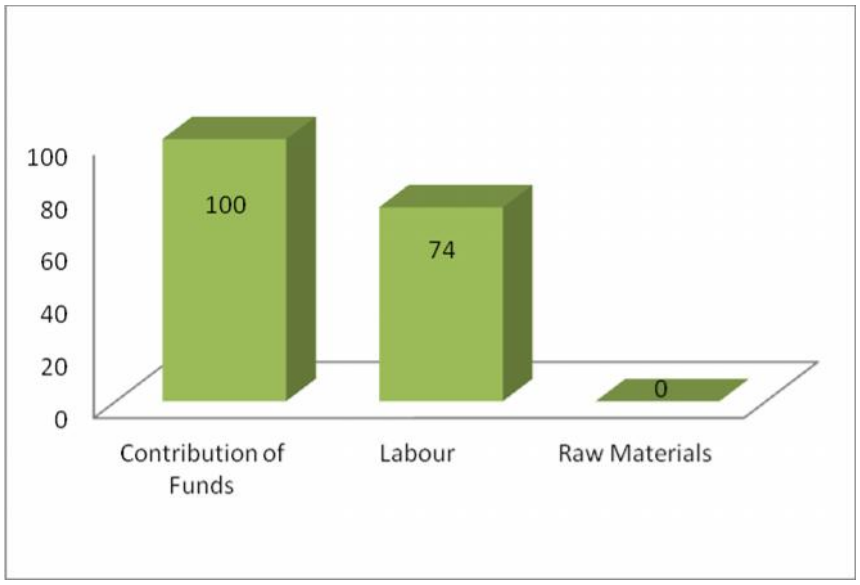



**FIGURE 25: Manner of Contribution in Project Maintenance**

Table 18 shows that 100 per cent of the respondents contribute towards maintenance of irrigation structures under the Project by contribution of maintenance fund. 74 per cent of the same respondents also said they contribute in terms of labor. This data helps in determining the fact that beneficiary participation in the maintenance stage existed to a certain degree.

19. Do you know whether there is any provision from the department to provide assistance for maintenance of irrigation structures?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 18 | 51 |
| No | 17 | 49 |
| Total | 35 | 100 |

**TABLE 26: Awareness of the Respondents with regard to assistance for Project Maintenance**

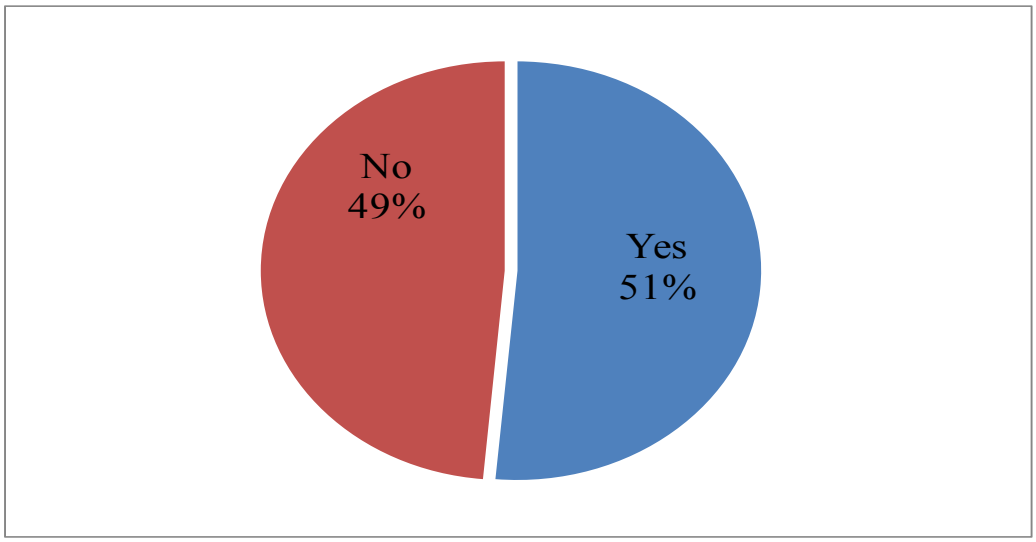



**FIGURE 26: Awareness of the Respondents with regard to assistance for Project Maintenance**

In Table 19, 49 per cent of the respondents do not know if there is provision from the Department to provide assistance for maintenance of irrigation structures. However, there seems to be such provisions as 51 per cent of the respondents are aware of it.

20. Do you think there is equitable distribution of benefits under the project?

| Member Response | N=35 | Percentage |
|---|---|---|
| Yes | 33 | 94 |
| No | 2 | 6 |
| Total | 35 | 100 |

**TABLE 27: Equitable Distribution of Benefits**

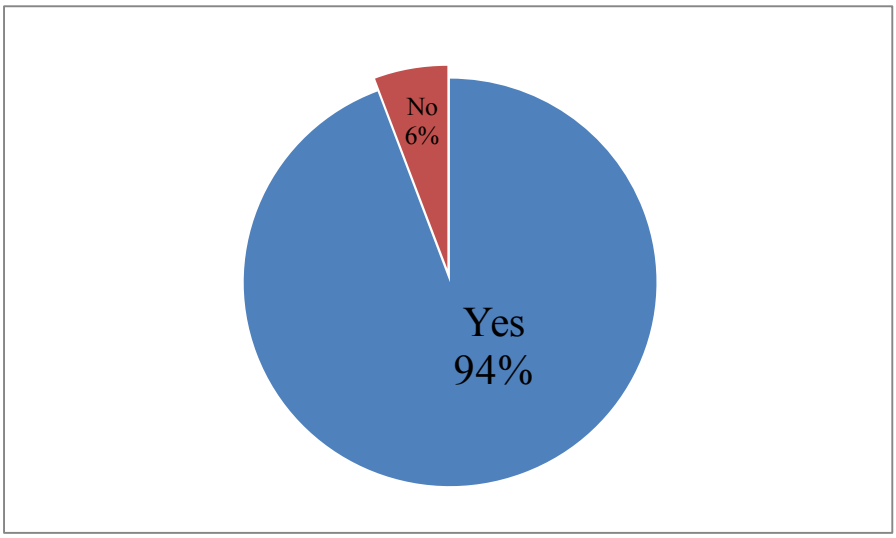



**FIGURE 27: Equitable Distribution of Benefits**

In Table 20, the data helps in determining the fact that there is equitable distribution of benefits as 94 per cent of the respondents are of such opinion while a meager 6 per cent are against such view.

21. Who create the broad framework for sharing of benefits?

| Member Response | N=35 | Percentage |
|---|---|---|
| Nil (No Reply) | 2 | 6 |
| Reply | 33 | 94 |
| Total | 35 | 100 |

**TABLE 28: Creation of Framework for Sharing of Benefits**

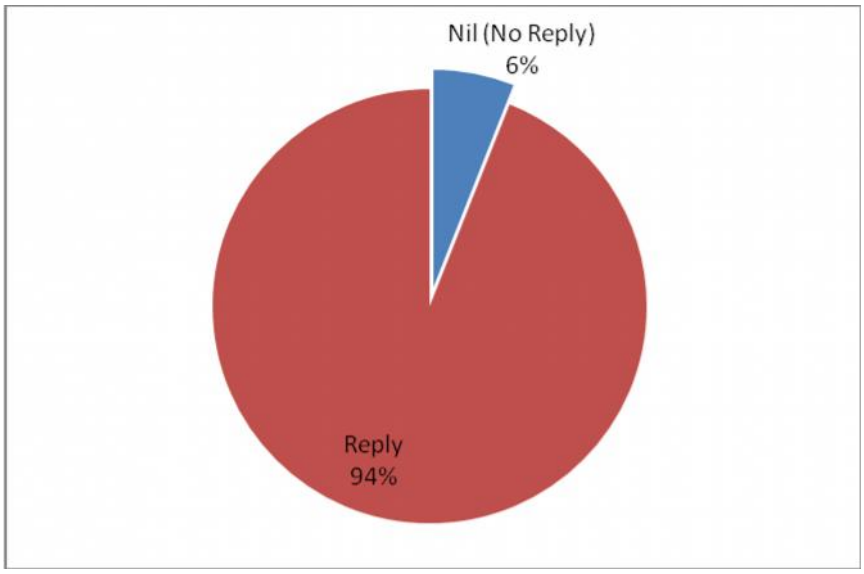



**FIGURE 28: Creation of Framework for Sharing of Benefits**

The question under Table 21 is an open-ended question which 95 per cent of the respondents answered while only 5 per cent of the respondents did not reply. The answer under Table 21 is clearly- Water User Association.

## Mode and Manner of People's Participation in Phaizau

The manner and level of people's participation in Phaizau Minor Irrigation Project is discussed in brief under the different stages of people's participation -

### Project Formulation

Like many other areas in Mizoram where wet rice cultivation is practiced, farmers in Phaizau also had their own problems in various aspects of farming. These have been elucidated in Chapter II. Several problems faced by farmers in Phaizau are of similar nature with other places while few are unique in the context of its own geographical and environmental setting. Instigated and driven by their common problems and interest, farmers in Phaizau felt the need to seek help from the government. Farmers in Phaizau are vaguely aware that there is some kind of Project assistance used to be given from the Central Government of India in irrigation works through the concerned department in the State. Under local leadership amidst themselves, the farmers did well in approaching the Department of Minor Irrigation through its Divisional Office at Champhai.

After various issues of their problems were unfolded in a series of discussion between the department and the farmers, a decision was made for survey and investigation to determine the feasibility of executing irrigation project. Survey and Investigation work was jointly executed by the Department and the farmers who were mainly represented by their

leaders in the Water User Association. The Department with technical know-how and the farmers with knowledge of the land. Tentative location and measurement of water channels such as main channel, distribution channel, over-flow channel and development of land, culvert construction, approach road to rice fields, water harvesting ponds, etc, were formulated jointly by the Department and the farmers. With inputs from survey and investigation it was decided to implement the Project as Phase I and Phase II. Consequently a 'Detail Project Report' for Phase I with an estimated cost of Rupees 153 lakhs was formulated with the cognizance of the farmers and then sent to the Ministry of Water Resources, Central Government of India, through the proper channel which was approved under the scheme of 'Accelerated Irrigation Benefit Programme' (AIBP).

**Project Implementation**

Phaizau rice field is an assortment of land intermingled under different owners. In the stage of implementation, the farmers played an important part. For instance, in the course of survey and investigation it was deduced that, for water canals to have an optimum impact, a straight and not crooked canal is required which further demand private lands to be cut-off. This means that the consent of each owner has to be acquired for irrigation canals to be constructed across Phaizau. Here, the role of local leadership deserves to be noted. At first, individuals were reluctant to sacrifice portion of their land knowing very well that their land will shrink in size. However, their leaders set example by granting the required portion

of their land willingly, after which the members followed. This is one important factor which helps in securing the cooperation of the member-farmers. The farmers participated in coordination with the implementing agency, i.e. the concerned department. They contribute occasionally in terms of labor in which provisions for lunch and refreshments were provided by the department.

The work of implementing irrigation Project in Phaizau was contracted to private Contractors. There exists political interference in the process of selecting Contractors. Dishonest and manipulating Contractors have chances of being allotted contract in the process. As such, in the case of Phaizau Minor Irrigation Project most of the works are contracted to Contractors of the ruling political party. In such scenario, the farmers are doubtful of the sincerity and integrity of the Contractors. The concerned officials of the department, being government servants fear their political bosses and find themselves in awkward position and hence find it difficult to solve this problem. However, a unique modus operandi is followed wherein the department encourages the farmers and emphasizes the need to strongly condemn this process, in their own initiative. After selection of Contractors by the department, farmers had the privilege to interact and brief the selected Contractors. The expectations and aspirations of the farmers in terms of inputs and end results in various aspects of the contracted work are made known to the Contractor. Hence, the Contractor

is morally bound to live-up to the expectations of the farmers which eventually set a higher standard or bar for him.

Nevertheless, the execution of work at ground level had its own loop-holes. To highlight an instance, machine such as 'JCB' was largely used for the purpose of land development and the cost of hiring was calculated on an hourly basis. In several cases, the 'JCB' operators tried to eke out side-income by manipulating time records of work. Even-though monitoring of works was carried out by the farmers it was practically impossible for them to be on-duty all the time and there is lack of field personnel in the concerned department. On the other side, the Contractor and his team are ever mindful of maximizing their share of profits which in-turn affects the quality of works to a certain extent.

**Project Monitoring and Evaluation**

In the context of Project monitoring, there is greater degree of participation by the farmers. They set a routine duty under which the work of monitoring is carried-out by the farmers. Different aspects of work implementation under the Contractor are closely watched by them. Raw-materials used by the Contractors were verified to check their quality, the mixing proportion of cement and sand were monitored. Apart from building water canals, whenever land development works were to be executed within the sphere of private lands, individuals or land owners were always present on-field. The time span or duration of machines working in their own land is noted by them.

In the context of land development, a notable fact is that the land owned by the leaders was not developed first but rather development of land was executed sequentially according to geographical convenience. This is another factor which plays an important role in securing the cooperation of the member-farmers.

In the stage of evaluation, the farmers participated mainly in assessment of work. They participated in evaluation jointly with the departmental functionaries by checking the quality of completed irrigation structures. In some cases, it was found that poor quality stones were used in masonry which was then discarded literally by the farmers. The builders were demanded to re-build by replacing the inferior quality stones. With regard to evaluation of financial transactions, the expenditure incurred as well as balance amount, if any, from completed irrigation works were from time to time, sequentially shown to the Water User Association. This proves to be an important element that helps in securing mutual trust and good working relationship between the farmers and the department. On the contrary, the final billing amount between the department and the work Contractors were not known by the farmers. This is not due to reluctance to divulge financial information by the department but mainly because the farmers did not ask for such information as they have a high degree of trust and good faith on the department.

However, there can be loop-holes in this particular area in that there is scope for manipulation of financial transactions especially if certain

section of the departmental functionary and the work Contractors contrive a scheme for manipulation of finances. In the success of this particular Project under study, the integrity and sincerity of leaders of the farmers contributed immensely. In the area of financial evaluation, the farmers were fully and wholly dependent on their leaders. The majority of the farmers were very ignorant and unaware of financial propriety. If not for the integrity of their leaders, there could be conducive ground for misuse of finances, also especially if there was collusion between the leaders and the departmental functionaries.

**Project Maintenance and Management**

Initially, the maintenance and management of irrigation structures were mainly undertaken by the beneficiaries of the Project under the auspices of the implementing department. When there is a need for repairing of irrigation structures the beneficiaries represented by the Water User Association prepare an estimated cost based on the scale and nature of damages. This estimated cost is then presented to the implementing department and depending on the availability of funds the beneficiaries are supported by the department. Along with maintenance fund from the department the beneficiaries also participated by contributing manual labor which enables them to save labor cost. Every family is required to contribute labor failing which they have to compensate by paying a fine amounting to labor wages per day of absence.

However, the operation, maintenance and management aspect was solely undertaken by the beneficiaries after all irrigation facilities and assets under the Project were officially handed over to the beneficiaries in the name of 'Phaizau Water User Association, Champhai Mizoram'. Thus, the ownership of all assets under the Project was transferred to the beneficiary who includes the safe custody and up-keep of the assets, operation and maintenance of irrigation systems along with collection of water charges or User's fee as and when required and ensuring optimum utilization of created irrigation potentials. Henceforth, it was decided by the 'Water User Association' to collect funds from all beneficiaries for the maintenance and management of irrigation structures under which each family is required to contribute money equivalent to three tins of rice each year irrespective of their harvest and size of land. At present, one tin of rice is roughly estimated by the User Association to cost Rupees 100.

**Sharing of Benefits**

In the context of Phaizau Minor Irrigation Project, the issue of equitable distribution of benefits becomes significant during the dry season when scarcity of water is felt the most. After monsoon, the availability of water for irrigation from rivers and streams gradually declines while cultivation of winter crops is undertaken. The cultivation of winter crops, though profitable, is difficult due to scarcity of water. The 'Water User Association' makes appropriate and inclusive plans to ensure equitable sharing of water. This is implemented by following a

proper routine for distribution of water in which each beneficiary is allotted water on a timely basis through irrigation canals constructed under the Project. Each beneficiary is aware of his allotted time for collection of water. The opening of canals so as to draw water to his field is executed by the beneficiary himself, when his allotted time comes.

# CHAPTER V

# CONCLUSION

- **Research Questions**
- **Findings and Suggestions**

# CHAPTER V
# CONCLUSION

The final chapter attempts to answer the research questions as well as put-forth findings and suggestions of the study on the basis of inferences drawn from the previous chapters.

## Research Questions

1. Is there people's participation in the concerned Project under study? If so, what are the mode and manner as well as their level of participation?

   It is evident from the analysis of data that there is people's participation in the concerned Project under study.

   As different stages of people's participation commands different mode and manner of participation, the level of beneficiary participation also differs in each stage. It is found that while one stage of participation witness a high level, participation is low in another stage. The mode and manner as well as level of participation in the different stages of beneficiary participation are as follows:

   **Decision-making and Plan Formulation**

   We can draw inferences that there exists people's participation in the plan formulation stage. To enable people's participation in this stage, series of consultations and meetings were held between the Departmental functionaries and the beneficiaries who were represented by their leaders in the Water User Association.

It is evident from the analysis of data that the concerned Department was open to people's participation by being attentive to the concerns and ideas of the beneficiaries which further creates conducive atmosphere for people's participation.

However, the manner of participation is largely representative as it was mainly undertaken by leaders of the Water User Association on behalf of the majority member farmers.

**Project Implementation**

We can conclude that majority of the beneficiaries participated in the Project implementation stage unlike the plan formulation stage in which only a small proportion of beneficiaries participated. Beneficiary participation in this stage is mainly in terms of contribution of labor.

**Monitoring and Evaluation**

There is low level of people's participation in the stage of monitoring and evaluation which is evident from the analysis of data. Farmers are either ignorant or negligent in their participatory rights under the stage of monitoring and evaluation. Absence of appropriate procedure to facilitate evaluation is felt. Whatever degree of participation existed under this stage is also largely representative of the majority farmers by their leaders in the Water User Association.

**Maintenance and Management**

Majority of the farmers participated in the maintenance and management stage of participation. Participation of beneficiaries is mainly through contribution of labor and maintenance fund.

**Sharing of Benefits**

There is equitable distribution of benefits under the guidance of the Water User Association. Hence, we can conclude that participation of beneficiaries under the benefits-sharing stage is satisfactory.

2. What are the factors that prevent effective people's participation in the concerned Project under study?

In contradiction to the research question, it is the finding of the study that there is effective people's participation in Phaizau Minor Irrigation Project. Nevertheless, there are factors acting as barriers that prevent the beneficiaries from securing optimum participation. Evaluation stage of participation witness maximum drawbacks and participation of beneficiaries in this stage is the lowest. As a whole, participation of beneficiaries in the concerned Project is highly representative: representative participation by leaders of Water User Association on behalf of the majority beneficiaries, though being effective and instrumental, can create loop-holes without proper checks and balances.

## Findings and Suggestions

### Historical Factor

After an in-depth analysis of the concerned Project under study, it has been found that, to a certain extent, the presence of an effective people's participation can also be attributed to its historical factor. It has been more than hundred years since wet rice cultivation is practiced in Phaizau. Land holdings in Phaizau are acquired by inheritance from generation to generation. Lack of water has been a chronic problem right from the beginning as Phaizau had no proper provisions to facilitate irrigation. From the early days, farmers in Phaizau are unified under a common cause of diverting water from the nearest stream to their lands. Construction of earthen water channels and its repair was always implemented through voluntary labor by the farmers under the guidance of the elders and prominent persons amongst them. As such, Phaizau has a history of unity and cooperation towards solving its common problems. This spirit of unity and cooperation which has been instilled from father to son to their children proved to be very instrumental in their contribution towards effective people's participation. For instance, the farmers cooperated with their leaders by sacrificing portion of their land as and when required for Project implementation.

In the light of this historical factor, it may be wise to have a region-centric or target-centric approach at the time of framing

policies for people's participation. The historical aspects as well as customs and traditions of an area that mould the mindset and attitude of the people can have a significant impact in their participation in developmental works. Besides, the mindset and attitude of people also differs from one region to another. An in-depth research of people in the target region by experts in related fields such as anthropology and sociology may serve well in framing region-centric policies for people's participation.

**Transfer of Departmental Functionary**

Good rapport between the departmental functionary and the beneficiaries is an essential component of people's participation which requires careful and sequential nurturing. It is a sort of personal linkage developed between the departmental functionary and the beneficiaries. Phaizau Minor Irrigation Project was implemented within a span of more than three years. The Executive Engineer was the main figure of the departmental functionary who was very instrumental in setting-up cordial relations with the beneficiaries. It was found during the study that within the Department there were instances of transfer of officers before completion of Projects under their supervision. This can affect people's participation to a certain extent as posting of new officers requires new working relations with the beneficiaries.

Although there may be practical difficulties in the Department, it would be of great help if officers manning concerned projects are not transferred before completion of project works under their supervision so that there can be stability and continuity of people's participation.

**Presence of Good Local Leadership**

In the Project under study, most of the farmers in Phaizau are literate but a huge majority of them have educational qualification below high school. From this fact it is evident that the farmers are in dire need of local leaders who can ably represent them on all fronts. The need for such leaders is fulfilled in Phaizau. The Water User Association has a good composition of leaders: valuable experiences of the old blended with innovative minds of younger leaders. The presence and working of these leaders bear good fruit in the form of effective people's participation.

Hence, for people's participation to be effective and meaningful it is crucial for the people to have good leaders from amongst themselves who share the same passion and interests, one who understands and is able to guide and lead the people sincerely and honestly.

**Mutual Trust and Cordial Relations**

In Phaizau Minor Irrigation Project, there exist a good amount of mutual trust and cordial relations between the local leaders and the departmental functionaries. The departmental functionaries do not act very officious and the local leaders on their part treated them as their guide and friend. This created conducive environment for people's participation. Cordial relations between the two sides even extended to the point of sharing humor and jokes. However, this relationship is limited in the sense that it existed only between the local leaders and the departmental functionaries.

It is advocated by the study that good working relations between beneficiaries and the implementing agency is essential so as to draw out effective people's participation. On the contrary, unrestrained relations between the local leaders and the departmental functionaries thereby sidelining the majority beneficiaries can create chances of collusion.

**Initiatives of the Department**

In the Project under study, it is observed that the concerned Department also played a significant role by way of introducing certain initiatives to encourage people's participation. For instance, the Department encouraged and helped the beneficiaries to form Water User Association so as to enable them to participate in a unified and meaningful manner. The farmers were motivated by the

Department to monitor and inspect the work in progress and they were instigated to be strict and severe in dealing with private work contractors especially those who enjoy the clout of ruling political party.

Thus, for people's participation to be effective initiatives taken only by the beneficiaries is one-sided and incomplete. It has to be complemented by genuine initiative on the part of the implementing agency as well.

**Drawbacks in Evaluation**

The evaluation stage of people's participation witnesses certain drawbacks. Financial evaluations were erratic and ineffective. The beneficiaries do not exercise their right of evaluating financial transactions. This, in part, can be attributed to their trust on the departmental functionaries. The Department periodically showed the amount of expenditures incurred and balances thereof from financial statements recorded in their computers. This is liable to manipulations.

Hence, for effective financial evaluation a simple definite format of periodical evaluation to be used by the beneficiaries may serve a good purpose.

**BIBLIOGRAPHY**

**Books**

Arora, Ramesh K. (1972). *Comparative Public Administration – An Ecological Perspective.* New Delhi: Associated Publishing House.

Arora, Ramesh K. (2001). *People – Centred Governance.* Jaipur: Allekh Publisher.

Avasthi, A. and Maheshwari, S. (1980). *Public Administration*. Agra: Lakhmi Narain Agarwal.

Asian and Pacific Development Institute Bangkok. (1980). *Local Level Planning and Rural Development,* New Delhi: Naurang Rai, Concept Publishing Company.

Barik, Bishnu C. and Sahoo, Umesh C. (2008). *Panchayati Raj Institution and Rural Development.* Jaipur: Rowat Publications.

Basu, D., Biswas, D. and Adhikary, M.M. (2006). *Participatory Monitoring and Evaluation of Development Programmes.* Udaipur: Agrotech Publishing Academy.

Bhose, Joel S.G.R. (2003) *NGO's and Rural Development: Theory and Practice,* New Delhi: Concept Publishing Company.

Bob, B. Sam . (1998). *Participation of the Poor in Rural Development Programmes - Selected Case Studies.* New Delhi: Discovery Publishing House.

Desai, Vandana. (1995). *Community Participation and Slum Housing – A Study of Bombay.* New Delhi: Sage Publications India Pvt. Ltd.

Dimock, Marshall E. and Dimock, Gladys O. (1970). *Public Administration*. New Delhi: Oxford and IBH Publishing Co

.

Dubashi, P.K. (1996). *Essays on Rural Development*. New Delhi: Kaveri Books.

Edwards, Michael. (2004). *Civil Society,* Cambridge: Polity Press.

Fadia, B. L. and Fadia, Kuldeep. (2011). *Public Administration: Theories and Concepts*. Agra: Sahitya Bhawan

Gladden, E.N. (1961). *An Introduction to Public Administration.* London: Staples Press.

Goswami, Sharda. (1998). *Bureaucracy and Administrative System*. New Delhi: Rawat Publications.

Khanna, Sulbha. (2006). *Participatory Approach to Development.* New Delhi: Discovery Publishing House.

Kuhn, Berthold. (1998). *Participatory Development in Rural India.* New Delhi: Radiant Publisher.

Mishra, B. B. (1986). *Government and Bureaucracy in India (1974-1976).* Walton Sheen: Oxford University Press.

Nair, Jeevan and Nair, U.C. (2000). *The Indian Bureaucratic System.* Jaipur: Pointer Publishers.

Nazrul Islam, M.D. (2005). *Decentralization, Transparency, Social Capital and Development.* New Delhi: Mittal Publications.

Palanithurai, G. (1996). *Participation in the Development Process - Grassroot Experiences.* New Delhi: Kanishka Publishers.

Prakash, Sanjeev and Selle, Per. (2004). *Investigating Social Capital- Comparative Perspectives on Civil Society. Participation and Governance,* New Delhi: Sage Publications India Pvt. Ltd.

Prasad, R. N. (1998). *Public Administration in North- East India.* New Delhi: Vikas Publishing House Pvt. Ltd.

Ray, B. Datta and Das, Gurudas. (2004). *Dimensions of Rural Development in N. East India.* New Delhi: Akansha Publishing House.

White, L. D. (1968). *Introduction to the study of Public Administration.* New Delhi: Eurasia Publishing House Pvt. Ltd.

**Articles**

Bajpai, P.K. (1998). People's Participation in Development – A Critical Analysis. *Indian Journal of Public Administration*. Vol. XLIV. No. 4.

Lalneihzovi. (2011). Decentralized Governance for Rural Development in Mizoram: Problems and Prospects. *Indian Journal of Public Administration*. Vol. LVII, No. 1.

Reddy, M. Gopinath and Reddy, S. Rama Chandra. (2010). Decentralized Planning Process in Andhra Pradesh – A Late Starter. *Indian Journal of Public Administration*. Vol. LVI, No. 4.

Sangita, S.N. and Jyothi, T.K. (2009). Globalization, Participatory Democracy and Inclusive Governance: Experiences in India. *Indian Journal of Public Administration*. Vol. LV, No. 4.

Sharma, Arvind K. (1996). People's Empowerment. *Indian Journal of Public Administration.* Vol. XLII, No. 3.

Vardhan, C. Ashok. (1990). People's Participation in Planning. *Indian Journal of Public administration.* Vol. XXXVI, No. 1.

Vayunandan, E. and Matthew, Dolly. (2004). People's Participation in Governance. *Indian Journal of Public Administration.* Vol. L, No. 2.

**Web References**

Hachhethu, Krishna. *Civil Society and Political Participation*. Pp 1-15. Accessed on 11th November, 2012, from http://www.democracy-asia.org/.../...

Reid, J. Norman. (2000). *Community Participation: How People Power brings sustainable benefits to communities.* Accessed on 11th November, 2012, from http://www.rurdev.usda.gov/rbs/ezec/Pubs/commparticrept.pdf

Planning Commission. *People's Participation*. Pp 101- 114. Accessed on 11th November, 2012, from http:// planningcommission.nic.in/reports/sereport/ser/wbm/wbm_ch6.pdf

Mohammad, Sheikh Noor.(2010). *People's Participation in Development Projects*
*At Grass-Root Level: A Case Study of Alampur and Jagannathpur Union Parishad*. Pp 1-92. Accessed on 11th November, 2012, from http://mppg-nsu.org/attachments/119_Noor_People's%20participation.pdf

Waheduzzaman. (2010*). People's Participation for Good Governance: A Study of Rural Development Programs in Bangladesh*. Pp 1-337. Accessed

on 11th November, 2012, from http://vuir.vu.edu.au/16003/1/Thesis_3619041_Waheduzzaman.pdf

Samah, Asnarulkhadi Abu and Are,f Fariborz . (2009). People's Participation in Community Development: A Case Study in a Planned Village Settlement in Malaysia. *World Rural Observations*. Vol 1, No. 2, pp 45 -54. Accessed on 11th November, 2012, from http:// www.sciencepub.net/rural/0102/wro09_0102_07_45_54.pdf

*Community Participation*. Pp 410- 420. Accessed on 11th November, 2012, from http://urbanindia.nic.in/publicinfo/swm/chap18.pdf

*Participation: A key Element of Sustainable Development*. Pp 199-204. Accessed on 11th November, 2012, from http://www.nafri.org.la/document/...eng/.../29_participation_calub.pdf

*Understanding Community Participation*. Pp 7-24. Accessed on 11th November, 2012, from http:// lyceumbooks.com/pdf/Effective_Community_P_Chapter_02.pdf

George, Sunny and Balan, P.P. *People's Participation in Development Planning in Kerala.* Pp 1-4. . Accessed on 11th November, 2012, from http:// iuc2011.in/sites/default/files/.../Sunny%20George%20Abstract.pdf

# APPENDIX

## PEOPLE'S PARTICIPATION IN PHAIZAU MINOR IRRIGATION PROJECT

*Lalthansanga, C*
*M. Phil (Research Scholar)*
*Dept. of Public Administration*
*Mizoram University, Tanhril.*

### Questionnaire

(This data given by the respondent will be used for research purpose only)

1. Before Phaizau Irrigation Project was initiated, are you aware that the department is planning to set-up Irrigation Project in Phaizau?

   Yes ☐ No ☐

2. If you aware, what is your source of information?

   Departmental Functionary ☐
   Friends & Neighbors ☐
   Community Leaders ☐

3. With regard to the establishment of Phaizau Irrigation Project, do you contribute any personal ideas or concern to the Department?

   Yes ☐ No ☐

4. If yes, before works on the Project was started or after?

   Before ☐ After ☐

5. If no, what is the reason?

a) I have no ideas or concerns ☐

b) I was negligent ☐

c) I believe the proposition of the department was good enough ☐

d) I did not know to whom or where I should voice my concerns ☐

e) I did not think the department will give careful consideration to my concerns ☐

6. How do you contribute your ideas and concerns?

a) Through interaction with the departmental functionaries ☐

b) In a group meeting with the department ☐

c) Through letter to the concerned official of the department ☐

d) Through media ( T.V., Newspaper, Radio) ☐

7. Do you think your voice was heard and given due consideration?

Yes ☐ No ☐

8. Are you aware of the project blueprint?

Yes ☐ No ☐

9. If yes, how or from where did you come to know of it?

a) Through media ( T.V., Newspaper, Radio) ☐

b) Departmental functionaries ☐

c) Community leaders ☐

d) Friends and Neighbors ☐

10. During work implementation, in what manner did you participate?

a) Labor ☐

b) Collection of funds ☐

c) Raw materials ☐

11. Do you know the amount sanctioned for the project?

Yes ☐ No ☐

12. Do you know the scheme under which the project is implemented?

Yes ☐ No ☐

13. Do you know the total expenditure incurred for completion of the project?

Yes ☐ No ☐

14. If No, have you inquire of it in the department?

Yes ☐ No ☐

15. In what way do you monitor the project work?

_____

16. Do you verify the expenditure transaction to check whether the sanctioned amount has been used for the right purpose?

Yes ☐ No ☐

17. Do you contribute towards maintenance of irrigation structures built under the project?

Yes ☐ No ☐

18. If yes, in what way do you contribute?

_____

19. Do you know whether there is any provision from the department to provide assistance for maintenance of irrigation structures?

Yes ☐ No ☐

20. Do you think there is equitable distribution of benefits under the project?

Yes ☐ No ☐

21. Who create the broad framework for sharing of benefits?

_____

**Bio- Data**

a. Age:____

b. Educational Qualification:____

c. Number of Family Members:____

d. Number of Unemployed Members in Family:____

e. Size of Land Holdings:____

f. Occupation:____

g. Farming Equipments:____

(i) Tractor:____

(ii) Power Tiller:____

(iii) Cow: ____

(iv) Others:____

# CERTIFICATE OF REGISTRATION

MIZORAM SOCIETIES REGISTRATION ACT, 2005
( ACT NO. 13 OF 2005 )

REGISTRATION NO. MSR 302 OF 20.11.2009.

*I hereby certify that the* **Phaizau Water User Association** *located at* **Champhai** *has this day been registered under the Mizoram Societies Registration Act, 2005 (Act No. 13 of 2005).*

*Given under my hand at Aizawl on this twentieth day of November, two thousand nine.*

REGISTRAR FIRMS & SOCIETIES
Sedl
GOVT. OF MIZORAM

( LALTHANGLIANA VARTE )
Registrar of Firms & Societies,
Government of Mizoram

# CERTIFICATE
## OF
## HANDING OVER
## MINOR IRRIGATION PROJECT

All the assets created by the Minor Irrigation Department under Phaizau Minor Irrigation Project, Champhai namely

(i) Lined channels - Main channel - 1010 rm &
Distribution channel - 4155 rm
(ii) Small Water Harvesting ponds - 2(two) nos.
(iii) 40 mm G.I. Pipelines - 1200 rm.
(iv) RCC water tank -1 (one) no.
(v) Site camp-cum-Godown (semi-permanent) - 1 no.
(vi) Pump sets - 8 (eight) portable pump sets (1.03 KW each) &
2 (two) portable pump sets (2.28 KW each)
(vii) Sprinkler set with 50 sprinkler heads
(viii) Farm roads within Phaizau area - 1000 rm.
(ix) Plot of land - 3 bighas (inclusive of small harvesting ponds at sl. no ii)

are hereby transferred and handed over to Water Users Association, Phaizau Minor Irrigation Project, Champhai on this day, the 02nd of March, 2010. Safe custody and up-keep of the assets, Operation & Maintenance of irrigation systems including collection of water charges or User's fee if and when necessary and ensuring optimum utilization of created irrigation potentials will be vested on the Water Users Association along with ownership of the assets.

Minor Irrigation Department

Additional Chief Engineer
Minor Irrigation Department
Government of Mizoram
Mizoram, Aizawl

Water Users Association

Kawlbawia
Chairman
Water User's Association,
Phaizau Minor Irrigation Project,
Champhai.

Signed in presence of

2/3/10
Principal Secretary to the Government of Mizoram,
Minor Irrigation Department,
Mizoram, Aizawl