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Sustainability of Participatory Projects: Study of *Productive Sector* under Peoples' Planning in Chempu Village Panchayat of Kottayam District

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By
K. N. JAYAN
Reg. No. 2260

Under the Supervision of
DR.P.ARUNACHALAM
Reader & Head

DEPARTMENT OF APPLIED ECONOMICS
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
KOCHI- 682 022

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DEPARTMENT OF APPLIED ECONOMICS
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
KOCHI - 682 022, KERALA, S. INDIA

Phone : 0484 - 576030, 575943
Fax : 0484 - 576030, 575943
E-mail : appliedeconomics@cusat.ac.in

No. AE.

Date .....

DR.P.ARUNACHALAM
READER & HEAD

CERTIFICATE

Certified that the thesis entitled **"Sustainability of Participatory Projects: Study of *Productive Sector* under Peoples' Planning in Chempu Village Panchayat of Kottayam District"** is the record of bonafide research carried out by **Sri..K.N.Jayan** under my supervision. The thesis is worth submitting for the Degree of Doctor of Philosophy in Economics.

Kochi-22
27.12.2004

P. ARUNACHALAM

DEPT. OF APPLIED ECONOMICS
COCHIN UNIVERSITY OF SCIENCE & TECHNOLOGY
COCHIN-682 022

DECLARATION

I declare that the thesis entitled **"Sustainability of Participatory Projects: Study of *Productive Sector* under Peoples' Planning in Chempu Village Panchayat of Kottayam District"** is the record of bonafide research carried out by me under the supervision of **Dr.P.Arunachalam, Reader and Head**, Department of Applied Economics, Cochin University of Science and Technology, Kochi-22. I further declare that this thesis has not formed the basis for the award of any degree, diploma, associateship, fellowship or other similar titles of recognition.

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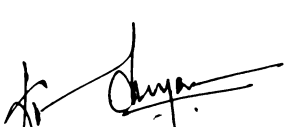

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K.N. Jayan

Dedicated to

My beloved

GRANDMA

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LIST OF ABBREVIATIONS

ADAK	Agency for Development of Aquaculture Kerala
ARC	Administrative Reforms Committee
BLEC	Block Level Expert Committee
BPL	Below Poverty Line
CPR	Common Property Resource
DAC	Development Assistance Committee
DLEC	District Level Expert Committee
DPC	District Planning Committee
EGS	Employment Guarantee Scheme
FAO	Food and Agriculture Organisation
GO	Government Order
IFAD	International Fund for Agricultural Development
ILO	International Labour Organisation
MAG	Monitoring Assessment Group
MLA	Member of Legislative Assembly
NGO	Non Governmental Organisation
NHG	Neighbourhood Group
PRI	Panchayati Raj Institutions
RI	Relevancy Index
SCP	Special Component Plan
SHG	Self Help Group
SIV	Sustainability Index Value
SPB	State Planning Board
TSP	Tribal Sub Plan
UNDP	United Nations Development Programme
UNRISD	United Nations Research Institute for Social Development
WCED	World Commission on Environment and Development
WCP	Women Component Plan
WDC	Ward Development Committee

Chapter 1

INTRODUCTION

CHAPTER I
INTRODUCTION

Development discourse has become more active with the direct and inclusive participation of the stakeholders in its various stages. People's involvement in decision-making, implementation, benefits and evaluation of any rural development initiative is conceptualised as participation. The Peoples' Plan Campaign in Kerala, promulgated as part of the decentralised planning efforts based on the 73rd and 74th Amendments of the Constitution of India in 1992, impregnates such participation. The Government of Kerala spearheaded the campaign of mobilising millions of people for planning. The investment made in human, material and epistemic terms for the cause of participatory planning does not perhaps have parallels anywhere in the developing world (John and Chathukulam, 2002). This has permitted a comprehensive development platform based on location specific resource potency in tune with the prioritised needs chosen from among a wide range of development requirements. Thus grassroots level planning became more meaningful since the local people have a better knowledge regarding their needs and also have better information about the local resources. Such participation in planning has the advantage of raising the level of consciousness about the rights and responsibilities of local people, which in turn tends to facilitate social change (Michener, 1998). The State Government of Kerala took a valuable decision to devolve 35 to 40 per cent of the Plan fund to the three-tier panchayats and municipalities largely on the basis of population. The panchayats should distribute the devolved funds in a ratio of 40:30:30 on its productive, service and infrastructure projects respectively. The research study explored the case of 'productive sector' projects in a selected Village Panchayat viz., Chempu in Vaikom Block Panchayat

of Kottayam District and studied the potential of such participatory endeavours in rendering sustained benefits to the rural stakeholders.

1.1 Significance of the Study

A pioneer experiment of decentralised development planning with massive peoples' participation in Kerala has expected to make significant impact upon major development sectors. The potentials of replicating the experiment to further underdeveloped regions of the country depend mainly on the success of these participatory efforts. Once the involvement of the supportive mechanism from the administrative front promulgated by the Planning Board and the local self governing bodies stops, the rural people needs to take up the development initiatives and sustain the benefits, which claim importance in a near stagnant economy like that of Kerala. The campaign which have been implemented all along the 991 Grama Panchayats, 152 Block Panchayats and 14 District Panchayats embodies participatory local level planning. The present in depth study which focused on the participatory productive sector projects in a grama panchayat assessed the overall and sustainable development issues in the framework of micro level planning. This study has blended qualitative as well as quantitative research as it explored what is assumed to be a dynamic reality and measured its static components at a given point of time.

1.2 Statement of the Problem

The efficacy of the decentralised planning mechanism in continuously delivering the benefits to the target population even after the Planning Board or local governing bodies (donors) withdraw its technical, managerial and financial support is the core research problem studied. How far the panchayats have taken up their changing roles from that of a

civic service provider to a production stimulating development agent in the framework of fiscal decentralisation is another major issue addressed in the study. Apart from analysing the *process* through which a particular project was being formulated for the ultimate benefit of its immediate stakeholders, the study also concerned about the distributional pattern of 'grant-in-aid' to the various sectoral categories of projects.

1.3 Objectives of the Study

The major objectives of the study are,

1. To study the pattern of plan allocation and expenditure of Ninth Five-Year Plan in Chempu Village Panchayat
2. To assess the nature and pattern of participatory productive sector projects under People's Planning
3. To identify various factors influencing the sustainability of participatory projects and thereby to evolve a method to assess its sustainability.

1.4 Methodology of the Study

The research methods followed in inquiring into the problem in view of the mentioned objectives is summarised below.

1.4.1. *Research Design:* This study was conducted adopting an *ex-post facto* research design. Inferences about relations among variables are made, without direct interventions, from concomitant variations of independent and dependent variables.

1.4.2. *Locale of the Study:* Stratified multi-stage random sampling method was followed for the purpose of drawing sample for the study. The first stage included the random selection of a District in Kerala State. In the second stage, one Block Panchayat was

selected randomly within the District. In the third and final stage one Grama Panchayat from the selected Block Panchayat was randomly selected for an in depth study.

1.4.3. *Sample Size and Pattern:* Within the Panchayat a set of productive sector projects was purposively selected in view of its suitability for the study. Those projects, which were implemented and completed at the time of the survey, were selected, such that 17 projects implemented during 2000-2001, 1999-2000 and 1998-1999 were considered for the study. A total number of 337 individual beneficiaries, 19 *padasekharam*, 26 self help groups and 3 educational institutions were surveyed.

1.4.4. *Variables and their Measurements:* Sustainability of a project has two defined categories such as *internal* sustainability and *external* sustainability. Internal sustainability of a project dealt with its organisational framework, where as external sustainability was measured in terms of achieved diffusion effects. An analysis of the distinct parameters of organisation and the project interventions that affected them could be used to estimate the Sustainability Index Value (SIV)

Different components of internal and external sustainability were identified through various sources such as a wide review of the literature on the concept of sustainability, especially those of government and non-government project interventions aiming rural development, formal and informal discussions with experts in the field of project management, key resource persons of decentralised planning and field observations. The internal sustainability components identified were, involvement in project formulation, project formulation based on felt needs, project meeting, community's rights, formal agreement, beneficiary committee, financial effectiveness, beneficiary contribution, production processes, project output, self maintenance and monitoring / evaluation. The components of external sustainability were employment generation, re-investment of

income, asset creation, technical training, management orientation, role of community mobilizers and role of panchayat.

1.4.5. *Methods of Data Collection:* The study has followed a 'multi-method approach'. The following survey procedures were used for analysing the phase following the completion of the project assistance: a) *document analyses* of records available at the Panchayat regarding the project such as 'project details' including objectives, implementation procedures, budgetary allocation and monitoring/evaluation details, b) *direct observation and on-site inspection* mainly for assessing the present status of the project, c) i*ntensive interviews* with experts connected to the project. This included members of the respective task-forces (or working groups) who formulated the project, implementing personnel, beneficiary committee convenors, key informant social activists and people's representatives (No.=30), and d) s*tandardised interviews* with beneficiaries of the project.

1.4.6. *Statistical Tools Used in the Study:* Sustainability of projects was measured by computing Sustainability Index Value (SIV) of each project and then compared for a detailed analysis. In this study the SIV of each productive sector project was measured using the formula developed for the study. The degree of linear relationship of nineteen components of internal and external sustainability with SIV was found out by calculating the Pearson's Product Moment Correlation Coefficient. Relationship of components of sustainability with independent variables of each category of productive sector projects were worked out using simple correlation methods. Percentage analysis was used to assess the allocation and expenditure pattern of plan funds at the state level and panchayat level.

1.5 Scope and Limitations of the Study

The study has wider policy implications as it identifies the possible variables which influence the sustainability of participatory productive sector projects. The method which is developed to study the sustainability of projects under People's Planning in Chempu Panchayat could be used for studying the same in other panchayats also. Unlike the case of the standard features of sustainability identified, the independent variables vary according to the nature of the project. Hence, this needs to be modified accordingly while applying the method in a dissimilar domain. Selection of a single panchayat for the present study is relevant on the basis of a common package of inputs for decentralised planning which is forwarded by the State Planning Board respectively for the three-tier panchayat system in Kerala. The dynamic filed realities could be brought out in view of a comprehensive planning approach through an in depth study of specific cases.

The assessment of the nature and pattern of productive sector projects in the selected Village Panchayat puts the projects under close scrutiny. The analysis has depended largely on secondary sources of information, especially from panchayat level plan documents, and also on the primary information obtained using direct observation and on-site inspection of project sites. An analysis of the nature and pattern of productive sector projects is important as it gives all necessary information regarding follow-up, monitoring/evaluation and even termination of a particular project. It has also revealed the tendencies of including infrastructure and service sector projects under 'productive' category, especially for maintaining the stipulated ratio (40:30:30) of grant-in-aid distribution. The study regarding the allocation and expenditure pattern of plan funds is vital in policy level as it reveals the under-noticed allocation and expenditure pattern of plan funds other than grant-in-aid. One major limitation of the study has been the limited availability of secondary data, especially

regarding project-wise expenditure and monitoring/evaluation reports of various project committees.

1.6 Scheme of the Study

The study is organised in seven chapters. The first chapter introduced the subject matter. The second chapter is a compendium of literature available with respect to the concepts of participation, sustainability of participatory projects, strategies for sustainable development and decentralisation. Based on the knowledge availed from literature and also due to the interaction with the experts in field of decentralised planning, relevant dependent variables of internal and external sustainability and independent variables are identified and this has been detailed out along with the estimation method developed for assessing sustainability, in the third chapter. Apart from this, the chapter also accommodates the research design, locale of the study and the methods used for collecting the required data. Fourth chapter deals with a historical overview and the genesis of local self governance in Kerala. The finance devolved during the Ninth Five Year Plan within the State of Kerala is analytically presented in this section. An overview of the People's Planning carried out in Chempu Village Panchayat is given in the fifth chapter. The chapter also gives a critical appraisal of the allocation and expenditure pattern of the plan outlay during the Ninth Five Year Plan period. Sixth chapter is devoted to study the nature and pattern of productive sector projects selected for the present analysis. Survey details of seventeen projects are detailed out in this chapter along with its estimated degree of sustainability. A correlation analysis of the dependent components of internal and external sustainability with that of independent variables is also given in this chapter. Finally, the major findings of the study in summary form are coordinated in chapter seven. Apart from this, the concluding chapter includes concluding remarks along with suggestive strategies relevant for further development planning.

Chapter 2

LITERATURE REVIEW

CHAPTER II
LITERATURE REVIEW

Review of literature is necessary for any research endeavour. An attempt is made to review the most important concepts within the framework of the present study and also the major findings of past studies. Since this study is exploratory in nature and inimitable in the specific area of participatory planning and sustainability, review could be done only from related areas of study and these are discussed under various heads such as concept of participation, sustainability of participatory projects, strategies for sustainable development and decentralisation.

2.1. Concept of Participation

Bhargava. B. S and Venkitakrishnan.(1997) in their paper "Panchayati Raj Movement: An Analysis of its Phases" gives wider dimension for the concept of participation. Peoples' participation at local level tends to be confined to receiving benefits by those for whom they are meant or stipulated and in other stages the participatory thrust in the conscious act of restructuring the society is either absent or nominal. They observed that a major shift in the strategies has been occurred around 1970, in view of the fact that benefits or gains of development had not reached the weaker sections, but cornered by the well-off sections of rural community. The efforts for proper institution building and to change the "value system" had been the common strategies, thus apparently resulted in the experiment of new form of local self governance with a democratic power mechanism and development mechanism.

According to Sundaram. K. V (1997), community participation takes three forms such as mobilisation, mediation and empowerment. In the first instant mobilisation is seen as facilitator or a desired plan output. The concept, mediation refers to the role of peoples' representatives or institutions that should act as the mediators between the government and the people. The government and people are involved in the task of planning and implementation and the action should be done through a dialectical process. The concept "empowerment" impregnates a wider meaning that people have to capacitate and their institutions built up and is strengthened and this is considered to be the highest form of participation. Empowerment imbues the Communities' autonomy to decide the goals, plans, programmes and projects affecting their development. Autonomy of mobilising and controlling their own resources urges the former.

Chadha. K. M (1996) observed that rural poverty is inextricably linked up with rural productivity and unemployment including under employment. The study asserted that participation of rural poor can be guaranteed by way of active co-operative institutions. Co-operations aimed at promoting self-reliance, self-help and self-governance among members, implying equitable sharing of gains and losses. Co-operative institutions empower the weaker sections of society and help them to allocate their meagre resources to avoid being exploited by outsiders.

According to Bava (1984) participation of citizens in government, politics and administration is both an end in itself and a means to an end. She classifies three kinds of participation, which signifies the degree of influence exercised by citizens on the decision-making process in government and administration; Democratic Participation, Administrative Participation and Community Development Participation.

David Brown and Darcy Arshman (1996) reported that co-operation in policy / programme implementation between state and non-governmental actors can sometimes solve intractable development problems, provided such co-operation span gaps in culture, power, resources and perspective. Their analysis of thirteen African and Asian case reveals two successful implementation patterns such as Non-Governmental Organisation (NGO)-mediated co-operation and grass roots centred co-operation. Different forms of social capital are necessary to the said patterns. Indigenous NGOs with credibility across sectors are critical to the former, while grassroots organisations are vital to the grass roots centred co-operation. Participatory decision making and mutual influence are essential to grassroots centred co-operation, but NGO – mediated collaboration demands comparatively lesser degree of this social capital.

Participation is a process through which stakeholders influence and share control over development initiatives, decisions and resources which affect them. (World Bank, 1994)

Robert Klitgaard (1997) in his paper *"Unanticipated Consequences" in Anti-poverty programmes"* argues about the fact " why so many well-intentioned efforts to reduce poverty results in unanticipated outcomes?". The most important typology evolved is concerned with information and incentive, and how they affect the institutions through which anti-poverty efforts are implemented. The study found various reasons for the unanticipated negative consequences, such as dependence on a wrong model and therefore a failure, the tendency to overlook statistical phenomena or incentive effects, and most important of all, the insufficient attention to the economics of the institutions that implement anti-poverty programmes. Much attention needs to be given to the 'institutional

adjustment', so that the markets and government institutions through which anti-poverty programmes are implemented have the information and incentives to make them work.

Participation of rural poor is a very much dependent variable on the 'targeting' component. Mis-targeting of different development programmes may leave the poorer sections into more desperate situation. By analysing the case of two villages in the Sate of Maharashtra, Gaiha (1996) points to the mis-targeting of the Employment Guarantee Scheme (EGS). He found that there was a marked deterioration in it over the period 1979-89 reflected in not just a larger concentration of the more affluent among the EGS participants, but also their much larger gains from participating in this scheme. A large segment of the poor depended heavily on EGS as an additional source of income, with significant welfare gains during 1979-84. Apart from this, a large subset, especially of relatively low income participants also withdrew from EGS when overall economic conditions improved.

Hemalata Rao and Devendra Babu (1994) studied the involvement of rural poor, focusing on scheduled castes and scheduled tribes, in the socio-economic upliftment programmes. The study based in Karnataka found that the mode of selection of beneficiaries was more or less without any proper basis. Though the guidelines of the schemes specified certain procedures to be followed in the selection of beneficiaries, many such procedures were not followed strictly. Major concentration of the selected beneficiaries was in the productive age (18 to 65) but as the age group went up the number of beneficiaries declined. The study revealed the inadequacy of technical supervision and guidance needed for the effective implementation of schemes. Due to the lack of follow-up actions of schemes rampant misuse of funds took place. Thus the schemes intended to alleviate poverty did not attain the target.

Yogendra Nath Das (1994) states that the history of rural development in India started with the launching of Community Development Programmes in October 1952. The objective was to bring all-round socio-economic development of the villages with the cooperation and participation of the rural people. To enhance participation of local people in the decision-making process, Panchayati Raj System was introduced in 1961 and a three-tier system of Gram Panchayat, Block Samitis and Zila Parishad was established. But this programme failed in increasing the agricultural production, in removing illiteracy and unemployment, in improving health and hygiene condition because of the fact that it gave much attention on basic amenities than on economic development, and people did not participate equally, adequately, mostly officers were not rural-oriented. Firstly, the scheme was financed by the Central Government later on in 1966 responsibility shifted to the State Governments so it was isolated.

The participation discourse promises ambitious outcomes: participation is crucial to the success of projects, it can transform development and it empowers poor people (Michener.V.J, 1998).

Deshler and Sock (1985) analyse participation at two levels such as 'pseudo-participation' where the manipulation of beneficiaries is done by development professionals to meet the needs of elite. The second one is 'genuine participation' in which participants are empowered by having control over programme policy and management.

Cohen and Uphoffs' (1980) typology is more comprehensive which analyses different types of participation and also the kinds of participants and the 'how' of participation (Table 1).

Table 1 - Dimensions of Rural Development Participation

Kinds of participation	Participation in decision making Participation in implementation Participation in benefits Participation in evaluation
Who participates?	Local residents Local leaders Government personnel Foreign personnel
How is participation occurring?	Basis of participation Form of participation Extent of participation Effect of participation

Source: Cohen and Uphoff (1980).

'Participation' as a major concept of rural development has evolved throughout time. Their roots can be traced back to community and popular participation, promoted mainly by NGOs in the 1950s and 1960s. In the late 1970s and early 1980s, multilateral agencies, such as FAO, ILO and UNRISD, also began to promote popular participation in development projects and programmes (Rudqvist and Woodford-Berger, 1996)

The concept of participation as empowerment has many nuances. Some development agencies see it basically as an access to and control over resources, or as a way of releasing human energies and enlarging talents and potential (FAO, 1990; Uphoff 1992).

Participation is linked to democratisation, good governance, equality, equity, and human rights (FAO, 1990; Rudqvist and Woodford-Berger, 1996).

Popular participation is interpreted along three broad lines (Oakley, 1991)

- Participation as contribution, i.e. voluntary or other forms of input by rural people to predetermined programmes and projects.

- Participation as organization, either externally conceived or emerging as a result of the process of participation.
- Participation as empowerment, enabling people to develop skills and abilities to become more self-reliant, and to make decisions and take actions essential to their development.

According to Clayton *et al* (1998), as a means, participation is a process in which people and communities cooperate and collaborate in development projects and programmes. In this view, participation, sponsored by an external agency, is a way to support the progress of a project or programme and a means to ensure the successful outcome of activities. The term "participatory development" is commonly used to describe this approach. As an end, participation is seen as the empowerment of individuals and communities in terms of acquiring skills, knowledge and experience, leading to greater self-reliance. Participation is an instrument to break poor people's exclusion and lack of access to and control over resources needed to sustain and improve their lives. It is intended to empower them to take more control over their lives.

Concepts of participation have widened to include not only the rural poor but also other sectors of civil society. This is reflected in a change of terminology from "the rural poor", "beneficiaries" or "users" to "stakeholders" and "partners" (Rudqvist and Woodford-Berger, 1996: World Bank, 1998).

The World Bank's Learning Group on Participatory Development defines participation as "a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" (World Bank, 1996).

Several factors have influenced the notion of participation as involving a wider range of stakeholders. One is the trend towards decentralisation and transfer to responsibilities from

government to people. Another is the conclusion that small-scale community participation and empowerment are not sufficient to ensure the sustainability of development efforts (Rudqvist and Woodford-Berger, 1996; Warren, 1998).

In complex socio-political environments, the concept of participation has increasingly come to include "involvement of local institutions and civil society in a power-sharing scheme, based on negotiation and conflict management" (Warren, 1998).

FAOs' peoples' participation programmes experience that the basic fault in the conventional approach is that the rural poor are rarely consulted in development planning and usually have no active role in development activities. This is because the vast majority of the poor have no organizational structure to represent their interests. This realization is provoking new interest in an alternative rural development strategy, that of people's participation through organizations controlled and financed by the poor (FAO, 1997).

According to Robinson (1993) and Moore (1993), participatory development or development from below sought to expose more of public life to the discipline of market implying a reduced role for the state and created spaces for 'communities' (villagers, private individuals, companies, groups of companies) to be more involved in development.

UNDP (1993) defines participation as the close involvement of people in the economic, social, cultural and political process that affect their lives.

Shah and Shah (1995) reported that participatory approaches in development programmes increased the participation of local communities in development process and supported the formation of accountable institutions.

Chowdhry and Gilbert (1996) defines participation as a generic term covering a broad range of activities ranging from one-shot problem identification exercise to continuing association which rural communities and individual farm families play more active role.

According to Parker (1997) participation ranges from local people being involved in implementing development or conservation of programmes to be actively involved in all stages of the development process including decision making process.

According to Kareem and Jayaramaiah (1998) participation is the degree to which the members of the beneficiary families involve themselves in different stages of the programme, starting from the selection of beneficiaries to deriving benefits from assistance, provided under the programme.

According to Turton and Reddy (1998) participatory approach helped in improving productivity and sustainability.

Surendran (2000) suggested that for efficient functioning of groups for sustainable development of agriculture in Kerala, the groups should promote participatory approach.

Johnson and Clark (1982) had an opinion that "participation has a large cost for the poor and they will invest their participation when they believe it will secure them valuable benefits not otherwise available at comparable cost, time and risk".

Peoples' participation is defined as employing a method where the associated communities are motivated to function and contribute as a group to perform a pre-determined task (Venkattakumar *et.al.*, 2000).

Tamilmani (2002) advocates for people-centered development projects and justifies, as it ensures need assessment by the people themselves which would be more accurate and reliable than that done by outsiders, transparency in every stage of the project cycle, greater chances of mobilising local community resources (labour, capital and common property resources etc), serves as a training ground for empowering people through knowledge gathering, experience sharing, decision making, confidence building and in other facets of

development discourse, as people are involved in every stage of the project cycle from formulation to evaluation, people develop concern and tend to put towards success.

Dhillon and Hansara (1995) describe the major objectives of people's participation as 1) better planning and implementation of rural development programmes, 2) mobilisation of additional resources required for rural development programmes and 3) empowering people particularly the poor to play an effective role in rural development.

2.2. Sustainability of Participatory Projects

According to Rich (1994), the decades of failed international development efforts have taught the world about the folly of induced, uniform, top-down projects. Such schemes ignore and often destroy the local knowledge and social organisation on which sound stewardship of ecosystems as well as equitable economic development depends.

Shumacher(1973) observes that from the 1970s, the failure of high technology and large scale development projects which were imposed on rural communities by outside agents began to be contrasted with the merits of alternative technologies, small-scale projects developed by or with local communities, in versions of vision that 'small is beautiful'.

Measuring sustainable development also faces serious problems regarding collection, selection, quantification and comparability of environmental indicators (Steer and Lutz, 1993).

According to Adams (1993) a clear mainstream understanding about sustainable development has been evolved from the many conflicting interpretations of the term.

Pearce (1998) defines sustainable as 'enduring' and 'lasting' and 'to keep in being'. So sustainable development is economic development that lasts.

According to WCED (1987), Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Nordhaus (1992) observes that all of the complications arise because the sustainability criterion reifies a particular objective (the non-declining development vector) and demotes all other objectives below the one.

Sustainable development is defined as some indicator of human well-being which does not decline over time (Pearce *et al.*, 1989; Pezzey, 1989).

Bryant and Bailey (1997) reports that sustainability depends on the capability of different social groups to cope with environmental change. Actors may also perceive and value the same environmental process differently, and seek to define and prioritise environmental 'problems' according to their own agenda.

The concept sustainability basically implies a characteristic of a system, a programme, or a resource to last intact forever (Singh Katar, 1999).

There are two distinct concepts of sustainability such as economic sustainability and ecological sustainability. Economic sustainability is concerned about the long-term constancy of economic output, income or consumption. Ecological sustainability relates to long-term preservation of bio-sphere or the sustenance of human populations and bio-diversity conservation in a given geographical area / region, endowed with limited natural resources. (FAO, 1989 and Bartelmus, 1997).

According to Dasgupta (1995) and Dasgupta and Maler (1995) the concept and implementation of sustainability assumes that the appropriate way to represent human preferences for future consumption is through the inter-temporal welfare function, and the

appropriate way to discuss sustainability is via the optimal consumption path for a given inter-temporal welfare function.

2.3. Strategies for Sustainable Development

The consensus emerging from the United Nations Conference on Environment and Development in Rio De Janeiro in 1992 recommended a community-based strategy (Leach *et al.*, 1997)

Sustainable environmental management can only occur where active local level support and participation exist. Particularly in less developed countries, community participation is believed to be the most effective strategy because people depend directly on their local physical environment and thus have a genuine interest in protecting it. (Ghai and Vivian, 1992).

The pursuit of community-based sustainable development also requires a political system that secures effective citizen participation in decision making (WCED, 1987).

The State of Kerala has recently adopted elements of a political system which included environmental goals in its policy approach. It has been suggested that this state comes 'closest to the sustainable development ideal in practice' (Parayil, 1996).

According to Turner and Hulme (1997). 'Top-down', 'technocratic', 'blueprint' approaches to development came under increasing scrutiny as they failed to deliver the economic growth and social benefits that had been promised.

Agrawal and Gibson (1999) observe that development goals could only be achieved by 'bottom-up planning', 'decentralisation' and 'participation' and 'community development'.

The 'development from below' demanded a reversal of conventional development thinking, working from the 'bottom-up' and the 'periphery inwards' (Stohr 1981).

According to Ghai and Vivian (1992), there was an alternative to large-scale centralised development, one 'characterised by small-scale activities, improved technology, local control of resources, widespread economic and social participation and environmental conservation'.

Bartelmus (1997) operationalised sustainable development as "a set of development programmes that meet the targets of human needs satisfaction without violating long-term natural resource capacities and standards of environmental quality and social equity".

Streeten (1995) sees sustainability as a multi-dimensional problem. One of the aspects is the ability to handover projects to citizens of the developing country, for their own management, so that foreign experts can withdraw without jeopardizing their success. This implies training local counterparts and helping to create local technological, managerial and administrative capacity.

Reinhard Stockmann (1997) theorizes the concept of sustainability under three perspectives such as – life-course model, which places stress on the developmental phases of a project and the period following the end of the assistance – the organizational theoretical approach, which brings the conditions and impact factors internal to an organisation into the future – the diffusion-theory approach, which studies the extent to which the innovations triggered by a project go beyond the confines of the implementing agency to find dissemination in its environment.

A project oriented definition of sustainability employed by Swiss Development Cooperation, the German Federal Ministry for Economic Cooperation and Development

(BMZ) and GTZ says that a project is classified as sustained "if the project implementing organization and/or target population continue the innovations achieved by the project without external assistance for long period of time" (GTZ 1988 and DEH 1990).

USAID (1987) and DAC (1988) define sustainability "as a program continuing to deliver services or sustain benefits after the donor's technical, managerial and financial support has ended".

Brawn (1993) gives an output or 'production-oriented approach to sustainability as it operationalises "permanent flow of benefits to beneficiaries" and reduces sustainability to have material benefits of a project that can be measured as "outcome".

The United Nations Development Programme (1988) puts in a system-oriented definition of sustainability in which the purpose of a technical cooperation (from donor) is supposed to change the nature and performance of one or more or all components of the system.

Stockmann (1997) conceptualise sustainability as innovation-oriented which includes the ability of the implementing organisation or target population to respond flexibly to changed environmental conditions.

Charles Perrings (2001) affirms that sustainability of any particular state (or any particular development path) depends on the properties of the stability domain corresponding to that state.

A 'resource-based' argument is concerned with the identification of constraints that are sufficient for sustainability and it seeks the set of rights and obligations that will support the sustainable use of resources (Pezzey, 1997).

Elizabeth Kleemeier (2000) by quoting the case of a piped scheme programme, suggests that sustainability is judgement about whether the schemes have delivered an adequate and reliable supply of output to the target population for a sufficient period.

2.4. Decentralization

Decentralization is commonly interpreted as a political process whereby administrative authority, public resources and responsibilities are transferred from central government agencies to lower level organs of government or to non-governmental bodies, such as community based organizations, 'third party' non-government organizations or private sector actors. Decentralisation is also thought to create the conditions for a more pluralistic political arrangement, in which competing groups can voice and institutionalise their interests in local democratic forums (Crook and Manor, 1998; Rondenelli *et al.*, 1989; Meenakshisundaram, 1999 and World Bank 2000).

Concept of decentralisation varies between four postulates such as de-concentration, devolution, delegation and privatisation. In de-concentration, the political, administrative and fiscal responsibilities are transferred to lower units within central line ministries or agencies (Crook and Manor, 1998; Rondinelli *et al.*, 1989; Meenakshisundaram, 1999). In devolution, the sub-national units of government are either created or strengthened in terms of political, administrative and fiscal power (Crook and Manor, 1998; Rondinelli *et al.*, 1989). Delegation in which responsibilities are transferred to organisation that are 'outside the regular bureaucratic structure and are only indirectly controlled by the central government' (Meenakshisundaram, 1999). In privatisation, all responsibility for government functions is transferred to NGOs or private enterprises independent of government (Meenakshisundaram, 1999).

Decentralisation through devolution of authority could enhance systems of local governance by the establishment and empowerment of local resource user groups (delegation or privatisation) thereby improving the ways in which local people manage and use natural resources, subsequently improving the resource base on which poor people are often disproportionately dependant (Baland and Platteau, 1996; IFAD, 2001; Ostrom, 1990).

According to Blair (2000), decentralisation, in theory would undermine the power of government officials by creating institutional arrangements that formalise the relationship between citizens and public servants, giving the former the authority to impose sanctions such as voting, recourse to higher-level authorities on the latter.

World Bank (2000) envisions the transfer of powers under three broad areas such as political, administrative and fiscal decentralisation. Political decentralisation transfers policy and legislative powers from central government to autonomous, lower-level assemblies and local councils that have been democratically elected by their constituencies. Administrative decentralisation places planning and implementation responsibility in the hands of the locally situated civil servants and these local civil servants are under the jurisdiction of elected local governments. Fiscal decentralisation accords substantial revenue and expenditure authority to intermediate and local governments.

Ostrom *et.al.* (1993) argues that decentralisation creates institutions that are more amenable to local needs and preferences. It waives the shortcomings of state such as lack of flexibility and reach to provide certain types of goods and services, particularly ones with large information requirements.

Under decentralised governance, the collaboration between public agencies and local resource users can produce 'synergistic' outcomes in which citizens and civil servants cooperate to produce goods that would be unobtainable were they acting alone. (Evans, 1996a, 1996b; Ostrom 1996)

The decentralisation process enables democratisation and empowerment of local administrative bodies and enhances participation in decision-making, particularly groups that have traditionally been marginalised by local political processes (Crook and Sverrisson, 2001)

According to Sarkar (1988) the conventional approach to the centralised planning process has been synthesised in decentralised participatory planning on a regional administrative basis which eventually aims at formulation of development plan at grassroots level with the available human and economic resources which will ultimately help in the realisation of aspiration of the local people.

Detailed reviews of literature of associated concepts have provided insights for formulating a standard tool in analysing the sustainability of participatory projects. The dependent and independent variables are developed from this close scrutiny of literature available in the area.

Chapter 3

METHODOLOGY

CHAPTER III
METHODOLOGY

Based on the knowledge availed from literature and also from the interaction with the experts in field of decentralised planning, relevant dependent variables of internal and external sustainability and independent variables were identified and has been detailed out in this chapter. Apart from this, the estimation method developed for assessing sustainability has been also given. The chapter also accommodated the research design, locale of the study and the methods used for collecting the required data.

3.1. Research Design

This study was conducted adopting an *ex-post facto* research design. According to Kerlinger (1973) *ex-post facto* research is a systematic empirical inquiry in which the scientist does not have direct control over independent variables because either their manifestations have already occurred or they are inherently not able to manipulate. Inferences about relations among variables are made, without direct interventions, from concomitant variations of independent and dependent variables.

3.2. Locale of the Study

Stratified multi-stage random sampling method is followed for the purpose of drawing sample for the study. The first stage includes the random selection of a District from among 14 Districts in Kerala State. In the second stage, one Block Panchayat is selected randomly from among 11 Block Panchayats within the District. In the third and final stage one Grama Panchayat from among 6 Grama Panchayats in the Block Panchayat is randomly selected for the case study. Within the Panchayat a set of productive sector projects for the study is purposively selected considering its suitability for the study. Those

projects, which implemented and completed during 2000-2001, 1999-2000 and 1998-1999, at the time of the survey, are selected for the study.

3.3. Variables and their Measurements

3.3.1. Components of Sustainability

Sustainability of a project has two defined categories such as internal sustainability and external sustainability. Internal sustainability of a project deals with its organisational framework, where as external sustainability is measured in terms of achieved diffusion effects. The explanatory structure of organisation theory is decisive in determining the internal sustainability of a given project. The extent of innovations implemented resulting in the dissemination of training / employment systems represents external sustainability (Stockmann, 1997). An analysis of the distinct parameters of organisation and the project interventions that affected them has been used to estimate the Sustainability Index Value (SIV).

3.3.2. Relevancy Index

The factors are selected based on the Relevancy Index. Relevancy Index is worked out as follows,

$$\text{Relevancy Index (RI)} = \frac{\text{Total actual score obtained by the factor}}{\text{Total maximum possible score that factor could secure}} \times 100$$

Different components of internal and external sustainability are identified through various sources such as a wide review of the literature on the concept of sustainability, especially those of government and non-government project interventions aimed at rural development, formal and informal discussions with experts in the field of project management, key resource persons of decentralised planning and also based on field

observations. The identified factors are put to relevancy rating by a panel of judges on a five-point continuum ranging from 'most relevant' to 'least relevant' with scores ranging from 5 to 1 respectively. The complete list of factors with detailed instructions for judgment is sent to 60 judges comprising of development consultants of various government and non-government institutes and research personnel of several research organisations.

The components with more than 70 relevancy index are selected and are arranged in descending order. Thus the components selected for the study are,

Table 2 - Components of Sustainability

	Sl.No	Components	Relevancy Index
Internal Sustainability	1	Involvement in project formulation	97.6
	2	Project formulation based on *felt needs*	96.5
	3	Project meeting	94.8
	4	Community's rights	93.8
	5	Formal agreement	92.3
	6	Beneficiary committee	92.0
	7	Financial effectiveness	91.8
	8	Beneficiary contribution	90.5
	9	Production processes	89.1
	10	Project output	88.5
	11	Self maintenance	85.2
	12	Monitoring/evaluation	82.3
External Sustainability	13	Employment generation	93.4
	14	Re-investment of income	93.0
	15	Asset Creation	92.0
	16	Technical training	88.9
	17	Management orientation	85.5
	18	Role of community mobilizers	82.0
	19	Role of Panchayat	80.5

Source: Survey Data

3.3.3. Computation of Sustainability Index Value (SIV)

Sustainability of projects is measured by computing SIV of each project and is compared. SIV is developed from the participation index measures used by Sadanandan (2002) for analysing social costs and benefits in vegetable production in Kerala through participatory approach.

In this study the Sustainability Index Value (SIV) of each productive sector project is measured by the formula developed for the study.

$$SIV = \frac{\sum \left[\frac{ei}{mi}\right] W_i}{\sum W_i}$$

$$= \frac{\left[\frac{e_1}{m_1}\right] W_1 + \left[\frac{e_2}{m_2}\right] W_2 + \text{----------} \left[\frac{e_n}{m_n}\right] W_n}{W_1 + W_2 + \text{----------} W_n}$$

Where,

W_1----W_n are the weightage of 1 to n components

e_1 ---- e_n are the extent of sustainability score of 1 to n components, and

m_1 ---- m_n are the maximum possible sustainability score of 1 to n components.

In this formula $\frac{e_i}{m_i}$ takes care of the unequal distribution in the range of scoring of the components and the index takes a minimum value of zero and maximum one.

3.3.4. Operationalisation and Measurements of Components of SIV

3.3.4.1. Involvement in Project Formulation

Refers to the involvement of the community in the formulation of the project, regarding generating idea about the project and making choice from among various options. The schedule developed to measure the extent of involvement in project formulation, consisted of four statements. The first three statements have possible answer of 'Yes' or 'No' with a possible score of 2 and 1 respectively (Appendix 1).

3.3.4.2. Project Formulation Based on *Felt Needs*

Refers to the extent of considering felt needs of the community and the magnitude with which the project interventions commensurate with the community's needs. The schedule developed to measure the extent of considering community's needs, consisted of three positive and one negative statement with a possible answer of 'Yes' or 'No'. The answer for the positive statement is scored 2 and 1 respectively and for the negative statement, the scoring pattern is reversed (Appendix 1).

3.3.4.3. Project Meeting

Refers to the public meetings, which provide adequate information on organisational and management responsibilities of the project. The schedule used to quantify project meeting consisted of 4 statements. The fourth statement dealt with the rate of participation of the project beneficiaries in the meeting. All other statements have 'Yes' or 'No' answers with a possible score of 2 and 1 respectively. The scores range from 1 to 8 (Appendix 1).

3.3.4.4. Community's Rights

Refers to the rights of the community in suggesting modifications to the project or even rejecting it at the public meeting which function as a venue to choose project which they really deserve. Community's rights are quantified using the schedule developed for the

purpose. The schedule consisted of two statements with 'Yes' or 'No' answer carrying 2 and 1 scores respectively (Appendix 1).

3.3.4.5. Formal Agreement

Refers to the contract signed specifying community's and project responsibilities. This is expected to enhance the realization of objectives by the community within the proposed period. If the project particulars are clearly defined and understood from the beginning, the community will operate it successfully. This is estimated with two statements such as whether there is any formal agreement signed between community and the project implementing authority and secondly whether such an agreement is necessary for the smooth implementation of the project. The 'Yes' or 'No' answer to the above statements is ranked 2 and 1 respectively (Appendix 1).

3.3.4.6. Beneficiary Committee

Refers to the forming of a peoples' committee in order to strengthen organisational skills needed to manage project benefits and the committee is a true representation of the society having a sense of community ownership. The concept is quantified in terms of a schedule consisting of 5 statements with a possible score ranging from 1 to 14. The responses to these statements are obtained as 'Yes' or 'No' with scores 2 and 1 respectively (Appendix 1).

3.3.4.7. Financial Effectiveness

Refers to the attention paid to the cost factors and whether the actual financial requirements of the project are met through adequate mobilisation strategies. A schedule is developed to measure the financial effectiveness of a project. It consisted of six statements with a possible 'Yes' or 'No' answer having scores 2 and 1 respectively. Out of the six

statements, 4 are positive and 2 negative. The score for the negative statements are in the reverse order such as 1 and 2 respectively for 'Yes' and 'No' answers (Appendix 1).

3.3.4.8. Beneficiary Contribution

Refers to the contributions of beneficiaries in terms of money or material in order to meet capital and labour costs and the amount should be the same as the one prescribed in the 'project details' document. It is measured by using the schedule developed for the study. The schedule consisted of five questions. The responses to these questions are obtained as 'Yes' or 'No' and they carried a score of 2 and 1 respectively. Summation of the scores of the answers gave the beneficiary contribution in terms of money or material (Appendix 1).

3.3.4.9. Production Processes

Refers to the implementation procedures of the project as it is given in the approved (technical sanction) project document. This is measured using a schedule developed for the purpose. The statements in the schedule included 5 statements with a possible 'Yes' or 'No' answer having scores 2 and 1 respectively. The summation of these scores is the measure of production process (Appendix 1).

3.3.4.10. Project Output

Refers to the ultimate benefits received from the project corresponding to the objectives put forward in the project. A satisfactory return is expected to enable the beneficiary to continue the project on his own. It is the output from a unit area of production and is measured in terms of the scores assigned to five different statements (Appendix 1).

3.3.4.11. Self Maintenance

Refers to the efforts taken by beneficiaries in continuing the project even after the donor of the project, the Panchayat, withdraws. It is assessed using the schedule comprising of 10 statements (7 positive and 3 negative) and measured on a five-point continuum such

as 'Strongly Agree', 'Agree', 'Undecided', 'Disagree', 'Strongly Disagree', with scores ranging from 5 to 1. The negative statements are scored in the reverse order (Appendix 1).

3.3.4.12. Monitoring/Evaluation

Refers to the role played by the concerned committee in monitoring and evaluating the project benefit and suggesting modifications. The schedule included 6 statements with a possible 'Yes' or 'No' answer having scores 2 and 1 respectively. The summation of these scores is the measure of Monitoring/Evaluation process (Appendix 1).

3.3.4.13. Employment Generation

Refers to the number of man-days created as part of the project intervention implying the extent of diffusion effect. Employment generation in the sectors like enterprise, agriculture and allied occupation is the additional employment opportunities gained by the beneficiaries on these areas after availing the benefits of the programme. In this study the employment generation is measured in terms of percentage increase of employment opportunities as part of the project intervention of the Panchayat (Appendix 1).

3.3.4.14. Re-investment of Income

Refers to the returns from the project, which is used to re-invest in the same venture in view of multiplier effect. In real terms, it is the amount reinvested as percentage to the total returns (or income) from the project. The scores ranged from 0 to 4 (Appendix1).

3.3.4.15. Asset Creation

Refers to the aggregate value of assets created or gathered as part of the project. This is estimated in terms of the value of the asset as percentage of the total investment made and is quantified following five statements (Appendix 1).

3.3.4.16. Technical Training

Refers to the imparting of formalised training to the project beneficiaries since trained labour could do better. The schedule used to quantify the concept of technical training comprised of 6 statements. Apart from the first statement which seeks an 'Yes' or 'No' answer carrying 2 and 1 scores respectively, all other statements are measured on a four-point continuum such as 'Strongly Agree', 'Agree', 'Disagree' and 'Strongly Disagree' with scores of 4, 3, 2 and 1 respectively. The scoring pattern for the negative statements is in the reverse order (Appendix 1).

3.3.4.17. Management Orientation

Refers to the strengthening of organisational skills needed to manage the project activities and analysing the strength and weakness. It is operationalised as the degree to which the stakeholder is scientifically oriented towards planning, production and marketing of an enterprise.

Management orientation is measured using the scale developed by Samantha (1977). It is consisted of 14 statements, 4 for planning and 5 each for production and marketing orientation. In each group, positive and negative statements are mixed. In case of positive statements, a score of 2 is given for 'agreement' and 1 for 'disagreement'. For a negative statement, the scoring pattern is reversed. The sum of the scores obtained by the respondent is taken as respective scores for management orientation. The possible scores range from 15 to 30 (Appendix 1).

3.3.4.18. Role of Community Mobilizers

Refers to the realisation of the importance of community participation. Community participation in this context depends on having an agency and field staff responsive to the

beneficiaries. This is measured using a schedule comprising of 4 statements with a possible answer of 'Yes' or 'No' having scores 2 and 1 respectively (Appendix 1).

3.3.4.19. Role of Panchayat

Refers to the role of the Panchayat in a further intervention without any of the inputs provided earlier. It implies the ability of the Panchayat in exploring the forward linkages and also its flexibility towards formulating sustainable projects. The schedule used to assess the role of Panchayat comprised of 5 statements with a possible 'Yes' or 'No' answer having scores 2 and 1 respectively (Appendix 1).

3.3.5. Independent Variables of Sustainability

The pilot study conducted in the Panchayat regarding the nature and pattern of productive sector projects revealed that there exist three distinct categories of projects. These are individual-based, institution-based and common-property resource-based. The institution-based projects are those for which the grant-in-aid is given to some institutions such as self-help groups, *padasekharam* etc., where as, for individual-based projects, the aid is given to individuals in person. Projects on building up / maintaining common property resources such as rivulets (*thodu*), a common machine, tiller for agricultural purposes for all the *padasekharam* in the region, belong to the category of common property resources. Hence relevant independent variables, which affect the various internal and external components of sustainability, are identified separately for each category of productive sector projects.

3.3.6. Relevancy Index

Based on the study of the nature and pattern of projects, review of literature, discussion with experts in the filed and interaction with key informants, a list of 42 variables are identified and put to relevancy test, For the purpose of extracting the most relevant variables on a five-point continuum ranging from 'most relevant' to 'least relevant', with scores ranging from 5 to 1 respectively. The list was sent to 60 judges. The judges are drawn from among the development consultants of various government and non-government institutes and research personnel of several research organisations.

The relevance of the variables is assessed using the formula,

$$\text{Relevance Index} = \frac{\text{Score obtained}}{\text{Maximum score possible}} \times 100$$

Those variables which secured a relevancy index of 70 and above are finally selected for the analysis. Thus altogether 29 variables are selected, in which 14 are of individual-based, 10 are institution-based and 5 are common property resource-based productive sector projects.

Table 3 – Project-Wise Independent Variables

Sl.No	Independent variables	Relevancy Index
A	**Individual-based projects**	
1	Age	95.8
2	Education	95.6
3	Annual income	95.5
4	Economic motivation	94.3
5	Credit orientation	94.1
6	Innovation proneness	94.0
7	Risk orientation	93.2
8	Achievement motivation	93.0
9	Unit size	93.0
10	Project perception	90.6
11	Cosmopoliteness	90.4
12	Scientific orientation	88.3
13	Operational experience	85.2
14	Entrepreneurial behaviour	82.0
B	**Institution-based projects**	
1	Institution-size	95.1
2	Institutional action plan	94.6
3	Lobbying power	94.2
4	Incentives	93.0
5	Risk compensation	92.5
6	Political determinism	91.8
7	Infrastructure facilities	91.2
8	Community support	88.1
9	Inter-institutional linkages	86.3
10	Stakeholder participation	83.4
C	**Common property resource-based projects**	
1	Cultivable land owned	90.5
2	Private investment in agriculture	88.6
3	Family income from sources other than agriculture	88.2
4	Possession	85.0
5	Benefit receipt	82.7

Source: Survey Data

3.3.7. Operationalisation and Measurement of Independent Variables of Sustainability

3.3.7.1. Age

Age is operationally defined as the number of completed years of life of the respondent at the time of the survey. The scoring pattern followed to measure this variable consisted of 7 statements with corresponding weightage score to more productive ages of labour (Appendix II).

3.3.7.2. Education

Education of a respondent refers to the number of years of formal learning possessed. In this study, a modified version of the scale developed by Trivedi (1963) is used to measure educational status. The scores ranged between 0 and 5 (Appendix II).

3.3.7.3. Annual Income

Annual income refers to family income, *i.e.*, the total earnings of all family members of the respondent in terms of money for one year. This is obtained by adding the income earned by all adult members of the family from all sources for one year. The score assigned to various levels of income ranged from 1 to 6 (Appendix II)

3.3.7.4. Economic Motivation

Economic motivation refers to the extent to which a beneficiary is oriented towards profit maximisation and the relative value him / her places on monetary gains. The scale developed by Supe (1969) is used to measure economic motivation (Appendix II).

3.3.7.5. Credit Orientation

Refers to the orientation to avail credit by the respondent beneficiary. It is measured by using the scale developed by Beal and Sibley (1967) with modifications. The scale consisted of five items. The first and last items are measured in 'Yes' or 'No' response with scores 2 and 1 respectively. The second item is measured in four-point continuum as 'Very

Difficult', 'Difficult', 'Easy', and 'Very Easy' with scores 1, 2, 3 and 4 respectively. The third item is measured in a four-point continuum as 'Very Badly', 'Badly', 'Fairly', 'Very Fairly', with scores 1, 2,3 and 4 respectively. Fourth item is measured in a four-point continuum of 'Strongly Agree', 'Agree', 'Disagree' and 'Strongly Disagree' with scores of 4, 3, 2 and 1 respectively. Summation of these scores is the credit orientation score of the respondent. The possible score ranges between 5 and 16 (Appendix II).

3.3.7.6. Innovation Proneness

Innovation proneness of a respondent refers to his keenness in accepting new ideas and seeking changes in his operations and to introduce such changes into their project when practical and feasible. It is measured using a scale developed by Surendran (2000) and modified to suit the present assessment. Three categories are used comprising of a total of 9 statements. Out of the 9 statements, 4 are positive and 5 are negative. The statements are measured on a three-point continuum, such as 'High', 'Medium' and 'Low' The most liked statement is scored 3 and the least liked is scored 1, and the medium level scored 2. The scoring is in the reverse order for negative statements. (Appendix II).

3.3.7.7. Risk Orientation

Refers to the degree to which the respondent is oriented towards encountering risk and uncertainty in adopting new idea in the project. It is measured using a modified version of the scale developed by Supe (1969). The scale consisted of six statements of which one statement is negative. The scoring is on a five point continuum as 'Strongly Agree' (5), 'Agree' (4), 'Undecided' (3), 'Disagree' (2), and 'Strongly Disagree' (1) for positive statements and is reversed in the case of negative statements. The sum of the scores of each statement is the score of the risk orientation of the respondent. The possible score ranges from 6 to 30 (Appendix II).

3.3.7.8. Achievement Motivation

Refers to the determination of beneficiaries to do good work and attain a sense of accomplishment. It is measured by applying the achievement motivation scale developed by Desai (1981). The scale consisted of five incomplete sentences, each having three choices and the respondents have to choose answers felt appropriate, one of the choices indicated high achievement motivation. Farmers who responded with proper choice for each of the five sentences are given a score of '2' and for other choice '1' each. Achievement motivation of the respondent is the summation of scores obtained (Appendix II).

3.3.7.9. Unit Size

Refers to the extent of project unit possessed by the respondent (e.g., if agricultural project, the farm size and if cattle insurance, total number of cows owned). The scoring pattern of the project unit owned by the respondent depends on the nature of operation, which the stakeholder is put to, with respect to the benefits received to a single unit. Score ranges from 1 to 5 for various units of production in possession (Appendix II).

3.3.7.10. Project Perception

This variable is defined as the beneficiary's recognition of the stimuli and the interpretation about the importance of project towards one's development and the general regional development. A questionnaire is developed containing 9 statements and used to collect necessary information regarding project perception. Out of the 9 statements, 7 are positive and 2 are negative. Scoring pattern followed a five-point continuum such as 'Strongly Agree', 'Agree', 'Un Decided', 'Disagree', 'Strongly Disagree', with scores ranging from 5 to 1. The negative statements are scored in the reverse order (Appendix II).

3.3.7.11. Cosmopoliteness

Refers to the degree to which the beneficiary is in contact with outside village with the belief that all the needs of an individual cannot be met with in his own village. A modified version of the scale used by Desai (1981) is used to measure Cosmopoliteness. (Appendix II).

3.3.7.12. Scientific Orientation

It implies the respondents' tendency to use scientific methods in his project activities. It is measured using a modified version of the scale developed by Supe (1969). The scale consisted of 6 statements and the score is assessed on a five-point continuum such as 'Strongly Agree', 'Agree', 'Undecided', 'Disagree', 'Strongly Disagree'. The scoring is reversed in the case of negative statements. Summation of the all the scores is the measure of scientific orientation of the respondent (Appendix II).

3.3.7.13. Operational Experience

It refers to the total number of years the respondent beneficiary has been engaged in his operation, similar to the project sanctioned to him. The scoring pattern followed for assessing operational experience consisted of five statements with corresponding values of 1 to 5 (Appendix II).

3.3.7.14. Entrepreneurial Behaviour

This variable is defined as the ability of the project beneficiary to exploit opportunities and initiate activities to increase income from his/her operation. Entrepreneurial behaviour of the respondent is assessed using statements developed for the purpose and scored on a five-point continuum such as 'Strongly Agree', 'Agree', 'Undecided', 'Disagree', 'Strongly Disagree', ranging from 5 to 1. The score for negative statement is in the reverse order (Appendix II).

3.3.7.15. Institution-Size

Refers to the specific number of members in the institution. The major three types of institutions such as group farms, self-help groups and schools have different structural patterns with respect to the concerned productive sector projects assigned to them. Hence, institution-size is assessed giving relative definitions and corresponding scores. For group farms, the normal membership ranges between 25 and 200, for self-help groups and the 'agricultural clubs' in schools, the membership ranges between 10 to 25. Thus the scores for three different institutions such as group farms, SHGs and Schools as per four statements ranged from 1 to 4 (Appendix II).

3.3.7.16. Institutional Action Plan

Refers to the availability of specific plan of action for the institution. This is assessed using three statements, of which two are rated in a three-point continuum such as 'Agree', 'Undecided' and 'Disagree', and one with 'Yes' or 'No' answer (Appendix II)

3.3.7.17. Lobbying Power

This variable measures the degree to which the institution can exert pressure and influence in promoting policies to their advantage. It is assessed using a schedule developed for the purpose. The schedule consisted of five statements. Responses to four statements are given as 'Yes' or 'No' with score 2 and 1 respectively and the fifth statement is dealing with the type of persons who are members of the governing body of the institution. The three options to that statement is MLA, Panchayat representative and Task force member and the score assigned to each option is 3, 2 and 1 respectively (Appendix II).

3.3.7.18. Incentives

Refers to subsidies and other assistance provided by government and other agencies to motivate members of the institution in their operation. It is measured using a schedule

developed for the purpose. The schedule consisted of 3 statements. The responses to these statements are obtained in a five-point continuum ranging from 'Strongly Agree' to 'Strongly Disagree'. The scoring pattern is 5,4,3,2 and 1 respectively and this is reversed in the case of negative statement. Summation of the scores of the three statements formed the score of incentives (Appendix II).

3.3.7.19. Risk Compensation

Refers to the extent of assistance, which the beneficiaries are likely to receive for project failure due to the influence of some external forces. It is measured using a schedule developed for the purpose. The schedule consisted of two positive and one negative statement. Responses to these statements are obtained in a three-point continuum as 'Always', 'Sometimes' and 'Never' and carried a score of 3, 2 and 1 respectively. The scoring is reversed in the case of negative statements. Summation of these scores formed the Risk compensation score (Appendix II).

3.3.7.20. Political Determinism

Refers to the degree to which importance is given to political consideration in the functioning of the institution. It is measured using the schedule developed for the study. There are three positive and two negative statements in this schedule with a possible answer of 'Yes' or 'No' bearing scores 2 and 1 respectively (Appendix II).

3.3.7.21. Infrastructure Facilities

Refers to the built-up infrastructure amenities available with the institution which reduces additional investment while implementing the project. Infrastructure facilities of a particular institution is measured using the schedule developed for the study. It consisted of 2 positive and 2 negative statements with a possible answer of 'Yes' or 'No' having scores 2 and 1 respectively, reverse scores for negative statements (Appendix II).

3.3.7.22. Community Support

Refers to the degree with which the community cares the functioning of the institution. This could be achieved based on social commitments of the institution and also through the consistency in delivering its services. This concept is quantified using a schedule developed for the purpose. The schedule included 1 negative and 3 positive statements. The scores for positive statements are 2 and 1 respectively for 'Yes' and 'No' answers and reversed for negative statements (Appendix II).

3.3.7.23. Inter-Institutional Linkages

Refers to the extent to which similar institutions in the village maintains interaction and cooperation for mutual development. The schedule used to assess inter-institutional linkages comprised of 3 statements with a possible 'Yes' or 'No' answer and the scores assigned is 2 and 1 respectively (Appendix II).

3.3.7.24. Stakeholder Participation

Refers to the degree to which the members of the institution have control over the decision making, implementation, receipt of benefit and evaluation mechanism of the institution. The schedule developed to measure stakeholder participation of institutions seeks 'Yes' or 'No' answer (scores 2 and I respectively) for 5 statements (Appendix II).

3.3.7.25. Cultivable Land Owned

Refers to the area of land that could be put to agricultural use, owned by the beneficiary. This is assessed with the help of five statements with corresponding scores ranging from 1 to 5 (Appendix II).

3.3.7.26. Private Investment in Agriculture

Refers to the amount invested each year for agricultural purposes in an average area of 1ha of land. This is estimated by way of a schedule developed for the purpose. The

average amount of investment in agriculture is obtained through various focus group discussions conducted in the study region (Appendix II).

3.3.7.27. Family Income from Sources other than Agriculture

Refers to the income of each earning member of the family in a year, from various sources other than agriculture or allied activities. This is estimated using a schedule developed for the purpose (Appendix II).

3.3.7.28. Possession

Refers to the degree of possession of the common property by the stakeholder. This is assessed using a schedule developed for the purpose (Appendix II).

3.3.7.29. Benefit Receipt

Refers to the extent of benefits received from a standard measure of common property resource. Benefit, in this context is estimated in terms of income earned as a percentage of the total income earnings of the stakeholder. The statements used to assess the level of benefit receipt are given in Appendix II.

3.3.8. Method of Study

In this study, a 'multimethod approach' (Rossi *et al.*, 1993 and Chelimsky, 1995), is combined with a procedure that is comparative in several aspects. Different methods of data collection are employed for providing a broad basis of substantiation of findings. A document and record analysis (including all available records about the investigated projects) has been used in order to study the planning and implementation phases of the projects. This is in addition to the retrospective intensive interviews with the project participants both on the donor and recipient sides. The following survey procedures are used for analysing the phase following the completion of the project assistance:

a) *Document analyses* – records available at the Panchayat regarding the project such as 'project details' including objectives, implementation procedures, budgetary allocation and monitoring/evaluation details.

b) *Direct observation and on-site inspection* – the present status of the project is better understood with the direct observation and on-site inspection of the sites. This includes paddy and vegetable farms, cattle sheds, organic (effluent) treatment plants and irrigation wells.

c) *Intensive interviews* – with experts connected to the project. This includes members of the respective task-forces (working groups) who formulated the project, implementing personnel, beneficiary committee convenors, key informant social activists and people's representatives (No.=30).

d) *Standardised interviews* – with beneficiaries of the project including individual beneficiaries, members of the project management committee, in case if the project is institution-based and immediate beneficiaries, in case if the project is common property resource-based [N=48 institutions (26 self-help groups, 19 group farms (*Padasekharam*) and 3 educational institutions) and 337 direct beneficiaries.

Chapter 4

LOCAL SELF GOVERNANCE IN KERALA

CHAPTER IV
LOCAL SELF GOVERNANCE IN KERALA

Kerala, in its three-tier structure of Panchayati Raj, has 991 Grama Panchayats, 152 Block Panchayats and 14 District Panchayats. Urban Kerala has 54 Municipalities and 5 Corporations. The genesis of local governance in Kerala is studied in two distinct periods, such as the period before the formation of Kerala State, and second, the period after the formation of Kerala state in 1957. Kerala has certain peculiarities in the mode of fiscal decentralisation and the consequent transfer of funds to the local governments for the implementation of various development-oriented projects and this has been presented in the last part of this section.

4.1. Genesis: Period before the Formation of Kerala state

The modern State of Kerala came into existence on 1st November 1956 and a uniform system of local body administration came into being throughout the three regions, such as, State of Travancore in the South, State of Cochin in the Central and Malabar District of Madras Residency in the North, following the enactment of the Kerala Panchayat Act and the Kerala Municipality Act. The evolution of local bodies in northern Kerala followed the legislations in the Madras Presidency. As a part of the British legacy, local self governments all over India are originated for urban purposes. The recommendations of the Royal Army Sanitary Commission to meet the civic requirements are vital factors which contributed to the Madras Towns Improvement Act of 1865 (Santha, 1993). As per the provisions of the Act of 1865, municipalities are established by 1867 in the major urban centres of Malabar, such as in Calicut, Kannur, Tellicheri and Palakkad. Fort Cochin, an enclave which was directly governed by the British in Central Kerala also came under the

provisions of the Act and lead to the establishment of a Municipality. The Town Improvement Act of 1871 provided for election of Councillors.

Madras Municipal Act of 1884 was passed following the noted Rippon Resolution. The Act has extended the scope of elected councillors to three-fourth of the total membership. The Act further enlarged the taxation powers and functions of municipalities. The Act was subsequently amended in 1920 and 1930 and the scope for democratic process and functions of municipalities has been widened.

Another major breakthrough in the formation of local self governments was the provisions of the Malabar District Board, which was originated from the Local Fund Circle under the Local Funds Act of Madras 1871. Local Boards which managed the local funds were entrusted with the responsibility of constructing and maintaining roads and other ways of transport, hospitals and schools, drainage and water supply and other local works (Government of Kerala, 1958). The Madras Local Boards Act of 1884 envisaged a three-tier structure and the provision for election. A revenue village or group of villages constituted a *Union*, the lowest administrative unit. *Taluk* Boards at the taluk level and *District* Boards at the District level are respectively above the Unions and the expenses of these administrative bodies shall be met from taxes on land, houses, cart and animals.

In 1920, the Madras Village Panchayat Act and the Madras Local Boards Act were passed, which paved way for the development of local bodies at the rural strata. During the initial periods, the *taluk* boards and District boards were presided over by a revenue officer and the District collector respectively. By 1930, the Malabar District Board became an elected body with an elected President and the first President was a local landlord. Within a short period of time, the District boards gained attention and became a part of the nationalist political movements and the Indian National Congress won the elections to the Boards in

1934. During the proceeding election, left parties displayed their significance and by 1954 attained a clear majority. The importance of *taluk* boards were declined and resulted in its abolition and consequently District Boards became core local bodies (Menon, 1962). The Madras Village Panchayat Act of 1950 enhanced the powers of the local bodies to a great deal, and is a major step forward after India got independence. A *panchayat* was constituted in every village with a population of 500 and above and reservations were made for membership of Scheduled Castes and Tribes. The Act provided for direct election for the office of the President. The number of *panchayat* members varied according to the population of the *panchayat*. On the same criterion the *panchayats* were divided into Class I and Class II (Menon, 1962). The *panchayats* were entrusted with various functions, both obligatory and voluntary. Obligatory functions include construction and maintenance of public roads, public lighting, drainage, sanitation, drinking water and preventive health measures. The voluntary functions were having a larger domain and related to education and health. The major source of revenue was taxes on building, professions, vehicles and entertainment. The *panchayats* were also eligible for a limited amount of grant from the government.

The initial steps towards forming local bodies in Travancore State could be observed in the Town Improvement and Conservancy Regulation of 1894, which made provisions for establishing Town Improvement Committees in Trivandrum, Nagercoil, Alleppey and Kottayam. In the year 1912, principle of election was introduced, though limited to taxpayers only. Though sanitation was the main focus of activity of the Committees, functions such as construction and maintenance of public wells, roads and market places were also undertaken (Menon, 1962). The Municipal Act of 1920 expanded the scope of urban local bodies to education and health sectors. The government had nominated an

official as President to the Thiruvananthapuram City and other Councils selected their own Presidents. During 1941, Thiruvananthapuram was made a City Corporation with an elected Mayor.

Local self-government in rural areas, though was introduced in1930, became fully operational with the Travancore Village Panchayat Act of 1935. The Act empowered the government to declare any revenue village or group of villages to be a *panchayat* with an elected or nominated committee to perform a variety of civic duties. The obligatory duties included sanitation, maintenance of roads and provision of drinking water, where as promotion of primary education, agriculture, cattle rearing and cottage industries were considered discretionary functions. The Travancore Village Union Act of 1940 introduced rural local bodies which were comparatively less powerful than the Village *Panchayats* (Charvak, 2000)

In the State of Cochin, the Municipal and Sanitary Improvement Regulations of 1910, was considered as the firm step towards introducing urban local bodies. Following the Regulation, a number of town councils were set up with representation for elected members and the President was nominated by the government. During 1920s, the scope of elected representation and powers of the councils were enhanced. A noticeable development during the period was the attempts towards removing gender discrimination, as women were allowed to vote and be elected (Menon, 1962). Rural local bodies in the State of Cochin originated with the *Cochin Village Panchayat Regulation* of 1914. Following the Regulation, nominated *Panchayat* Committees were constituted on an experimental basis in selected villages. The principle of election was introduced for the rural local bodies in 1922. Later the legislations of both Travancore and Cochin, in the pre-independence period were superseded by the Travancore Cochin Panchayat Act of 1950 and elections were held on

1953. During the formation of Kerala State, in 1957, there were 495 reconstructed panchayats in Travancore-Cochin area and 399 panchayats in the Malabar area, though these panchayats worked under different legislations, such that a two-tier arrangement was followed in Malabar and a single-tier arrangement was followed in Travancore-Cochin region.

4.2. Genesis: Period after the Formation of Kerala State

After the formation of Kerala State in 1957, the first election held to the newly constituted state Assembly of Kerala favoured the Communist Party under the leadership of E.M.S.Namboodiripad, who became the first Chief Minister. The state had witnessed a number of reforms in several fields such as agrarian relations, education, home affairs and also in development administration. An Administrative Reforms Committee (ARC) headed by the then Chief Minister suggested "measures for decentralisation of powers at various levels with a view to effective participation of local self-governing institutions...in the administration" (Government of Kerala, 1958). A two-tier system of Panchayat administration was recommended by the ARC, Village Panchayats at the bottom and District Councils at the district level. The Committee recommended for the integration of revenue and development functions and considered not only as agents of development but also as self-governing units. Based on the recommendations of ARC, two Bills, such as *Kerala Panchayat Bill* and *Kerala District Council Bill* were laid in 1958. The District Council Bill proposed for a strong self-governing body at the District level. However, the Bill could not be enacted since the State Legislative Assembly was dissolved following the noted 'liberation struggle', an anti-communist movement. The proceeding government which came to power through mid-term election passed the Kerala Panchayat Act, 1960 and

the Kerala Municipal Corporation Act, 1961. Though the recommendations made by the ARC did not find much place in the new Acts, the functions and financial resources of the local bodies were significantly enhanced. Despite the provisions which envisaged the panchayats as catalysts for any government activity in any locality, the local bodies could discharge only the traditional civic functions defined by the Act as compulsory functions. Some of the major defects of the Act were the absence of an intermediate tier at the District or Block level which could integrate development activities with the *Panchayat Raj* system and as against the Act, the government never exercised any provisions to organise the panchayats for executing the numerous optional development duties (Charvak, 2000).

In 1964, the then Congress Ministry had attempted to pass a new legislation, though not enacted due to the termination of the Ministry, which followed the recommendations of the Balwantrai Committee. Accordingly, Panchayat Union Councils with planning and development functions at the block level were proposed to be established by the election. At the same time, role of *Zilla Parishad* was supposed to be of an advisory board only, with Collector as Chairperson and officials and the Presidents of Panchayat Union Councils as the members.

Subsequent to the sworn-in of the Left Front Government, in 1967, a new Kerala Panchayat Raj Bill was introduced, which envisaged a two-tier structure with *panchayats* as the basic unit and *Zilla Parishad* at the district level. *Zilla Parishads*, visualised as an executive agency, was further strengthened in accordance with the recommendations of the legislative select committee and later renamed as *District Council.* Apart from the routine responsibility of that of a development agency, the district councils were delegated with duties such as collection of taxes, registration, labour welfare and also police administration. Though this Bill was lapsed due to the Ministry's fall, it was later reintroduced as Kerala

District Administration Bill, 1971, but again this Bill also was lapsed. Later in 1978, the Bill was again introduced with modifications and was passed in 1979. The Left Democratic Front Government which came to power in 1980 issued many notifications and rules as a prelude to the implementation of the Act. The succeeding Congress Ministry had revised the Bill for which a Special Advisor to advise on measures to be undertaken for democratic decentralisation at district and lower levels. A comprehensive report submitted by the Special Advisor reviewed the provisions of the 1979 Act and suggested a set of modifications. These recommendations though were not fully implemented but formed the base of 1991-1992 experiment in District Council. The scope of the powers and functions of District Councils was restricted by government's arbitrary right to interfere and lay down conditionalities (Ramachandran, 1994). The first ever election to the District Council was held on January, 1991 and the ruling Left Front had cornered all seats except one District seat. Subsequent to the 73rd and 74th Constitutional Amendments of 1992, the District Councils were disbanded.

The salient features of the 73rd and 74th Amendments were the constitution of Grama Sabha in a village or group of villages; constitution of Panchayat at village, intermediate and district level, direct elections to all seats in Panchayats at village and intermediate levels; reservation of seats and offices of chairpersons for scheduled castes and tribes in proportion to the population in the Panchayat at each level; reservation of not less than one third of seats for women; devolution by the State Legislature of powers and responsibilities upon the panchayat with respect to the preparation of plans for economic development and social justice and for implementation of development schemes; sound finance of the panchayat be securing authorisation from State Legislatures for grant-in-aid from the Consolidated Fund of the State. In addition, a Finance Commission has to be constituted

once every five years to review the financial position of the Panchayats and make suitable recommendations to the State on the distribution of funds between the State and the local bodies.

The Kerala Panchayat Raj Act 1994 envisaged the implementation of development projects for economic development and social justice in accordance with the powers and responsibilities of the panchayats as described in the 11th Schedule (Article-243G) of the Constitution. A three-tier Panchayat Raj system came into existence in the State on October 2, 1995 and the ruling Left Front Government has versioned it as People's Plan Campaign for the Ninth Five Year Plan, which ensured people's participation. The State Planning Board has set stage for the integration of various micro level organisations such as, self-help groups / neighbourhood groups, working groups, beneficiary committees, ward development committees and various farming societies (Sadanandan and Jayan, 2004). Chathukulam and John (2002) assert that a number of changes were introduced by the newly sworn-in United Democratic Front Government from May 2001 onwards, without altering the basic methodology of people's planning. The major changes forwarded by the UDF Government is as follows,

a) Introduction of Area Development Scheme assigning each member of the legislative assembly (MLA) a sum of Rs.25 lakh, which has not been integrated with Panchayat plans.

b) Transfer of the Tribal Sub Plan (TSP) funds completely from the Panchayat to the department on grounds of poor implementation record.

c) Changes in the membership pattern of the task forces from 10-12 persons with one-third representation for women and proportionate representation

for the scheduled castes and tribes to not less than five members, with silent remarks on representation of women and scheduled categories.

d) District Planning Committees (DPCs) were authorised to scrutinise district panchayat projects thus segregating the responsibility of District Level Expert Committees (DLECs).

e) Re-deployment of surplus staff, especially engineers to local bodies

f) Fixation of plan funds to be given to local bodies as equivalent to one-third of the total plan size of the State.

The Peoples' Plan Campaign is envisioned as a scientific and systematic model of participatory planning as it identified the felt needs through gram sabha, a venue for the assembly of rural residents. Followed by a brief inaugural session of the gram sabha, the participants split into nearly 12 groups for discussion. The major development sectors confined for group-wise discussion are agriculture, animal husbandry, fisheries, industry, education, health, drinking water, women's welfare, scheduled castes/tribes, culture, cooperation and resource mobilisation. During the second phase of the programme an extensive secondary data collection regarding various development sectors was initiated mainly through participatory rural appraisal techniques; transect walks are largely employed for an exhaustive review of geographical and environmental peculiarities. These entire database and the needs of the rural folk are put together to form a comprehensive development report for every local bodies. Based on the contents of these reports, the development seminars organised in each panchayat discussed about the problems and potential of regional development. These development seminars serves as a common platform for the rural stakeholders, bureaucrats as well as development experts, where the felt needs of the rural folk and also the location specific problems are prioritised to a

possible set of development projects. The seminars conclude with the selection of 10-12 task forces meant for drawing specific projects in respective sectors. The third phase of the campaign begins with the formulation of task forces with the pronounced target of preparing specific projects having quantitative objectives, beneficiary details including their selection, technical and financial feasibility, organisational as well as monitoring and evaluation including descriptive social-cost benefit analysis. The projects prepared by the task forces would be presented before the gram sabha for further discussion and approval, along with a list of beneficiaries. These participatory plan projects find its way to implementation after getting the formal approval from the Block Level Expert Committee (BLEC), a body of social servants, grant technical sanction. Finally, a project gets its approval from the district planning committee (DPC) for implementation and these are the 'in principle' events of the peoples' planning in the state.

4.3. Financial Devolution and Ninth Five Year Plan

The State Government initiated the Ninth Five Year Plan as 'People's Plan' and took a significant step to devolve 35 to 40 per cent of the development funds of the State to the three-tier Panchayats and Municipalities, primarily on the basis of the criterion of population, with due weight given to panchayats having sizeable population belonging to Scheduled Castes and Scheduled Tribes. The local governing bodies in Kerala have been assigned own taxes such as property tax, profession tax, entertainment tax and service tax. They are also empowered to collect user charges. Further, in accordance with the recommendations of the First State Finance Commission, surcharge on stamp duty, the whole of basic tax and 20 per cent of the net collection of motor vehicle tax are devolved to local governments. The unique feature of Kerala's decentralisation is the devolution of an

untied plan grant equivalent to above one-third of the approved plan size of the State and this comes to Rs. 1,317 crore during 2003-2004 (Government of Kerala, 2004). High degree of autonomy exists in the use of transferred resources. Local governments could decide any scheme and prepare detailed projects according to their priority and within the framework prescribed. The noteworthy features of Kerala's financial devolution to local governments are given below (Government of Kerala, 2002),

1. The quantum of Plan funds earmarked for local governments is the highest in the country.

2. The entire Plan grant is investible. This can be called "pure money", as it does not carry any staff salaries or other administrative costs. (Normally at the State level 20 to 25 per cent of Plan is taken away by such commitments.).

3. All the Plan grants due to local governments are separately budgeted in a document given as Annexure IV of the State Budget. Since it is passed by the Legislature it is non-divertible for other purposes by the executive.

4. Contrary to universal practice, it is the Village Panchayats which get the bulk of the Grants with nearly 70 per cent of the rural share going to them and the District and Block Panchayats only sharing the remaining 30 per cent more or less equally.

5. Every single rupee devolved to local governments whether under Plan or other categories is given as per a transparent formula and there is no room for patronage or partisanship in allocation of resources to local governments.

6. A flow of funds procedure has been designed. The funds flow in four installments. A local government has to spend at least 75 per cent of its allocation during a year failing which the shortfall would be reduced from the next year's allotment.

During the Ninth Five Year Plan period (1997-2002), the total allocation of plan grant-in-aid was Rs.4,614 crore. However an amount of Rs.4,130.25 crore only was released during the period. Out of the total release, the local governments were actually spent an amount of Rs.3,455 crore (86.35 per cent). The category-wise release and expenditure of plan grant-in-aid to local governments during the Ninth Five Year Plan period in Kerala is given in Table 4. During the Ninth Five Year Plan period, the highest level of expenditure was recorded for Tribal Sub Plan category (92.21 per cent), followed by general category (85.03 per cent) and comparatively lower level of expenditure was observed for Special Component Plan segment of plan grant-in-aid (Figure 1).

During the Ninth Five Year Plan period (1997-2002), the Village Panchayats in Kerala received a total amount of Rs.2684 crore, out of which they could spent an amount of Rs.1940 crore (72.27 per cent). Obviously, this level of expenditure is comparatively lower than that of the aggregate expenditure pattern of all the local governing bodies put together. Category-wise analysis also reveals that the level of expenditure under each category, General (74.94 per cent), SCP (64 per cent) and TSP (62.52 per cent) were all lower than that of the respective level of expenditures for the whole local governing bodies in Kerala (Table 4 and 5). Expenditure pattern of all the three categories of grant-in-aid during the Ninth Five Year Plan period has followed a similar trend. The level of expenditure was the highest during the First Year (1997-1998), which was mainly due to the extended period of up to June 30, allotted by the government in order to spend the unspent balances. The levels of expenditures reach all time low during the Fifth Year of the Five-

Year Plan period (2001-2002). From the Third Year Plan period (1999-2000) onwards, a decreasing trend is evident in the expenditure pattern of plan grant-in-aid. In the last two years of the Plan period (2000-2001 and 2001-2002), the level of expenditure of the TSP has slightly improved in comparison to that of the SCP (Figure 2).

Table 4- Category-Wise Release and Expenditure of Plan Grant-in-Aid for Local Governing Bodies in Kerala during Ninth Five-Year Plan (1997-2002)

(Rs.in crore)

Sl.No	Category	Release	Expenditure	Percentage
1	General Sector	3101.75	2637.54	85.03
2	Special Component Plan	888.25	688.05	77.46
3	Tribal Sub Plan	140.25	129.33	92.21
	TOTAL	**4130.25**	**3454.92**	**83.65**

Source: Government of Kerala (2004)

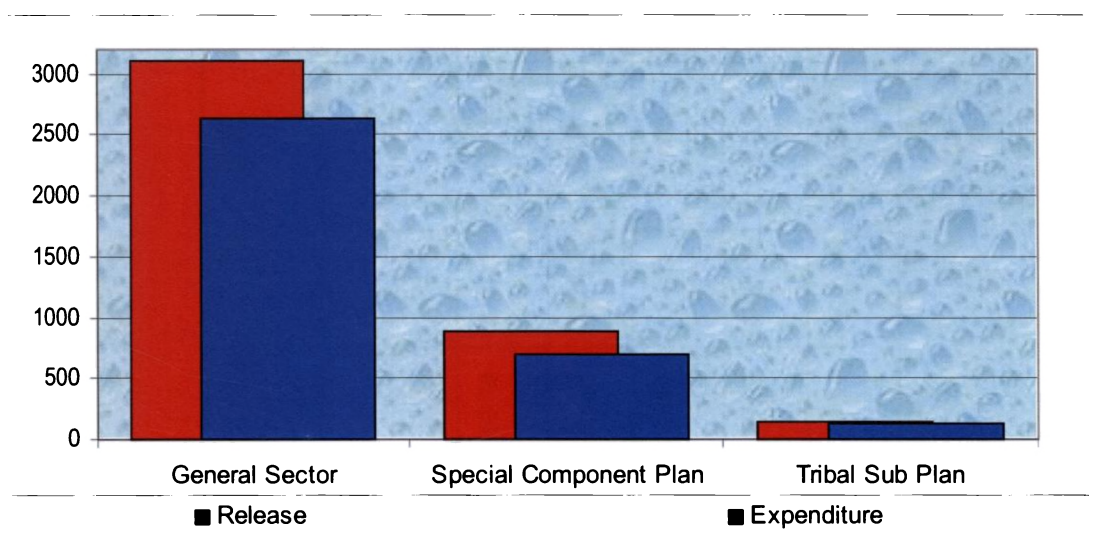

Figure 1 – Release and Expenditure of Grant – in – Aid for Local Governing Bodies in Kerala

Table 5 - Release and Expenditure Pattern of Grant-in-Aid of Village Panchayats in Kerala (1997-2002)

(Rs.Crore)

YEAR	GENERAL			SCP			TSP			TOTAL		
	Release	Expenditure	percent	Release	Expenditure	percent	Release	Expenditure	percent	Release	Expenditure	percent
1997-1998	301.66	286.32	94.91	103.30	96.67	93.58	8.71	7.00	80.37	413.67	390.00	94.28
1998-1999	406.61	259.03	63.70	112.12	63.11	56.29	15.68	8.04	51.28	534.41	330.17	61.78
1999-2000	525.43	426.50	81.17	132.58	97.18	73.30	22.08	15.83	71.69	680.10	539.50	79.33
2000-2001	427.65	333.26	77.93	114.11	66.02	57.86	20.14	12.22	60.68	561.90	411.50	73.23
2001-2002	378.05	223.13	59.02	108.25	42.05	38.85	7.61	3.31	43.50	493.91	268.49	54.36
TOTAL	2039.40	1528.24	74.94	570.36	365.03	64.00	74.22	46.40	62.52	2683.99	1939.66	72.27

Source: Source: Government of Kerala (2004)

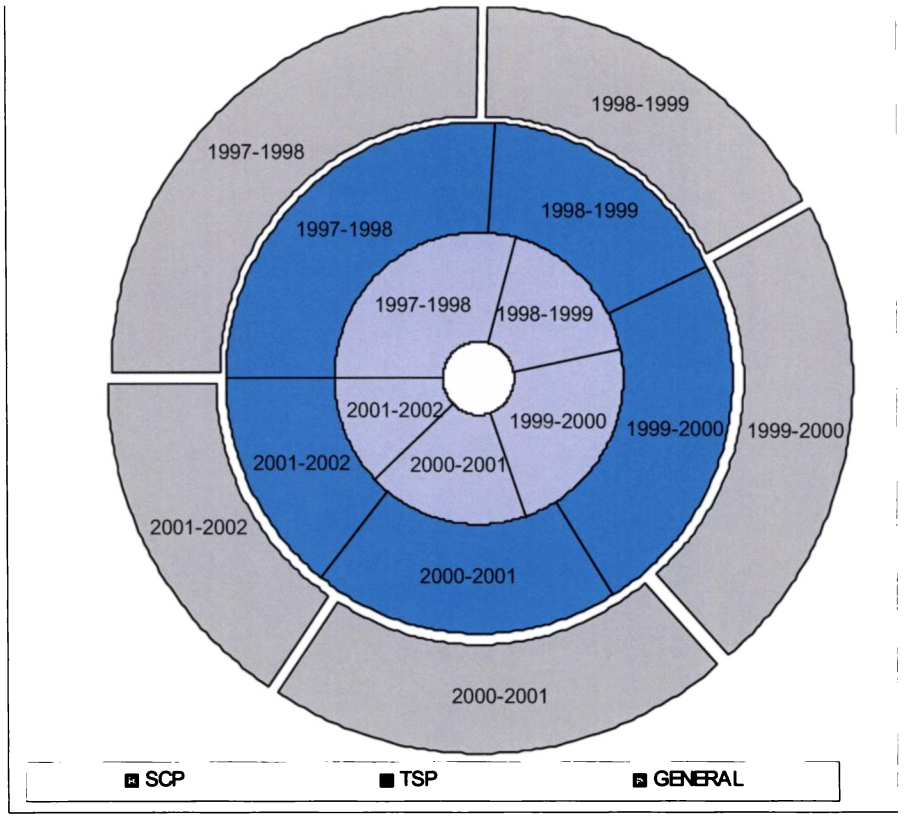

Figure 2 – Expenditure Pattern of Grant-in-Aid of Village Panchayats in Kerala

The evolution of local self governance in Kerala to the present form of *Panchayati Raj Institutions* (PRIs) through various experimental phases and subsequent Acts were lucidly described. The pioneer attempt in India in devolving financial resources to local self governing bodies has paved the way for a fruitful participatory planning approach.

Chapter 5

PEOPLE'S PLANNING IN CHEMPU PANCHAYAT

CHAPTER V
PEOPLE'S PLANNING IN CHEMPU VILLAGE PANCHAYAT

An overview of the People's Planning including the structure of participatory planning and the new institutions emerged as part of the planning processes in Chempu Panchayat has been described. The chapter also included a critical appraisal of the allocation and expenditure pattern of the plan outlay during the Ninth Five Year Plan period.

5.1. Chempu Panchayat: A profile

Chempu Grama Panchayat, spreads over a total area of 18.42 sq.kms, is one among the six Panchayats in Vaikom Block of Kottayam District. The Grama Panchayat is bounded by Ernakulam District in the North, Muvattupuzha River in the South, Vembanad Lake in the West and Velloor Panchayat in the East (Figure 3). As per the Panchayat Level Statistics 2001, the total population in Vaikom block is 1,17,754 with a positive sex ratio of 1,015 and an average density of 959 people per sq.km. The literacy rate in Vaikom is 92 per cent in which male and female accounts for 97 and 88 per cent respectively. There are 23,276 occupied residential houses in Vaikom, of which 3,360 (15.72 per cent) are in Chempu. Out of this, 1,160 are thatched ones and 414 are concreted ones. The total population in Chempu Panchayat 18,828 in which 9,490 are males and 9,338 are females. Among the six Panchayats in Vaikom Block, only Chempu Panchayat has an unfavourable sex ratio (964) (Table 6). The literacy rate of males is 96 per cent and that of females, 84 per cent. The Panchayat had a gross income from all sources amounting to Rs. 14.67 lakh during 1995-96 financial year, a year before the People's Plan Campaign was launched.

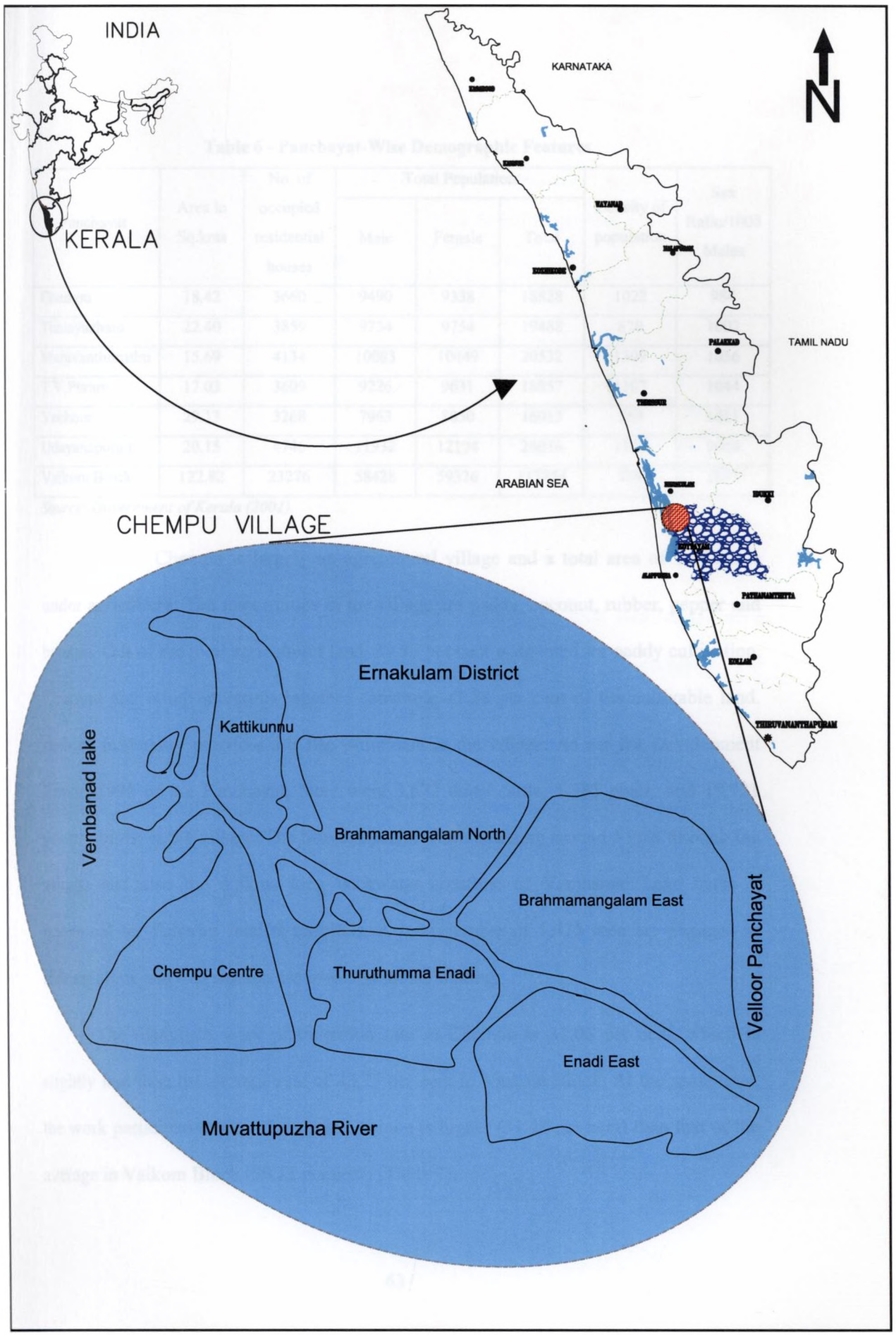

Figure 3 - Map Showing Chempu Panchayat

Table 6 - Panchayat-Wise Demographic Features

Panchayat	Area in Sq.kms	No. of occupied residential houses	Total Population			Density of population	Sex Ratio/1000 Males
			Male	Female	Total		
Chempu	18.42	3660	9490	9338	18828	1022	984
Thalayazham	22.40	3859	9734	9754	19488	870	1002
Maravanthuruthu	15.69	4134	10083	10449	20532	1309	1036
T.V.Puram	17.03	3609	9226	9631	18857	1107	1044
Vechoor	29.13	3268	7963	8050	16013	550	1011
Udayanapuram	20.15	4746	11932	12104	24036	1193	1014
Vaikom Block	122.82	23276	58428	59326	117754	959	1015

Source: Government of Kerala (2001).

Chempu is largely an agricultural village and a total area of 1,842ha is under agriculture. The major crops in the village are paddy, coconut, rubber, pepper and banana. Out of the total agricultural land, 33.87 per cent is devoted for paddy cultivation. Coconut and other intercrops together constitute 42.58 per cent of the cultivable land. Animal husbandry practices are also prominent in the village. As per the Development Report-1996 of the Panchayat, there were 3,672 dairy cattle, 1,385 goats, and 19,921 poultry birds, in the village. The Muvattupuzha river stretching around 5 kms through the village and also the 3.5kms long backwater coastline of Vembanad Lake make it congenial for fisheries related activities. A total number of 1,475 men are engaged in fishing alone and 823 women are involved in fish trading.

The aggregate work participation rate in Chempu is 37.06 per cent, which is slightly less than the average rate of 38.75 per cent in Vaikom Block. At the same time, the work participation rate of male in Chempu is higher (51.43 per cent) than that of the average in Vaikom Block (50.11 per cent) (Table 7).

Table 7 - Panchayat-Wise Work Participation

Panchayat	Work Participation Rate		
	Male	Female	Total
Thalayazham	48.42	31.70	40.50
Chempu	51.43	21.99	37.06
Maravanthuruthu	52.71	24.32	38.26
T.V.Puram	46.67	29.56	37.936
Vechoor	49.37	29.60	39.44
Udayanapuram	51.42	28.81	40.03
Vaikom Block	50.11	27.56	38.75

Source: Government of Kerala (2001).

5.2. Outline of Participatory Planning

The normative process of participatory planning begins with sector-based need identification in the Grama Sabha. This was followed by massive secondary data collection about these sectors from local offices, generation of local general and development history and conduct of transect walk. The data generated so were integrated into a Development Report, which was later discussed in a panchayat-level meeting, of around 250-300 persons, known as Development Seminars. This was followed by formation of task forces in each development sector with all members of the Panchayat heading one or the other of these task forces. Each task force was prepared projects and the Panchayat selected the projects for inclusion in the Annual Plan.

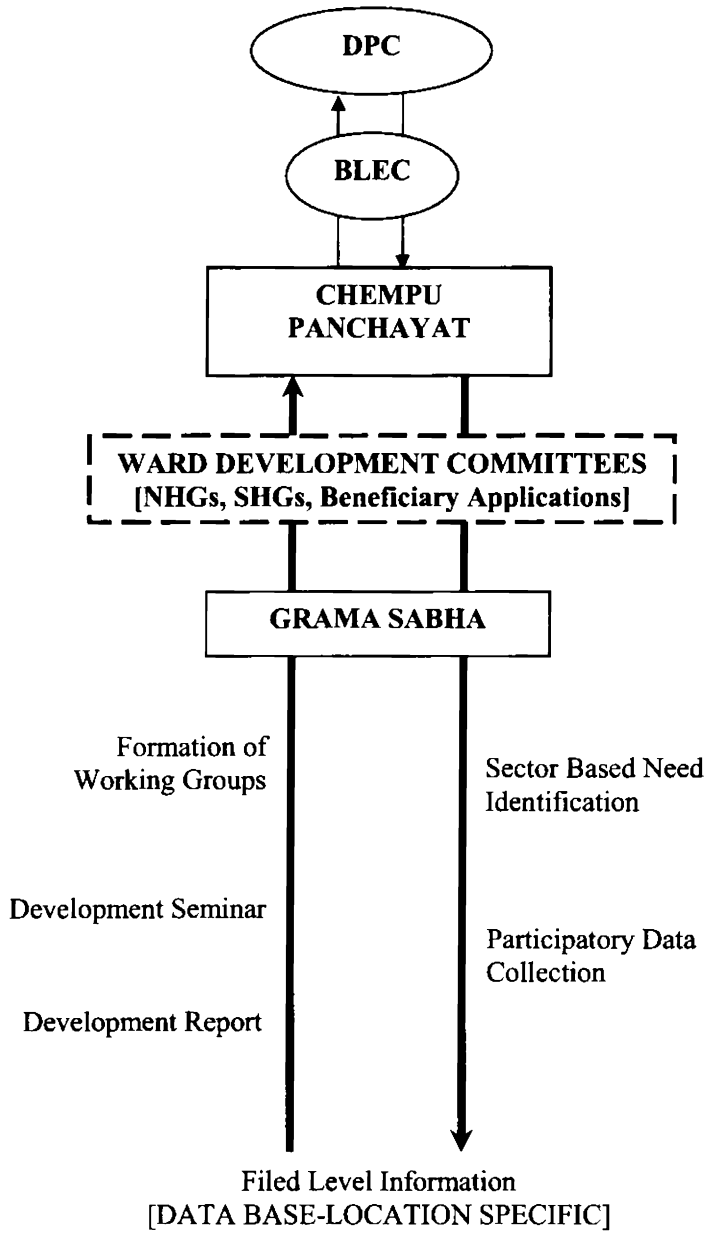

Figure 4 - Participatory Planning in Chempu Panchayat

This was the pattern followed in the first year and from the second year onwards the role of task forces was extended to assigning marks to beneficiaries of individual-based projects. From then onwards the panchayat plan and also the list of beneficiaries had to be placed before the Grama Sabha (John and Chathukulam, 2002). After the panchayat and Grama Sabha have approved the plan document, it sent for consideration by the Block Level Expert Committee (BLEC) and then to the District Planning Committee (DPC) for approval and technical sanction. Chempu Panchayat has followed the Planning Board norms in participatory planning. Moreover, they have empowered themselves with the efficient functioning of Ward Development Committees (WDCs), which was often paralleled the tasks of Grama Sabha or even working groups (Figure 4). Ward Development Committees were comprised of two elected representatives, one male and the other female, from each of the Neighbourhood Groups (NHGs) present in the ward. The Chairperson or President is the Ward Member and a secretary/convenor is elected from among the representatives of NHGs. The selection of beneficiaries belonging to the ward is done by the WDC and it is observed that when the list is presented to the Grama Sabha, nobody objects it given the objectivity of the selection process. Because of the existence and functional efficiency of the WDC as an intermediate mechanism, the Grama Sabha in the Panchayat merely functions as a body that grants approval to the decisions taken by the WDC. During the consecutive years, WDCs has made many postulates in framing development oriented project for the benefit of the community.

The planning process has provided the necessary platform for the emergence of several institutions such as Neighbourhood Groups and Self Help Groups. These people's institutions have made positive impact upon the participation of local people in grassroots

level planning. The first NHG in the panchayat was formed in November 1999 and at the time of the survey there were 79 NHGs. For every 40 to 50 houses there is a neighbourhood group. SHGs function under NHGs, such that there were 210 SHGs in the panchayat. Only two SHGs were formed during 1997, but the very next year that is in 1998 154 SHGs were formed. In the proceeding years, in 1999 and 2000, 38 and 16 SHGs were formed respectively. John and Chathuklam (2002) attributed this spectacular rise in the formation of SHGs during 1998-1999 as a direct result of the planning process since it was from this year onwards that 10 per cent of the funds were allocated for projects exclusively meant for women, under the head Women Component Plan (WCP). They also inferred that the participation in the Grama Sabha has recorded its highest after the formation of NHGs. Since 1997-98, the overall participation of the people in the Grama Sabha increased by 42.4 per cent. It should also be noted that the SHGs came during 1998-2000 period and NHGs during 2000-2001.

5.3. Plan Allocation and Expenditure Pattern

The plan share of the State Government is devolved to the local bodies in the form of grant-in-aid and is given on yearly basis. The fund is devolved into three broad categories such as general sector, Special Component Plan (SCP) for the development of Scheduled Caste and Tribal Sub Plan (TSP) for the development of Scheduled Tribes in a particular village. Grant-in-aid is one of the major sources of fund for planning for a panchayat. Apart from this, an yearly plan mobilizes funds from various sources such as 'own fund' of the panchayat, such as, revenue from taxation, levy, license fee, user fee etc., State and Central government sponsored programmes, loan amount from financial institutions and co-operative societies, voluntary contributions from general public and

beneficiaries of the project. The plan fund is distributed mainly among three development sectors such as productive, service and infrastructure.

5.3.1. First Year Plan Allocation (1997-1998)

During the First Year of the Plan, the Panchayat has allocated a total amount of Rs. 46,60,000 in which Rs. 15,34,900 (32.94 per cent) is allocated to productive sector, Rs. 18,44,600 (39.58 per cent) is allocated under service sector and Rs. 12,80,500 (27.48 per cent) allocated under infrastructure (Table 8).

5.3.2. Second Year Plan Allocation (1998-1999)

During the Second Year Plan period, the panchayat has allocated a total amount of Rs. 1,41,65,255. The allocation distribution among productive, service and infrastructure are Rs. 29,13,432 (20.57 per cent), Rs. 66,54,288 (46.98 per cent) and Rs. 45,97,535 (32.45 per cent) respectively (Table 10).

5.3.3. Third Year Plan Allocation (1999-2000)

The aggregate allocation during the Third Year of the People's Plan shows an inclination towards infrastructure sector. Out of the total plan allocation of Rs. 1,99,36,847 infrastructure alone received Rs. 86,25,155 (43.26 per cent) where as service sector got Rs. 62,77,840 (36.50 per cent) and productive sector, Rs. 40,33,852 (20.24 per cent) for implementing respective projects (Table 12).

5.3.4. Fourth Year Plan Allocation (2000-2001)

During the Fourth Year of the People's Plan the Panchayat has made a total Plan allocation of Rs. 1,83,80,276 of which Rs. 71,19,099 (38.73 per cent), Rs. 65,89,943 (35.86 per cent) and Rs. 46,71,234 (25.41 per cent) respectively among productive, service and infrastructure projects (Table 14).

Table 8 - First Year Plan Allocation (1997-1998), Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Productive	1105900	---	---	---	---	---	---	---	37000	392000	---	1534900
Service	436100	475000	---	218000	---	390000	---	---	2000	323500	---	1844600
Infrastructure	775000	300000	---	62100	---	---	---	---	143400	—	---	1280500
Total	2317000	775000	—	280100	---	390000	---	---	182400	715500	---	4660000

Source: Plan Documents, Chempu Panchayat.

Table 9 - First Year Plan Expenditure (1997-1998), Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Productive	605335	—	---	---	---	---	—	—	15000	52750	---	673085
Service	988620	269540	---	125696	---	---	---	---	2000	112300	---	1498156
Infrastructure	723045	432500	—	---	---	---	---	---	31000	---	---	1186545
Total	2317000	702040	---	125696	—	---	---	---	48000	165050	—	3357786

Source: Plan Documents, Chempu Panchayat.

Table 10 - Second Year Plan Allocation (1998-1999) , Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Opening Balance	---	72,960	---	---	---	---	---	---	---	---	---	72,960
Current Year	34,07,025	4,89,775	13,200	---	---	---	---	---	---	---	---	39,10,000
Total	34,07,025	5,62,735	13,200	---	---	---	---	---	---	---	---	39,82,960
Productive	12,81,785	---	---	50,000	10,00,000	---	---	---	3,00,335	2,81,312	---	29,13,432
Service	11,19,505	4,84,735	13,200	---	29,94,448	---	---	---	6,42,000	14,00,400	---	66,54,288
Infrastructure	10,05,735	78,000	---	56,800	7,00,000	8,12,000	9,00,000	---	3,45,000	---	7,00,000	45,97,535
Total	34,07,025	5,62,735	13,200	1,06,800	46,94,448	8,12,000	9,00,000	---	12,87,335	16,81,712	7,00,000	1,41,65,255

Source: Plan Documents, Chempu Panchayat.

Table 11 - Second Year Plan Expenditure (1998-1999) , Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Productive	6,74,059	---	---	---	---	---	---	---	2,22,500	3,01,220	---	11,97,779
Service	9,98,655	3,54,475	13,200	---	2,00,948	---	---	---	57,800	77,800	---	17,02,878
Infrastructure	7,16,481	---	---	33,338	65,000	1,00,000	---	---	94,830	---	---	10,09,649
Total	23,89,195	3,54,475	13,200	33,338	2,65,948	1,00,000	---	---	3,75,130	3,79,020	---	39,10,306

Source: Plan Documents, Chempu Panchayat.

Table 12 - Third Year Plan Allocation (1999-2000) , Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Opening Balance	10,17,830	2,08,260	---	---	---	---	---	---	---	---	---	12,26,090
Current Year	33,22,741	6,53,391	13,238	---	---	---	---	---	---	---	---	39,89,370
Total	43,40,571	8,61,651	13,238	---	---	---	---	---	---	---	---	52,15,460
Productive	20,74,860	20,000	---	---	1,36,000	5,00,000	50,000	---	7,55,000	4,97,992	---	40,33,852
Service	13,25,835	10,53,360	14,000	1,45,445	6,45,000	21,00,000	---	---	18,64,200	1,30,000	---	72,77,840
Infrastructure	7,64,950	1,91,125	---	9,26,800	14,35,000	32,27,000	---	4,00,000	8,98,841	81,439	7,00,000	86,25,155
Total	41,65,645	12,64,485	14,000	10,72,245	22,16,000	58,27,000	50,000	4,00,000	35,18,041	7,09,431	7,00,000	1,99,36,847

Source: Plan Documents, Chempu Panchayat.

Table 13 - Third Year Plan Expenditure (1999-2000) , Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Productive	14,07,353	10,000	---	---	---	---	---	---	3,95,765	1,22,680	---	19,35,798
Service	11,14,580	9,45,625	38,000	---	5,00,000	---	---	---	9,04,456	3,15,985	---	38,18,646
Infrastructure	11,40,079	73,591	---	3,15,750	---	83,500	---	---	2,84,554	---	6,50,000	25,47,474
Total	36,62,012	10,29,216	38,000	3,15,750	5,00,000	83,500	---	---	15,84,775	4,38,665	6,50,000	83,01,918

Source: Plan Documents, Chempu Panchayat.

5.3.5. Fifth Year Plan Allocation (2001-2002)

The total plan allocation during the final year of the Ninth Five Year Plan is Rs. 1,61,32,623, within which Rs. 35,17,439 (21.80 per cent) is allocated for productive sector development, Rs. 71,71,819 (44.46 per cent) is earmarked for service sector projects and Rs. 54,43,365 (33.74 per cent) is allocated for infrastructure development (Table 16).

5.3.6. Grant-in Aid Allocation and Expenditure (1997-2002)

As could be seen from the Tables 8, 10, 12, 14 and 16, Chempu Panchayat has received a total amount of Rs. 1,68,80,370 as grant-in aid during the Five Year Plan period, 1997-2002. During the same period, the Panchayat has spent a total amount of Rs. 1,60,34,670. This accounts for 94.99 per cent of the total allocation (Tables 9, 11, 13, 15 and 17).

Category-wise analysis shows that, general sector, Special Component Plan and Tribal Sub Plan have an expenditure of 94.26 per cent, 97.72 per cent and 149.89 per cent respectively of its total allocation.

During the First Year (1997-1998) of the Five Year Plan period, Chempu Panchayat has received a total amount of Rs. 30, 92,000 as grant-in-aid. Within this, an amount of Rs. 23, 17,000 (74.94 per cent) is given under general category and Rs. 7,75,000 (25.06 per cent) is earmarked under Special Component Plan and no fund is released under Tribal Sub Plan during the year.

The distribution of general category plan allocation, during the year 1997-98 among productive, service and infrastructure category are 35.77 per cent, 29.46 per cent and 34.77 per cent respectively. Under the SCP category, the allocation is done

Table 14 - Fourth Year Plan Allocation (2000-2001), Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Opening Balance	3,12,374	1,72,898	---	---	---	---	---	---	---	---	---	4,85,272
Current Year	26,36,250	5,71,500	11,250	---	---	---	---	---	---	---	---	32,19,000
Total	29,48,624	7,44,398	11,250	---	---	---	---	---	---	---	---	37,04,272
Productive	11,56,129	50,000	---	2,10,190	4,52,433	16,100	---	---	6,46,458	45,87,789	---	71,19,099
Service	13,90,193	4,11,400	11,250	3,21,300	23,99,000	2,10,000	---	---	5,77,300	11,69,500	1,00,000	65,89,943
Infrastructure	5,43,500	1,41,800	---	10,10,434	4,00,000	13,75,000	2,00,000	---	85,500	3,65,000	5,50,000	46,71,234
Total	30,89,822	6,03,200	11,250	15,41,924	32,51,433	16,01,100	2,00,000	---	13,09,258	61,22,289	6,50,000	1,83,80,276

Source: Plan Documents, Chempu Panchayat.

Table 15 - Fourth Year Plan Expenditure (2000-2001), Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Productive	8,29,091	---	---	---	2,12,558	---	---	---	5,16,424	---	---	15,58,073
Service	12,08,616	3,92,445	2,500	---	33,896	2,90,000	---	---	2,00,000	2,09,525	---	23,36,982
Infrastructure	5,28,960	1,21,100	---	3,67,463	---	16,71,500	---	---	1,00,000	---	---	27,89,023
Total	25,66,667	5,13,545	2,500	3,67,463	2,46,454	19,61,500	---	---	8,16,424	2,09,525	---	66,84,078

Source: Plan Documents, Chempu Panchayat.

Table 16 - Fifth Year Plan Allocation (2001-2002), Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Opening Balance	3,81,957	2,30,853	8,750	—	—	—	—	—	—	—	—	6,21,560
Current Year	22,00,500	4,69,500	—	—	—	—	—	—	—	—	—	26,70,000
Total	25,82,457	7,00,353	8,750	—	—	—	—	—	—	—	—	32,91,560
Productive	12,04,437	1,87,500	—	—	7,34,585	—	—	—	6,28,117	7,62,800	—	35,17,439
Service	15,94,935	3,71,918	8,750	2,94,000	12,99,000	10,97,716	—	—	11,76,000	13,29,500	—	71,71,819
Infrastructure	5,16,085	2,52,682	—	1,55,057	10,40,000	26,37,191	—	—	7,45,850	96,500	—	54,43,365
Total	33,15,457	8,12,100	8,750	4,49,057	30,73,585	37,34,907	—	—	25,49,967	21,88,800	—	1,61,32,623

Source: Plan Documents, Chempu Panchayat.

Table 17 - Fifth Year Plan Expenditure (1999-2000), Chempu Panchayat

Sector / category	Grant-in-Aid			Own fund	State sponsored	Central sponsored	Loan		Voluntary contribution	Beneficiary contribution	Others	Total
	General	SCP	TSP				Financial institutions	Cooperative sector				
Productive	652319	121690	—	—	101000	—	—	—	441550	599425	—	1915984
Service	1338524	156000	2790	—	207560	786000	—	—	845000	165000	—	3500874
Infrastructure	160872	14625	—	72450	—	969776	—	—	35000	—	—	1252723
Total	2151715	292315	2790	72450	308560	1755776	—	—	1321550	764425	—	6669581
Balance	430742	408038	—	—	—	—	—	—	—	—	—	—

Source: Plan Documents, Chempu Panchayat.

exclusively for service sector (61.29 per cent) and infrastructure (38.71 per cent) sector and no fund is allocated for productive sector development under SCP category during the year.

Year-wise analysis of the expenditure pattern shows that in all the years except 1998-1999 (Second Year) Panchayat has good record of spending more than 90 per cent of the total grant-in- aid allocated during the respective year. The highest spending rate (118.55 per cent) is observed during 1999-2000 and the lowest (70.51 per cent) recorded in 1998-1999. During the initial year of the Plan Campaign (1997-1998), the expenditure of grant-in-aid within the general category is 100 per cent and for SCP, it is 90.56 per cent. During this period, the State Planning Board extended the deadline of spending grant-in-aid beyond 31st March and allowed all the panchayats to carry out planning operations till 30th August 1998 and has resulted in an affirmative spending pattern.

5.3.7. Sector-Wise Expenditure of Grant-in Aid (1997-2002)

Rate of expenditure on productive sector projects under general category recorded highest [71.71 per cent] during the Fourth Year Plan period (2000-2001] and the lowest rate of expenditure [52.59 per cent] recorded during the Second Year Plan period [1989-1999]. During the First Year [1997-1998] and Fifth Year [2001-2002] Plan periods, the rates of expenditure were around 54 per cent and during the Third Year of the Plan period the rate of expenditure was 67.93 per cent (Table 18). It should be noted that in all years, the rate of expenditure under productive sector fall below the average rate of expenditure of plan fund given to the local governing bodies, that is 83.65 per cent (Figure 5).

Grant-in-aid allocated in the service sector under general category has a fairly better record of utilization as the rate of expenditure in all the years was 84 per cent or more. During the first year, it was 226.70 per cent as the panchayat relocated the fund received from Housing Board for construction and maintenance of houses under service sector.

Rate of expenditure of infrastructure projects under general category is at its peak [149.04 per cent] during the Third Year Plan period [1999-2000], which declined to 97.32 per cent in the next year [2000-2001] and again reduced to 31.17 per cent during the last year [2001-2002] of the Plan period. During the initial year [1997-1998], the rate of expenditure was 93.3 per cent, this declined to 71.24 per cent in the next year [1998-1999].

Since there is no specific regulations regarding the allocation pattern of grant-in-aid under SCP and TSP, as is the case of general category of projects, productive sector under both categories [SCP and TSP] received minimum amount of funds for utilization. The ratio 40:30:30 in which the grant-in-aid should be distributed among productive, service and infrastructure projects is applicable only to general category. SCP and TSP funds are distributed according to the felt needs of the target population and the allocation to the target population and the allocation to the infrastructure category need not exceed 30 per cent. Accordingly, no fund is allocated for productive sector projects under SCP for first two years [1997-1998 and 1998-1999] and for all the years [1997-2002] under TSP. The rate of expenditure of productive projects under SCP is 64.90 per cent and 50 per cent respectively during 2001-2002 and 1999-2000. Though an amount of

Rs. 50,000 is allocated under SCP for productive sector projects, it is not spent during the Fourth Year Plan period [2000-2001].

Fund utilization under SCP for service sector projects showed an increasing trend throughout the Four Years of Planning [1997-2001]. The rate of expenditure increased from 56.75 per cent in 1997-1998 to 95.39 per cent in 2000-2001 and during 2001-2002, the rate declined to 41.94 per cent. Expenditure pattern of service sector projects under TSP is that during the Second and Third Year Plan period [1998-1999 and 1999-2000], the fund utilization are maximum [100 and 271.43 per cent respectively].

Table 18 - Sector-Wise Expenditure Pattern of the Grant-in-Aid (1997-2002)

YEAR	GENERAL			SCP			TSP			TOTAL		
	Productive	Service	Infrastructure	Productive	Service	Infrastructure	Productive	Service	Infrastructure	Productive	Service	Infrastructure
1997-1998	54.27	226.70	93.30	-	56.75	144.17	-	-	-	54.74	138.10	107.50
1998-1999	52.59	89.21	71.24	-	73.13	0.00	-	100.00	-	52.59	84.47	66.11
1999-2000	67.83	84.07	149.04	50.00	89.77	38.50	-	271.43	-	67.66	87.67	126.94
2000-2001	71.71	86.94	97.32	0.00	95.39	85.40	-	22.22	-	68.74	88.46	94.86
2001-2002	54.16	83.92	31.17	64.90	41.94	57.79	-	31.89	-	55.61	75.79	22.83

Source: Computed from Plan Documents, Chempu Panchayat.

5.3.8. Sector-Wise Allocation and Expenditure Pattern of Own Fund of the Panchayat (1997-2002)

During the Ninth Five Year Plan period (1997-2002), Chempu Panchayat has allocated a total amount of Rs.34,50,126 from its own fund and the expenditure during the period has been Rs.9,14,697 (26.51 per cent). The allocation of own fund for plan development is least during the Second Year of the Plan period (1998-1999), as the allocation is Rs.1,06,800 and the expenditure is Rs.33,338 (31.22 per cent). The highest amount is allocated during the Fourth Year Plan period (2000-2001), Rs.15,41,924 and the expenditure during the period is Rs.3,67,463 (23.83 per cent). The rate of expenditure during the Five Year Plan period is observed to follow a declining trend as during the First Year Plan period (1997-1998), the Panchayat has spent 44.88 per cent of the allocated amount. The percentage of expenditure during the period is the highest as compared to that of all the other Four Yearly Plan periods. The rate of expenditure declined to 31.22 per cent during the Second Year Plan period (1998-1999) and again dropped to 29.45 per cent during the Third Year Plan period (1999-2000). The rates of expenditure are even lower during the Fourth (2000-2001) and Fifth Year Plan periods (2001-2002) such as 23.83 per cent and 16.13 per cent respectively (Table 19 and Figure 6).

Sector-wise allocation of the own fund shows that major share of the fund is allocated under infrastructure category, Rs.22,11,191 (64.09 per cent). Productive sector category receives the least share, Rs.2,60,190 (7.54 per cent). The allocation to the service sector during the five-year plan period is Rs.9,78,745 (28.37 per cent).

Table 19 - Sector-Wise Allocation and Expenditure Pattern of Own Fund of the Panchayat (1997-2002)

YEAR	Productive sector			Service sector			infrastructure			Total		
	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%
1997-1998	-	-	-	218000	125696	57.66	62100	-	-	280100	125696	44.88
1998-1999	50000	-	0.0	-	-	-	56800	33338	58.69	106800	33338	31.22
1999-2000	-	-	-	145445	-	-	926800	315750	34.07	1072245	315750	29.45
2000-2001	210190	-	0.0	321300	-	-	1010434	367463	36.37	1541924	367463	23.83
2001-2002	-	-	-	294000	-	-	155057	72450	46.72	449057	72450	16.13
Total	260.190 (7.54%)	-	0.0	978745 (28.37 %)	125696	12.84	2211191 (64.09 %)	789001	35.68	3450126	914697	26.51

Source: Computed from Plan Documents, Chempu Panchayat.

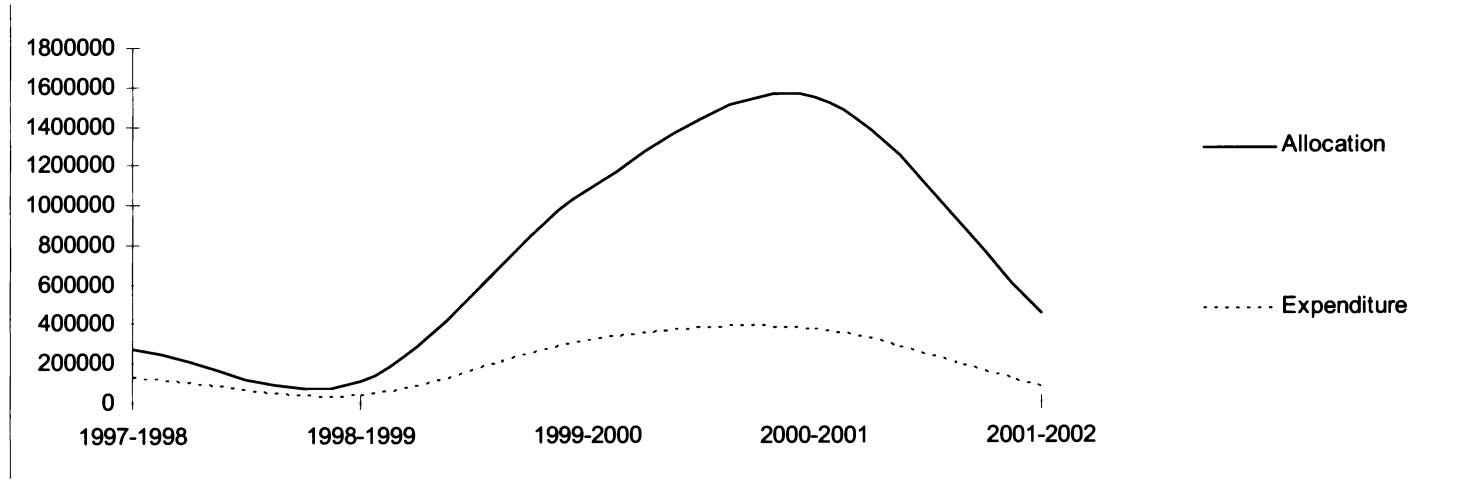

Figure 6 – Allocation and Expenditure Pattern of Own Fund of the Panchayat

Sector-wise expenditure pattern also favours infrastructure category as the Panchayat has spent 35.68 per cent of the plan allocation in the category, whereas, the rate of expenditure under service sector is 12.84 per cent and virtually no amount is spent under productive sector category during the Five-Year Plan period. Productive sector receives allocation from own fund source only in two years, 1998-1999 and 2000-2001, where as, service sector receives fund during all the years except for the year 1998-1999. However, during all the years except the first year, service sector has not spent any amount which is allocated for development purposes. Infrastructure category receives allocation from the own fund during all the years of the Ninth Five Year Plan period.

5.3.9. Sector-Wise Allocation and Expenditure Pattern of State Sponsored Funds of the Panchayat (1997-2002)

During the Ninth Five Year Plan period, the panchayat has allocated a total amount of Rs.1,32,35,466 received under state sponsored schemes. The total expenditure during the period is Rs.13,20,962 (9.98 per cent). A major share of the funds under state sponsored schemes find its way towards service sector projects, as the sector is allocated with a total amount of Rs.73,37,448 (55.44 per cent of the total state sponsored fund), where as, productive and infrastructure sector received Rs.23,23,018 (17.55 per cent) and Rs.35,75,000 (27.01 per cent) respectively. The rate of expenditure is observed to be the lowest (1.82 per cent) for infrastructure category. Productive (13.50 per cent) and service sector (12.84 per cent) also recorded lower level of expenditure pattern (Table 20 and Figure 7).

During the First Year Plan period (1997-1998), no fund is allocated from state sponsored schemes for development planning. During all the other Four Yearly Plan periods (1999-2002), productive and infrastructure sector projects displayed an insignificant spending pattern, as the fund is not at all utilised by productive sector during Second (1998-1999) and Third (1999-2000) Year Plan periods. Similarly, under infrastructure category, the allocated fund is totally unutilised in all the years except during Second Year Plan period (1998-1999). Service sector projects recorded its highest (77.52 per cent) spending pattern during Third Year Plan period (1999-2000).

5.3.10. Sector-Wise Allocation and Expenditure Pattern of Centre Sponsored Funds of the Panchayat (1997-2002)

The allocation and expenditure pattern of the central sponsored funds is comparatively better than that of state sponsored funds. During the Five Year Plan period, the panchayat has allocated a total amount of Rs.1,23,65,007 from central pool and the aggregate expenditure of the same during the period is Rs.39,00,776 (31.55 per cent). The highest allocation is observed during the Third Year Plan period (1999-2000), an amount of Rs.58,27,000, but the expenditure during the same period is only Rs.83,500 (1.43 per cent). Though an amount of Rs.3,90,000 is allocated during the First Year Plan period (1997-1998), it remained unutilised. In contrast, during the Fourth Year Plan period (2000-2001), an amount of Rs.3,60,400 is spent in addition to the allocated fund of Rs.16,01,100 (Table 21 and Figure 8).

Since the central sponsored funds are mostly stipulate for infrastructure development of the region, the major share (65.11 per cent) of the fund is allocated under

infrastructure category. Service and productive sector category received Rs.37,97,716 (30.71 per cent) and Rs.5,16,100 (4.18 per cent) respectively. The allocation bias is also evident in expenditure pattern, as infrastructure category spent 35.10 per cent of the allocated fund, where as service sector spent 28.33 per cent from its allocated fund of Rs.37,97,716 and the allocated amount of Rs.5,16,100 within the productive sector remained unutilised.

Central sponsored fund is allocated to the infrastructure projects in all the years of plan period except during First Year (1997-1998). At the same time, the fund has found its way to the productive sector only in two Plan Years, such as in Third (1999-2000) and Fourth (2000-2001) Year Plans. Service sector projects have received its share from central pool in all the years except during Second Year Plan period (1998-1999).

5.3.11. Sector-Wise Allocation and Expenditure Pattern of Loans from Financial and Co-operative Institutions (1997-2002)

The Panchayat has allocated a total amount of Rs.11,50,000 which is received as repayable loans from financial institutions. Infrastructure projects are allocated with an amount of Rs.11,00,000, out of which Rs.9,00,000 is received during Second Year Plan period (1998-1999) and Rs.2,00,000 during Fourth Year Plan period (2000-2001). Productive sector is allocated with an amount of Rs.50,000 during the Third Year Plan period (1999-2000). However, the allocated loan amount has been remained unutilised. Fund received to the tune of Rs.4,00,000 from co-operative sector as repayable loan amount is allocated fully for infrastructure projects, but remained unutilised.

Table 20 - Sector-Wise Allocation and Expenditure Pattern of State Sponsored Funds of the Panchayat (1997-2002)

YEAR	Productive sector			Service sector			Infrastructure			Total		
	Allocation	Expenditure	per cent	Allocation	Expenditure	per cent	Allocation	Expenditure	per cent	Allocation	Expenditure	per cent
1997-1998	---	---	---	---	---	---	---	---	---	---	---	---
1998-1999	10,00,000	---	---	29,94,448	2,00,948	6.71	7,00,000	65,000	9.29	46,94,448	2,65,948	5.67
1999-2000	1,36,000	---	---	6,45,000	5,00,000	77.52	14,35,000	---	---	22,16,000	5,00,000	22.56
2000-2001	4,52,433	2,12,558	46.98	23,99,000	33,896	1.41	4,00,000	---	---	32,51,433	2,46,454	7.58
2001-2002	7,34,585	1,01,000	13.75	12,99,000	2,07,560	15.98	10,40,000	---	---	30,73,585	3,08,560	10.04
Total	23,23,018	3,13,558	13.50	73,37,448	9,42,404	12.84	35,75,000	65,000	1.82	1,32,35,466	13,20,962	9.98

Source: Computed from Plan Documents, Chempu Panchayat.

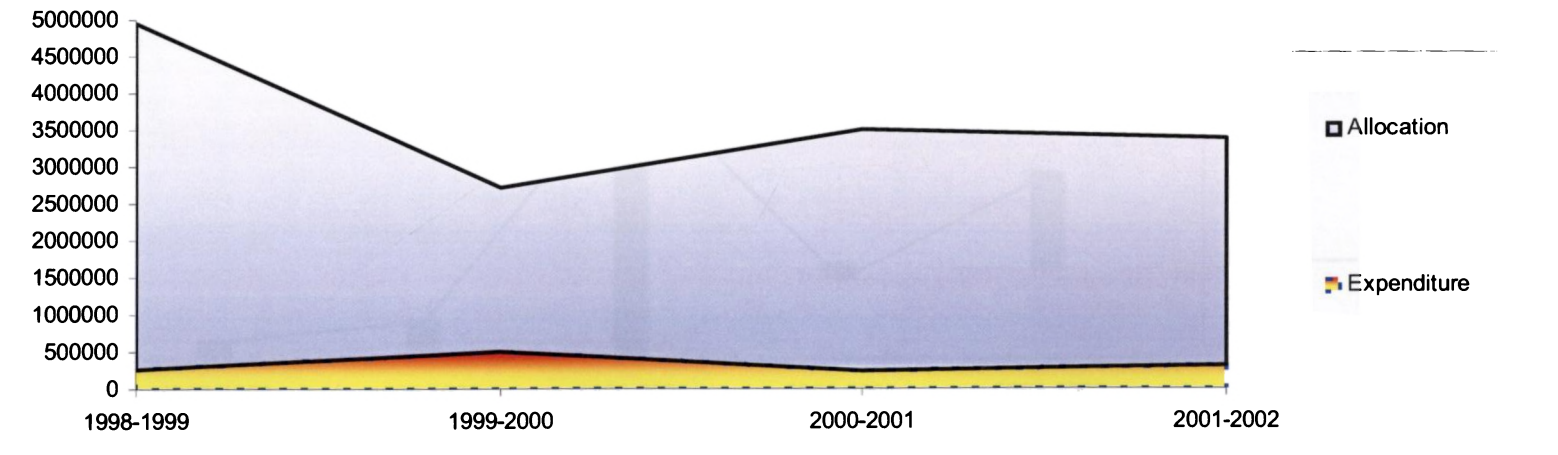

Figure 7 – Allocation and Expenditure Pattern of State Sponsored Funds of the Panchayat

Table 21 - Sector-Wise Allocation and Expenditure Pattern of Central Sponsored Funds of the Panchayat (1997-2002)

YEAR	Productive sector			Service sector			Infrastructure			Total		
	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%
1997-1998	---	---	---	3,90,000	---	---	---	---	---	3,90,000	---	---
1998-1999	---	---	---	---	---	---	8,12,000	1,00,000	12.32	8,12,000	1,00,000	12.32
1999-2000	5,00,000	---	---	21,00,000	---	---	32,27,000	83,500	2.59	58,27,000	83,500	1.43
2000-2001	16,100	---	---	2,10,000	2,90,000	138.10	13,75,000	16,71,500	121.56	16,01,100	19,61,500	122.51
2001-2002	---	---	---	10,97,716	7,86,000	71.60	26,37,191	9,69,776	36.77	37,34,907	17,55,776	47.01
Total	5,16,000	---	---	37,97,716	10,76,000	28.33	80,51,191	28,24,776	35.10	1,23,65,007	39,00,776	31.55

Source: Computed from Plan Documents, Chempu Panchayat.

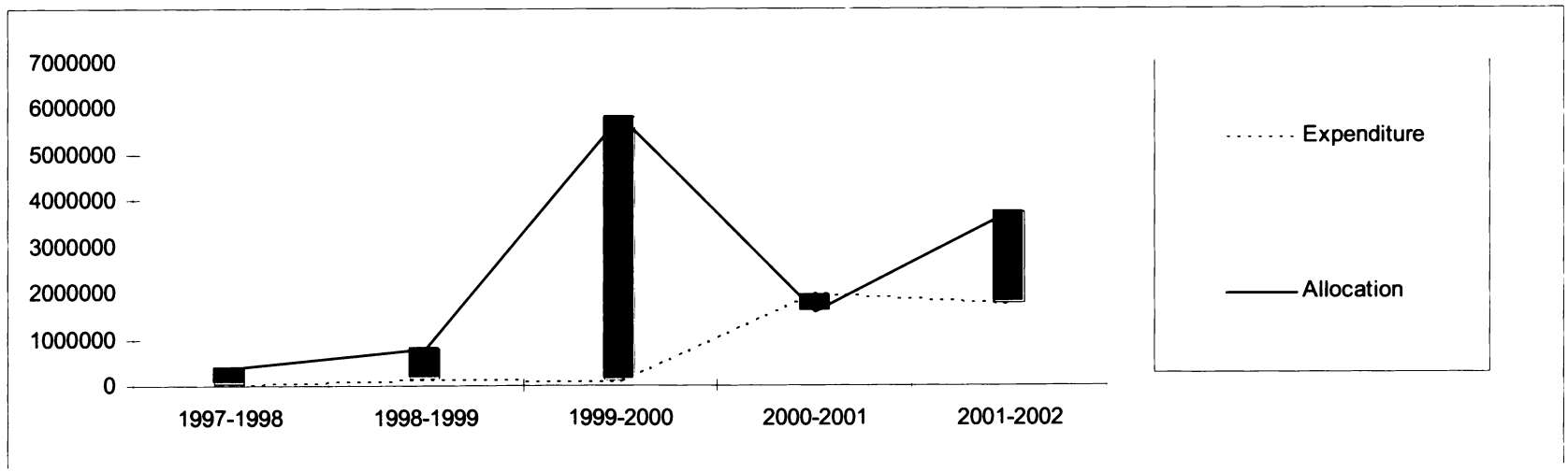

Figure 8 – Allocation and Expenditure Pattern of Centre Sponsored Funds of the Panchayat

5.3.12. Sector-Wise Allocation and Expenditure Pattern of Voluntary Contribution (1997-2002)

Plan allocation sourcing voluntary contribution is relative in nature as it is the proposed or expected amount of money or materials to be received from various community development agents. The expenditure of the same mentions the amount of money that could actually be mobilised. During the Ninth Five Year Plan period (1997-2002), the panchayat has allocated Rs.88,47,001 in the form of voluntary contribution, out of which, it could mobilise Rs.41,45,879 (46.86 per cent) for utilisation under various development projects (Table 22 and Figure 9).

An analysis of the sector-wise allocation reveals that service sector projects receive the major share of Rs.42,61,500 (48.17 per cent), whereas, productive and infrastructure projects receive Rs.23,66,910 (26.75 per cent) and Rs.22,18,591 (25.08 per cent) respectively. However, productive sector projects could mobilise and spent an amount of Rs.15,91,239 (67.23 per cent) against its allocation. At the same time, service and infrastructure projects could mobilise and spent Rs.20,09,256 (47.15 per cent) and Rs.5,45,384 (24.58 per cent) respectively. An analysis of the year-wise expenditure pattern shows that the rate of expenditure is higher (79.89 per cent) during Fourth Year Plan period (2000-2001) and lower (40.54 per cent) during First Year Plan period (1997-1998). The rate of expenditure within service sector is at its peak (100 per cent) during the First Year Plan period (1997-1998) and is lower (9 per cent) during the next plan year (1998-1999). During the Fourth Year Plan period (2000-2001), the rate of expenditure of infrastructure projects is above

(116.96 per cent) its plan allocation and a lower (21.62 per cent) level of expenditure is recorded during First Year Plan period (1997-1998).

5.3.13. Sector-Wise Allocation and Expenditure Pattern of Beneficiary Contribution (1997-2002)

This is the amount proposed to be paid or mobilised from the beneficiaries of various projects. The concept of beneficiary contribution claims importance as it is an effective medium which encourages genuine participation of targeted beneficiaries, since it is supposed to create a feeling among beneficiaries as the project is theirs. Beneficiary contributions vary according to the nature of the project and follows specific stipulations made by the panchayat authorities.

During the Ninth Five Year Plan period, the panchayat has allocated a total amount of Rs.1,14,17,732 in the form of beneficiary contribution and spent an amount of Rs.19,56,685 (17.14 per cent). Major share of the allocation has gone to the productive sector category as the sector received an amount of Rs.65,21,893, which is 57.12 per cent of the total allocation of beneficiary contribution. Service sector received an allocated amount of Rs.43,52,900 and infrastructure category received Rs. 5,42,939, which are 38.12 per cent and 4.76 per cent of the allocation in the two sectors respectively (Table 23).

Infrastructure projects are found unsuccessful in mobilising its allocated amount from the beneficiaries and the expenditure remained zero. At the same time,

service and productive sector are able to mobilise and spent Rs.8,80,610 (20.23 per cent) and Rs.10,76,075 (16.50 per cent) respectively (Figure 10).

Year-wise analysis of the expenditure pattern shows that, during the Third Year Plan period (1999-2000) panchayat could mobilise and spent 61.83 per cent of the total allocated amount during the year, out of which service sector's contribution (243.07 per cent) far exceeded its actual allocation and productive sector spent 24.63 per cent of its allocation. The lowest level of expenditure (3.42 per cent) is observed during Fourth Year Plan period (2000-2001). During the year, only service sector could mobilise and spent (17.92 per cent) its allocated share. During the Second Year Plan period (1998-1999), productive sector could mobilise and spent 107.08 per cent of its allocated amount, while service sector recorded its lowest level of expenditure (5.56 per cent) during the year.

Chempu Panchayat is primarily an agricultural village and the development potential obviously lies in synchronising the primary sector resources for productive use. The study of John and Chathukulam (2002) regarding Chempu village panchayat observed its 'institutional revolution' as part of the People's Planning, and the ensuing formation of social capital and the building up of a vibrant society capable of playing a vital role in local governance. The interplay of numerous institutions formed as part of the People's Planning programme has virtually strengthened the planning mechanism. However, the plan outlay and expenditure figures also articulate the clumsiness of the decentralised planning system.

Table 22 - Sector-Wise Allocation and Expenditure Pattern of Voluntary Contribution (1997-2002)

YEAR	Productive sector			Service sector			Infrastructure			Total		
	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%
1997-1998	37,000	15,000	40.54	2,000	2,000	100.00	1,43,400	31,000	21.62	1,82,400	48,000	26.32
1998-1999	3,00,335	2,22,500	74.08	6,42,000	57,800	9.00	3,45,000	94,830	27.49	12,87,335	3,75,130	29.14
1999-2000	7,55,000	3,95,765	52.42	18,64,200	9,04,456	48.52	8,98,841	2,84,554	31.66	35,18,041	15,84,775	45.05
2000-2001	6,46,458	5,16,424	79.89	5,77,300	2,00,000	34.64	85,500	1,00,000	116.96	13,09,258	8,16,424	62.36
2001-2002	6,28,117	4,41,550	70.30	11,76,000	8,45,000	71.85	7,45,850	35,000	46.76	25,49,967	13,21,550	51.83
Total	23,66,910	15,91,239	67.23	42,61,500	20,09,256	47.15	22,18,591	5,45,384	24.58	88,47,001	41,45,879	46.86

Source: Computed from Plan Documents, Chempu Panchayat

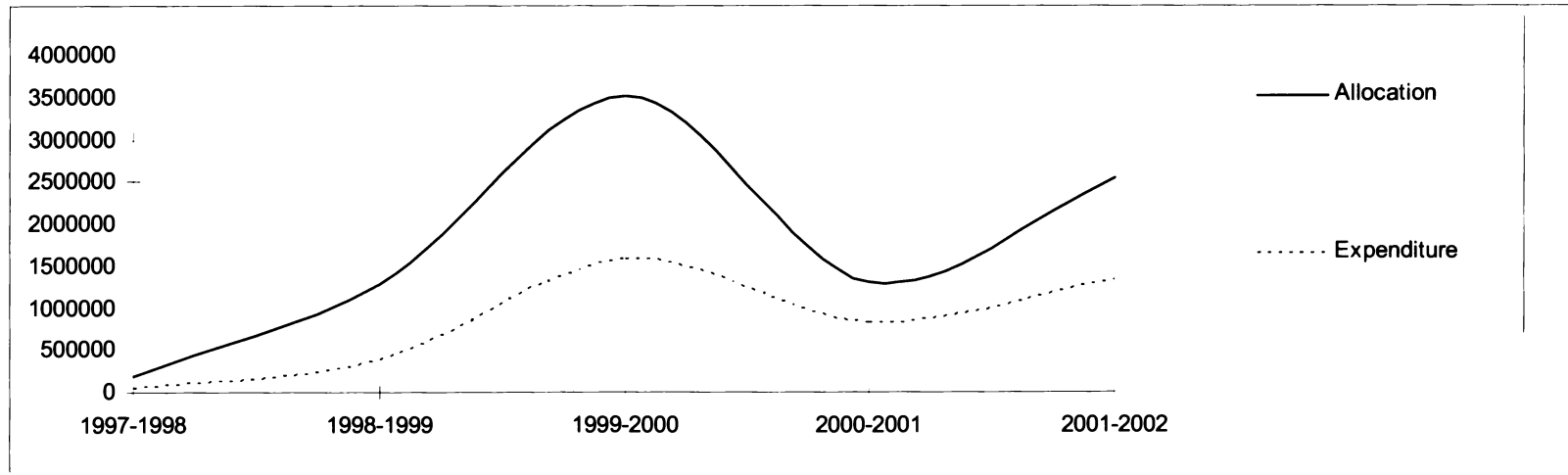

Figure 9 – Allocation and Expenditure Pattern of Voluntary Contribution

Table 23 - Sector-Wise Allocation and Expenditure Pattern of Beneficiary Contribution (1997-2002)

YEAR	Productive sector			Service sector			Infrastructure			Total		
	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%	Allocation	Expenditure	%
1997-1998	3,92,000	52,750	13.46	3,23,500	1,12,300	34.71	---	---	---	7,15,500	1,65,050	23.07
1998-1999	2,81,312	3,01,220	107.08	14,00,400	77,800	5.56	---	---	---	16,81,712	3,79,020	22.54
1999-2000	4,97,992	1,22,680	24.63	1,30,000	3,15,985	243.07	81,439	---	---	7,09,431	4,38,665	61.83
2000-2001	45,87,789	---	---	11,69,500	2,09,525	17.92	3,65,000	---	---	61,22,289	2,09,525	3.42
2001-2002	7,62,800	5,99,425	78.58	13,29,500	1,65,000	12.41	96,500	---	---	21,88,800	7,64,425	34.92
Total	65,21,893	10,76,075	16.50	43,52,900	8,80,610	20.23	5,42,939	---	---	1,14,17,732	19,56,685	17.14

Source: Computed from Plan Documents, Chempu Panchayat.

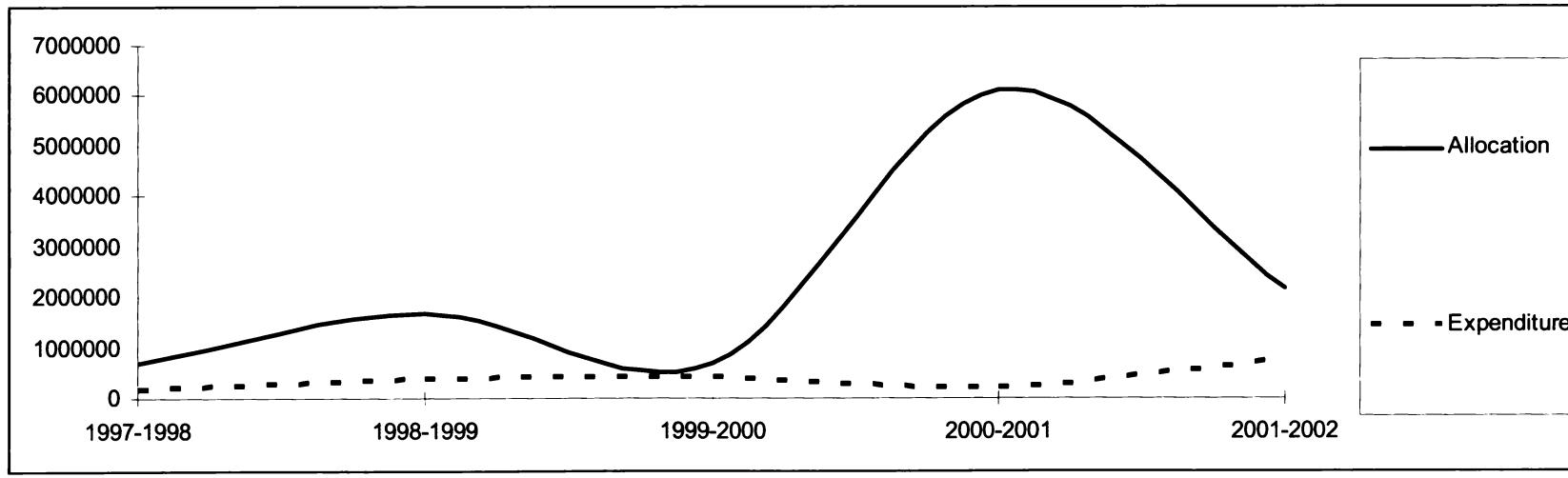

Figure 10 – Allocation and Expenditure Pattern of Beneficiary Contribution

Chapter 6

PRODUCTIVE SECTOR PROJECTS AND SUSTAINABILITY

CHAPTER VI
PRODUCTIVE SECTOR PROJECTS AND SUSTAINABILITY

This chapter has been devoted to study the nature and pattern of productive sector projects selected for the present analysis. Year-wise plan outlay of the projects along with their per capita estimates is given. Survey details of seventeen projects are detailed out. This was given in two distinct forms such as *project description* where a summary of the proposed project is described and a *diagnosis* section in which the observations derived out of the on-site inspection of the projects were specified. The degree of sustainability is estimated for all the projects using the Sustainability Index Value (SIV) developed for the study. A correlation analysis of the dependent components of internal and external sustainability with that of independent variables was also given in this chapter.

6.1. Nature and Pattern of Productive Sector Projects

From the secondary data sources, it is found that there are three broad categories of productive sector projects, such as,

1. Institution-based projects
2. Individual-based projects and
3. Common Property Resource-based projects

The institution-based projects are those for which the grant-in-aid is given to some institutions such as self-help groups, *Padasekharam* etc., where as, for individual-based projects, the aid is given to individuals in person. Projects on

building up / maintaining common property resources such as rivulets (*thodu*), a common machine, a tiller for use in paddy fields and owned jointly by all the *Padasekharams* in the village., belong to the category of common property resources. Out of the 17 projects selected for study, there were 9 institution-based projects, 6 individual-based projects and 2 common property resource based projects (Table 24).

Table 24 - List of Projects Studied and the Number of Respondents

Year	Name of Projects	*No. of respondents*
2000-2001	1. Development of Vegetable Cultivation through Women SHGs	12 SHGs
	2. Development of Paddy Cultivation	12 *Padasekharam*
	3. Small Scale Mechanisation in the Agricultural Sector of the Region	2 *Padasekharam*
	4. Barren-Land Cultivation	75 direct beneficiaries
	5. Equipment for Fishermen Groups	62 direct beneficiaries
	6. Organic (effluent) Treatment Plant	8 direct beneficiaries
1999-2000	7. Deepening of Thodu (Rivulet) for Homestead Farming	25 direct beneficiaries
	8. Kamadhenu Insurance	60 direct beneficiaries
	9. Construction of Sluices and Development of Basic Facilities of Panangavil *Padasekharam*	1 *Padasekharam*
	10. Construction of Bund, Sluices and Adjacent Road for Arathukari *Padasekharam*	1 *Padasekharam*
	11. Development of Amorphophalus Cultivation	14 SHGs
1998-1999	12. Development of Kalargod *Padasekharam*	1 *Padasekharam*
	13. Distribution of Vegetable Seeds through Educational Institutions	3 schools
	14. Development of Thekkekeecherikari *Padasekharam*	1 *Padasekharam*
	15. Development of Arikupuram *Padasekharam*	1 *Padasekharam*
	16. Construction of Cattle Shed	35 direct beneficiaries
	17. Digging Well for Irrigation	72 direct beneficiaries

Source: Survey Data

6.2. Plan Outlay of Productive Sector Projects

As per the panchayat level documents, during the three years such as in 2000-2001, 1999-2000 and 1998-1999, the panchayat has proposed a total number of 41 productive sector projects, out of which 36 were actually implemented and completed in respective years. The total budget allocation for all the projects selected for the study comes to Rs.37,89,568 in which Rs.11,98,218 allocated for year 2000-2001, Rs.10,88,500 allocated during 1999-2000 and Rs.15,02,850 for 1998-1999. It could also be seen from Tables 25, 26 and 27, that within the selected productive sector projects, the percapita fund allocation is estimated to be Rs.425.96, Rs.581.15 and Rs.1175.94 during 2000-01', 1999-00' and 1998-99 respectively. On the other side, the number of beneficiaries per project is estimated to be around 467, 375 and 213 respectively during the same period. It is noteworthy that the per capita fund allocation shows a decreasing trend and at the same time, the average number of beneficiaries per project is on the increase (Figure 11). The panchayat would be under pressure as political and various social and economic considerations force it to include a wider segment of the society to its beneficiary net.

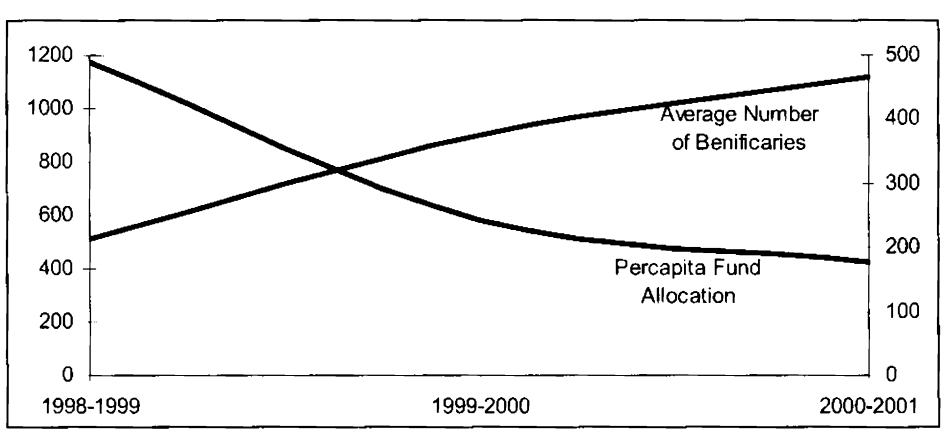

Figure 11 – Per Capita Fund Allocation and Average Number of Beneficiaries

The major source of fund of these productive sector projects is grant-in-aid, the devolved fund from the State Plan Share. Of the total plan outlay during 1998-1999, 59.32 per cent came from grant-in-aid. Though this percentage dropped to 30.73 per cent during 1999-2000, it again rose to 43.52 during 2000-2001. It should also be noted that during 1999-2000 and 2000-2001, funds devolved out of centrally sponsored schemes (45.93) and state sponsored schemes (59.74) dominated the scene. Another major component of the aggregate plan outlay is by way of contributions from beneficiaries of the project during the three years, 1998-1999, 1999-2000 and 2000-2001, the share of beneficiary contribution were 33.03, 21.96 and 41.11 percentage respectively (Figure 12, 13 and 14).

A noteworthy feature of the productive sector projects studied is with respect to the number of beneficiaries, the aggregate number of beneficiaries of all the 17 projects implemented in the three consecutive years of planning was 5,964. Apart from this, another set of 9,320 persons was benefiting indirectly. During 1998-1999, the six projects selected were proposed to benefit a total number of 1278 direct beneficiaries and 2,360 persons would be benefiting indirectly. The next year's (1999-2000) five projects selected for the study would be directly benefiting a total number of 1,873 individuals and indirectly showering benefits to 3,850 individuals. The select set of six projects of 2000-2001 was giving direct benefit to 2,813 stakeholders and indirect benefit to 3,110 persons.

Table 25 - Estimates of Fund Allocation of Selected Productive Sector Projects During 2000-2001

Sl.No	Project Title	Grant-in-aid	Central Fund	State Fund	Beneficiary Contribution	Voluntary Contribution	Total	Total Number of Beneficiaries	
								Direct	Indirect
1	Development of Vegetable Cultivation through Women SHGs	25000	---	---	25000	---	50000	100 SHGs (apprx. 1600 individuals)	1500 individuals
2	Development of Paddy Cultivation	120000	---	36558	156558	---	313116	12 Collective Farms (approx.600 farmers)	200 individuals
3	Small scale Mechanisation in the Agricultural Sector of the Region	52000	---	119000	18000	---	189000	2 collective farms (approx.180 farmers)	700 individuals
4	Barren-land Cultivation	200000	---	---	200000	---	400000	100 (not specified)	200 individuals
5	Equipment for Fishermen Groups	100000	---	12500	22500	---	135000	173	350 individuals
6	Organic (effluent) Treatment Plant	24502	16100	---	70500	---	111102	7 individuals & 10 SHGs (approx.160 individuals)	160 individuals
TOTAL		**521502**	**16100**	**168058**	**492558**	**2900**	**11,98,218**	**2813 individuals**	**3110 individuals**
PERCAPITA ESTIMATES		**185.39 (43.52)**	**5.72 (1.34)**	**59.74 (14.02)**	**175.10 (41.11)**	**1.03 (0.24)**	**425.96 (100.00)**		

Source: Survey Data

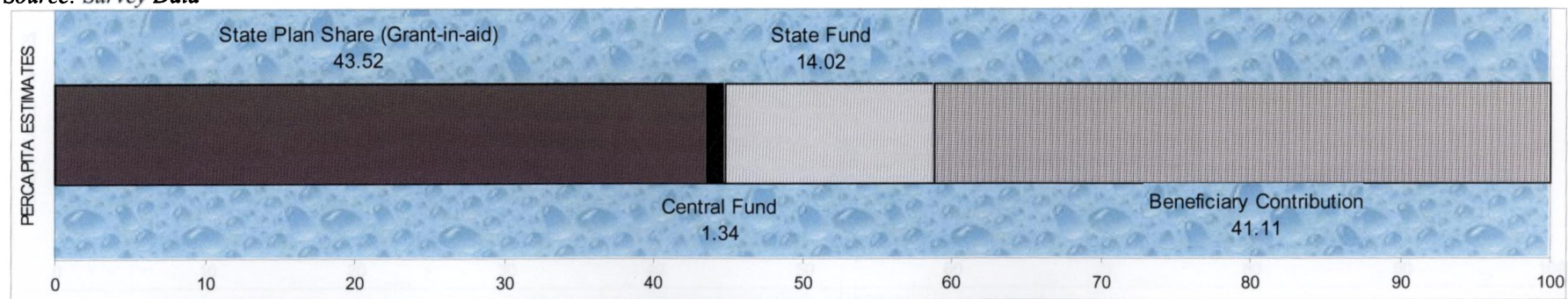

Figure 12 – Source-Wise Fund Allocation 2000-2001

Table 26 - Estimates of Fund Allocation of Selected Productive Sector Projects During 1999-2000

Sl.No	Project Title	Grant-in-aid	Central Fund	State Fund	Beneficiary Contribution	Voluntary Contribution	Total	Total Number of Beneficiaries	
								Direct	Indirect
1	Deepening of Thodu (Rivulet) for Homestead Farming	30000	---	---	5000	15000	50000	123 individuals	350 individuals
2	Kamadhenu Insurance	49500	---	---	99000		148500	100 individuals	200 individuals
3	Construction of Sluices and Development of Basic Facilities of Panangavil *Padasekharam*	30000	---	---	10000	---	40000	70 individuals	200 individuals
4	Construction of Bund, Sluices and Adjacent Road for Arathukari *Padasekharam*	200000	500000	---	100000	---	800000	780 individuals	1500 individuals
5	Development of Amorphophalus Cultivation	25000	---	---	25000	---	50000	50 SHGs (approx. 800 individuals)	1600 individuals
TOTAL		**334500**	**500000**	**---**	**239000**	**15000**	**10,88,500**	**1873 individuals**	**3850 individuals**
PERCAPITA ESTIMATES		**178.59 (30.73)**	**266.95 (45.93)**	**---**	**127.60 (21.96)**	**8.01 (1.38)**	**581.15 (100.00)**		

Source: Survey Data

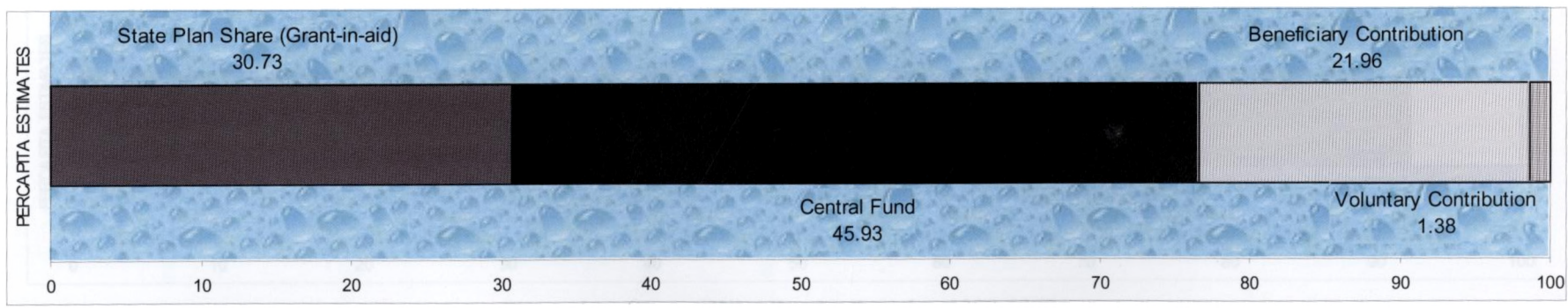

Figure 13 – Source-Wise Fund Allocation 1999-2000

Table 27 - Estimates of Fund Allocation of Selected Productive Sector Projects During 1998-1999

Sl.No	Project Title	Grant-in-aid	Central Fund	State Fund	Beneficiary Contribution	Voluntary Contribution	Total	Total Number of Beneficiaries	
								Direct	Indirect
1	Development of Kalargod *Padasekharam*	284000	---	---	7000	115000	406000	62 individuals	150 individuals
2	Distribution of Vegetable Seeds through Educational Institutions	21350	---	---	---	---	21350	1000 individuals	2000 individuals
3	Development of Thekkekeecherikari *Padasekharam*	300000	---	---	172000	---	472000	32 individuals	80 individuals
4	Development of Arikupuram *Padasekharam*	17650	---	---	6350	---	24000	65 individuals	130 individuals
5	Construction of Cattle Shed	23500	---	---	66000	---	89500	11 individuals	---
6	Digging Well for Irrigation	245000	---	---	245000	---	490000	108 individuals	---
TOTAL		**891500**	**---**	**---**	**496350**	**115000**	**15,02,850**	**1278 individuals**	**2360 individuals**
PERCAPITA ESTIMATES		**697.57 (59.32)**	**---**	**---**	**388.38 (33.03)**	**89.98 (7.65)**	**1175.94 (100.00)**		

Source: Survey Data

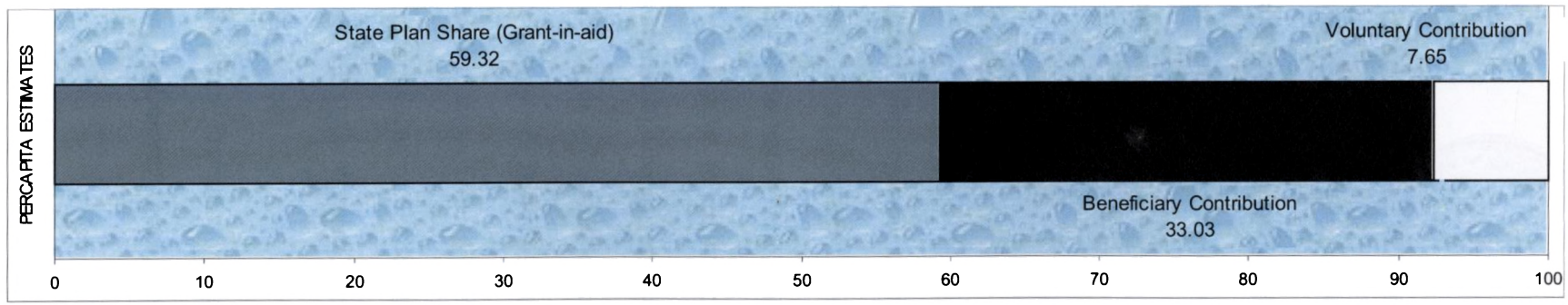

Figure 14 – Source-Wise Fund Allocation 1998-1999

6.3. Project Description and Diagnosis

The details of the projects are summarised in the first section. This part is a summary version of the proposed project as it is indicated in the "Project Details" document of Panchayat, which is readily available for each and every project proposed and implemented. Followed by the brief introduction regarding project intentions, survey details are presented in a diagnostic manner.

6.3.1. Project - [2000-2001, Institution-Based]
Development of Vegetable Cultivation through Women Self Help Groups

6.3.1.1. ***Project Summary*****:** This project seeks to carry out vegetable cultivation through 100 women self-help groups in the Grama Panchayat and thereby to increase the production of vegetable. The ultimate aim of the project "is to attain self sufficiency in the production of vegetable". In quantitative terms, the project proposes to produce 400 tones of vegetable from an area of 80 acres of homesteads.

The project activities include the formulation of an operational committee comprising of the representatives of the selected self help groups. Each SHG receive 10 kits of vegetable seeds. The seeds will be supplied through the Agricultural Office. The SHGs themselves should prepare the land for cultivation and should also take care of the fertilizer and pesticides application. SHGs, Agriculture Office and Grama Panchayat Committee shall jointly organize the project.

The project will be monitored by Grama Panchayat President, Village and Block Panchayat Members, Agriculture Development Committee, Agriculture Task Force and Agriculture Assistant Director.

6.3.1.2. ***Diagnosis:*** A total number of 12 SHGs were surveyed. These SHGs received 4 to 10 packets each of vegetable seeds (amaranthus, bittergourd, beans, cucumber and green-chilly). Out of the 12 SHGs surveyed, nine groups received the first set of seed-packets (1 to 5 nos.) as first level assistance and the second set of packets after an interval of three months. Such a gap in the distribution of inputs adversely affected cultivation.

It is up to the SHGs whether they can sow the seeds in one single plot or in separate homestead plots. The implementing authority, agricultural office, also did not have any say in this respect, though the collective responsibility of organising the project-activities rest with the SHGs themselves, Agricultural Office and the Panchayat Committee. Details of the survey are given in Table 28. Most of the SHGs surveyed are formed during the second year of the Peoples' Plan Campaign.

The project is judged on the basis that whether it has delivered adequate supply of vegetable to the target groups for a sufficient period, coping with the objective of "self-sufficiency" in vegetable production. The objective is not attained. The SHGs list out several problems for this. First of all they complain the lack of supply of fertilisers, which restricted them from getting a good harvest. Apart from this, the untimely supply of seeds that too in lower quantity affected their cultivation. The quality of seeds is also not appreciated. SHGs' initiatives are also missing; none of them has bought any additional inputs (vegetable seeds) other than what they received from the Panchayat. The interest of the SHGs is a major dependant factor. Three of the SHGs having its members fully engaged in fisheries related activities and almost all SHGs are occupying with banking and trading

activities. Only one SHG has an experience in the retail selling of vegetable. It could be observed that the interests of most of the SHGs are not considered while preparing the project or while selecting the SHG for the project. The ideal clause of people's participation though mentioned in the proposal, formulating projects by considering the interests of the SHGs was not met. No efforts were also taken to find a set of SHGs whose interests lie in a homogenous strip of activities, so that 100 SHGs could be given a few numbers of different 'engagements' suitable to their current mode of action.

Table 28 - Survey Details of SHGs Engaged in Vegetable Cultivation

SHG	Year of Registration	No of members	Inputs received from Panchayat (no of packets of vegetable seeds)		Output (in Rs. Gross approx.)	Remarks
			I	II		
1	1998	16	4	4	250	1. Distributed seeds were cultivated in a common single plot 2. "Good yield" and was distributed among the 16 members
2	2000	17	4	-	150	1. Distributed seeds were cultivated in a common single plot 2. No commendable output
3	1998	20	5	5	250	1. Cultivation of the second set of packets is became a failure due to lack of interest of the members 2. Open market sale and also distributed among members
4	1998	14	5	5	300	1. Output distributed among members 2. Amaranthus cultivation became a failure for lack of consistent nurturing
5	1998	20	5	5	200	1. Cultivation of the second set of packets has became a failure due to lack of interest of the members 2. Input was distributed among two groups of 7 members each. 3. Output distributed among members
6	1998	14	5	5	450	1. Output distributed among members. 2. Amaranthus alone put for open sale
7	1998	10	4	-	150	1. All the members are fisherwomen 2. Inputs distributed among the members 3. vegetable cultivated just enough for own use for the members who did it on individual basis
8	1998	14	3	5	350	1. Inputs distributed among 14 members 2. Individual based sowing and also cultivation.
9	1999	20	5	-	250	1. Inputs distributed among 20 members 2. "Some members" sowed and harvested harmoniously
10	1999	20	1	3	350	1. The group sowed and harvested the inputs in a common place. 2. Outputs distributed among the members.
11	1997	14	5	-	400	1. Seeds sown in one of the member's farm field. 2. Output distributed among members 3. Previous year, the Group received 25 nos. of amorphophalus for cultivation and they cultivated 500 kg output for which open market prices was Rs.5/kg
12	1998	14	5	-	250	1. Inputs distributed among 14 members 2. "Some seeds" grown and utilised for own use.

Source: Survey Data

6.3.2. Project - [2000-2001, Institution-Based]
Development of Paddy Cultivation

6.3.2.1. ***Project Summary*** – This project intends to give support to 12 *padasekharam* [collective farm]. Altogether 600 farmers from the 12 *padasekharam* would be directly benefiting from the project. The support would be in the form of subsidised supply of fertilizers, lime, pesticides and sprayers. The prime objective of the project is to improve paddy yield from 2750 kg/ha to 3575 kg/ha, an estimated increase of 30 percent. Two types of farming systems, such as, *Virippu* and *Mundakan* are given assistance. The first system of farming is commencing on June/July, 2000 and ends on September/October 2001. The period of operation of the second farming system is from October 2000 to January/February 2001.

Prior to the start of farming activities, the Agriculture Officer, who is in charge of the projects, would convene a meeting of the collective farms. The proposed agricultural materials would be supplied to the *padasekharam* and they will distribute it among its member farmers. Agriculture Officer administers the project-fund on the approval of Panchayat Committee.

The project would be monitored by Members of the Panchayat Committee and Agriculture Task Force, Block Panchayat Member and Agriculture Officer.

6.3.2.2. ***Diagnosis:*** Financial support is given to 12 *padasekharam* and information using schedules were collected from all the *padasekharam.* These societies are formulated during the early 1990s, *i.e.,* even before the initiation of People's Plan Campaign. All the *Samithi* are registered under Co-operative Societies Act. Elections to the Director Board are taking place annually. Though elections follow a regular pattern on stipulated tenure, the members usually, remain the same. New and fresh members are reluctant to hold

respective offices and so the old and earlier office bearers continue. However, the idea of a grant-in-aid support to the *padasekharam* is raised in the meeting of Agricultural task force of the Panchayat.

The Panchayat Committee on the basis of their administrative consistency and the interest of its members in agriculture selects the *Samithi*. Panchayat transferred the money to the Krishi Bhavan and from there directly to the Agricultural Societies. Out of the 12 *Samithi* surveyed, 8 are of the opinion that the present mode of intervention by the Krishi Bhavan has given an incentive to the members. Prior to the project implementation, the farmers of the *Samithi* had a 'neutral' attitude to the agricultural activities in the fields. During those periods there was no hesitation for the farmers to put the land idle. Now, all the farmers within respective Societies had attained a sort of enthusiasm for agricultural activities, leading to the practice of *irippu* [twice a year/double crop] in places of *oruppu* [once a year/monocrop] cultivation.

The general body meetings of most of the *Samithi* still have inadequate attendance of its members. Such situation was continued even after the attainment of 'benefits' from the Panchayat / Krishi Bhavan. Krishi Bhavan officials had not contributed any valuable information on the profitable venturing of paddy cultivation while preparing the draft project proposal. The target population / implementing organisation had not introduced any innovative element to the present pattern of paddy cultivation. The seeds preferred, agricultural practices / technologies were the one-and-the-same prior to the intervention of the Panchayat. What was additionally proposed was a list of inputs such as chemical fertiliser, lime, pesticides and sprayer, which the *padasekharam* had already, access to. The untimely distribution of inputs to the targeted beneficiaries badly affected the output. The output / production oriented sustainability of the project is endangered. Since the

targeted beneficiaries focused on indigenous and the traditional way of doing things, an innovative dimension of the sustainability of the project is nullified.

6.3.3. Project - [2000-2001, Common Property Resource -Based] Small Scale Mechanisation in the Agriculture Sector of the Region

6.3.3.1. ***Project Summary*** – This project intends to provide a tiller and other small-scale "machines" to selected *padasekharams* in the region. The small-scale machines include Power-sprayer and crusher on a 50 percent subsidy. Since the capital required to install the machines is high, the farmers are less likely to buy such costly machines on their own. The proclaimed aims of the project include 1) the promotion of the use of machines in agriculture, 2) ensuring the availability of small-scale machines in the agriculture sector, 3) providing additional man-days in the agriculture sector and to encourage youngsters in the use of modern production techniques, and 4) to make maximum use of agriculture fields and homesteads in cultivating crops by reducing production costs.

The Panchayat will supply the power tiller through an authorised agency to a selected *padasekharam*, which is having prior experience, and would keep/use it on conditions as and when issued. The rent for using tiller, commission rate of the tiller operator and other charges would be decided by the Panchayat. The income and expenditure from the tiller operation would be recorded and dealt with a committee specially appointed by the Panchayat for the purpose. Power-sprayer / crusher would be given to selected *padasekharam.* There would be a committee comprising of representatives from Grama Panchayat, Krishi Bhavan and *padasekharam* for organising the project activities. Panchayat level task force on Agriculture would monitor the project.

6.3.3.2. *Diagnosis*: The project is originally a State funded one, for that approval was sanctioned to the Krishi Bhavan even prior to the initiation of Peoples' Plan. It supplied material/machines intended for individual farmers at subsidised rate. Though applications were invited from eligible farmers, they are reluctant to apply for the reason that they have to pay a large amount of around Rs. 45,000. In 2000-2001, the project was linked to the People's Plan of the Panchayat. The subsidy amount to be paid by the farmer is complemented with Peoples' Plan fund, thus making it a *free supply*.

The tiller was given to the Enadi-West *padasekharam*. The Society is selected on the basis of adequate building and other manpower facilities to keep the tiller under safe custody for a long period. The tiller could be used by any Society in the region with the consent of the Panchayat. A user-fee was paid to the Panchayat for using the tiller. The fee fixed was Rs.120/hour of use, of which 40 percent was given to the Panchayat by the *padasekharam*. A labourer appointed by the Enadi-west *padasekharam* on daily-wages drives the tiller. The Secretary of the Enadi-West *padasekharam* was also an elected member of the Panchayat.

The crusher was given to Arikupuram *Padasekharam*, having 55 acres of cultivable paddy land and 65 members in 1998-99. This collective farm had a good performance schedule as they used to follow double-cropping system such as *Mundakan* and *Virippu* farming during January-March and June-August seasons respectively. The crusher was given during February month in 2001. The *Padasekharam* charged an amount of Rs.150 per acre as operating cost for leasing out the crusher to any farmer in the Panchayat. A person appointed by the *Padasekharam* operated the crusher. The Secretary of the *Padasekharam* kept the accounts of the crusher. The variable costs including maintenance charges of the crusher were met from this hiring charge. An agreement was

also signed by the *Padasekharam* and the Krishi Bhavan regarding the operational aspects of the crusher.

Only State Plan fund was utilised for the crusher and the power sprayer apart from the beneficiary contribution as proposed.

The project intention and organisational activities were very ambiguous. The agreement between the Panchayat and the *padasekharam* showed that this is a community-based project. Moreover, the statement that on violation of the conditions, the Panchayat could take back the machines substantiates community's responsibility. The percentage of user-fee paid to the Panchayat is also an evidence of community ownership and also the reimbursement of the paid money for establishing Organisation and Management tasks. The respective *Padasekharams* would supply the two machines such as Power Tiller and the Crusher at any time on demand, since this is a property of the Panchayat, the *Padasekharams* could not deny the demand[1]. Though this is the situation, there is no community-led group formulated for the overall functioning of the project affecting crucially the community-ownership notion. In effect in course of time, the machines supplied will become the private property of the *padasekharam* denying the so-called *community ownership*.

6.3.4. Project - [2000-2001, Individual-Based] Barren Land Cultivation

6.3.4.1. ***Project Summary*** - This project intends to restore paddy cultivation in the barren lands owned by the farmers of *Padasekharam* and those who have leased out the land of Societies or of land owners. The aim of the project, in quantitative terms is to bring 200 acres (80 ha) of barren land under cultivation and to produce an additional 400 tonnes of

[1] This is revealed by the respective Presidents of the two *Padasekharam*.

paddy. This is expected to create around 2000 man-days and ensures accessibility to "equipments for agricultural production".

Prior to the start of farming, the total area of barren land will be assessed by the *Padasekharam samithy.* A beneficiary committee would be formed comprising of representatives of those who are willing to cultivate in their barren land, and this committee would direct the activities of the project. Various agricultural equipments would be provided to the farmers on a subsidy rate of 50 percent.

The project would be organised jointly by Agricultural task force, *Padasekharam samithi,* beneficiary committee, Agricultural Office and Grama Panchayat Committee. Agricultural task force would monitor the progress of the project.

6.3.4.2. ***Diagnosis:*** The budget statement showed that fund is allocated to the tune of intervening in 40 ha of land, instead of the 'proposed action' which says that 200 acres (80 ha) of land would be considered[2]. Information is collected from 75 individual agricultural farmers. The farmers were earlier used to lease in the barren land of Agricultural Societies. The farmers also own certain area of cultivable land which remained barren for the last two to six years. Of the seventy five farmers surveyed, 39 farmers leased in the land of *padasekharam.* Two of the surveyed farmers received the fund from the Panchayat in the name of a 'group' formed for the specific purpose of barren land cultivation, and also two self-help groups included in the 'beneficiary list'. The farmers came to know about the project through a nearby *padasekharam* office and also through the Panchayat member.

Each farmer received a total amount of Rs.1,400 in two instalments of Rs 1,200 and Rs.200 in the first and second instalments respectively. The farmers' groups and

[2] It was told that the total area to be identified for barren land cultivation would be 40 ha and the rest 40 ha would be considered in the next years plan, and fund would be allocated in the next year only. No written statement is obtained regarding such a change of proposed land area for cultivation.

SHGs engaged in the barren land cultivation also received the amount at the same rate [single farmer-Rs.1400].

The amount of assistance provided to each farmer was not proportionate to the area of cultivable barren land which the farmer was in possession. Those who possessed 35-40 cents of land and those who own 75-100 cents of land received the same amount of money. It was evident that a proper measuring of barren land, as proposed in the project document was missing. It is also revealing that all sorts of land such as, *karappadom* (mainland paddy fields) and *thazhchapadom* (low land paddy fields) receive equal amount of money. Most of the barren land area included in the *thazhchapadom* category had only inadequate irrigation facilities, the factor was not at all considered by the authorities while framing the project. Though the water availability were favourable for the *thazhchappadom* category, the fund allocated for the improvement of infrastructure facilities (such as removing weeds, constructing/maintaining bund etc.) is insufficient. The task force members also opined that the entire project became a sort of "make-satisfy" the beneficiaries[3].

One major outcome of the project is that a large area of barren land came under cultivation, though the benefit from such a move is insignificant from the cases which are studied. In a sense, no significant additional man-days of employment is created since the labour put to barren land cultivation has been already engaged in some sort agricultural activities. Out of the total farmers surveyed, 84 percent are traditional farmers who opt for cultivation in the leased land, though not barren land necessarily. The term 'barren land' in the proposed project has only given a vague definition, hence included those lands which had not been cultivated for the last 2 to 6 years. The survey also found that the agricultural

[3] Revealed by a member of the Agricultural task force in a formal discussion

farmers who took over the benefit are largely traditional farmers (or are usually doing paddy farming), thus the 'segment' moved to a different medium of cultivation, the barren land. The labour force remained almost the same and for the receipt of the benefit, they opted for barren land cultivation.

Later, on completion of the project, the project implementing authorities observed a tendency among usual farmers to put their land 'barren' so as to include them in the project. This fact prompted the authorities to give a clear-cut definition to the concept of 'barren land', which later pronounced as 'those lands which are kept barren for more than four years.

6.3.5. Project - [2000-2001, Individual - Based] Equipments for Fishermen Groups

6.3.5.1. ***Project Summary*** – This project proposes to provide assistance to 173 fishermen families by way of supplying 'quality fish nets' to those who do not own nets. The Panchayat intends to create more employment opportunities in the fishing sector and there by the income standards of fishermen by an additional income mobilisation for 60 man-days. The direct beneficiaries of the project would be those for whom fishing is a livelihood for the last two years, and those who had licence from the Fisheries Department. The beneficiary should also be a member in the 'fishermen welfare fund scheme'. It is also proposed that 10 percent of the assistance would be for women.

The Secretary of the Grama Panchayat would be the implementing officer of the project. The fisheries sector task force will monitor the progress of the project.

6.3.5.2. ***Diagnosis:*** This project is the 'continuation' of a same project that was implemented in the previous year, 1999-2000 (but not spill over). Most of the beneficiaries were those included in the previous year's list but those who had not got the benefit in that year. Though the proposal affirms the benefits would be provided to 173 individual beneficiaries, the budget allocation was for only 150 beneficiaries. The Grama Sabha discussions with regards to this project also entailed that the project benefit would be delivered to the beneficiaries by following the priority list prepared by the respective Ward Development Committee and approved by the Grama Sabha. The project benefit would be distributed as according to the "fund availability" or as according to the disbursal of funds from the higher authorities to the Panchayat.

Altogether 62 beneficiaries were surveyed. The project benefit is, in effect, given to each group comprising of two members. This fact was not recorded anywhere in the project details proposed. Each group was to receive two nets and accessories each on payment of Rs.150, as beneficiary contribution to the Panchayat. On payment of beneficiary contribution, the farmers received the permit letter from the Panchayat to be shown at the Net Factory of Matsyafed situated at Ernakulam, from where the Net was supplied. After getting the permit it was the responsibility of the farmers to collect the Net from Matsyafed Net Factory.

Out of the 62 farmers surveyed, 16 persons received the net. The remaining farmers, though they got the permission (official permit letter only on payment of the beneficiary contribution) from the Panchayat for buying net, did not go for buying it since it involved an 'unaffordable' travel expense for them. Those who received the Net from the Matsyafed Factory complained that there was only less scope for selecting from a

limited set of Nets available at the Factory. The farmers were not at all satisfied with Nets they got as part of the project. All the farmers who received the Net from the Panchayat already had their own fishing equipments including Nets. Thus the farmers were able to replace their old Net by the one supplied by the Panchayat. The catching of fish had not registered any further progress with the arrival of the new Net, which was pointed out to be because of the general reduction in the fish resources in the backwaters. Comparatively more time was spent on shell collection, which became more profitable than fishing. There was also no significant increase in the mandays of fishing as compared to the pre-project period.

The project was primarily formulated on suggestions from the Agency for Development of Aquaculture Kerala (ADAK), a State Government Agency which is engaged in promoting aquaculture. The decision making, planning and formulation of the project coming under this category is usually done by the Agency themselves. For the project under study, no "productive contribution" is made by the taskforce as far as decision-making, planning and formulation is concerned.

This project actually does not suit the local conditions. The fishermen are already barehanded due to the general reduction of fish resources in the rivers and backwaters, and obviously their underemployment is not due to a lack of Nets and accessories in fishing. Even after obtaining Nets they mostly go for shell collection, where Nets are not at all needed or used. This could be the simple reason that why most of the identified and eligible farmers did not go for buying Nets from a distant place as directed by the Panchayat and it might not be the dearth of money for fishermen.

6.3.6. Project - [2000-2001, Individual - Based]
Organic (Effluent) Treatment Plant

6.3.6.1. ***Project Summary*** – This project is formulated in view of two major problems faced by the villagers. One is non-availability of good-quality organic fertilizers and second is the environmental problem caused due to garbage-dumping. Though the faecal of cattle is used as manure, the organic waste formed out of worn out vegetable or banana are not all used for any purpose. The present project intends to make use of these things by establishing a Bio-Gas Plant and to construct a Compost Unit. The specific objectives of the project included (a) construction of 7 gober-gas plants ($2m^3$ size) to enhance the supply of fuel, (b) construction of slurry compost unit along with bio-gas plant, (c) establishment of 10 earth-worm compost units. The direct beneficiaries of the bio-gas plant would be those 7 farmers with at least 3 cows each and for earth-worm compost unit the beneficiaries would be 10 women self-help groups.

The project would be jointly organised by Grama Panchayat, Krishi Bhavan, Turn-Key Agent, Beneficiaries and Women Self-Help Groups. Panchayat-level Agricultural Task Force would monitor the project.

6.3.6.2. ***Diagnosis:*** Necessary information was collected from 8 beneficiaries, two were of bio-gas plant and six were of earth-worm compost of the project. Field observations revealed that the project benefit (Bio-gas plant) was received by only 2 beneficiaries. They obtained Rs.2500 each from the Agricultural Office for the establishment of biogas and slurry unit. Both the beneficiaries were rearing four cows each and had constructed bio-gas pits of size $2m^3$ as was proposed in the project. The pits were constructed with concrete rings. Around 2 tonnes of dung was deposited in the 3 pits initially. The processed dung had good demand from the agricultural farmers as manure. One

representative of the Turn-Key Agents (the firm providing technical support) came and gave suggestions in the construction of bio-gas pits.

Another major component of the project such as the construction of worm-compost unit was not implemented. The project was said to be changed as one for Disposal of Garbage from the Local Market[4]. The published plan-expenditure statement of the Panchayat says that the project on Organic (effluent) Treatment Plant has been closed after recording a total expenditure of Rs.5,400 from the Plan fund.

6.3.7. Project -[1999-2000, Common Property Resource - Based] Deepening of *Thodu* (Rivulet) for Kattikunnu Homestead Farming

6.3.7.1. ***Project Summary*** – This project proposes to deepen a public thodu (rivulet) of the Poothotta River. The rivulet was traditionally used for bringing in the silt and loam soil by way of Vanchi (small boats) and also the major irrigation outlet for the collective paddy farms in the region. There is constant demand in the Grama Sabha of Ward 4 to deepen the rivulet so that it could be used productively for agriculture development. The pronounced objectives of the project include increasing the production of paddy as well as coconut of 5ha and 10ha respectively, make available the bio-fertilizer (loam soil from the river bed) for agricultural purpose, smoothen water transport and to create employment opportunities for the agricultural labourers.

The calendar activities of the project include the organisation of an implementing Committee by July 30, 1999, signing agreement with Panchayat by August 30, group formation of agricultural labourers, mobilisation of beneficiary contribution during September, inauguration of the work on October 2 and on completion of the work in November 1, a concluding ceremony.

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[4] Revealed by Ms.Pushpamani, Vice President of the Panchayat, and also one of the beneficiaries of the bio-gas plant project.

The project should be organised by a 13 member committee comprised of a Chairman, Convenor of which 3 members should be women, 2 persons belonging to Scheduled Castes, 1 District Resource Person and 2 representatives of agricultural labourers.

6.3.7.2. ***Diagnosis:*** The required information was collected from 25 direct beneficiaries of the project. They reside on adjacent sides of the rivulet. The Kattikunnu rivulet stretches over 1800 metres and the first phase of work 'proposed' to cover 600 metres[5]. After the start of the work it was changed to 800 metres since a portion of 200 metres leading to Poothotta Temple is added on 'public demand' and the fund estimate remained unaltered. A beneficiary committee was formed for the project implementation as on 16.03.2001, almost lagged one full year against the date proposed in the Project Details. Subsequently other procedures of the project were also delayed, mainly due to the delay caused in sanctioning the fund. The Committee finished the work of 600 metres long portion with a depth of 3 metres in both sides of the rivulet and 3.5 metres in the middle. The work was not completed since the allocated money was not adequate to deepen 800 metres long rivulet portion.

Though the Panchayat proposed to allocate Rs.30,000, it actually gave only Rs.28,000. The beneficiary contribution in terms of donations was also accepted but the cooperation from the public was inadequate. The voluntary contribution was almost absent, which resulted in engaging contract labourers for the work. The work lasted for around 45 days with 4 labourers. Since only part of the work was completed the

[5] These technical specifications were not given in the project proposal of the Panchayat and were revealed by Mr.Joshy, Kopraparambil, President of the Beneficiary Committee and Mr.Asokan, Areeparambu, Convenor of the Committee.

pronounced objectives was not attained except the case of availing bio fertiliser to the homestead agricultural fields on the embankments.

6.3.8. Project - [1999-2000, Individual - Based] '*Kamadhenu*' Insurance

6.3.8.1. ***Project Summary*** – This project aims to give a three-year insurance coverage to the dairy cows and also to the owner of the cow. The project would be co-ordinated by three institutions such as Department of Animal Husbandry, United India Insurance Company and the Grama Panchayat. Apart from the two direct stakeholders such as the cow and the owner, owner's wife would also be given insurance coverage by providing treatment costs if in case of any disease occurrence. A total number of 200 cows and their owners were expected to be covered under the project. The pronounced objectives of the project include giving an insurance coverage to 100 dairy farmers belonging to poor families to give insurance composition on death of the cow or its owner and/or on disease occurrence to the stakeholders. On death of the owner, the insurance compensation should be Rs.1 lakh. On the occurrence of diseases, the owner and/or his wife should get Rs.5000 in one year. If the dairy cow is becoming unproductive due to diseases, the owner would get 75 percent of the insured amount of the cow. Those households who were included in the BPL list and having at least one dairy cow should be considered for the project.

The project would be organised by the Animal Husbandry-Task Force. The five-member Committee should include 2 representatives of selected beneficiaries. The concerned Veterinary Surgeon would convene the project work and a 'monitoring committee' constituted at the Panchayat level monitor the project.

6.3.8.2. ***Diagnosis:*** The project details (proposal) were ambiguous about the number of beneficiaries. In some place it was written that, 200 cows should be covered and in some other places 100 dairy farmers should be benefited. In the financial details section, the beneficiary contribution proposed was Rs.660 and the estimated number of beneficiaries was 150. Primary sources of information also gave a number between 100 and 200. It was also observed that the aggregate premium amount fixed jointly by the three institutions involved in the project was Rs.895 (this includes Rs.660 as premium, Rs. 205 as 'treatment charge' and Rs.30 as for 'accidental death'. The last two items were premium amounts paid for the insurance coverage to cows' owner and/or his wife). A subsidy of 25 percent was ensured over the total premium amount for those who were above poverty line. Those who fall below poverty line were needed to give a subsidized premium amount of 50 percent and for SC/ST the subsidy is 75 percent.

Altogether 60 beneficiaries of the project were surveyed. Out of the total beneficiaries surveyed, 18 households belonged to SC/ST category. They paid 'on average' Rs.300 each for a cow as premium amount. All these 18 beneficiaries were not at all aware of any 'subsidy' amount in the premium. The surveyed beneficiaries could be classified into two on the basis of their premium payment. The average premium amount paid by a set of 36 beneficiaries is Rs.455 and another set of 24 beneficiaries paid Rs.660 each. According to the implementing officer, the variations in the subsidy component were due to their differing income standards. The variations in premium amount within the three broad categories were due to the difference in the real value of the cow which was estimated by the Veterinary Surgeon and the Insurance Company officials.

Of the 60 beneficiaries surveyed, 39 had claimed their insured capital within the two years since the inception of the project. Only one person received the insurance compensation, that too for the cow. Cases of disease occurrence for persons (owner of the cow) though claimed, no compensation from the Insurance Company was obtained. The person who received the compensation got Rs.7,500 from the Insurance Company was paying a premium amount of Rs.455. On the advice of the Veterinary Surgeon (also the implementing officer of the project), she sold out the cow for Rs.2,250. The cow was diseased and the insemination measures applied were futile.

The insurance company denied the compensation for one beneficiary since his cow lost its *ear-ring* (mark of insuring) given by the Insurance Company. For another beneficiary, the compensation is denied, since he consulted a Veterinary Doctor outside the Panchayat, instead of the *official* Veterinary Surgeon of Chempu Grama Panchayat.

6.3.9. Project - [1999-2000, Institution - Based] Construction of Sluice Gates and Development of Basic Facilities of Panangavil *Padasekharam*

6.3.9.1. ***Project Summary*** – This project intends to give assistance to the *padasekharam* for constructing sluice gates and bund around the farm field. The *padasekharam* possesses a total area of 25 acres of land. Group farming practice is not followed in the paddy cultivation in this collective farm. Instead, each farmer is doing the farm operations on his own time and resources. The efforts at the Panchayat level have given a consensus among the farmers in doing collective farming. The project is formulated on the basis of the 'demand' for controlling saline intrusion thereby supporting 20 farmers in increasing their production. The prime objective of the project is to upgrade the present cropping pattern from 'double' to 'triple' (three times a year) and consequently the paddy production would be enhanced from 280 *para* of paddy per acre to 410 *para*. The project would also create

sluice gates and bund, as spelt out in the project proposal of the Panchayat. The benefit in the form cash was received in the September month of 1999.

During 1999 also the *padasekharam* followed double cropping pattern and the aid amount was received towards the end of '*virippu*' (second season – *i.e.,* from June to September). The *padasekharam* had got two sluices constructed with concrete and cement, earlier with the support from Block Panchayat. But these sluices were observed to be of 'temporary' in nature and three more entry rivulets were also maintained using traditional irrigation methods. Bunds of the paddy fields were usually maintained before the sowing of paddy and this time also the bunds were retained by voluntary action by the member farmers. The total produce of the *padasekharam* was estimated to be, on average, 100 *para* of paddy per acre. The average production remained same during the project period also and no third cropping pattern was followed as proposed in the project.

6.3.10. Project - [1999-2000, Institution - Based]
Construction of Bund, Sluice Gates and Adjacent Road for Arathukari *Padasekharam*

6.3.10.1. ***Project Summary*** – This is the largest *padasekharam* in the Chempu Panchayat having 400 acres of farm area. Presently, around 115 acres of paddy land are under cultivation and about 130 agricultural labourers are engaged in the farming operations. The remaining 285 acres of land are kept idle for the last 18 years. The farm is suitable for double cropping of paddy along with fish farming. Earlier, paddy along with prawn was simultaneously cultivated, thus giving employment to 400 agricultural families for 60 continuous days. Apart from this, the agricultural produce in the *padasekharam* was sufficient to meet the food requirements. This situation has been changed with the advent of the Land Reforms and consequent change in the landlord-farmer relationship which ultimately affected the paddy / prawn farming in the *padasekharam*. As a result of this,

unemployment and poverty became common in 3rd, 4th, 5th and 9th Wards of the Panchayat. The present project seeks to address this issue and to find out a sustainable solution. The major objectives of the project are, 1) 400 acres of land area should be made suitable for paddy as well as fish farming, 2) to produce 128250 para of paddy from single cropping system, 3) to produce 120000 kg of fish, 4) to construct a farm-road of one kilometre length, 5) to lay petty/para for proper irrigation of farm land and 6) to create 35000 man-days of labour.

The activities of the project would be coordinated by a people's committee (Beneficiaries' Committee). The overall monitoring of the project would be done by a committee comprising of President of the Panchayat, Block Panchayat Member, Members of Ward 3, 4, 5 and 9, two representatives of Scheduled Castes, two members from Agricultural Committee of the Panchayat, two District Resource Persons and two women representatives.

6.3.10.2. ***Diagnosis:*** The project was not implemented during the year 1999-2000 and was spilled over to 2000-2001 with an additional plan outlay of Rs. 6,00,000 - Rs.5,20,000 as Plan Share of year 2000-2001 and Rs.80,000 as voluntary contribution. The project was not implemented during 2000-2001 too[6]. The Panchayat level Plan Document for the year 2000-2001 showed that a total amount of Rs.2778 was spent from the grant-in-aid share of the project and the project was terminated during the same year. The reason for the same was not mentioned anywhere in the document.

A formal discussion with the members of the *padasekharam* revealed that they are not at all aware of such a project proposed under the People's Plan. They were aware of a

[6] This was revealed by Mr.Ramakrishnan Valayil, the President of the Arathukari Padasekharam.

paid to the Panchayat. Of the total price of the seed, chemical and bio-fertilizer, 50 percent should be paid to the Panchayat as beneficiary contribution.

The President of the Panchayat and the President of the Agricultural Task Force would monitor the project.

6.3.11.2. ***Diagnosis:*** The field data showed that the project was initiated on group basis, *i.e.,* the benefits were given to Women Self Help Groups, rather than to individual women farmers as proposed. Information was collected from 14 such SHGs. All the SHGs except one received the amorphophalus seeds for cultivation. The total quantity of seeds supplied to the SHGs ranged between 15 kg to 60 kg. Of the total SHGs surveyed, 3 have received 5 kg each of fertilizer on payment of the beneficiary contribution. The remaining 11 SHGs did not pay any beneficiary contribution.

All the SHGs were later included in the project of 'Development of Vegetable Cultivation' during 2000-2001 period. The SHGs who received the seeds from the Agricultural Office, distributed the benefits equally among its members. Ten SHGs planted all the seeds in one single common plot and others took it separately and planted on their own plots. The average production per SHG was estimated to be 120kg. The surplus production after own consumption was traded in the local market. The details of production are given in Table 29. Only 2 SHGs set apart the surplus produce for next seasons' cultivation. All the SHGs selected for this project of Amorphophalus cultivation were also included in the next years' project on Development of Vegetable cultivation. Hence, most of them cultivated the vegetable seeds supplied by the Panchayat in the next year.

Table 29 - Details of Amorphophalus Cultivation by SHGs

SHG	Year of Registration	No of members	Benefits received from Panchayat		Output from amorphophalus cultivation (in Kg, gross approx.)	Remarks (If any)
			Suckers (kg)	Fertilizer (Kg)		
1	1998	15	50	Nil	180	1. Distributed seeds were cultivated in a common single plot 2. "Good yield" and was distributed among the 15 members 3. Surplus Production was traded in the local market
2	1998	14	40	Nil	40	1. Distributed seeds were cultivated in a common single plot 2. In addition to the seeds supplied by the Agricultural Office, 25 kg was also planted. 3. "Dismal" output since the seeds sown was of poor quality. 4. The obtained yield was distributed among members
3	1998	23	60	Nil	80	1. The seeds were sown in separate plots of members 2. Fertilizers were bought by the members themselves 3. No inspection from the Krishi Bhavan, as earlier suggested.
4	1998	14	60	5	170	1. The seeds were sown in a common plot 2. The entire produce was taken for consumption by the members and nothing was traded in the open market
5	1999	14	40	Nil	50	1. The seeds were sown in separate plots of members 2. The yield was 'poor' and the present produce was distributed among members themselves.
6	1998	16	40	Nil	130	1. The seeds were sown in a single plot. 2. "Good yield" was obtained and the produce was distributed among members themselves. 3. The surplus was set apart for next season's cultivation
7	1999	11	50	Nil	160	1. The seeds were sown in a common place. 2. "Good yield" was obtained and the produce was distributed among the members themselves. 3. The surplus was set apart for next season's cultivation. 4. The farm site was visited by the Agricultural Officer and appreciated the activities

Table 29 contd...

8	1998	13	50	Nil	100	1. The seeds were sown in a common place 2. The yield was below the "expected" level. 3. Lack of fertilisation affected the yield.
9	1998	10	15	Nil	50	1. The seeds were sown in separate plots. 2. The yield was distributed among the members
10	1999	20	60	5	150	1. 10 members cultivated the seeds in a common place and the remaining 10 members in separate plots of their own. 2. "Satisfactory yield" obtained from the cultivation and the produce was distributed among members.
11	1998	22	50	5	180	1. The seeds were sown in a common place. 2. "Good yield" was obtained and distributed among members. 3. Those who have enough plot for cultivation set apart seeds for the next season. 4. Those who are not having enough plots, sold out the produce.
12	1999	18	50	Nil	130	1. Seeds were sown in a common place. 2. The cultivated produce was distributed among members themselves.
13	1998	20	50	Nil	140	1. The seeds were sown in a common single plot. 2. "Good yield" was obtained and the produce was distributed among members themselves.
14	1999	18	Nil	Nil	---	---

Source: Survey Data

6.3.12. Project - [1998-1999, Institution-Based]
Development of Kalargod *Padasekharam*
[Project Later Changed as Development of Vadakke Keecherikari *Padasekharam*]

6.3.12.1. *Project Summary* – Panchayat has earlier decided to give support for improving the *infrastructure* facilities of various collective farms, from the Second Five Year Plan onwards. As part of the decision, during 1998-99, Kalargod *padasekharam* is selected for the intervention on *infrastructure* development. Kalargod *padasekharam* which is situated in the ninth ward of Chempu Grama Panchayat owns 17 ha of paddy lands and around 70 farm labourers are employed each year. The present project intends to develop the infrastructure facilities of the *padasekharam* for increased profitability from paddy cultivation. Apart from the objective of providing infrastructure supportive, an increase in the production of paddy is also estimated, at the rate of 100 *para* of paddy per acre, and a total production figure of 8000 *para* through double-cropping pattern. An estimated total of 1000 mandays would be created with the project.

The intervention would give support for construction of motor shed, outer sluice gates and purchase of pump set. Though the project has no women representation (not meant for women beneficiaries), it ensures indirect employment opportunities for the women members of the agriculture labour families. The project also reiterates that there would not be any "environmental problem" with the intervention.

The project would be organised and implemented by the *Padasekharam samithi*. Grama Panchayat committee and Krishi Bhavan would supervise the implementation. The Agricultural Monitoring Committee would monitor the project. This Committee comprised of Panchayat President, Chairman of Task Force, Agricultural Officer, Project Beneficiaries and Agricultural Labourers.

6.3.12.2. *Diagnosis:* Since the Kalargod *padasekharam* had not shown any interest in collecting the critical inputs "*sanctioned by the Krishi Bhavan*", the entire project was transferred to another *padasekharam*, *viz.,* Vadakke Keecherikari. Kalargod *padasekharam* was formed in 1982 and around 60 farmers were members of this collective farm. Out of the 17 ha area of land around 2 ha is water; the remaining portion was suitable for paddy cultivation. Yet, during last season, only 2 persons took initiative in farming paddy. Majority of the members were not interested in cultivating paddy or any other crops. Economic backwardness was one of the reasons for keeping the land idle. Of the major expenses usually encountered was the huge hiring charge for *petti-para* used for pumping out water and the maintenance of sluices used for irrigating paddy lands. Earlier, the pump set used for irrigation purposes was worn out and the motor platform was damaged during a heavy monsoon season. The unaffordable expenses said to prompt the farmers from keeping the land idle. Hence, the representatives of the *padasekharam* raised their felt need as to obtain necessary irrigation infrastructure, in the respective Grama Sabha and also before the Task Force.

The land distribution per farmer varied from 10 cents to 400 cents. Recently, about 10 acres of land was sold out and 4 acres of the bought land was being put for paddy cultivation. Thus in effect, only around 6 acres was under cultivation. Those who bought the land from the *padasekharam* were not members of it, nor do they seek for membership.

Vadakke Keecherikari *padasekharam* was registered in 1990 and has 86 members with a total land area of 56 acres. They received the benefits during the month of February in 1999. Around 25 acres of land was being kept idle for the last 4-7 years. With the introduction of the project, a total area of 8 acres of barren land owned by 5 different

farmers put under cultivation. On other side, two farmers having 4 acres of land together kept the land idle. Thus in effect only around 4 acres of barren land had come under cultivation during the project period. The *padasekharam samithi* received critical inputs such as construction cost for a motor shed, maintenance charges of outer bund and a pump set.

6.3.13. Project - [1998-99, Institution-Based]
Distribution of Vegetable Seeds through Educational Institutions

6.3.13.1. ***Project Summary*** – This project intends to develop vegetable cultivation in the Panchayat by distributing it to the students through the educational institutions. The limited availability of land and the higher production costs of vegetable cultivation restricts the commercial cultivation of vegetable, and hence the project aims at promoting vegetable cultivation in each homestead area purposefully for own consumption. Apart from this, the project would enhance the interest of students in vegetable cultivation. As per the project, vegetable seeds would be supplied to 1000 houses. An additional area of 20ha of land should be brought under cultivation and an additional quantity of 125-150 tonnes of vegetable would be produced. The project beneficiaries would be those who have 10 cents to 1 ha of land and each student should cultivate in 10 cents of land. The beneficiaries would be selected at the High School level and 50 percent of the total beneficiaries would be from SC/ST families. The best *student-farmer* would be cash awarded.

6.3.13.2. ***Diagnosis:*** The vegetable seeds were distributed through educational institutions in the Panchayat. Information was collected from 3 schools, such as, Brahmamangalam Higher Secondary School, Vijayodayam UP School, Chempu and Government UP School, Brahmamangalam. Two schools had formed an 'agriculture-club' with around 50 students

as members. Similar projects on distributing vegetable seeds through schools were done in 1997-98 and 1998-99 periods. The idea of distributing vegetable seeds through educational institutions was first raised in the Grama Sabha held at the Brahmamangalam UP School. The teacher, who was in charge of the Agriculture Club of that School suggested to supply some quantity of vegetable seeds to the School so that the students could cultivate vegetable in the School premises, provided all supportive roles from Krishi Bhavan was ensured. The intention of the person in suggesting such a project was just to keep the activities of the Agriculture Club alive.

The schools received about 400 packets of vegetable seeds (okra, amaranthus, cucumber, bitter gourd and snake gourd) each. The seeds were redistributed among students. The students received 5 packets each. The Schools, which had agriculture clubs, utilised the school premises itself for vegetable cultivation. One school produced and sold out vegetable for a total price of Rs.700. For the other School, the vegetable farming became unproductive due to the lack of proper fertilisation. Harvest was also not possible during the "vacation closure of Schools". Around 10 to 15 students who actively participated in the 'agriculture club' activities took interest in cultivating vegetable in the School premises. The remaining students were directed to sow the seeds in their homestead.

Since the beneficiaries were students who were identified and selected by the School authorities, the full list of beneficiaries was unable to trace out. Agricultural Officer gave a brief description of vegetable cultivation before distributing the seeds. In the respective meeting organised for the supply of seeds, the AO initiated that the Krishi Bhavan officials along with the officials in the educational institutions would monitor the farming. Krishi Bhavan officials visited some of the homesteads and selected "some"

students as 'good farmers'. The best farmer students were cash awarded in a brief ceremony organised at the Brahmamangalam Higher Secondary School.

The total number of students engaged in vegetable cultivation and the total quantity produced were unknown factors. The Krishi Bhavan officials insisted that since the seeds were supplied through Schools, they should keep the records. The visit to the farm sites by the Agriculture Officer was based on the information given by the Agriculture Club of Brahmamangalam Higher Secondary School.

6.3.14. Project - [1998-99, Institution-Based]
Development of Thekke Keecherikari *Padasekharam*

6.3.14.1. ***Project Summary*** – This project intends to upgrade the single cropping system followed by the Thekke Keecherikari *padasekharam* to double cropping pattern - farming of paddy in two seasons a year. This is a spill over project and is originally proposed in 1997-98 plan period. The Grama Panchayat intends that the present system of single cropping could be changed to double cropping through the development of infrastructure facilities including maintenance / construction of outer bund, *vachal* (wooden sluices) and *petti-para* (equipment for pumping out water from the farm field). The increased farming in the paddy fields is expected to increase the paddy production from 3000 *para* to 6000 *para* of paddy from the 30 acre own land of the *padasekharam*. Apart from the prime objective of paddy cultivation, the outer bund region would be made suitable for vegetable and plantain cultivation. The project also aims to create 750 man-days.

The project should be organised by a committee consisting of Panchayat President as Chairman, Agricultural Officer as Convenor, President of *padasekharam Samithi* as Secretary and Ward Member, President of the Service Cooperative Bank, District

Resource Person convenor, Chairman of the task force (agriculture) and representatives of Agricultural Labourers organisations as members.

The monitoring of the project should be done by a group of persons including President of the Panchayat, respective Ward member, Agricultural Officer, DRP convenor and the Director Board Members of the *Padasekharam*

6.3.14.2. *Diagnosis:* Thekke Keecherikari *padasekharam* was registered as a collective farm in 1993 and has 47 members with a total land area of 26 acres. Out of the total land area, around 7 acre was being put barren, since the owners of that area of land were not interested in cultivating paddy due to the "sharp increase" in the farming expenses. Normally single cropping system (*mundakan*) was followed, yet the farmers opined that double cropping (*mundakan* and *virippu*) was possible in the *padasekharam*, provided it had enough irrigation facilities (especially, the overflowing of water in certain seasons could be controlled) to cope with the geographic peculiarity of the region. With the advent of the inputs supplied from Krishi Bhavan on behalf of the Grama Panchayat, the farmers decided to go for a second crop in the subsequent season of the year due to prolonged monsoon conditions. The *petti-para* and the pumping set given by the Panchayat had been found useful and productive in pumping water from paddy fields.

Apart from paddy farming, which was the prime objective of the project, farming of vegetable and plantain was not done as proposed. These crops were expected to cultivate in the outer bund region of the paddy fields. Outer bund region together constitutes a total area of 5 acres where coconut was already cultivated.

6.3.15. Project - [1998-99, Institution-Based]
Development of Arikupuram *Padasekharam*

6.3.15.1. ***Project Summary*** – This project aims at giving assistance to the *padasekharam* for developing its infrastructure facilities. The *padasekharam* owns 34 ha of land and 65 farmers are members. Of the total land area, 12 ha of land remains barren and is unsuitable for cultivation. Arikupuram *padasekharam* has been selected as part of a broader programme of developing infrastructure facilities and thereby increasing the production of paddy in the 14 *padasekharam* in the Panchayat. The specific objectives of the project are improving the irrigation facilities for the 22 ha cultivable land, maintenance work of 4 sluices and changing the wooden plates of it and increased production of 60 tonnes of paddy due to improved irrigation facilities. From the 12 ha area of barren land of the 9 farmers, a total of 1800 man-days would be created by way of making the barren land cultivable. Altogether an increased production of 3000 para-24 tonnes is expected with the intervention.

After estimating the total cost of work, 85 percent of that amount should be given as subsidy and 15 percent as voluntary contribution. 'Panchayat Level Agriculture Committee' would monitor the project at different stages of the progress. The project could make use of the services of Agriculture Officer and Assistant Engineer for implementation.

6.3.15.2. ***Diagnosis:*** Arikupuram *padasekharam* stretches over an area of 65 acres with a total membership of 55 farmers. Out of the total land area, 2.80 acres of land is barren since the owners of the farm area were not interested in farming activities. The *padasekharam* usually follows double cropping pattern of paddy cultivation such as

'*Mundakan*' and '*Virippu*' and in around 15 acres of land single cropping pattern was followed. The average produce of the *Padasekharam* was 100 para of paddy per acre[7].

The *padasekharam* received assistance from the Panchayat, an amount of Rs.17,000. The money was received in two instalments of Rs. 10,000 and Rs.7,000 respectively. The money was transferred to the *padasekharam* Committee. Wooden plates were bought for sluices; a total number of 22 wooden plates for the 4 sluices situated within the boundary of the *padasekharam*. Till the time of the survey, they had not used the new wooden plates and informed that it would be used only after the present plates completely worn out. The normal life of the wooden plates would be two years, after that new ones had been bought with the money obtained from the farmers. The second activity of the project such as deepening of minor rivulets for the purpose of cultivation in the barren land was not done properly. First of all, the area of barren land as spelt out in the project is 30 acres was observed to be wrong. In reality, there was only 2.80 acres of land which was being put barren for a long period. A group of farmers in the same *padasekharam* follow single cropping pattern and that area of land could not also be considered as barren. So, in effect, the money which was earmarked for deepening minor rivulets had been used for other purposes, which is unknown. The average yield per acre of land and also total production during the post project period remained almost same. This argument could be strengthened with the opinion of the President of the *padasekharam* that the project intervention had not, in anyway influenced the annual production of paddy from that *padasekharam*. However, the project helped in reducing the operating cost of paddy farming, especially recurring costs incurred in changing the worn out wooden plates. The concrete sluices for fixing the wooden plates were constructed by the *Padasekharam* from their own fund during 1994-95.

[7] Hundred para is equivalent to 900-1000 kg.

6.3.16. Project - [1998-99, Individual-Based]
Construction of Cattle Shed

6.3.16.1. ***Project Summary*** – This project intends to give assistance to 11 women dairy farmers who lie below poverty line. The major problem faced by the dairy farmers in Chempu Panchayat is the lack of cattle shed and the project aims at resolving the problem. The broad aims of the project includes to prevent the diseases of cows, increase milk yield and to assure dairy farming as a profitable venture by reducing treatment costs. The financial aid should be given to the selected beneficiaries on completion of the construction work, which is expected to be completed on the beneficiaries' own initiative and fund.

The cattle-shed should be of size 2.5-metre length and 2-metre width concrete base (floor). The shed should have a 60 cm width cemented creel (for putting grass feed) and the roof could of tiles, thatched or modern roof. The beneficiaries could make use of the design available from the "Dairy Development Department".

A five member organising committee would be formed from a meeting of the animal husbandry task force. The Animal Husbandry officer should convene the Committee. After the final selection of the beneficiaries, two of their representatives would be included in the Organising Committee.

6.3.16.2. ***Diagnosis:*** Information was collected from 35 selected beneficiaries of the Project. All the beneficiaries had constructed the cattle shed but not in the prescribed 'plan' of the Panchayat. The length of the various sheds' base (foundation structure) range from 1.5 metre to 2.5 metre for different beneficiaries. Twenty six beneficiaries constructed only the foundation base and neither walls nor the grass creels are constructed as proposed. The shed was thatched by these twenty six beneficiaries and wooden legs were used. Nine beneficiaries roofed the shed with sheets. All the beneficiaries received

the money by way of cheque from the Veterinary Hospital of the Panchayat. Twenty six beneficiaries received an amount of Rs.1,500 each and nine others, Rs.2,000 each. All the beneficiaries 'complained' about the inadequacy of plan fund allocated per beneficiary for the project.

It was observed that the beneficiaries were not at all aware of the project details especially the plan share and beneficiary contribution to be paid for the completion of the proposed project. The actual expense incurred in constructing the cattle-shed (at its different stage) cost an amount ranging between Rs.3500 and Rs.9000 for various surveyed beneficiaries. There was also no evidence that with the construction of 'such types' of cattle sheds had in anyway prevented the 'diseases' of cows. Another objective of increasing the milk yield was also not attained with the project activities.

6.3.17. Project - [1998-99, Individual-based] Digging Well for Irrigation

6.3.17.1. ***Project Summary*** - This project aims at activating the irrigation facilities for homestead farming in Chempu Panchayat. Project on construction of well is formulated with this objective of improving the productivity of homestead crops such as coconut and plantain, by 20-30 percent. The beneficiaries of the project would be those farmers who are having at least 10 cents of land. The 'specific criteria' for selecting the farmers are 1) own land + documents in proof including receipt of land tax paid, 2) list of cultivated crops in the land, and 3) other common criteria (stipulated by the Panchayat).

The beneficiaries of the project would be selected through the Ward Development Committee. The project should be implemented under supervision of the task force on social welfare. The beneficiaries selected through Grama Sabha will be permitted to

construct wells. Later the task force would inspect the site and recommends for release of funds.

The farmers themselves should buy the materials needed for the construction of wells. Panchayat-level monitoring committee would visit the selected farmer's sites and would verify the eligibility criteria two times before the disbursal of money.

6.3.17.2. ***Diagnosis:*** There was no mention in the project details as to how many beneficiaries would be given assistance. From the field and the informal discussion with the secretary of the Panchayat revealed that the project benefit was given to 104 beneficiaries. Information was collected from 72 beneficiaries, of which 50 percent were women. Out of the 72 beneficiaries surveyed, 5 had homestead farming of coconut and plantain to a considerable extent. These 5 households owned an average area of 42 cents of land. The remaining 19 households had an average area of 10.5 cents, where coconut and/or plantain were rarely cultivated.

All the beneficiaries except 4 received an amount of Rs.2000 each on completion of the project work from the *Krishi Bhavan.* Four households received an amount of Rs.1500 only. Of the total surveyed, 16 beneficiary households built their well with stone and 8 others used concrete rings (6 to 12 nos). On completion of the construction works, *Krishi Bhavan* officials along with the respective Ward Member visited the sites and recommended for the sanction of money and the beneficiaries received the money by way of cheque.

6.4. Degree of Sustainability

Sustainability of the seventeen projects selected for the study is assessed using the Sustainability Index Value (SIV) method developed for the purpose. SIV ranges between 1 and 0 implying 'most sustainability' and 'least sustainability' respectively. SIV and their respective ranks of all the projects under study are given in Table 30. In the present analysis, the values are grouped generally into three categories so as to give clearer picture about the degree of sustainability. Those projects for which the SIV falls between 1 and 0.667 are termed as 'more sustainable', those which lies between 0.666 and 0.334 are interpreted as 'medium sustainable' and if the value is between 0.333 and 0, it would be read as 'less sustainable' projects. It is seen from Table 31, that out of the seventeen projects studied, six are found to be 'more sustainable', seven projects are 'medium sustainable' and the remaining four projects are 'less sustainable'.

It could be seen from Table 31, that all the projects, except one, which are ranked 'more sustainable' are institution-based projects. The odd one, Barren Land Cultivation is an individual based project. Three projects in this category are of *padasekharam* and two others are of women self-help groups. The contributing degree of each components of sustainability, internal and external is displayed in Table 32. The external sustainability components contribute comparatively lower and obviously sustainability could be distressed, where as internal sustainability components are more prominent. It should be noted that asset creation and reinvestment of income are not commendable. Regarding asset creation, the dark shade implying more sustainability, is shown only for the project on Development of Thekkekeecherikari *padasekharam* and for two other projects such as Development of Paddy Cultivation and Development of Arikupuram *padasekharam*, the sustainability is illustrated with cross lines, implying medium sustainability. In the case of

re-investment of income accrued from the project activities, only two projects within the category, Development of Paddy Cultivation and Barren Land Cultivation has a contributory level of investment that could sustain the project initiatives.

Three of the 'more sustainable' projects, Development of Paddy Cultivation, Barren Land Cultivation and Development of Arikupuram *padasekharam*, are deficient of technical training that could sustain its purpose more comfortably. At the same time projects, Development of Thekkekeecherikari *padasekharam* and Development of Vegetable Cultivation through Women SHGs have received adequate training to deal with the technical aspects of the project and this is reflected in the project sustainability. Employment generation as one among the determining factors of sustainability has found prominence in only one project, Development of Thekkekeecherikari *padasekharam* and all other 'more sustainable' projects have only medium level of performance in creating additional employment. Management orientation is another major component which requires attention by the panchayat in sustaining the project initiatives. It is found feeble for projects, Development of Thekkekeecherikari *padasekharam* and Development of Arikupuram *padasekharam*. The role of community mobilizers as well as of panchayat is found stronger for the project, Barren Land Cultivation and also for Development of Paddy Cultivation and Development of Vegetable Cultivation through Women SHGs respectively.

All the 'more sustainable' projects except Development of Paddy Cultivation are found to have rated financial effectiveness, a major internal sustainability component, as adequate enough to sustain on its own end. Similarly beneficiary contribution has contributed to the internal sustainability of projects such as Development of Paddy Cultivation, Development of Thekkekeecherikari *padasekharam*, Development of

Vegetable Cultivation through Women SHGs and Development of Amorophophalus Cultivation. The role of beneficiary committees in the sustainable implementation of development projects are yet to be materialised in its real meaning. Accordingly, only two projects, Development of Paddy Cultivation and Development of Amorophophalus Cultivation have displayed a strong allegiance that could contribute positively to the internal sustainability of the projects. Production processes and project output are more or less on the suggested lines for all the projects which are more sustainable. Though self maintenance of project ventures are also follows the same trend, the beneficiaries of the project, Development of Amorphophalus Cultivation have performed cheerless in sustaining their efforts. However, it should be noted that Panchayat has taken special interest in these women groups in sustaining their endeavour during the proceeding year of the planning process, by way of initiating the project, Development of Vegetable Cultivation. More sustainable projects are more particular in taking part in the initial stages of project formulation and also confirm that their felt needs are transferred to projects. Community also exerts its power in performing their role either in rejecting or accepting the projects and if it is based on felt needs of a considerable segment of the community, the project would naturally get the base to sustain on its own. The formal agreement between the panchayat and the project holders contributes considerably to the internal sustainability of the projects. This is more obvious in the case of two projects, Development of Paddy Cultivation and Development of Thekkekeecherikari *Padasekharam*. Monitoring and evaluation is the weakest component of internal sustainability and needs to be addressed at the panchayat level for a more contented sustainability of projects.

The external sustainability components of 'medium sustainable' projects are more in peril as is evident from increasingly blank columns in Table 32. A noteworthy feature of this category of projects is that the re-investment of the income accrued from the project activities is not significant. Similarly, the external sustainability components such as management orientation, role of community mobilizers and role of panchayat in sustaining the project initiatives is found bleak for 'medium sustainable' projects. At the same time, three projects such as Development of Kalargod *padasekharam*, Distribution of Vegetable Seeds through Educational Institutions, Small Scale Mechanisation in the Agricultural Sector of the Region have rated the financial effectiveness of their projects as highly contributing to sustainability.

Among the 'less sustainable' category of projects, Development of Arathukari *padasekharam* is the least performing project with respect to sustaining beyond the withdrawal of panchayat from the scene. It should be noted that for all the 'less sustainable' projects the targeted beneficiaries' involvement in project formulation and also their linkage with the community is weak. External sustainability components of employment generation, re-investment of income, technical training, management orientation, role of community mobilizers and role of panchayat are not at all at ease with these projects.

Table 30 - Project-Wise Sustainability Index Value (SIV) and their Ranks

Year	Sl.No	Project	SIV	Rank
2000-2001	1	Development of Vegetable Cultivation through Women SHGs	0.814	IV
	2	Development of Paddy Cultivation	0.896	I
	3	Small scale Mechanisation in the Agricultural Sector of the Region	0.493	XI
	4	Barren-land Cultivation	0.861	III
	5	Equipment for Fishermen Groups	0.182	XVI
	6	Organic (effluent) Treatment Plant	0.406	XII
1999-2000	7	Deepening of Thodu (Rivulet) for Homestead Farming	0.611	VIII
	8	Kamadhenu Insurance	0.353	XIII
	9	Construction of Sluices and Development of Basic Facilities of Panangavil *Padasekharam*	0.319	XIV
	10	Construction of Bund, Sluices and Adjacent Road for Arathukari *Padasekharam*	0.110	XVII
	11	Development of Amorphophalus Cultivation	0.737	V
1998-1999	12	Development of Kalargod *Padasekharam*	0.587	IX
	13	Distribution of Vegetable Seeds through Educational Institutions	0.522	X
	14	Development of Thekkekeecherikari *Padasekharam*	0.872	II
	15	Development of Arikupuram *Padasekharam*	0.695	VI
	16	Construction of Cattle Shed	0.659	VII
	17	Digging Well for Irrigation	0.207	XV

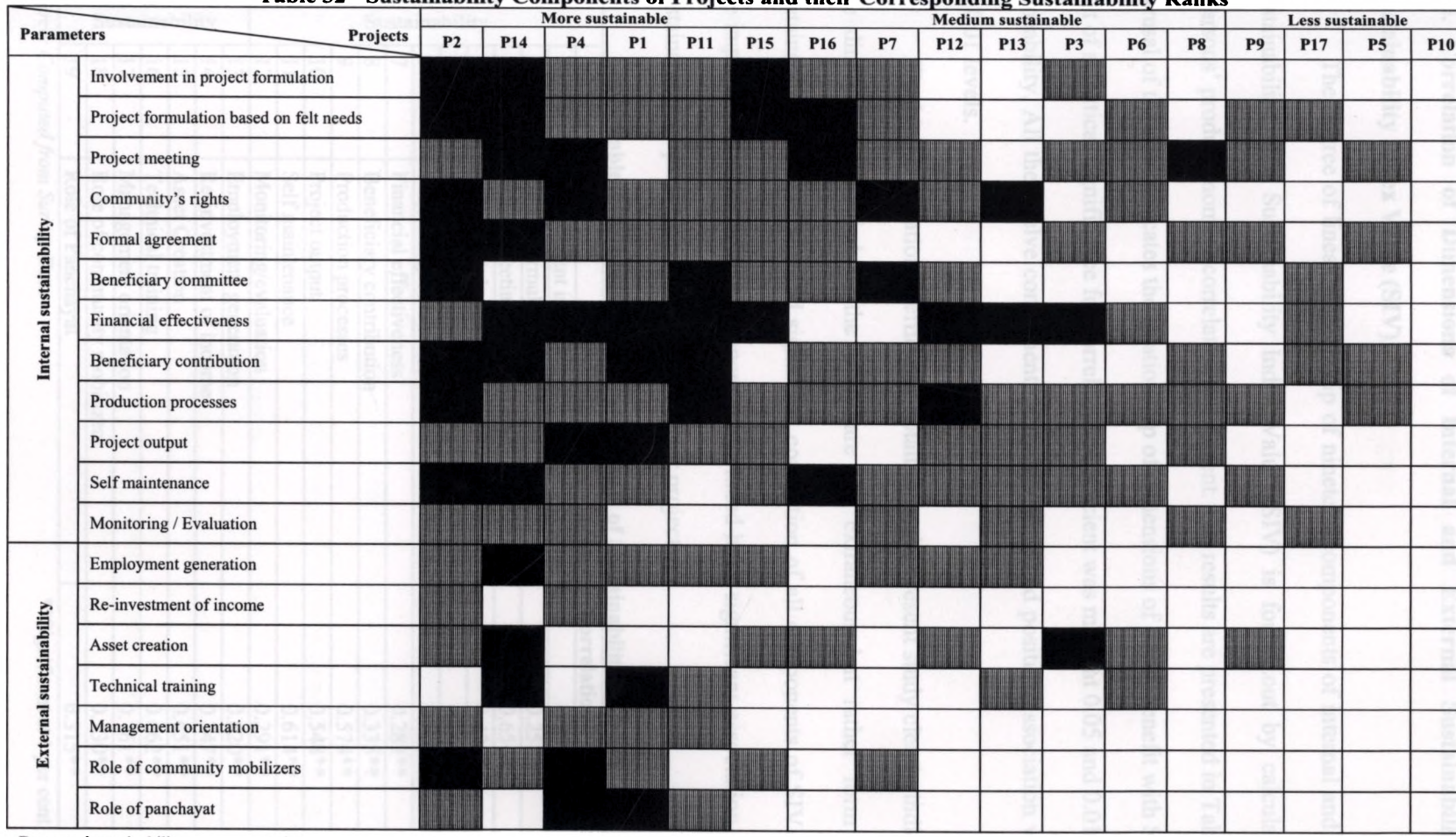
Source: Computed from Survey Data

Table 31 - Distribution of Projects According to their Degree of Sustainability

Degree	Sl.No	Project
More Sustainable [SIV range: 1 - 0.667]	1	Development of Paddy Cultivation
	2	Development of Thekkekeecherikari *Padasekharam*
	3	Barren-land Cultivation
	4	Development of Vegetable Cultivation through Women SHGs
	5	Development of Amorphophalus Cultivation
	6	Development of Arikupuram *Padasekharam*
Medium Sustainable [SIV range: 0.666 – 0.334]	7	Construction of Cattle Shed
	8	Deepening of Thodu (Rivulet) for Homestead Farming
	9	Development of Kalargod *Padasekharam*
	10	Distribution of Vegetable Seeds through Educational Institutions
	11	Small scale Mechanisation in the Agricultural Sector of the Region
	12	Organic (effluent) Treatment Plant
	13	Kamadhenu Insurance
Less Sustainable [SIV range: 0.333 - 0]	14	Construction of Sluices and Development of Basic Facilities of Panangavil *Padasekharam*
	15	Digging Well for Irrigation
	16	Equipment for Fishermen Groups
	17	Construction of Bund, Sluices and Adjacent Road for Arathukari *Padasekharam*

Source: Computed from Survey Data

Table 32 - Sustainability Components of Projects and their Corresponding Sustainability Ranks



Source: Computed from Survey Data

6.5. Correlation of Dimensions of Internal and External Sustainability with Sustainability Index Value (SIV)

The degree of linear relationship of nineteen components of internal and external sustainability with Sustainability Index Value (SIV) is found out by calculating the Pearsons' product moment correlation coefficient. The results are presented in Table 33. A perusal of the data indicates the relationship of dimensions of social benefit with SIV. The test of statistical significance for correlation coefficient was made at 0.05 and 0.01 level of probability. All the twelve components had significant and positive association with SIV at 0.01 levels.

The high correlation coefficients obtained in the present study clearly indicate that the dimensions included in the study are not extraneous but rather form part of sustainability. The positive and significant correlation of all components of SIV justified the important assumption that components included have significant association with the sustainability of participatory productive sector projects.

Table 33 - Correlation of Components of Sustainability with SIV

	Sl.No	Components	Correlation Coefficient (r)
Internal Sustainability	1	Involvement in project formulation	0.321**
	2	Project formulation based on *felt needs*	0.258**
	3	Project meeting	0.654**
	4	Community's rights	0.426**
	5	Formal agreement	0.764**
	6	Beneficiary committee	0.409**
	7	Financial effectiveness	0.283**
	8	Beneficiary contribution	0.335**
	9	Production processes	0.574**
	10	Project output	0.548**
	11	Self maintenance	0.614**
	12	Monitoring/evaluation	0.291**
External Sustainability	13	Employment generation	0.820**
	14	Re-investment of income	0.347**
	15	Asset Creation	0.651**
	16	Technical training	0.662**
	17	Management orientation	0.761**
	18	Role of community mobilizers	0.530**
	19	Role of Panchayat	0.315**

Source: Computed from Survey Data **Significant at 1 per cent level

6.6. Relationship of Components of Internal Sustainability with Independent Variables in Case of Individual-Based Projects

6.6.1. Involvement in Project Formulation

It is seen from Table 34, that variables like education (0.338) innovation proneness (0.584), achievement motivation (0.342), unit size (0.293), project perception (0.791), scientific orientation (0682), operational experiences (0.316) and entrepreneurial behaviour (0.522) have got positive and significant correlation with the internal sustainability component of 'involvement in project formulation'.

As the educational status of the person increases there is more likely involvement of him/her in the project formulation processes of the panchayat. If the person happens to be in the field of generating income for his livelihood naturally would have increased number of operational units to his credit. This might orient the respondent towards systematically adopting the modern technical know-how for improving productivity. Such persons have the incessant quality of venture into those enterprises which gives them maximum development, economically as well as socially and hence a positive and significant relationship with the variable, achievement motivation. Participatory projects framed in view of overall development of the society through the step by step progress of the individuals are perceived as an innovative attempt which is reflected in the positive relationship of the variables such as innovation proneness and project perception. Projects are certainly the disciplined and conceptual dis-aggregation of complex, or ill defined problems into discrete tasks for which resources can be mobilised and targeted. Persons with high level of innovative abilities would have a positive perception about the concept of such projects since these projects are a set of pre-programmed activities in which local

resources are used to its maximum as per its availability and also all the anticipated outcomes of the projects are well planned.

6.6.2. Project Formulation Based on Felt Needs

It is evident from the Table 34 that variable, age (0.641) has a positive and significant correlation with the internal sustainability component of project formulation based on felt needs. Whereas variables such as education (-0.383), economic motivation (-0.586), achievement motivation (-0.281) and unit size (-0.632) have a negative and significant correlation with the component of internal sustainability.

Productive sector projects are proposed to be based on the felt needs of the rural people. However the concept 'felt need' when comes to operational definition, is mostly implied for those needs of the rural people which may not be included in the productive sector category. Felt needs of the people as spelt out in the Grama Sabha documents of the panchayat reveals that they are mostly the demands for the proper execution of the traditional civic functions of the panchayat such as construction of roads, bridges, culverts, latrines, maintenance and electrification of houses, rather than with a view to improve the production of various economic resources. Thus aged people are more prone to such traditional civic duties of the panchayat and their attitude is reflected in the formulation of projects based on felt needs, hence a positive correlation. On the other side, if the respondent is more educated, he/she is more likely to support the extended functions of the panchayat including the development of productive sector. Since the respondents having more economic and achievement motivation and the increased number of operational units in possession, have a natural tendency to reject the practice of preparing projects based on the non-productive needs of the people and the inferior importance and attention given for productive oriented enterprises, hence a strong negative correlation between the variables.

6.6.3. Project Meeting

Independent variables such as education (0.291), economic motivation (0.722), credit orientation (0.697), achievement motivation (0.540), project perception (0.485) and cosmopoliteness (0.246) have displayed strong and positive correlation to the internal sustainability component of project meeting (Table 34).

Project meeting intended to explain the organisational and management aspects of the project to be implemented in the panchayat has been rated positively as the people are getting more educated. In other words, higher the education level more favourable would be the attitude towards project meeting. Such meetings have the embedded objective of a transparent communication with the rural people, which is very essential for the participatory development planning. The exposure of the respondent to the outside world is one among the determinant factors of such perception which is evident from the positive correlation of the variable cosmopoliteness. This might have influenced the respondent in availing credit or maintaining a favourable attitude to the role of credit mobilisation for the successful implementation of any development initiative, or the other way, a respondent with favourable credit attitude would be eagerly looking at the project particulars for the purpose of applying this in his field and thereby for the general progress. Adequate credit facilities would motivate the people towards rendering maximum human and other resources with the objective of a reasonable economic return. Such inquisitive people might take the responsibility of attending such project meetings and receive the necessary information for their benefit or render their suggestions, thus contributing their vision of development. The positive correlation of the variable, project perception, also reiterates this statement as the respondents with affirmative stance regarding micro level

participatory projects might complement the project meeting. This is evident from the positive and strong correlation between the variables.

6.6.4. Community's Rights

A perusal of the Table 34 reveals that the internal sustainability component of Community's rights is positively correlated to variables such as age (0.778), achievement motivation (0.422), project perception (0.266), scientific orientation (0.210) and operational experience (0.667).

In the decentralised development planning, community's rights have a significant status. Practical development work has combined the use of community's institutional structures to propagate modern ideas and technologies, with promoting the idea that the community should identify its problems, agree solutions and then manage and maintain investments. These rights of the communities vary with several factors. As the present study shows, community's rights are more appealing to the aged respondents and for those who sees community development through the specific framework of projects. Longer the year of experience in the field, higher would be the respondent's perception regarding community' rights as their own knowledge has distinctly put the responsibility of community as a core factor in deciding a sustainable development venture. Those who possess the incessant wish to accomplish their goals in life might have developed a tendency to use scientific methods in their development endeavours and they naturally identify the right investment options and also rejects the inconsistent ones with the genuine participation of the community, hence a positive correlation between the variables.

6.6.5. Formal Agreement

Table 34 shows that variables such as education (0.821), annual income (0.550), economic motivation (0.230), credit orientation (0.458), risk orientation (0.510), project perception (0.288), cosmopoliteness (0.316) and scientific orientation (0.587) have a positive and significant correlation with the internal sustainability component of formal agreement.

A formal agreement between the project donor and the stakeholder is expected to enhance the realisation of objectives by the community broadly and individuals specifically. As the educational status of a person and the annual income increases, the respondent is more likely to demonstrate a favourable attitude towards formalising his/her deeds. A respondent who is economically motivated and with flattering credit and risk orientation might have the constructive overview regarding a development-oriented project and this might, in turn result in their need for an institutional arrangement of defining and understanding the project responsibilities from the beginning, hence a positive correlation between the variables. Exposure to the outside world and the consequent accomplishments might have oriented them towards formalising project activities which itself is the sign of adopting scientific methods in the respective development initiatives as is evident from the positive and significant correlation explained by the variables such as cosmopoliteness and scientific orientation.

6.6.6. Beneficiary Committee

Variables such as age (0.810), education (0.751), innovation proneness (0.287), risk orientation (0.215), achievement motivation (0.330), unit size (0.621), project perception (0.442), operational experience (0.302) and entrepreneurial behaviour (0.220)

have displayed a positive and significant correlation with the internal sustainability component, beneficiary committee (Table 34).

A beneficiary committee which is expected to strengthen organisational skills in managing the project benefits would function as a precise people's institution. The gist of such an institutional arrangement which deliberately brings in the rural wisdom, incorporating local preferences and knowledge in project implementation and further prepares the community towards brewing up a sustainable output, has many related variables. As age and educational status of the sample goes up, they display a more intimate relationship with the participatory concept of beneficiary committee as is evident from the positive and significant correlation between the variables. Innovative people always have a favourable attitude towards structural changes that has been taken place with respect to their project deeds. This character coupled with the risk orientation and achievement motivation sharpens their entrepreneurial abilities and thus results in the significantly positive correlation of the respective variables. It should also be noted that as the number of operational units in possession happens to increase and the likewise increase in the functional experience of the respondent, he/she would be more likely to share his/her positive views on beneficiary committee. This might be due to their previous experiences with several institutional arrangements which alienate people from designing, implementing and managing of local projects, in which they too find some scope in the new people-centred micro-level institutional framework.

6.6.7. Financial Effectiveness

As could be seen from the Table 34, variables such as annual income (-0.468), economic motivation (-0.391), credit orientation (-0.294) have shown significant and negative correlation with the internal sustainability component of financial effectiveness.

Where as, variables such as innovation proneness (0.232), project perception (0.924), operational experiences (0.221) and entrepreneurial behaviour (0.410) have a positive and significant correlation with the internal sustainability component, financial effectiveness.

In a major component of internal sustainability, financial effectiveness, the initial attention given to cost factors is increasingly waived out by the respondents as their annual income, economic motivation and credit orientation are better. Even the implementation of a cost-intensive project is depending on several resource constraints of the local bodies that may not be sufficient to satisfy the requirements of such respondents and hence a negative correlation. People with high annual income expect a financial assistance of relative percentage of their annual income and as it goes up, the aid given by the Panchayat would appear to be meagre. Thus most of the development assistance will appear standard for poverty ridden respondents as the relative share of assistance would be higher in proportion to their annual income. The local level planning mechanism also does not ensure an exclusive assistance to below-poverty line population which could significantly affect the variable under consideration. The case of economically motivated respondents are also of not much difference since profit from a particular development venture would be the primary objective of such respondents and naturally they expect a significant investment pattern which needs to be provided by the panchayat. In reality panchayats could not endow with adequate finance for the functioning of the project on its own and this fact is evident from the analysis of plan outlay. Similar is the case of those respondents who had the orientation towards availing credit, as they consider panchayat as a financial institution which provides adequate credit facilities for the smooth functioning of their project, but could find the same in reality and hence a negative correlation.

Respondents who distinguish the importance of decentralised planning and the participatory approaches have better understanding of the projects which are being implemented for their development and they might perceive optimistically about the financial aspects of a project. They are also more understandable about the constraints in allocating a huge amount of money for the benefit of a few projects through a few numbers of stakeholders in the panchayat. Those who are keen in accepting new ideas and seeking changes in their operations and introduce such changes into their project when practical and feasible, are more likely to be redundant about the financial aspects of the project. This corroborate with their operational experiences in the field as well as with their ability to exploit opportunities and initiate activities in view of increasing their income. They are more of the opinion that what all the panchayat could give is nothing but an incentive for participating in the rural development process in the wider perspective and hence a positive and significant correlation between the variables.

6.6.8. Beneficiary Contribution

Table 34 shows that variables such as age (-0.435), economic motivation (-0.522) and credit orientation (-0.259) have a significant and negative correlation with the internal sustainability component of beneficiary contribution. On the other side, variables such as education (0.812), annual income (0.824), achievement motivation (0.266), project perception (0.448) and cosmopoliteness (0.636) have a significant and positive correlation with the dependent component.

Respective beneficiaries of the projects should contribute in monitory terms or in real terms and this is expected to increase their involvement in the project, since this contribution, if though nominal in some cases, would ultimately produce a better outcome for the project. The sense of ownership feeling would be prominent if the beneficiary has

paid the contribution as stipulated by the panchayat. Being this the conceptual case, in reality, the aged respondents have a pessimistic view of beneficiary contribution since they mostly believe that panchayat is free service provider and should act accordingly too. Once profit becomes the implicit and explicit objective of a respondent with respect to his/her project, he/she would be looking for reduced costs of production and increased marginal returns. Waiving away the beneficiary contribution, in a way, is part of some cost reduction strategies and these stakeholders believe that such costs needs to be bared by the panchayat itself. In case if the panchayat proposes the beneficiary contributions considered in value terms for the labour and other contributions in kind, then the stakeholders would have a neutral attitude towards the concept. Similarly, those respondents who are more oriented towards mobilising and managing credit might also think of reducing an additional liability apart from that of the financial institutions which they might be dealing with and hence a significant and negative correlation.

Consequent to the increased educational status, there is all likely improvement in the cosmopoliteness of the respondent which is favourably reflected in their perception about beneficiary contribution. Those respondents with higher annual income might be great achievers in pure economic terms and they perceive superior opinions regarding the importance of participatory projects and hence have an affirmative attitude towards the concept of beneficiary contribution which is reflected in the positive and significant variables.

6.6.9. Production Processes

It could be seen from Table 34 that variables such as education (0.285), annual income (0.918), economic motivation (0.865), credit orientation (0.422), innovation proneness (0.550), achievement motivation (0.263), scientific orientation (0.287) and

entrepreneurial behaviour (0.299), have positive and significant correlation with the internal sustainability component of production processes. Two independent variables such as unit size (-0.887) and operational experiences (-0.411) have negative and significant correlation with the sustainability component, production processes.

Respondents belonging to higher income category are more likely to follow the production processes as stipulated in the project proposal document of the panchayat. The strong correlation of this variable is worth noticeable as most of the rural development programmes have a bias towards below poverty line segments. Higher the annual income of a beneficiary, higher will be the propensity to lodge a proportion of that income for the smooth conduct of the project. Coming to the lower income strata, people are less prone to comprehend the production processes, in accordance with the envisaged project plan. The subjective approach of attaining maximum profit and the predisposition towards credit along with a penchant attitude to apply new ideas seeking changes in the project operation and the knowledge attained through formal education also have a manipulative effect upon the production processes. Real entrepreneurs do have the quality of attaining heights at any odd circumstances and hence they might follow technically sound paths as stipulated for a comfortable win, hence a positive and significant correlation between variables.

It is also noteworthy that an increased number of operational units and longer years of operational experience might divert the attention of respondents as they are less likely to develop a positive attitude towards production processes and this could be the reason for the strong and negative correlation between variables.

6.6.10. Project Output

The independent variable age (-0.655) has a negative and significant correlation with the dependent variable project output, where as variables such as education (0.228),

annual income (0.564), economic motivation (0.826), risk orientation (0.866), achievement motivation (0.551), scientific orientation (0.432), operational experiences (0.474) and entrepreneurial behaviour (0.296) have a positive and significant correlation with component of project output (Table 34).

Aged respondents have a passive attitude towards achieving the output proposed in the project document. This lethargic approach might be due to the preconception attached to the untied grant given to them. There is no provision for any sort of confiscation if at all the beneficiaries does not follow any part of the project stipulations. As the educational status of the respondent increases, there is more likely attainment of the desired output from the project activities. This disciplinary slant is also evident in case of respondents with increased level of annual income and might be due to the reason explained in relation to the internal sustainability component of production processes. Such people do take a part of their income and spent substantially for realizing the desired output from the project. Definitely profit would be their primary concern in order to earn a livelihood out of it and they are also ready to encounter any risk in attaining their goal, and this might be reason for the positive correlation between the variables. Longer years of experience in the field displayed a positive impact on accomplishing the proposed output or even more. Their experiences throughout the years might have gifted them with adequate technical knowledge to produce maximum out of the investment they made. It seems that aged people without much experience at the operational level fails miserably in attaining the desired output from the project as they are quiet unsuccessful in exploiting the opportunities given to them and initiate activities with a view to increase their output and thereby income level.

6.6.11. Self Maintenance

It is seen from Table 34 that the independent variable age (-0.821) has a negative and significant correlation with the dependent component of self maintenance, where as variables such as education (0.287), annual income (0.477), economic motivation (0.886), credit orientation (0.474), unit size (0.305), cosmopoliteness (0.296), scientific orientation (0.831) and entrepreneurial behaviour (0.552) have positive and significant correlation with the internal sustainability component of self maintenance.

As the age of the respondents increase, there is more likely deadline for the project activities, since such people have no interest in taking up their ventures for attaining a sustainable income out of it. Barring age as a negatively correlated variable, the increased number of operational units under possession of the respondent, the more likely would be their self maintaining responsibilities. It seems that those with additional operational units have an implicit strategy to maintain the newly granted project also. This corroborates with the higher level of income status, as is obvious the respondent would be ready to spend more, even from own income to run the project in view of a sustainable output. Those with a favourable attitude towards credit also take initiatives in maintaining their project for longer periods and this might be as part of overcoming the liabilities in connection with credit mobilisation made for project activities. A scientifically driven project is better to be managed and if the respondents have an inclination towards running the venture with taking all its management responsibilities, there would be sustainable output and it is evident from positive correlation between variables. A high level of education and the exposure to outside world always bring the business to a theme of perennial income earnings.

Table 34 - Relationship of Components of Internal Sustainability with Independent Variables – Individual-Based Projects

Components	Independent Variables													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0.006	0.338**	0.123	0.207	0.131	0.584**	0.008	0.342**	0.293**	0.791**	0.167	0.682**	0.316**	0.522**
2	0.641**	-0.383**	0.144	-0.586**	0.006	0.150	0.117	-0.281**	-0.632**	0.027	0.036	0.151	0.148	0.168
3	0.177	0.291**	0.007	0.772**	0.697**	0.103	0.102	0.540**	0.180	0.485**	0.246*	0.122	0.007	0.166
4	0.778**	0.003	0.142	0.123	0.112	0.124	0.162	0.422**	0.133	0.266**	0.052	0.210*	0.667**	0.150
5	0.088	0.821**	0.550**	0.230*	0.458**	0.025	0.510**	0.004	0.140	0.228*	0.316**	0.587**	0.110	0.005
6	0.810**	0.751**	0.008	0.149	0.028	0.287**	0.215*	0.330**	0.621**	0.442**	0.162	0.101	0.302**	0.220*
7	0.003	0.110	-0.468**	-0.391**	0.294**	0.232*	0.081	0.004	0.152	0.924**	0.011	0.185	0.221*	0.410**
8	-0.435**	0.812**	0.824**	-0.522**	-0.259**	0.002	0.121	0.266**	0.119	0.448**	0.636**	0.102	0.008	0.157
9	0.116	0.285**	0.918**	0.865**	0.442**	0.550**	0.193	0.263**	-0.887**	0.148	0.002	0.287**	-0.411**	0.299**
10	-0.655**	0.228*	0.564**	0.826**	0.114	0.124	0.866**	0.551**	0.008	0.152	0.146	0.432**	0.474**	0.296**
11	-0.821**	0.287**	0.477**	0.886**	0.474**	0.101	0.012	0.007	0.305	0.123	0.296**	0.831**	0.009	0.552**
12	0.118	0.809**	-0.557**	0.107	0.211*	0.741**	-0.185**	0.663**	-0.231*	0.921**	-0.125	0.146	-0.352**	0.079

Source: Computed from Survey Data

**Significant at 1 per cent level, *Significant at 5 per cent level

Components (Dependant variables)

1 Involvement in project formulation
2 Project formulation based on felt needs
3 Project meeting
4 Community's rights
5 Formal agreement
6 Beneficiary committee
7 Financial effectiveness
8 Beneficiary contribution
9 Production processes
10 Project output
11 Self maintenance
12 Monitoring/evaluation

Independent variables

1 Age
2 Education
3 Annual income
4 Economic motivation
5 Credit orientation
6 Innovation proneness
7 Risk orientation
8 Achievement motivation
9 Unit size
10 Project perception
11 Cosmopoliteness
12 Scientific orientation
13 Operational experiences
14 Entrepreneurial behaviour

6.6.12. Monitoring and Evaluation

As could be seen from Table 34, variables such as education (0.809), credit orientation (0.211), innovation proneness (0.741), achievement motivation (0.663) and project perception (0.921) have positive and significant correlation with sustainability component of monitoring/evaluation. On the other side, variables such as annual income (-0.557), unit size (-0.231) and operational experience (-0.352) have negative and significant correlation with the component of monitoring/evaluation.

As the educational status of the respondents increase, there is more favourable attitude towards monitoring/evaluation component of the project, since educated people believe that an evaluation process might correct the defects, if any mounted up with the project implementation process. Those people who increasingly avail credit for the project purposes have also shown a favourable attitude towards monitoring/evaluation as they think that such methods would be helpful for them to convince their outside lenders regarding the systematic nature of the project. Innovative people, who often experiment with new ideas, have bias towards the monitoring/evaluation procedure as it helps them in getting their project freed from any irregularities, and this in turn is due to their persistent aspiration for high level of achievement, hence a positive correlation between the variables. Those who are well aware of the real meaning of micro level participatory projects, have definitely opined monitoring/evaluation as a necessary mechanism for the benefit of the stakeholders.

Respondents with increased level of annual income, increased number of operational units and operational experience might have their own ways of doing business with a vision of obtaining sustainable output and they reject the idea of a

monitoring/evaluation mechanism and hence negative and significant correlation between the variables.

6.7. Relationship of Components of External Sustainability with Independent Variables in Case of Individual-Based Projects

6.7.1. Employment Generation

It could be seen from Table 35 that variables such as education (0.256), annual income (0.880), economic motivation (0.311), credit orientation (0.824), scientific orientation (0.258), operational experience (0.318) and entrepreneurial behaviour (0.647) have a positive and significant correlation with the dependant variable and external sustainability component of employment generation, where as, unit size (0.747) has a negative and significant correlation.

Employment that could be generated from the project is higher if the educational status of beneficiary respondents is high. This might be due to the wider networks possessed by formally schooled person, which in turn results in creating more employment opportunities. As annual income as well as credit orientation increases there is more scope for creating additional employment given that such respondents are more slanted towards economic benefits for which they might employ as many people as required. Naturally this reflects their capability in successfully managing an enterprise following a scientifically skewed way, hence a significant and positive correlation between the variables. Longer the years of experience of a particular respondent in the field, higher would be the propensity to engage more people there by creating additional employment opportunities, where as an increased number of possession of operational units have a negative and significant correlation with the dependant variable. Those with additional operational units might use

their existing labour power towards attaining the targeted output and hence additional employment created by them is not significant.

6.7.2. Reinvestment of Income

A close look at Table 35 reveals that except the variable, age (-0.254) all other independent variables such as education (0.289), annual income (0.465), economic motivation (0.850), credit orientation (0.746), innovation proneness (0.210), risk orientation (0.613), unit size (0.520), cosmopoliteness (0.318) and entrepreneurial behaviour (0.537) have a positive and significant correlation with the external sustainability component of re-investment of income.

As age of respondents is increases, they become reluctant to reinvest their income. Young people's reinvestment decisions are mainly based on their aptitude to take risk in anticipation of better profits and this is evident from the positive and significant correlation between the variables. Annual income is another variable which displayed strong and positive correlation with respect to reinvestment of income. It is obvious that people belonging to lower income strata have a tendency to spend an increasing proportion of their income on food and other basic amenities, rather than reinvesting on their present business endeavours. As income level increases, the proportionate spending on food and other basic amenities would be decreasing and people would have a tendency to save money. This saving might be reinvested into the economy depending upon the entrepreneurial behaviour of the respective persons. The respondents' ability to exploit opportunities and initiate activities in view of reaping higher profits from his operation has found a positive correlation with his/her reinvestment decisions. Apparently the ability of the person to avail credit for his project operations and his/her talents to incorporate fresh ideas in the overall functioning of the project also determines the level of reinvestment. In

addition to this, if the person possesses more number of operational units, he/she would be more prone to reinvest further since they are in a better position to understand the procedures in establishing new units and thus recorded a strong and positive correlation between the variables. As the educational status of a person increases, the exposure to the outside world also would be increasing. Then the learning process and its application part might affect each person's decisions regarding reinvestment of income, thus displaying a positive and significant correlation between the variables.

6.7.3. Asset Creation

As could be seen from Table 35 except the independent variables, age (-0.231) and credit orientation (-0.212), all other variables such as education (0.318), annual income (0.233), economic motivation (0.461), risk orientation (0.312), cosmopoliteness (0.249), scientific orientation (0.217), operational experiences (0.381) and entrepreneurial behaviour (0.462) have positive and significant correlation with the external sustainability component, asset creation.

As the age of respondents increases, they are less likely to create additional assets, in other words process of asset creation is happens at fairly younger age as is evident from the negative correlation results. It is also clear from the Table 35 that those who are more oriented towards availing credit are less likely to create assets. In the previous case of reinvestment of income, credit orientation had a positive correlation, hence it is implied that asset creation is difficult with respect to a person who is depending more on credit sources for running his business endeavour. It could also be presumed that such respondents' positive attitude towards reinvestment of income might result emphatically in creating assets in the long run.

Increase in the educational status would elevate the assets created as part of the project. This has a lot to do with other qualities such as cosmopoliteness and the scientific orientation of the respondent. An educated person definitely would have been exposed to the outside world experiences and also they would be in a position to adapt the scientific ingredients in running a project. The entrepreneurship is broadly conceived within a framework of technological orientation. The respondents who are able to garner more profit would also be ready to take the risk involved in the project. All these could be a normal part of the business if the operational experience of the respondent is higher. They would be learning from their past experiences. As the case of a positive correlation of annual income with the dependent variable, reinvestment of income, the reasons hold here too.

6.7.4. Technical Training

Table 35 reveals that variables such as economic motivation (0.285), risk orientation (0.296), achievement motivation (0.354), scientific orientation (0.751) and entrepreneurial behaviour (0.522) have positive and significant correlation with the external sustainability component of technical training, where as the variable operational experiences (-0.268) has a strong negative correlation with the dependent variable.

As respondents become oriented towards profit maximisation in their project activities, they would develop a more favourable attitude towards technical training. They believe that the technical know-how of any endeavour should be fully understood from beginning to take up and succeed in business for which a proper training fulfils the aforesaid objective. Those who had the proclivity in taking up risk, may be in facing the uncertainties associated with initiating a project, or may be at the application of new package, do have a favourable attitude towards technical training. Such training, they

believe would reduce the significance of 'risk' component implicit in their project activities. Those who have a strong determination towards accomplishing their goals with respect to the project naturally wish to be trained about the technical formalities of the project. They are of the opinion that these type of trainings would sharpen their scientific knowledge and hence a positive correlation is found between the variables. However, as the operational experiences of respondents' increase, they would be learning much from their own and might feel trainings could make negligible contributions to their knowledge domain.

6.7.5. Management Orientation

As could be seen from Table 35, independent variables such as innovation proneness (0.296), risk orientation (0.310), achievement motivation (0.741), unit size (0.623), scientific orientation (0.825) and entrepreneurial behaviour (0.258) have positive and significant correlation with the dependent variable and external sustainability component, management orientation. The variable annual income (-0.210) has a significant negative correlation with the dependent component.

Good managers require skills in strategic thinking, which relates means to purposes. They are scientifically oriented people with strong motivations to succeed in their endeavours. The organisational skills of the respondents, characterised in terms of planning, production and marketing aspects of the project will display authenticity if the respondent is more prone to the habit of adopting new ideas for commercial purposes, the fundamental nature of innovation, which is reflected in the positive correlation of variables. A person who is ready to take risk associated with a business venture would be looking thoroughly for various aspects related to its management, so that he/she could reduce the possibilities of risk and attain higher profit margin. If the respondents happen to

possess higher number of operational units, their management orientation would also be high. They might have already developed various strategies through which they managed to own more number of operational units.

6.7.6. Role of Community Mobilizers

As could be seen from Table 35, variables such as innovation proneness (0.774), risk orientation (0.210) and project perception (0.250) have positive and significant relationship with the external sustainability component, role of community mobilizers. Variables such as unit size (-0.521) and cosmopoliteness (-0.230) have negative and significant correlation with the dependent variable.

Innovation happens in a social context in which information is exchanged through networks, which may be quiet complicated and extensive. The community development agents who seek to interact with farmers for the generation of new technology should necessarily be adapted to such social context. Such circumstances will function definitely as a platform for innovative people to interact and disseminate their products for further propagation. Thus the respondents' increased propensity to make use of new technology has found the role of community mobilizers as a proactive one and this has been reflected in the positive and significant correlation between the variables. Those who are ready to bear risk related to successful running of a project have a favourable attitude towards the responsibilities to be taken by the community mobilizers. This has been reflected in their perception about the project as they grade the community mobilizers as better development agents of sustainable business management.

Those who received outward exposure have an unreceptive attitude towards community mobilizers and their role in project management. Such respondents might have the confidence in themselves or other institutional arrangements rather than that of

community mobilizers. This might be the reason for a significantly negative correlation between the variables. Those who possess more number of operational units also have a similar attitude towards the community mobilizers. They might have attained the high number of operational units even without the help of community mobilizers which made them present a myopic attitude regarding community mobilizers.

6.7.7. Role of Panchayat

It could be seen from Table 35 that variables such as age (0.916), economic motivation (0.560), credit orientation (0.284), risk orientation (0.312), achievement motivation (0.222) and project perception (0.882) have positive and significant correlation with the external sustainability component, role of panchayat. On the other side, variables such as education (-0.209), annual income (-0.553), unit size (-0.309) and cosmopoliteness (-0.233) have negative and significant correlation with the dependent variable.

As the age increases, respondents get more convinced about the ability of the panchayat in exploring forward and backward linkages emanated with respect to various project interventions. Aged people would have a tendency to place the panchayat as the sole body constituted for the progress in their livelihood. These respondents' comprehend the participatory projects too in a similar manner. Participatory projects are perceived to have the capacity to augment production since the plan process has always considered the local resources while formulating plans based on felt needs of the participating stakeholders. Those respondents who possess a clear knowledge regarding the projects in operation do believe that the role of panchayat is vibrant in preparing the platform for formulating and implementing such projects and hence a strong positive correlation is observed between the variables. Those respondents who are on the race for maximising the profits from their project initiatives amplify the role of panchayat in contributing

positively to their cause. Similar is the case of respondents with favourable attitude in availing credit for their project venture and also those who are prone to take risks in adopting new ideas in their project. These respondents believe that the uncertainties associated with such risks should be made far more certain with the active involvement of the panchayat. Respondents with confidence in attaining the set goals with respect to their project also feel the role of panchayat as of a prototypical one, in which it has to consider the future of the project and should render their support in future periods.

As the educational status of the respondent increases, there is intensified divergence off the panchayat. Education is intimately linked with the overall human development. It enables rural people in participating in the global development process through newer networks where the role and status of panchayats are undermined. This might be the reason for the strong and negative correlation between the variables, education and cosmopoliteness with the dependent component. An increased proportion of annual income of the respondent also has a derogatory impression regarding the performance of the panchayat in exploring the forward linkages and also its flexibility towards formulating sustainable projects. Higher income levels are depending fundamentally on demand for their services and products as also on the productivity of the project enterprises, where the tasks of the panchayat in this respect is passive and this might be the reason for the negative correlation between the variables. As the number of operational units under possession of the respondent is higher, there is high possibility of segregating the panchayat from its development as is evident from the significantly negative correlation between the variable, unit size and the dependent component, role of panchayat.

Table 35 - Relationship of Components of External Sustainability with Independent Variables – Individual-Based Projects

Components	Independent Variables													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0.127	0.256**	0.880**	0.311**	0.824**	0.189	0.006	0.151	0.747**	0.025	0.036	0.258**	0.318**	0.647**
2	-0.254**	0.289**	0.465**	0.850**	0.746**	0.210*	0.613**	0.132	0.520**	0.114	0.318**	0.042	0.129	0.537**
3	-0.231*	0.318**	0.233*	0.461**	-0.212*	0.120	0.312**	0.014	0.108	0.015	0.249*	0.217*	0.381**	0.462**
4	0.118	0.134	0.156	0.285**	0.028	0.041	0.296**	0.354**	0.019	0.164	0.052	0.751**	-0.268**	0.522**
5	0.120	0.018	-0.110	-0.010	0.185	0.296**	0.310**	0.741**	0.623**	-0.118	0.151	0.825**	-0.104	0.258**
6	0.002	0.049	0.186	0.177	-0.106	0.774**	0.210*	0.115	-0.521**	0.250**	-0.230*	0.026	0.127	-0.092
7	0.916**	-0.209*	-0.553**	0.560**	0.284**	0.012	0.312**	0.222*	-0.309**	0.882**	-0.233*	0.140	0.005	0.183

Source: Computed from Survey Data

**Significant at 1 per cent level, *Significant at 5 per cent level

Components of External Sustainability

1 Employment generation
2 Re-investment of income
3 Asset Creation
4 Technical training
5 Management orientation
6 Role of community mobilizers
7 Role of Panchayat

Independent Variables

1 Age
2 Education
3 Annual income
4 Economic motivation
5 Credit orientation
6 Innovation proneness
7 Risk orientation
8 Achievement motivation
9 Unit size
10 Project perception
11 Cosmopoliteness
12 Scientific orientation
13 Operational experiences
14 Entrepreneurial behaviour

6.8. Relationship of Components of Internal Sustainability with Independent Variables in Case of Institution-Based Projects

6.8.1. Involvement in Project Formulation

As could be seen from Table 36, variables such as institution-size (0.808), lobbying power (0.810), community support (0.330), inter institutional linkages (0.860) and stakeholder participation (0.701) have positive and significant correlation with internal sustainability component of involvement in project formulation. At the same time, variables such as political determinism (-0.257) and infrastructure facilities (-0.424) have displayed strong negative correlation with the dependent component.

As the number of members in the institution increases, there is towering possibilities of their increased involvement in the project formulation procedures of the panchayat. Institutions, especially *padasekharam*, would be deputing a sub-committee formed within them, to involve themselves in the project formulation. This sort of an institutional arrangement with specific objectives is usually the pattern followed by comparatively larger institutions. Such sub-committees or alike institutional arrangements have the advantage of influencing the panchayat in the delivery of assistance. Evidences from the field also support this as most of the institutions have exerted pressure on the panchayat in promoting policies to the benefit of their institution and this might be the reason for the positive correlation found between the variable lobbying power and the dependent variable. Community support of these institutions also would be penetrating. Pragmatic development work has combined the use of communities' institutional structures to propagate new ideas and technologies. This promotes the idea that the community should identify its problems, agree solutions and then manage and maintain

investments. Naturally the institutions under consideration value community support very positively with respect to the dependent component, involvement in project formulation. It is also noteworthy that higher the linkages between the institutions, higher would be their involvement in the project formulation practices of the panchayat. The network of these institutions becomes a directive force in taking genuine decisions regarding their own development and hence a positive correlation is found between the variables. A decisive control over the decision making, implementation, benefit receipt and evaluation, for the members of the institutions also equips themselves to be attentive to the project formulation procedures. Such an elite group considers the involvement during the beginning of the project is more important and thus records a positive and significant correlation between the variables.

Those institutions which consider politics as a determining factor in deciding their development do not find much substance in involving in the project formulation policies of the panchayat. Such institutions are of the opinion that political considerations within them could overcome any obstacles came across their development and hence a negative correlation is observed between the variables. Such negative correlation observed in those institutions with improved infrastructure facilities is less likely to involve in project formulation. For them the major component of assistance from most of the developing agencies is that of recuperating the infrastructure facilities. As far as panchayat is concerned, once this assistance is given, in most cases the particular institutions would not be considered further due to the customary resource constraints. This might be the reason for the significant negative correlation between the variables.

6.8.2. Project Formulation Based on Felt Needs

Table 36 shows that variables such as institutional action plan (-0.269) and infrastructure facilities (-0.316) have negative and significant correlation with the dependent component, project formulation based on felt needs. On the other side, variables such as lobbying power (0.215), political determinism (0.663), community support (0.218) and stakeholder participation (0.419) have positive and significant correlation with the dependent component.

The more specific an institution with its plan of action, higher would be its divergence from the need-based project formulation of the panchayat. This sort of a deviation is mainly due to the lack of consensus between the institutional action plan and the panchayat level felt needs. Institutions often have varied needs depending largely upon their own development pattern and panchayat also fails to reckon with such diverse requirements of the institution-based stakeholders. In such a situation panchayat chooses a few from among the diverse set of needs submitted to them which happens to be detrimental to the needs of numerous other institutions. This might be the reason for a negative correlation between the variables. Similarly, those institutions with improved infrastructure facilities have a rough approach towards the system of formulating project based on felt needs. Normally, felt needs of institutions are that of construction or maintenance of any infrastructure facility which they deem important and views panchayat as the sole provider of such facilities. Obviously those institutions with developed infrastructure facility may not receive any further benefit. This might be the reason for the negative correlation between the variables.

Institutions which could effectively exert pressure on development agencies to promote policies for their benefit have a more favourable attitude towards project

formulation procedures based on felt needs. They might be in a better position to get sanctioned their felt needs. If political considerations are higher, the more favourable would be their attitude towards felt need-based project formulation procedure of the panchayat. Past experiences of several institutions under study shows that political affiliation is also considered while sanctioning projects or other benefits to the institution. This might be the reason for the positive and significant correlation between the variables. Apart from political considerations, community's overall interests in the institution would be a supportive factor in formulating projects based on felt needs of the institution. Community has an obligation as it enjoys the services rendered by these institutions. If the members are increasingly participating in the decision making, implementation and evaluation procedures of the institution's development activities, there is every possibility that such stakeholders have a significant role in raising their felt needs before the local governing body and they might perform favourably to the project formulation procedures based on felt needs. This might be the reason for the positive and significant correlation between the variables.

6.8.3. Project Meeting

As could be seen from Table 36, variables such as institution size (0.615), institutional action plan (0.205), incentives (0.381), community support (0.227), inter-institutional linkages (0.619) and stakeholder participation (0.527) have positive and significant correlation with the internal sustainability component, project meeting.

The larger the institution size, higher would be the possibility of attending the project meeting. Similar to the case of the involvement of larger institutions in the project formulation procedures of the panchayat, project meeting will also be attended by a subcommittee or by those few people deputed by institution's administrators. Institutions

with comparatively less number of members are observed to have a droopy attitude towards project meeting and thus find themselves difficult in understanding the organisational and management responsibilities. Existence of clear cut action plan also is an important element which contributes significantly towards obtaining a sustainable output from the project. Those institutions with specific plan of action might be more efficacious in bearing all the responsibilities related to the project. The favourable perception about various incentives that would be disbursed by the panchayat also have a positive impact upon the project beneficiaries in attending the project meeting. Information regarding incentives to stakeholders is mostly disseminated through such meetings. Those institutions which possess the motivation to follow the project particulars as well as do not want to miss the incentives must have a more favourable attitude towards project meeting.

The institutions which are meant for community development would be benefited reciprocally. Community functions as a supportive mechanism in the overall development of the institution. The higher the community support, the more favourable would be the attitude of the institution in the project meeting. These institutions and its stakeholders in view of their obligation to the community would exploit every opportunity and express their views in the meeting. Similarly, a high level of linkages with other institutions is found to have developed a more favourable attitude towards project meeting. Members of different institutions naturally plead for a balanced growth approach in which each institutions should be getting an even quantum of resources as assistance. Stakeholder participation in the decision making, implementation and evaluation of project also positively decides the project meeting. Participation in the project meeting is a prerequisite

for these stakeholders for effectively carrying out the project particulars. Thus a positive and significant correlation is observed between the variables.

6.8.4. Community's Rights

Table reveals that variables such as lobbying power (0.483), political determinism (0.850), community support (0.625), inter-institutional linkages (0.287) and stakeholder participation have positive and significant correlation with the internal sustainability component, community's rights.

It could be observed that as the lobbying power of an institution increases, its perception about community's rights also becomes more favourable. If an institution has to pressure and thereby influence in promoting policies to their advantage, then it should definitely be aware of the community's rights of rejecting or accepting a project. In other words, a successful institution would be in a position to read the community's impulses while exerting their lobbying power. The importance given to the political considerations in an institution also is positively correlated with the rights of the community. Those institutions with increased level of political considerations, do believe that the community would be also taking similar ideological stands. So that community's rights and institutions' development agenda should match. If the community as such supports the institution's existence for rural development, there would not arise any conflict between what the community does and what the community ought to do. Similarly if the inter-institutional linkages is ranked high, community will positively exert its power in rejecting or accepting a project, since community is nothing but an amalgam of such development oriented institutions. However, such unanimity in exertion of power by the community depends on the genuine participation of members of institutions in its decision making, implementation and evaluation mechanism. A normal consensus is arrived at if all the

stakeholders have a common vision about their own development, and that might be the reason for the positive and significant correlation between the variables.

6.8.5. Formal Agreement

As could be seen from Table 36, variables such as institution size (0.685), institutional action plan (0.428), incentives (0.293), risk compensation (0.321), political determinism (0.223) and inter-institutional linkages (0.251) have positive and significant correlation with the dependent variable and internal sustainability component - formal agreement.

As the size of the institution increases, there would be an increasing demand for a formal agreement between the donor of the project and the targeted beneficiaries. The proportionate share of the standard level of assistance to each institution could be a nominal amount if the number of members in the respective institution is high. Hence a formal agreement for the deed would be the suggested strategy by the institution mainly to ensure the receipt and follow the project particulars promptly. This might be the reason for the significant correlation between the variables. Those institutions which follow a stringent plan of action would be insisting a formal agreement, since they would be obliged to follow a transparent deed of various activities. The project benefits that are being provided by the local governing authorities, especially incentives or risk compensation would require to be disbursed following formal agreements. These two components usually are relatively estimated and hence comply the chances of outright changes or even terminated during future course of action. To avoid such uncertainties, these institutions might demand a formal agreement. This reason is also applicable to the positive and significant correlation found in the case of institutions with favourable attitude towards highlighting political considerations in their routine activities. The high

level of networks with institutions possessing uniform features is also observed to become more favourable towards formal agreement. The direct and indirect information regarding various agreements carried out by several institutions might become the guiding principles in the present context too.

6.8.6. Beneficiary Committee

It is observed from Table 36 that variables such as institution size (0.557), institutional action plan (0.228), infrastructure facilities (0.543), community support (0.547) and stakeholder participation (0.209) have positive and significant correlation with the independent component of internal sustainability, beneficiary committee. The variable, lobbying power (-0.281) has a strong negative correlation in the case.

As the size of the institution increases there is an increasingly favourable attitude towards formulation and importance of beneficiary committees. This should be read in combination with the high level of participation of the members of the institution in the decision making, implementation and evaluation procedures of institutional activities. Such institutions which are basically people-oriented have seen beneficiary committees as another major medium to apply their knowledge for the overall rural development. A prompt plan of action for the institutions also paves way for a participatory development. Institutions with better infrastructure facilities equip their stakeholders in strengthening the organisational skills needed to manage project activities. A community, which is interested in the development of the institutions, will act as a watchdog to take up development ventures and thus develop a sense of community ownership. In the micro level people's organisation, beneficiary committee will act as a better arrangement for promoting the feeling of community ownership. This might be the reason for the positive and significant correlation between the variables.

Those institutions which increasingly exert their power and pressurise the authorities in promoting policies favourably, neutralise the importance of beneficiary committees. Such institutions might be in a position to corner all benefits related to the project even without beneficiary committees since they think that their lobbying power could overcome any obstacles in the path of development.

6.8.7. Financial Effectiveness

As could be seen from Table 36, the independent variable, institution size (-0.206) has a negative and significant correlation with the dependent variable and internal sustainability component, financial effectiveness. On the other side, variables such as lobbying power (0.201), political determinism (0.240) and inter-institutional linkages (0.212) have positive and significant correlation with the dependent variable.

As the size of the institution increases, the financial effectiveness of projects are progressively more questioned since the assistance received from panchayat does not make a proportionate yardstick for the institutions. Moreover, if the mobilisation strategies of the panchayat gives importance to voluntary contributions from members of the institutions, the institutions would be reluctant to follow suit as large institutions needs to pay higher amount. Institutions with large number of members are presumed to possess an increased share of capital assets too, in such cases the assistance obtained from institutions such as panchayats do not comply with the size of the institution and hence a negative correlation is observed.

The calibre of an institution to exert power in order to promote policies in favour of them has found a positive and significant correlation with the adequacy of fund mobilisation strategies envisaged in the project. This coupled with the importance given to political considerations for the development of a project by an institution also favours the

prevailing financial fitness of the project. Such institutions might be in a better position to mobilise the required funds for functioning of the project exerting their lobbying power and political considerations. Linkages with other institutions also help in mobilising sufficient finance needed for the smooth implementation of the project. Peripheral linkages among various institutions might be developed as a network meant for an integrated development which promises an ample financial potency. This might be the reason for the strong positive correlation between the variables.

6.8.8. Beneficiary Contribution

A close examination of Table 36 reveals that variables such as institutional action plan (0.241) and stakeholder participation (0.527) have positive and significant correlation with the internal sustainability component, beneficiary contribution. Independent variables such as lobbying power (-0.265) and incentives (-0.281) have negative and significant correlation with the dependent variable.

If the institutions have prompt plan of action regarding the implementation and evaluation of particular project assigned to them, their contribution from the immediate beneficiaries would not be a susceptible factor. Those institutions which ensure genuine participation of their stakeholders would be preparing the action plan with their total involvement. In such situations, several requirements including beneficiary contributions for the project have already been made clear to the stakeholders and they would naturally have a positive attitude towards contributing the same.

On the other side, institutions with high level of lobbying power would be exerting such power to bring policies in their favour does not support the concept of beneficiary contribution. Lobbying always implies a total write off of such subsidized efforts and plead for a full term assistance. So is the case of incentives too, in which the authorities

are rendering assistance in order to motivate the members of the institutions in bringing out the best from them. In their terminology, the concept of beneficiary contribution is deadly against the concept of incentives and hence a negative and significant correlation observed between the variables.

6.8.9. Production Processes

Variables such as institution size (0.208), institutional action plan (0.548), infrastructure facilities (0.528), community support (0.410), inter-institutional linkages (0.242) and stakeholder participation (0.918) have positive and significant correlation with the internal sustainability component, production processes. At the same time, the variable, lobbying power (-0.215) has a negative and significant variable with the dependent component (Table 36).

A larger institution displays a positive attitude towards production processes of the project. This is combined with the existence of a prompt plan of action prepared with the support of genuinely participating stakeholders. Obviously, larger institutions might attempt their assigned tasks with a well thought out action plan, which should be strictly followed, hence a positive and significant correlation between the variables. The various stages of production with respect to a project are more promptly followed if the institution involves their members in the decision making, implementation and evaluation of a project, since the stakeholders would have a responsible attitude towards the project because to their involvement from the beginning. If the respective institution has an improved infrastructure facility, then there would be better chances of following the production procedures more punctually, since the resources granted by the panchayat would not be diverted to matters other than production related. Such is the case of inter-institutional linkages, where the networks evolved between various institutions would give

a better idea about production procedures and would become easier for the respective institutions to follow suit. Such institutions would be more community oriented also and provides services to community through various means. Community has certain obligations and they make the institutions follow the production processes more abruptly.

However, if the institutions are increasingly exerting their power in promoting policies favourably, there is high incidence of breaking the production processes. Those who are in the habit of applying pressure to relocate the resources reserved for others would be finding short cuts to attain the proposed objectives of the project. This is believed to be the reason for a negative and significant correlation between the variables.

6.8.10. Project Output

Table 36 reveals that variables such as institutional action plan (0.245), risk compensation (0.235), infrastructure facilities (0.621), community support (0.407) and stakeholder participation (0.687) have positive and significant correlation with the internal sustainability component, project output. The independent variable, lobbying power (-0.235) has displayed a strong negative correlation with the dependent variable.

If the action plan prepared at the institutional level is prompt enough to envisage an increased output, it would certainly attain it. Combined with this, if there is high level of stakeholders in the decision making, implementation and evaluation formalities of the institutions' routine activities, there would be high incidence of receiving a better output. This is because the stakeholders possess the required technical know-how to increase productivity. Compensation provided for taking risk involved in running a venture also have positive and significant correlation upon the project output. Such compensatory benefits motivate project institutions in rendering absolute labour and other resources for creating additional output. Improved infrastructure facilities of an institution also are a

contributing factor in reaping comparatively better output. An already improved infrastructure facility would facilitate production procedures and subsequently result in better output if other things remain the same. The segment of the community which receives the services of various institutional activities would facilitate to receive a better output.

Lobbying power, as in the case of the dependent variable, production processes, displays a strong negative correlation. This might be due to the reason that those who exert power for making favourable decisions and subsequently reap benefits are least concerned about the output. For them everything could be attained through their power to pressurise others.

6.8.11. Self Maintenance

It is seen from Table 36 that variables such as institutional action plan (0.372), incentives (0.291), infrastructure facilities (0.366), inter-institutional linkages (0.250) and stakeholder participation (0.571) have positive and significant correlation with the internal sustainability component, self maintenance. Variables such as lobbying power (-0.282), and political determinism (-0.374) have negative and significant correlation with the dependent variable.

The availability of a specific action plan for the institution will also have a positive effect on maintaining the project benefits even after the withdrawal of the panchayat from the scene. A legitimate plan of action would have the farsightedness with respect to obtaining a sustainable output from the project. Participation of stakeholders in the decision making, implementation and evaluation processes of the institution would have made them competent to continue with the project particulars even after the panchayat withdraws the assistance. A high level of inter-institutional linkages also facilitate the

Table 36 - Relationship of Components of Internal Sustainability with Independent Variables – Institution-Based Projects

Components	Independent Variables									
	1	2	3	4	5	6	7	8	9	10
1	0.808**	0.019	0.810**	0.138	0.002	-0.257*	-0.424**	0.330**	0.860**	0.701**
2	-0.269**	0.028	0.215*	0.001	0.182	0.663**	-0.316**	0.218*	0.102	0.419**
3	0.615**	0.205*	-0.186	0.381**	0.117	0.115	0.030	0.227*	0619**	0.527**
4	0.181	0.027	0.483**	0.005	0.018	0.850**	0.029	0.625**	0.287**	0.228*
5	0.685**	0.428**	0.161	0.293**	0.321**	0.223*	0.023	0.110	0.251**	0.165
6	0.557**	0.228*	-0.281**	0.018	0.127	0.189	0.543**	0.547**	0.050	0.209*
7	-0.206*	0.021	0.201*	0.090	-0.122	0.240*	-0.145	0.117	0.212*	0.023
8	-0.184	0.241*	-0.265**	-0.281**	0.155	0.142	-0.153	0.137	-0.129	0.527**
9	0.208*	0.548**	-0.215*	0.158	0.181	0.099	0.528**	0.410**	0.242*	0.918**
10	0.189	0.245*	-0.219*	0.094	0.235*	-0.084	0.621**	0.407**	0.012	0.687**
11	-0.128	0.372**	-0.282**	0.291**	0.165	-0.374**	0.326**	0.366**	0.250**	0.571**
12	0.720**	0.578**	0.145	0.205*	0.215*	0.138	0.186	0.189	-0.191*	-0.167

Source: Computed from Survey Data

**Significant at 1 per cent level, *Significant at 5 per cent level

Components (Dependant Variables)

1 Involvement in project formulation
2 Project formulation based on felt needs
3 Project meeting
4 Community's rights
5 Formal agreement
6 Beneficiary committee
7 Financial effectiveness
8 Beneficiary contribution
9 Production processes
10 Project output
11 Self maintenance
12 Monitoring/evaluation

Independent Variables

1 Institution-size
2 Institutional action plan
3 Lobbying power
4 Incentives
5 Risk compensation
6 Political determinism
7 Infrastructure facilities
8 Community support
9 Inter-institutional linkages
10 Stakeholder participation

institutions to take up the challenge of maintaining an enhanced output level for prolonged period. Improved infrastructure facilities also have correlative effect upon the self maintenance of the project. In such cases, the institutions could concentrate fully on the production and marketing. The income accrued could be fully utilised for production oriented purposes rather than on improving infrastructure facilities, hence could receive optimum level of output.

Those institutions that exert power to make policies in favour of them and also those institutions, which give more importance to the political considerations, are unable to maintain the projects after the withdrawal of the panchayat. Such institutions would be running for further exertion of pressures and political influences, in which production objectives are destabilized. This might be the reason for the negative and significant correlation between the variables.

6.8.12. Monitoring / Evaluation

Table 36 shows that variables like institution size (0.720), institutional action plan (0.578), incentives (0.205) and risk compensation (0.215) have positive and significant correlation with the internal sustainability component, monitoring/evaluation.

Comparatively larger institutions have favourable attitude towards monitoring/evaluation mechanism of the panchayat for respective projects. Field level observations also shows that the committee constituted for monitoring and evaluating projects at different stages, if done, is in case of prominent institutions. Such institutions also assert a clear cut plan of action, in which they support the existence of an assessment mechanism. An increased level of incentives in the project would be an insistent factor for the monitoring / evaluation of the same. This is also equivalent in case of project which compensates resources in view of failure of the project in producing the desired output.

The respective committee has to assess correct proportion of incentives of risk compensation to be disbursed in due course and hence should operate with confident throughout the project period. Subsequently, respective beneficiaries of such projects inculcate a favourable attitude towards monitoring/evaluation mechanism. This might be the reason for positive and significant correlation between the variables.

6.9. Relationship of Components of External Sustainability with Independent Variables in Case of Institution-Based Projects

6.9.1. Employment Generation

A perusal of Table 37 reveals that variables such as institutional action plan (0.281), incentives (0.252), infrastructure facilities (0.825), community support (0.223), inter-institutional linkages (0.202) and stakeholder participation (0.833) have positive and significant correlation with the external sustainability component and the dependent variable, employment generation.

A systematic plan of action with an ardent motivation to achieve the goals would be a pre-requisite for any institution to progress. The more the institution involves their members in the decision making, implementation and evaluation mechanism of its activities, the higher would be their employment generating capacity. Participation entails the stakeholders in taking up sustainable output from respective projects. Consistent and scientific production approaches from the beginning increases the demand for labour and spread labour better through the year. Community's involvement in the development of an institution also creates a positive impact upon the project based employment generation. Other things being equal, the improved demand for labour, of a more permanent nature

should lead to improved income for labourers. Such enhanced income pattern definitely percolates to the community, thus benefiting a larger segment of the society other than the primary stakeholders. Naturally, community would be lending all support for the overall development of the institution. The percolation effect would be higher if the institution enjoys an improved infrastructure facility since it could direct its efforts towards increasing the production and subsequently create more employment opportunities. Other institutions would also follow suit if they are convinced with the production and employment pattern of various projects. Project assistance in the form of incentives also moves up the employment potential as they motivates the stakeholders in engaging themselves more in view of improving their production. These are observed to be the rationale for positive and significant correlation between the variables.

6.9.2. Reinvestment of Income

It could be seen from Table 37 that the independent variable, institution size (-0.258) has a negative and significant correlation with the external sustainability component and dependent variable, reinvestment of income. Variables such as institutional action plan (0.239), infrastructure facilities (0.323), community support (0.218) and stakeholder participation (0.537) have positive and significant correlation with the dependent variable.

As the size of the institution increases the reinvestment options would be decreasing. They might have already diversified their investments in view of improving their output and subsequently their income. However, a well drawn plan of action has a favourable attitude towards the reinvestment decisions of the institution. Such institutions would be surfing for all options including mobilising credit from financial institutions for increased scale of returns. Institutions with improved infrastructure facilities are in a

position to reinvest more proportionate share of their income. Time to time spending pattern to recover the infrastructure cost makes the institution vulnerable towards gaining more output due to poor investment on production inputs. This might be the reason for the positive correlation between the variables. Community support to the respective institution has favourably rated their reinvestment options. Since the community is also benefited from the services of the institution, such options would be saluted by the community. Reinvestment of income would be higher if the participation of stakeholders in the decision making, implementation and evaluation procedures of the institutions' ventures are high. As the stakeholders are themselves deciding about the project activities they would always be looking for obtaining a better output for their efforts. This would be possible through a judicious investment decision. This might be the reason for the positive and significant correlation between the variables.

6.9.3. Asset Creation

As could be seen from Table 37, variables such as institution size (0.215), institutional action plan (0.318), lobbying power (0.228), infrastructure facilities (0.381), community support (0.420) and stakeholder participation (0.481) have positive and significant correlation with the external sustainability component and dependent variable, asset creation.

The present analysis shows that those institutions with large number of members would have proportionately higher level of assets or they would be more oriented towards creating additional assets. An increasing share of their investment would be earmarked for asset creation. Institutional action plan also has to play a major role in this as earlier mentioned, their investment decisions largely follows the plan of action prepared by their stakeholders themselves. There are facilitatory factors such as traditions of community

organisations, supportive and helpful procedures, availability of good leaders and managers which make genuine participation of the stakeholders are triumphant. Community's positive attitude towards asset creation has trans-generational considerations. Assets which once created could deliver a sustainable output and thereby beneficial for the forthcoming generation also. Improved infrastructure facilities would be diverting the investment towards creating other assets including machines and equipments of high capital value. This would enhance the productivity of institutions in future. Such accumulation of assets would obviously be the target of those who exert their power in promoting policies favourably. These are the reasons for the positive and significant correlation observed between the variables.

6.9.4. Technical Training

As could be seen from Table 37, variables such as institution size (-0.438), institutional action plan (-0.210) have negative and significant correlation with the external sustainability component and dependent variable, technical training. At the same time, variables such as community support (0.207), inter-institutional linkages (0.450), stakeholder participation (0.258) have positive and significant correlation with the dependent component, technical training.

Project interventions, while potentially successful, need to differentiate between different types of stakeholders. Training on technical aspects of the project would enable the stakeholders to move into the 'modern sector' which urges improved productivity and higher returns. Linking the project activities with training would be useful, though only above the survival level, where record keeping, cash management and personal skills become more important as business grow. However the present context shows that as institutions grew the importance of training on technical and management aspects is failed

to be recognised. Larger institutions are found to develop their own techniques of knowledge dissemination and an externally driven training maintains minimum importance for them. Institutions with a systematic plan of action also undermine the training aspect. They consider production systems to follow the indigenous pattern where experience counts and not training on advanced methods. However, institutions which heed the genuine participation of their stakeholders favour the importance of training, though it is increasingly overlooked in their plan of action. Such is the case of institutions which have fervent linkages with other institutions and also with a constructive support of the community.

6.9.5. Management Orientation

It is seen from Table 37 that variables such as institution size (0.822), inter-institutional linkages (0.219) and stakeholder participation (0.214) have positive and significant correlation with the external sustainability component and dependent variable, management orientation.

Managers require skills in strategic thinking, relating means to purposes. In the present context, institutions which act as managers of their projects are found to be open to working in networks and movements, fostering a background for cooperation rather than competition. As the size of the institution increases there is every likelihood that it would perform the duties of a skilled manager. Such institutions might be more knowledgeable to scale down, withdraw, and terminate activities as well as build them up. As the participation of stakeholders increases with the respect to the decision making, implementation and evaluation of an institutional activity, they would be naturally oriented towards delivering better management practices. The high level of interaction with other institutions for mutual development obviously contributes to the development

of managerial skills of an institution. Such outward looking institutions are able to promote the capacity and institutional development of partners especially at the local and associational level, as well as its own. Management recognises the requirements of different organisations and avoid the tendency to create mirror organisations. These might be the reasons for a positive and significant correlation between the variables.

6.9.6. Role of Community Mobilizers

As could be seen from Table 37, variables such as institution size (0.212), incentives (0.478), risk compensation (0.521), political determinism (0.217), community support (0.868), stakeholder participation (0.209) have positive and significant correlation with the external sustainability component and dependent variable, role of community mobilizers.

If the size of the institution is higher it increasingly realises the dependence of community participation on an agency or field staff responsive to the targeted beneficiaries. Large institutions would be providing comparatively superior services to the community as such and may reflect in their support towards the development of the institution. It should be noted that the segment of the community which receives benefits from the institution is different from the one which deploys an agency or field staff responsive to project beneficiaries. The latter one is a broader concept and functions for a larger development domain. However, the interplay of these two sets of community could form a synergy so as bring sustainable output for the project and is reflected in the positive and significant correlation between the variables. As the material benefits in the form of incentives and risk compensation from the project increases there would be a favourable attitude towards the role to be played by the community mobilizers. How far the respective institution is giving importance to the political considerations within the group has a significant part to play in directing or reserving community mobilizers towards attaining the institution's objectives. It is worth to mention about institutions which heed to the

Table 37 - Relationship of Components of External Sustainability with Independent Variables – Institution-Based Projects

Components	Independent Variables									
	1	2	3	4	5	6	7	8	9	10
1	0.158	0.281**	-0.182	0.252**	0.189	-0.177	0.825**	0.223*	0.202*	0.833**
2	-0.258**	0.239*	0.129	0.002	0.183	0.017	0.323**	0.218*	0.185	0.537**
3	0.215*	0.318**	0.228*	0.028	0.108	0.027	0.381**	0.420**	0.178	0.481**
4	-0.438**	-0.210*	0.002	0.120	0.021	0.039	0.110	0.207*	0.450**	0.258**
5	0.822**	0.129	-0.189	0.175	0.018	0.0185	0.010	0.181	0.219*	0.214*
6	0.212*	0.028	0.008	0.478**	0.521**	0.217*	0.003	0.868**	0.180	0.209*
7	0.227*	0.157	0.201*	0.041	0.182	0.280**	0.023	0.819**	0.180	0.715**

Source: Computed from Survey Data

**Significant at 1 per cent level, *Significant at 5 per cent level

Components of External Sustainability

1 Employment generation
2 Re-investment of income
3 Asset Creation
4 Technical training
5 Management orientation
6 Role of community mobilizers
7 Role of Panchayat

Independent Variables

1 Institution-size
2 Institutional action plan
3 Lobbying power
4 Incentives
5 Risk compensation
6 Political determinism
7 Infrastructure facilities
8 Community support
9 Inter-institutional linkages
10 Stakeholder participation

voices of its stakeholders in taking strategic business decisions and implementing it towards the attainment of increased output. They have given way to a more sophisticated version, in which development agencies work with individuals and groups within the community, attempting to enhance the rights and representation of disadvantaged people. They are much more convinced with the role of community mobilizers.

6.9.7. Role of Panchayat

As could be seen from Table 37 that variables such as institution size (0.227), institutional action plan (0.201), political determinism (0.280), community support (0.819) and stakeholder participation (0.715) have positive and significant correlation with the external sustainability component and dependent variable, role of panchayat.

As the size of the institution increases they are increasingly swayed by the role that could be played by the local governance in identifying forward and backward linkages and also in identifying brand new project ventures in view of sustainable development. Larger institutions would be in a better position to embody their growth potentials and act according to the directive means of the panchayat. They could more easily cope with the needs of the community too. Since they provide comparatively better services to a larger proportion of the community, there would be obvious value for the functions of the panchayat. Such institutions with optimistic views regarding the panchayat might have proposed the role of panchayats and the part to be played by the institution in receiving the consequent benefits, in their plan of action. Institutions which provide a better platform for their stakeholders to participate in the decision making, implementation and evaluation mechanism of their project activities have a favourable attitude towards the panchayat. They might consistently participate in the functionaries of the panchayat and equip the local governing body towards an efficient delivery system, since they found it more serene

that their needs and the delivery system of the panchayat match to make a sustainable outcome. Political considerations within the institution also help to overcome the delimited role of panchayats. These are the reasons observed for the positive and significant correlation between the variables.

6.10. Relationship of Components of Internal Sustainability with Independent Variables in case of Common Property Resource-Based Projects

6.10.1. Involvement in Project Formulation

As could be seen from Table 38, variables such as cultivable land owned (-0.218) and family income from sources other than agriculture (-0.454) have negative and significant correlation with the internal sustainability component and dependent variable involvement in project formulation. At the same time, private investment in agriculture (0.239) and benefit receipt (0.532) has positive and significant correlation with the dependent variable.

It is found that more the cultivable land area owned by a beneficiary, less would be one's involvement in the project formulation procedures of the panchayat. Such beneficiaries might be in a position to independently raise income from their own land and panchayat would have only a passive role in their routine livelihood ventures. Similar is the case of beneficiaries who receive higher level of non-farm income. They might be in a position to exclude their involvement in the project formulation procedures of the panchayat as most of such projects would have an inclination towards creating farm based income and hence a strong negative correlation is observed. If the beneficiary is more oriented towards agriculture development and if one is investing an increasing percentage

of his income on agriculture related purposes, one's involvement in project formulation would also be high. This should be read in combination with the increased level of benefits received from a given unit of common property resource. A change in such benefits would be far from one's intentions and hence they would be more involving themselves in at least for verifying whether the proposed project have any implications for them. These are the reasons observed for such significant correlation results.

6.10.2. Project Formulation Based on Felt Needs

A perusal of Table 38 reveals that variables such as private investment in agriculture (0.217) and possession (0.220) have positive and significant correlation with the internal sustainability component and dependent variable, project formulation based on felt needs.

As the investment in agriculture made by an individual increases they would be more likely to be particular about their felt needs to be fulfilled while formulating projects. Since the investment made by them is higher they might be worried about the likely returns from such investments and would make use of any opportunity to draw their needs and get fulfilled, hence a positive and significant correlation is found between the variables. An increased possession of the common property resource also makes a person put forward one's felt needs before the participatory planning body mainly to ensure such possession should not be altered in a future course of action. This might be the reason for the positive and significant correlation found between the variables.

6.10.3. Project Meeting

Variables such as ownership of cultivable land (-0.233) and non-farm income (-0.230) have displayed negative and significant correlation with the internal sustainability component and dependent variable, project meeting. At the same time the independent

variable, private investment in agriculture (0.438) has shown a positive and significant correlation with the dependent component, project meeting (Table 38).

It is worth to note that mere ownership of a large area of cultivable land may not create a favourable attitude towards project meeting and the trend is seen also in the case if the major share of income earned by a respondent is from non-farm sources. In both the cases, the role of common property resources in making a livelihood is increasingly neutralised and once the respondent's private investment in view of developing his/her agriculture, the likely dependence on different forms of common property resource also increases and hence a positive and significant correlation between these two variables.

6.10.4. Community's Rights

It is seen from Table 38 that the independent variable, possession (-0.635) has a negative and significant correlation with the internal sustainability component and dependent variable, community's rights.

If the respondents have more proportionate possession of a particular common property resource, they would be less likely to go line with the attitude of the community with respect to a project concerned with common property resources. Since the community has the right to suggest modifications to the project and even rejecting it, those who have increased accessibility would not be in a position to comply with the needs of the community. They might be losing in such cases and hence create a totally negative attitude towards the rights of the community in this respect.

6.10.5. Formal Agreement

It is seen from Table 38 that variables such as ownership of cultivable land (0.286), private investment in agriculture (0.334) have positive and significant correlation with the internal sustainability component and dependent variable, formal agreement. At the same

time, variables such as possession (-0.353) and benefit receipt (-0.338) have negative and significant correlation with the dependent component, formal agreement.

If the area of cultivable land of a respondent increases, the person would be more oriented towards formalising every deal with the panchayat. So is the case with an increase level of the respondents' private investment in agriculture. A formal agreement would become equip the respondents towards taking all the responsibilities related to the project if understood from beginning. Those with more area of cultivable land and increased private investment in agriculture might be in a position to take up the responsibilities related to project. However, the respondent's higher level of possession of a given area of common property resources make them vulnerable to the concept of formal agreement since they would not like to give up their possessed resources for the sake of a project and also the benefits accruing from it. In such situations they would cultivate a negative attitude towards formal agreement and act in deadly opposite direction with respect to understanding organisation and management responsibilities needed to run the project.

6.10.6. Beneficiary Committee

It is seen from Table 38 that variables such as private investment in agriculture (0.318), possession (0.786) and benefit receipt (0.520) have positive and significant correlation with the internal sustainability component and dependent variable, beneficiary committee.

As the level of private investment in agriculture by a respondent increases, the person is more likely to support the beneficiary committee in proceeding with the project. Field level observation also shows that such respondents are more inclined towards the proper functioning of the beneficiary committee or even becomes part and parcel of such a micro level people's organisation, which ensures genuine participation. If the possession

of the common property resource or the benefits received from such possessed land is higher, the respondent would be taking favourable interest in the functioning of the beneficiary committee. This is observed to retain such possession and benefit receipts and if the respondent once becomes the lead member of the beneficiary committee, they would be in a position to influence the beneficiary committee towards attaining their goals.

6.10.7. Financial Effectiveness

It is seen from Table 38 that the independent variable, private investment in agriculture (0.802) has a positive and significant correlation with the internal sustainability component and dependent variable, financial effectiveness. At the same time, the variable, family income from sources other than agriculture (-0.383) has a strong negative correlation with the dependent variable.

Since the respondent is investing a comparatively high quantity of resources for the development of agriculture, he/she may not seek out further financial assistance from panchayat rather the person would be looking for non-financial assistance from the local governing body. However, if the respondents are receiving a comparatively higher proportion of their income from non-farm sources, they would be dissatisfied with the financial effectiveness of the project sanctioned and implemented by the panchayat. Such respondent's are fully complying on local governing bodies to carry out the project, they might expect an equal proportion of contribution from panchayat and hence a negative attitude towards the financial effectiveness of the project.

6.10.8. Beneficiary Contribution

It is seen from Table 38 the independent variable, private investment in agriculture (-0.232) has a negative and significant correlation with the internal sustainability component and dependent variable, beneficiary contribution. At the same time, variables

such as possession (0.258) and benefit receipt (0.621) has positive and significant correlation with the dependent component.

Respondents who would have already invested heavily for the development of their agriculture may not like to take an additional burden of paying beneficiary contribution for the project functioning. This is reflected in the strong negative correlation observed between the variables. However if their possession of a given set of common property resource and the benefits accruing from it is higher, they would be in a better position to contribute legibly for the functioning of the project. Such respondents are aware of the likely output they would be receiving from the common property resources under their possession through the development project proposed for their development. Naturally they would contribute their proportion for receiving a progressive and sustainable output.

6.10.9. Production Processes

It is seen from Table 38, that variables such as private investment in agriculture (0.280), possession (0.860) and benefit receipt (0.537) have positive and significant correlation with the internal sustainability component and dependent variable, production processes.

As private investment in agriculture increases, the respondents would be more intact in following the project particulars and thereby leading to better output. Any investment should be accompanied with a proper management schedule so as to get the desired returns. Hence the respondents would have to follow the production processes as envisaged in the project document in order to justify their investment. If the possession for the common property resource and the resultant benefit receipt is higher for the respondents, they would be more likely to follow the production processes envisaged in the project document. Such respondents would not like to give up the benefits already

accrued from their possessed resources, for lack of their initiatives and hence a positive and significant correlation found between the variables.

6.10.10. Project Output

It is evident from Table 38 that variables such as ownership of cultivable land (0.261), private investment in agriculture (0.310), possession (0.212) and benefit receipt (0.289) have positive and significant correlation with the internal sustainability component and dependent variable, project output.

As the respondents own more areas of cultivable land and the amount invested for agriculture development per hectare of land is higher, there is every likelihood that the output from the project initiatives would also be higher. Such respondents make use of every part of the assistance given by the panchayat in attaining their goals. Since both the components have a positive economies of scale, large area of cultivable land combined with higher level of investment could bring a progressive output. The increased possession of a given set of common property resource as well as a higher level of benefits accumulated from such possession would likely to improve the output. Such advantages would reduce operational costs incurred in any project ventures and subsequently replenish the marginal returns. These are the reasons observed for a positive and significant correlation between the variables.

6.10.11. Self Maintenance

It is seen from Table 38 that variables such as ownership of cultivable land (0.320), private investment in agriculture (0.481), possession (0.651) and benefit receipt (0.503) have positive and significant correlation with the internal sustainability component and dependent variable, self-maintenance.

As the cultivable land owned by the respondent is higher along with a considerable investment in view of agricultural development, there is every likelihood that such respondents would be continuing with the project initiatives even after the panchayat withdraws from the scene. Since the possession as well as the likely benefits received from such possessed resources increase, the livelihood security of the respondent also is ensured proportionately. It is evident that, these respondents would not be in a position to leave up the project particulars and subsequently land in desolation, hence would maintain the projects even if they do not receive any assistance from the panchayat in future. This is found to be the rationale for the positive and significant correlation between the variables.

6.10.12. Monitoring / Evaluation

As could be seen from Table 38 that the independent variable, possession (-0.356) has a negative and significant correlation with the internal sustainability component and dependent variable, monitoring/evaluation respectively.

It is evident from the analysis that the respondents have failed to recognise the importance of the concept of monitoring/evaluation. Those who possess a comparatively higher degree of common property resource are likely to dissuade the monitoring/evaluation mechanism of the panchayat. Such actions would function detrimentally to these respondents since people's initiatives and local governing bodies would serve the community for an equitable distribution as well as acquisition of any common property resource and this could be guaranteed through a proper monitoring/evaluation mechanism.

Table 38 - Relationship of Components of Internal Sustainability with Independent Variables – Common Property Resource-Based Projects

Components	Independent Variables				
	1	2	3	4	5
1	-0.218*	0.239*	-0.454**	0.157	0.532**
2	0.180	0.217*	0.018	0.220*	0.003
3	-0.233*	0.438**	-0.230*	0.128	0.182
4	0.177	0.186	0.003	-0.635**	-0.166
5	0.286*	0.334**	0.135	-0.353**	-0.338**
6	0.118	0.318**	0.137	0.786**	0.520**
7	0.007	0.802**	-0.380**	0.006	0.183
8	0.106	-0.232*	0.126	0.258**	0.621**
9	0.168	0.280*	-0.173	0.860**	0.537**
10	0.261*	0.310**	0.013	0.212*	0.289*
11	0.320**	0.481**	0.184	0.651**	0.503**
12	-0.128	0.014	0.008	-0.356**	-0.148

Source: Computed from Survey Data

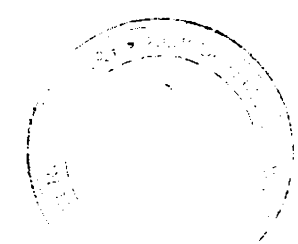
**Significant at 1 per cent level, *Significant at 5 per cent level

Components (Dependant Variables)

1 Involvement in project formulation
2 Project formulation based on felt needs
3 Project meeting
4 Community's rights
5 Formal agreement
6 Beneficiary committee
7 Financial effectiveness
8 Beneficiary contribution
9 Production processes
10 Project output
11 Self maintenance
12 Monitoring/evaluation

Independent Variables

1 Cultivable land owned
2 Private investment in agriculture
3 Family income from sources other than agriculture
4 Possession
5 Benefit receipt



6.11. Relationship of Components of External Sustainability with Independent Variables in Case of Common Property Resource-Based Projects

6.11.1. Employment Generation

It is obvious from Table 39 that variables such as ownership of cultivable land (0.233), private investment in agriculture (0.313) and benefit receipt (0.481) have positive and significant correlation with the external sustainability component and dependent variable, employment generation.

As the respondents own more area of cultivable land and also if they invest substantially for the development of agriculture in their land, there is high propensity for creating additional employment opportunities. Land could be utilised for cultivation provided certain level of investment is made and obviously the interplay of these two factors could generate employment and subsequently a sustainable livelihood security. If the benefit received from a given set of common property resource is high, it would have a contributory effect on the employment generation capacity of the project initiatives. Such benefits could be utilised for the development of agriculture, livestock or fisheries, as the case may be, and would be beneficial for a large segment of population who are unemployed or underemployed for their lack of possession of the much required factors of production, such as land and capital, where their labour and entrepreneurial ability could earn sufficiently.

6.11.2. Reinvestment of Income

It could be seen from Table 39 that variables such as ownership of cultivable land (0.388), possession (0.210) and benefit receipt (0.438) have positive and significant

correlation with the external sustainability component and dependent variable, reinvestment of income.

As the cultivable land owned by the respondents increase, there is every likelihood that they would be reinvesting their income in view of enhancing the output and thereby the overall returns. Higher level of possession of a given set of common property resource combined with a proportionate benefit receipt also enhances the propensity to reinvest the income. Those respondents who earn a subsistence level of livelihood from such common property resources may not be in a position to reinvest, but those who earn more or have alternate sources of income might be reinvesting their income mainly to get maximum returns out of the possessed resources. This matters with their incessant attitude to sustain their livelihood.

6.11.3. Asset Creation

As could be seen from Table 39 that variables, such as private investment in agriculture (0.217) and non-farm income (0.417) have positive and significant correlation with the external sustainability component and dependent variable, asset creation.

Those respondents who invest substantially for the development of agriculture would be more likely to create assets as part of the project. The benefits received from the project coupled with their own investment options could generate additional income with multiplier effect and subsequently production related assets could be amassed and utilised for receiving a sustainable output even after the project proponent withdraw their support. If the respondents' major share of income is from non-farm sources, it is likely that they would be amassing assets for impending functions. It is implicit that income from agriculture, other things remain same, or specifically if private investment does not take

place, might not be sufficient for such creation of assets as is evident from the field level observations.

6.11.4. Technical Training

It is obvious from Table 39 that variables such as private investment in agriculture (0.288) and possession (0.419) have positive and significant correlation with the external sustainability component and dependent variable, technical training.

A higher level of investment in agriculture would be demanding a formalised training for the labour involved in producing the desired output. Such trained labour could do better as they would be in a much better position in receiving the scientific practices in advancing the production. A higher degree of possession of common property resources would be increasingly requiring technical training in terms of optimising the utility of such resources. In marginal areas people might have usually identified potential sources of income from common property resources and they might be receiving subsistence level of benefits mainly because of the unorganised nature of the avocations. This could be rectified through proper training and the stakeholders would progress themselves towards maximising their returns. These are the reasons observed for the positive and significant correlation between the variables.

6.11.5. Management Orientation

It is seen from Table 39 that the independent variable, private investment in agriculture (0.615) has a positive and significant correlation with the external sustainability component and dependent variable, management orientation.

As the level of private investment in view of developing agriculture increases, the respondent would be more oriented towards management aspects of the project. Once the respondents are clear about the planning, production and marketing aspects of their project

venture, they would be in a better position to make investments accordingly. However, respondents with a high propensity to invest for improving their farm operations would be acquiring the desired qualifications required for a good manager. This would make investments more productive and the realization of output from such investments would also be higher.

6.11.6. Role of Community Mobilizers

It is obvious from Table 39 that variables such as ownership of cultivable land (0.212) and private investment in agriculture (0.418) have positive and significant correlation with the external sustainability component and dependent variable, role of community mobilizers. At the same time, variables such as non-farm income (-0.201) and possession (-0.216) have negative and significant correlation with the dependent variable.

Those respondents who own more area of cultivable land and also those who invest considerably in farm are much more convinced about the role of community mobilizers in sustaining the output. Ownership of a large area of land and the level of investment in it would certainly diversify the economic as well as the social activities of respective respondents. Obviously they would be increasingly aware of the development agents and the field staff responsive to the stakeholders and hence provided a positive and significant correlation between the variables. On the other side, if the respondents are increasingly in receipt of non-farm income, which constitute a major portion of their family income, would be less likely to praise the role of community mobilizers. This might be due to their deferred interests in agriculture and the consequent lack of networks with community mobilizers. A higher degree of possession of common property resource also disapproves the role of community mobilizers. Development agents as well as the field staff are more responsible towards the community and might stand for an equitable distribution and

possession of common property resources. This would be detrimental to the aspirations of those respondents who have a favourably skewed possession of the common property resources and hence they seize their complimentary attitude towards community mobilizers.

6.11.7. Role of Panchayat

It is obvious from Table 39 that variables such as ownership of cultivable land (0.310) and private investment in agriculture (0.880) have positive and significant correlation with external sustainability component and dependent variable, role of panchayat.

Respondents who own large area of cultivable land as well as of those who invest prudently in agriculture are optimistic about the role of the panchayat. They expect that panchayat should identify potential linkages, both forward and backward, from the existing project operations carried out each year. They envisage panchayat as the sole authority to take initiative in bringing out new investment opportunities alongside the development initiated though the productive ventures. A healthy local economy would produce and trade many of the things people consume in the area and should find out the real capacity to substitute for the goods and services coming into it, and also should process goods and services coming off the farms. Every project interventions is implicitly and explicitly linked to such opportunities, where individual initiatives are on the fence to come out with a solution. People's organisation if based on obligatory functions also has their limitations in integrating such diverse enterprises, where the statutory local governing bodies could perform positively.

Table 39 - Relationship of Components of External Sustainability with Independent Variables – Common Property Resource-Based Projects

Components	Independent Variables				
	1	2	3	4	5
1	0.233*	0.313**	0.181	-0.115	0.481**
2	0.388**	0.175	0.022	0.210*	0.438**
3	0.183	0.217*	0.417**	0.106	0.180
4	0.003	0.288**	0.007	0.419**	0.158
5	0.150	0.615**	0.174	0.010	0.038
6	0.212*	0.418**	-0.201*	-0.216*	0.188
7	0.310**	0.880**	0.145	-0.025	0.179

Source: Computed from Survey Data

**Significant at 1 per cent level, *Significant at 5 per cent level

Components of External Sustainability

1 Employment generation
2 Re-investment of income
3 Asset Creation
4 Technical training
5 Management orientation
6 Role of community mobilizers
7 Role of Panchayat

Independent Variables

1 Cultivable land owned
2 Private investment in agriculture
3 Family income from sources other than agriculture
4 Possession
5 Benefit receipt

A detailed study of the nature and pattern of productive sector projects revealed three distinct sets, viz., institution-based, individual-based and common property based projects. The analysis which followed further exposed the comparatively better performance of institution-based projects in terms of sustainability. This could be taken as a typical feature of the participatory planning exercises in Chempu Village Panchayat and forthcoming planning decisions could be fine tuned in concurrence with this finding. The observations regarding the decreasing trends in per capita plan outlay of projects also cautions about the induced pressure from the non-economic front which could destructively influence the success of the conservative economic planning. Analysis based on SIV expresses the various features of participatory planning to be strengthened through proper interventions by the state planning mechanism. The findings regarding the relationships of internal and external sustainability with independent variables calls for accurate considerations of prominent features of individuals as well as institutions which could determine the destiny of any development venture.

Chapter 7

CONCLUSION

CHAPTER VII
CONCLOSION

The major findings of the study in summary form were coordinated in this chapter. A concluding note along with suggestive strategies relevant for further development planning was also given.

7.1. Major Findings

The major findings of the study are summarised below.

- ❖ During the Ninth Five-Year Plan period, 1997-2002, the village panchayats in Kerala received a total amount of Rs.2684 crore, out of which they could spent an amount of Rs.1940 crore (72.27 per cent). This level of expenditure is comparatively lower than that of the aggregate expenditure pattern (83.65 per cent) of all the local governing bodies put together. Category-wise analysis also reveals that the level of expenditure under each category, General (74.94 per cent), SCP (64 per cent) and TSP (62.52 per cent) were all lower than that of the respective level of expenditures for the whole local governing bodies in Kerala.
- ❖ Expenditure pattern of all the three categories of grant-in-aid during the Ninth Five-Year Plan period in the state has followed a similar trend. The level of expenditure was the highest during the First Year, 1997-1998, which was mainly due to the extended period of up to June 30, allotted by the government in order to spend the unspent balances. The levels of expenditures reach all time low during the Fifth Year of the Five-Year Plan period, 2001-2002. From the Third Year Plan period, 1999-2000 onwards, a decreasing trend is evident in the expenditure pattern of plan grant-in-aid. In the last two years of the plan period, 2000-2001 and 2001-

2002, the level of expenditure of the TSP has slightly improved in comparison to that of the SCP.

- In Chempu Panchayat, the rate of expenditure on productive sector projects under general category recorded highest [71.71 per cent] during the Fourth Year Plan period, 2000-2001 and the lowest rate of expenditure [52.59 per cent] recorded during the Second Year Plan period, 1989-1999. During the First Year, 1997-1998 and Fifth Year, 2001-2002 plan periods, the rates of expenditure were around 54 per cent and during the Third Year of the Plan period the rate of expenditure was 67.93 per cent.
- Grant-in-aid allocated in the service sector under general category has a fairly better record of utilization as the rate of expenditure in all the years was 84 per cent or more. During the first year, it was 226.70 per cent as the panchayat reallocated the fund received from housing board for construction and maintenance of houses under service sector.
- Rate of expenditure of infrastructure projects under general category is at its peak [149.04 per cent] during the Third Year Plan period, 1999-2000, which declined to 97.32 per cent in the next year, 2000-2001 and again reduced to 31.17 per cent during the last year, 2001-2002 of the plan period. During the initial year, 1997-1998, the rate of expenditure was 93.3 per cent, this declined to 71.24 per cent in the next year, 1998-1999.
- Since there is no specific regulations regarding the allocation pattern of grant-in-aid under SCP and TSP, as is the case of general category of projects, productive sector under both categories [SCP and TSP] received minimum amount of funds for utilization. The ratio 40:30:30 in which the grant-in-aid should be distributed

among productive, service and infrastructure projects is applicable only to general category. SCP and TSP funds are distributed according to the felt needs of the target population and the allocation to the target population and the allocation to the infrastructure category need not exceed 30 per cent. Accordingly, no fund is allocated for productive sector projects under SCP for first two years, 1997-1998 and 1998-1999 and for all the years, 1997-2002 under TSP. The rate of expenditure of productive projects under SCP is 64.90 per cent and 50 per cent respectively during 2001-2002 and 1999-2000. Though an amount of Rs. 50,000 is allocated under SCP for productive sector projects, it is not spent during the Fourth Year Plan period, 2000-2001.

- Fund utilization of the SCP fund for service sector projects showed an increasing trend throughout the four years of planning, 1997-2001. The rate of expenditure increased from 56.75 per cent in 1997-1998 to 95.39 per cent in 2000-2001 and during 2001-2002. The rate declined to 41.94 per cent. Expenditure pattern of service sector projects under TSP is that during the Second and Third Year Plan period, 1998-1999 and 1999-2000, the fund utilization are maximum [100 and 271.43 per cent respectively].
- Sector-wise allocation of the own fund of the Panchayat shows that major share of the fund is allocated under infrastructure category, Rs.22,11,191 (64.09 per cent). Productive sector category receives the least share, Rs.2,60,190 (7.54 per cent). The allocation to the service sector during the Five-Year Plan period is Rs.9,78,745 (28.37 per cent).
- Sector-wise expenditure pattern of the own fund of the Panchayat also favours infrastructure category as the Panchayat has spent 35.68 per cent of the plan

allocation in the category, where as, the rate of expenditure under service sector is 12.84 per cent and virtually no amount is spent under productive sector category during the Five-Year Plan period. Productive sector receives allocation from own fund source only in two years, 1998-1999 and 2000-2001, where as, service sector receives fund during all the years except for the year 1998-1999. However, during all the years except the first year, service sector has not spent any amount which is allocated for development purposes. Infrastructure category receives allocation from the own fund during all the years of the Ninth Five-Year Plan period.

- A major share of the funds under state sponsored schemes, which is channelled through the Panchayat find its way towards service sector projects, as the sector is allocated with a total amount of Rs.73,37,448 (55.44 per cent of the total State Sponsored Fund), where as, productive and infrastructure sector received Rs.23,23,018 (17.55 per cent) and Rs.35,75,000 (27.01 per cent) respectively. The rate of expenditure is observed to be the lowest (1.82 per cent) for infrastructure category. Productive (13.50 per cent) and infrastructure projects (12.84 per cent) also recorded lower level of expenditure pattern.
- Of the Centrally Sponsored Scheme Funds, which is channelled through the Panchayat, a major share (65.11 per cent) is allocated under infrastructure category. Service and productive sector category received Rs.37,97,716 (30.71 per cent) and Rs.5,16,100 (4.18 per cent) respectively.
- The allocation bias of the Centrally Sponsored Fund is also evident in expenditure pattern, as infrastructure category spent 35.10 per cent of the allocated fund, where as service sector spent 28.33 per cent from its allocated fund of Rs.37,97,716 and

the allocated amount of Rs.5,16,100 within the productive sector remained unutilised.

- With respect to the allocation and expenditure of the voluntary contributions, service sector projects receive the major share of Rs.42,61,500 (48.17 per cent), where as, productive and infrastructure projects receive Rs.23,66,910 (26.75 per cent) and Rs.22,18,591 (25.08 per cent) respectively. The productive sector projects could mobilise and spent an amount of Rs.15,91,239 (67.23 per cent) against its allocation. At the same time, service and infrastructure projects could mobilise and spent Rs.20,09,256 (47.15 per cent) and Rs.5,45,384 (24.58 per cent) respectively.
- A major share of the allocated beneficiary contribution has gone to the productive sector category as the sector received an amount of Rs.65,21,893, which is 57.12 per cent of the total allocation of beneficiary contribution. Service sector received an allocation of Rs.43,52,900 and infrastructure category received Rs. 5,42,939, which are 38.12 per cent and 4.76 per cent of the allocation in the two sectors respectively. Infrastructure projects are found unsuccessful in mobilising its allocated amount from the beneficiaries and the expenditure remained zero. At the same time, service and productive sector are able to mobilise and spent Rs.8,80,610 (20.23 per cent) and Rs.10,76,075 (16.50 per cent) respectively.
- Within the selected seventeen productive sector projects, the per capita fund allocation is estimated to be Rs.425.96, Rs.581.15 and Rs.1175.94 during 2000-2001, 1999-2000 and 1998-1999 respectively. On the other side, the number of beneficiaries per project is estimated to be around 467, 375 and 213 respectively during the same period. The per capita fund allocation shown a decreasing trend

and at the same time, the average number of beneficiaries per project is on the increase.

- There are three broad categories of productive sector projects, such as institution-based, individual-based and common-property based projects.
- Twelve components of internal sustainability and seven components of external sustainability of participatory productive sector projects are identified and the degree of linear relationship of these components with the Sustainability Index Value (SIV) by using Pearson's Product Moment Correlation Coefficient, reveals a significant and positive association.
- The estimated Sustainability Index Values of seventeen productive sector projects shows that six projects are 'more sustainable' (SIV falls between 1 and 0.667). The projects in the descending order of their sustainability are, 1) Development of Paddy Cultivation (2000-2001), 2) Development of Thekkekecherikari *Padasekharam* (1998-1999), 3) Barren Land Cultivation (2000-2001), 4) Development of Vegetable Cultivation through Women SHGs (2000-2001), 5) Development of Amorphophalus Cultivation (1999-2000) and 6) Development of Arikupuram *Padasekharam* (1998-1999).
- In the assessment of sustainability, it is found that external components contribute comparatively lower and sustainability remains distressed, where as internal sustainability components are more prominent.
- Three of the 'more sustainable' projects, Development of Paddy Cultivation, Barren Land Cultivation and Development of Arikupuram *Padasekharam*, are deficient of technical training that could sustain its purpose more comfortably. At the same time, projects such as, Development of Thekkekeecherikari

Padasekharam and Development of Vegetable Cultivation through Women SHGs have received adequate training to deal with the technical aspects of the project and this is reflected in the project sustainability. Employment generation as one among the determining factors of sustainability has found prominence in only one project; Development of Thekkekeecherikari *Padasekharam* and all other 'more sustainable' projects have only medium level of performance in creating additional employment.

- Management orientation is another major component which requires attention by the panchayat in sustaining the project initiatives. It is found feeble for projects, Development of Thekkekeecherikari *Padasekharam* and Development of Arikupuram Padashekharam.
- The role of community mobilizers as well as of panchayat is found stronger for the project, Barren Land Cultivation and also for Development of Paddy Cultivation and Development of Vegetable Cultivation through Women SHGs respectively.
- All the 'more sustainable' projects except Development of Paddy Cultivation are found to have rated financial effectiveness, a major internal sustainability component, as adequate enough to sustain on its own end.
- Similarly, beneficiary contribution has contributed effectively to the internal sustainability of projects such as Development of Paddy Cultivation, Development of Thekkekeecherikari *Padasekharam*, Development of Vegetable Cultivation through Women SHGs and Development of Amorophophalus Cultivation. The role of beneficiary committees in the sustainable implementation of development projects are yet to be materialised in its real meaning. Accordingly, only two projects, Development of Paddy Cultivation and Development of Amorophophalus

Cultivation have displayed a strong allegiance that could contribute positively to the internal sustainability of the projects.

- More sustainable projects are more particular in taking part in the initial stages of project formulation and also confirm that their felt needs are transferred to development projects. Community also exerts its power in performing their role either in rejecting or accepting the projects and if it is based on felt needs of a considerable segment of the community, the project would naturally get the base to sustain on its own.
- The formal agreement between the panchayat and the project holders contributes considerably to the internal sustainability of the projects and this is more obvious in the case of two projects, Development of Paddy Cultivation and Development of Thekkekeecherikari *Padasekharam*. Monitoring and evaluation is the weakest component of internal sustainability and needs to be addressed at the panchayat level for a more contented sustainability of projects.
- The external sustainability components of 'medium sustainable' projects are more in peril. These projects' re-investment of income accrued from the project activities is not significant.
- External sustainability components such as management orientation, role of community mobilizers and role of panchayat in sustaining the project initiatives is found very bleak for 'medium sustainable' projects.
- Among the 'less sustainable' category of projects, Development of Arathukari *Padasekharam* is the least performing project with respect to sustaining beyond the withdrawal of panchayat from the scene. In all the four 'less sustainable' projects the targeted beneficiaries' involvement in project formulation and also their

linkage with the community is weak. External sustainability components of employment generation, re-investment of income, technical training, management orientation, role of community mobilizers and role of panchayat are not at all at ease with these projects.

Development agents, both from formal and informal segment have used participatory strategies in various development programmes on the belief that participation is the most effective means to deliver and sustain benefits to the targeted population, especially the rural poor. The study which focussed on the sustainability of participatory projects in the context of People's Planning in Kerala, has detailed out the case of a selected village panchayat, Chempu in Kottayam District. The study explored the assumed link between participation and sustainability by presenting the characters of a select set of seventeen productive sector projects implemented during the Ninth Five Year Plan period.

The effectiveness of the decentralised planning mechanism, in continuously delivering the benefits to the target population even after the Planning Board or the respective local governing bodies withdraw its technical, managerial and financial support, has been assessed using Sustainability Index Value (SIV) method developed for the study. The decentralised planning and the consequent strengthening of people's organisations at the grassroots level have brought out power and responsibility down to the community. The foremost of these responsibilities has been the devolution of financial resources for use by the local governing bodies. Ultimately, the development destiny of a village rests with its residential population. The numerous regulations issued part by part in support of the devolved resources form the guidelines for an effective and unique participatory development approach. This would gradually evolve a standard model for participatory implementation of development programmes in view of the location specific resource

potential and constraints, which is yet to happen as is evident from the present study. Driving the efforts towards increasing community participation and subsequent institutionalisation could solve the problem of sustainability.

7.2. Suggestive Strategies

Based on the assessment of productive sector projects, the study suggests certain strategies that could be adopted in the framework of participatory planning. The strategy is framed in view of the underperformance of some of the projects. The institutional arrangements that led them fallaciously to such a desperate situation also need to be rectified. Participatory development ventures would become more fruitful if appropriate policy measures are brewed in view of the problems identified.

Participatory planning in Chempu Panchayat has incorporated almost all features of a standard participatory model as envisaged by Kleemeier (2000). The planning programme has envisioned even more features of participatory approach to project initiation that has not yet become a participatory feature in most otherwise analogous projects. However, the newly emerged people's institutions at local level and also the institutions expected to be born out of several policies have not adapted a model of pragmatic sustainable development. The development of a parallel institutional framework requires delineation and devolution of more statutory powers and mandatory responsibilities.

Participatory projects are observed to be mainly based on the felt needs of the rural people. However, the panchayat is not critically assessing the location specific problems prevailing in the region. These problems are rarely taken into consideration while framing the productive sector projects. An expert opinion even at the grassroots level with respect

to the identification of felt needs in conjunction with prevailing development problems of the region may create the basis for sustained growth.

The beneficiary committees which are mostly confined to the functioning of infrastructure based participatory projects are yet to find its way in the productive sector projects in the cases studied. The perceived logic behind the formation of such committees is to play an intermediary role between the provider and recipient of benefits. The transparency of any project intervention could be ensured with the efficient functioning of beneficiary committees apart from taking up the responsibilities of coordinating and carrying out the project.

The financial allocation of productive sector projects should foresee the production particulars and even the marketing of the produce. The conventional *make-satisfy* or a *demonstrative* distributional pattern of funds under productive sector category would negatively affect the very essence of sustained production. Hence it is important to trim down the size of the beneficiary-net as also to reduce the number of projects under Annual Plans. Tenth Five Year Plan envisages a Five Year Planning approach, instead of the earlier Annual Plans. This may improve the competence of projects with respect to a long-term financial planning rather than the immediate and time bound pattern followed under Annual Plans.

Monitoring and evaluation of projects are some of the weakest links identified in the chain of sustainability. Introduction of Monitoring Assistants Groups (MAG), the bottom rung of an operation and maintenance monitoring system, in response to this weakness is an alternative. This group may form part of the people's initiatives that too with a minimum level of statutory responsibility. MAGs may come up with reports comprising status of the project, issues affecting the project, critical evaluation of the

production processes, stock assessment of the output including employment generated, assets created, income re-invested for the respective project and also suggestive measures for the consecutive year of planning.

The sectoral allocation of grant-in-aid in the combination of 40:30:30 among productive, service and infrastructure projects is more precisely followed by the panchayat. There should be a further specification / guidelines within the sectoral classification. This is to avoid the possible concentration of fund in favour of the dominant segment, agriculture/paddy in case of Chempu panchayat, within the working groups.

Some of the projects included in the productive sector category are more suiting service or infrastructure category. The panchayat gives a misleading interpretation of the 'productive sector', by adding any *production* related terms to the project name. For instance, projects such as Deepening of *thodu* (rivulet) for 'homestead farming', Construction of 'cattle shed' and Digging well for 'irrigation', in reality appeared far from the ambience of productive sector. In relative terms, it is the violation of the proportionate sectoral distribution of grant-in-aid. This should be remedied with an unambiguous definition of the term 'productive sector' within the plan guidelines. Even the Tenth Five Year Plan Guidelines of Government of Kerala 2002, which defines productive sector projects, is not free from propping up such maladjustments at the grassroots level.

Institution-based projects are comparatively more successful in delivering sustained benefits to the targeted population. At least for the implementation of productive sector projects, such institutions like *padasekharam*, self help groups and educational institutions in Chempu panchayat may be identified and their organisational resources may be strengthened through training in order to take up sustained rural development initiatives. At the same time, it should be noted that institution-based projects do away

with the classical assortment of beneficiaries from below poverty line (BPL) list, since the project is sanctioned based on the wherewithal of the institutions. While selecting an institution, the possible benefits and coverage of BPL families should also form a weightage indicator. However while dealing with individual-based projects, the BPL families coming under the purview of the project are not in a position to contribute to the financial effectiveness of the projects. In such situations, self-financing mechanisms are advisable.

Sustainability analyses are necessary in order to increase the sustainability of development projects. Participatory development projects only makes sense in terms of development policy and can only be legitimated if it can show permanent effects. Sustainability analyses start from this core problem and they provide information about the effectiveness participatory development efforts, locate areas which needed reforms and trigger processes of learning. Thus sustainability analyses represent an indispensable element of any development policy that aims to achieve long-term impacts.

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APPENDICES

APPENDIX I

SCHEDULE 1

(DEPENDENT VARIABLES)

Sl.No	Components	Most relevant	More Relevant	Un Decided	Less Relevant	Least Relevant
Components of Internal Sustainability						
1	Involvement in project formulation					
2	Project formulation based on *felt needs*					
3	Project meeting					
4	Community's rights					
5	Formal agreement					
6	Beneficiary committee					
7	Financial effectiveness					
8	Beneficiary contribution					
9	Production processes					
10	Project output					
11	Self maintenance					
12	Monitoring/evaluation					
Components of External Sustainability						
13	Employment generation					
14	Re-investment of income					
15	Asset Creation					
16	Technical training					
17	Management orientation					
18	Role of community mobilizers					
19	Role of Panchayat					

Involvement in project formulation

1. Whether local residents have given their opinion about the region specific problems
2. Whether the community representatives raised the local problem (leading to project) in various participatory institutions such as development seminars, Grama Sabha, neighbourhood groups, other development committees etc.
3. Whether any of the local residents are members of the task force committee, pertaining to their region, which ultimately formulates the project. If yes, how many.
4. Whether the task force consulted any local residents in the preparation of various aspects of the project, such as objectives, organisation, resource mobilisation including beneficiary contribution, ultimate beneficiaries, beneficiary committees or monitoring and evaluation procedures.
5. Whether any of the local residents are members of the task force committee, pertaining to their region, which ultimately formulates the project. The scoring pattern is as follows,

Statements	Score
a) If all the members of task force are local residents	5
b) If 50 per cent of the members are local residents	4
c) If 25 per cent of the members are local residents	3
d) If 10 per cent of the members are local residents	2
e) If not even a single member is a local resident	1

6. Whether the task force consulted any local residents in the preparation of various aspects of the project, such as objectives, organisation, resource mobilisation including beneficiary contribution, ultimate beneficiaries, beneficiary committees or monitoring and evaluation procedures.

Project formulation based on *felt needs*

Sl.No.	Statements	Response	
		Yes	No
1	Whether the broad objectives of the project have directly addressed the felt needs spelt out by the community		
2	Whether the project aims to resolve any location specific problems which hindered development		
3	Does any benefit accrues to the general public other than the direct beneficiaries of the project		
4	Does the general public other than the direct beneficiaries of the project have any objection in the implementation of the project.		

Project meeting

Sl.No.	Statements	Response	
		Yes	**No**
1	Whether the implementing authorities have given information regarding the project through a public meeting		
2	Whether the meeting organised is exclusively meant for disusing project particulars		
3	Whether an organisation or management committee is formed in the same meeting		
4	Whether the proposed beneficiaries have participated in such a meeting (score 1 if 10 per cent of the beneficiaries participated, score 2 if 25 per cent participated, score 3 if 50 percent participated and 4 if cent per cent participated)		

Community's rights

Sl.No.	Statements	Response	
		Yes	**No**
1	Whether the community has any right to suggest modifications to the project before it is implemented (after the formal approval – technical sanction – by the concerned authority)		
2	Whether the community has any right to reject the project if the final approved version of it is not complying with their needs and requirements.		

Formal Agreement

Sl.No.	Statements	Response	
		Yes	No
1	Whether there is any formal agreement signed between community and the project implementing authority		
2	Whether such an agreement is necessary for the smooth implementation of the project		

Beneficiary Committee

Sl.No.	Statements	Response	
		Yes	No
1	Whether a beneficiary committee is proposed in the project		
2	Whether a beneficiary committee is formed with the proposed objectives of the project		
3	Whether the committee is given organisational responsibilities of the project		
4	Whether a true representation of the beneficiaries exists in the committee, based on a) Geographic distribution b) Gender composition c) Social activism		
5	Whether the committee have a sense of community ownership such that it maintains the particulars of the project even without a external supervision		

Financial Effectiveness

Sl.No.	Statements	Response	
		Yes	No
1	Whether the cost requirements of the project is scientifically estimated		
2	Whether the fund allocated is adequate to run the project		
3	Whether the entire cost of the project intervention is met through grant-in-aid fund		
4	Whether any linkages with financial institutions is suggested to avail credit for the project		
5	Is there any provision in the project to meet the increasing variable costs in the future		
6	Whether the project proposes at-a-time disbursal of the fund		

Beneficiary contribution

Sl.No.	Statements	Responce	
		Yes	No
1	Whether project proposal stipulates to pay BC		
2	Whether the BC amount (value of labour if it is not money contribution) is adjusted with the grant-in-aid amount		
3	Whether the beneficiary is aware of the BC to be paid.		
4	Whether he accepts the condition of paying BC before the project begins		
5	Whether the beneficiary has paid any BC towards the project		

Production Processes

Sl.No.	Statements	Response	
		Yes	No
1	Whether the criteria proposed in the selection of beneficiaries or benefiting area is followed properly		
2	Whether the technical activities of the project followed the stipulated conditions		
3	Whether the organisational procedures are in line with that detailed out in the project document		
4	Whether the required fund is mobilised from various sources as pointed out in the *financial analysis* of the project		
5	Whether the monitoring and evaluation mechanism is as spelt out in the project document.		

Project Output

Change in output	Score	Change in output	Score
Decrease more the 10 per cent	0	Decrease less than 10 per cent	1
Unchanged	2	Increase above 10 per cent	4
Increase up to 10 per cent	3		

Self Maintenance

Sl.No	Statements	SA	A	UD	DA	SDA
1	Beneficiary is satisfied with the entire functioning of the project					
2	The project has improved the well being of the beneficiary to a commendable extent					
3	The project has increased the hardships of the beneficiary					
4	Only the inputs received as part of the project is					

Sl.No	Statements	SA	A	UD	DA	SDA
	worth but the output from it is frustrating					
5	There is neutral effect in implementing and not implementing a project like this					
6	Beneficiary has approached other financial institutions to avail credit in order to run the project in future					
7	It is worth to continue the project at any cost since it is a prestigious venture					
8	It is important to continue the project since it gives employment to many people					
9	The project could easily make use of the network (supplies or marketing) created earlier and with no additional cost					
10	The project is self running and could be easily managed with low degree of supervision					

Monitoring and Evaluation

Whether a monitoring/evaluation body existed with respect to the project

Whether that body is constituted exclusively for the purpose of monitoring / evaluating the mentioned project

Whether the monitoring / evaluation body visits the sites frequently and assess the project procedures

Whether the monitoring / evaluation body keeps records and maintains a proper file system

Whether the monitoring / evaluation body suggests modifications to the beneficiaries for better running of the project

Whether the monitoring / evaluation body insists the implementing authority to take necessary actions against those who violate the stipulations.

Employment generation

Employment opportunities	Score	Employment opportunities	Score
Decrease more the 50 per cent	0	Decrease less than 50 per cent	1
Unchanged	2	Increase up to 50 per cent	3
Increase above 50 per cent	4		

Reinvestment of income

(as % of total output from the project)

Asset creation

(as % of total investment to the project)

Reinvestment of income	Score	Assets created	Score
No re investment	0	No assets	0
25 per cent of the output	1	25 per cent of the investment	1
50 per cent of the output	2	50 per cent of the investment	2
100 per cent of the output	3	100 per cent of the investment	3
More than 100 per cent of the output	4	More than 100 per cent of the investment	4

Technical training

Sl.No	Statements	Response/Score
1	Have you obtained training on technical procedures of the project?	Yes / No
2	Do you agree that training is not necessary to deal with the project particulars?	SA/A/DA/SDA
3	An established system of training is beneficial for the beneficiaries to learn project technicalities	SA/A/DA/SDA
4	A common training rather than project specific training is enough to achieve necessary knowledge about running the project	SA/A/DA/SDA
5	There is lack of coordination between the training offered and the present project activities	SA/A/DA/SDA
6	The training helped in running a separate project unit other than that offered by the Panchayat	SA/A/DA/SDA

Management orientation

Sl.No	Statements	Response A/DA
A. Planning orientation		
1	It is not necessary to think ahead of the cost involved in starting an enterprise	
2	One need not consult any expert / organisation for planning	
3	It is possible to make profit through production plan	
4	It is not necessary to make prior decision about starting an enterprise	
B. Production orientation		
1	Timely production ensures more profit	
2	One should use those raw materials for production, one likes	
3	Scientific methods in production involves high cost	
4	For scientific production one should have proper knowledge about the technology	
5	Training is essential for starting an enterprise	

C. Marketing orientation		
1	Market information is not useful to an enterprise	
2	An entrepreneur can get good price by grading his produce	
3	One should sell the produce to the nearest market irrespective of the price	
4	One should purchase the inputs from shops where one's relatives purchase	
5	One should start those enterprises which have more market demand	

Role of community mobilizers

Sl.No.	Statements	Response	
		Yes	No
1	Whether a group of community mobilizers took initiative in assessing the status of projects implemented		
2	Whether such a group of community mobilizers meet often to share their experiences		
3	Does a permanent set of community mobilizers engage in organising various activities related to the project		
4	Does the group of community mobilizers have explored the follow-up initiative of project in view of its employment opportunities and income earnings to the beneficiaries		

Role of panchayat

Sl. No.	Statements	Response	
		Yes	**No**
1	Whether the Panchayat has initiated any project as a *by product* of the one implemented		
2	Whether the Panchayat has set up a network in marketing the products produced as part of the project		
3	Whether the Panchayat has initiated similar projects based on success stories , with more fund allocation		
4	Does the Panchayat go for an overall assessment of the performance of projects implemented		
5	Does the Panchayat has suggested any significant changes with respect to the nature of projects, formulated in the consecutive year		

APPENDIX II
SCHEDULE 2

(INDEPENDENT VARIABLES)

Sl.No	Independent variables	Most Relevant	More Relevant	Un Decided	Less Relevant	Least Relevant
A	**Individual-based projects**					
1	Age					
2	Education					
3	Annual income					
4	Economic motivation					
5	Credit orientation					
6	Innovation proneness					
7	Risk orientation					
8	Achievement motivation					
9	Unit size					
10	Project perception					
11	Cosmopoliteness					
12	Scientific orientation					
13	Operational experience					
14	Entrepreneurial behaviour					
B	**Institution-based projects**					
1	Institution-size					
2	Institutional action plan					
3	Lobbying power					
4	Incentives					
5	Risk compensation					
6	Political determinism					
7	Infrastructure facilities					
8	Community support					
9	Inter-institutional linkages					
10	Stakeholder participation					
C	**Common property resource-based projects**					
1	Cultivable land owned					
2	Private investment in agriculture					
3	Family income from non-agricultural sources					
4	Possession					
5	Benefit receipt					

Age		
Sl.No	**Age (in years)**	**Score**
1	20 and less	
2	21-25	
3	26-30	
4	31-45	
5	46-50	
6	51-60	
7	61 and above	

Education	
Educational Status	**Score**
Illiterate	
Can read and write	
1-4 (standard)	
5-8 (standard)	
9-12 (standard)	
Graduation and above	

Annual Income

Income (Rs.)	Score
< 3000	
5001-10000	
50001-100000	

Income (Rs.)	Score
3001-5000	
10001-50000	
>100001	

Economic motivation

[Please give your response on the following statements – SA-Strongly Agree, A-Agree, UD-Undecided, SDA-Strongly Disagree (Mark √ in the appropriate column)]

Sl.No	Statements	SA	A	UD	DA	SDA
1	A beneficiary should work towards better output and economic profits					
2	The most successful beneficiary is the one who makes more profit					
3	A beneficiary should try any new project idea which may earn him more money					
4	It is difficult for the beneficiaries' children to make a good start unless he provides them with financial assistance					
5	A beneficiary must earn his living but most important things in life cannot be defined in economic terms					

Credit orientation

Sl.No	Statements	Response/Score
1	Do you think a project beneficiary like you should borrow from banks for your project operation?	Yes / No
2	In your opinion how difficult it is to secure credit for your project operations?	VD/D/E/VE
3	How a beneficiary is treated when he goes to secure credit from banks / cooperative societies?	VB/B/F/VF
4	There is nothing wrong in taking credit from institutional sources for increasing production	SA/A/DA/SDA
5	Have you taken credit in the last two years for the same purpose for which project is sanctioned?	Yes/No

Innovation proneness

Indicate one statement of the three that is most liked by you and another statement of the same least liked by you

Sl.No		Statements	High	Medium	Low
A	1	I try to keep myself update with information on new practices (in the assigned work of the project), but does not mean that I try all new methods.			
	2	I feel restless till I try at a new practice, I have heard about.			
	3	They talk of many new practices these days but who knows whether new ones are better than old ones.			
B	1	From time to time I heard of several new practices and I have tried out most of them in the last year.			
	2	I usually wait to see what result my neighbours obtain before I try out new practices.			
	3	Somehow I believe that the traditional ways of practices are the best.			
C	1	I am cautious about trying a new practice			
	2	After all, our forefathers were wise in their practices and I do not see any reason for changing those old methods.			
	3	Often new practices are not successful, however, if they are promising, I would surely like to adopt them.			

Risk orientation

Please give your degree of disagreement about each of the following statements

Sl.No	Statements	SA	A	UD	DA	SDA
1	A beneficiary should run large number of units (project activities) to avoid greater risks involved in running one or two units					
2	A beneficiary should take more of a chance in making a big profit than to be content with smaller but less risky profit					
3	A beneficiary who is willing to take greater risk than the average stakeholder usually does better financially.					
4	It is good for a beneficiary to take risk when he knows his chance of success is fairly high.					
5	It is better for a beneficiary not to try a new practice unless most others in the locality have used it with success.					
6	Trying a new method in the project operation by a farmer involves risk, but it is worth					

Achievement motivation

Please respond to the following sentences by choosing the appropriate answers

A	In whatever work I undertake in my project operation	
	1. I like to make advance plan	
	2. I like to do my best	
	3. I do not assume full responsibility for it	
B	I am always keen	
	1. to maintain the social status	
	2. to remove social evils	
	3. to develop my qualifications	
C	I feel happy when	
	1. I tell others of my personal experience	
	2. I am assigned a difficult job	
	3. I am required to advice others	
D	My secret ambition is life is	
	1. to deal a happy married life	
	2. to establish a glorious record of achievement	
	3. to own a large project unit	
E	I like to venture something which	
	1. others can hardly do	
	2. will make one wealthy	
	3. others regard as a quality of leadership	

Unit Size (with respect to the benefits received)

Category	Score	Category	Score
Single unit	1	2-3 times	2
4-5 times	3	5-6 times	4
7 or above	5		

Project Perception

Sl.No	Statements	SA	A	UD	DA	SDA
1	Project intervention helps to achieve sustained livelihood to the beneficiary					
2	Maximum utilisation of available resources of the beneficiary is possible through the project intervention					
3	Project support from Panchayat helps to reduce the possible loss from the operations.					
4	Implementation of the project is just a show-off by the authorities.					
5	Project intervention is a fortunate thing to small and marginal farmers					
6	Project intervention is one of the best introduced for the development of assigned operations					
7	Project intervention does not in anyway enhanced additional employment and income opportunities of beneficiary households					
8	Cost of operations can be reduced with the project intervention.					
9	Project intervention entails an opportunity to participate in the rural development process					

Cosmopoliteness

Sl.No	Statements					
A	Frequency of visit to the nearest town					
	Frequency	Twice or more in a week	Once in a week	Once in a month	Seldom	Never
	Score	5	4	3	2	1
B	Purpose of visit					
	Purpose	Entertainment	Personal	Project purpose	Other purpose	
	Score	4	3	2	1	
C	Membership in organisation outside the village					
	Membership	Office bearer	Member	Non-member		
	Score	3	2	1		

Scientific orientation

Sl.No	Statements	SA	A	UD	DA	SDA
1	New methods of project operation give better results to the beneficiary					
2	Traditional methods of operation is the best way and there is no other alternatives.					
3	Even a beneficiary with lot of experience should use new methods of operation					
4	A good beneficiary experiments with new ideas in his operation.					
5	Though the time required to learn new methods is long, it is worth the efforts					
6	Traditional methods of operation have to be changed in order to raise the level of living of the project beneficiary.					

Operational experience

Experience	Score	Experience	Score
Up to 5 years		6 to 10 years	
11 to 15 years		16 to 20 years	
Above 21 years			

Entrepreneurial behaviour

Sl.No	Statements	SA	A	UD	DA	SDA
1	It is easy to start and run an enterprise					
2	The circumstances around me forced me to start an enterprise					
3	I am interested in attending any training related to the development of an enterprise					
4	It is a privilege to be employed and at the same time give employment to a few people					
5	A person should be well-informed about various procedures of starting an enterprise					

Institution Size

Sl.No	Number of members		Score
	Group farms	SHGs/Schools	
1	Less than 50	Less than 10	
2	51-100	11-15	
3	101-150	16-20	
4	Above 151	Above 21	

Institutional action plan

Sl.No	Statements	Response
1	Does the institution prepare an action plan for every operation	Yes / No
2	Do you agree that a clear cut action plan will guide the members in proper implementation of the project operations	A/UD/DA
3	Action plan is a must to achieve the objectives of the project as well as for the success of the institution	A/UD/DA

Lobbying power

Sl.No	Statements	Response
1	Whether the institution usually submit proposals to any government or non-government agencies to receive funds for the execution of their operations	Yes / No
2	Whether any such proposals got sanctioned	Yes / No
3	Whether any governing body members of the institution intentionally participate in a project preparation discussion at the Panchayat or Grama Sabha	Yes / No
4	Does the institution has any convention of influencing any authorities for the ultimate well-being of its members	Yes / No
5	Whether any of the persons are member / office bearer of the institution (MLA / Panchayat representative / Task force member)	

Incentives

Sl.No	Statements	SA	A	UD	DA	SDA
1	Subsidies or other assistance provided by government or any other agencies has motivated farmers in the project operation					
2	Subsidised supply of inputs reduced the hardship of project holders					
3	Subsidies or other assistance provided by the sponsoring agency are not adequate to cover the project expenditure					

Risk Compensation

Sl.No	Statements	A	ST	N
1	Do you think that lack of provision to compensate project failure affects the initiatives to run a project			
2	Do you agree that a compensatory allowance motivated the stakeholders in taking up projects			
3	Do you agree that the assistance provided by sponsoring agency covers the risk of project failure			

Political determinism

1. Whether affiliation to a particular political party is a necessity to avail membership in the institution
2. Do the office bearers of the institution belong to a particular political party
3. Do the political considerations badly affect the functioning of the institution
4. Does the political affiliation to a particular political party help the institution in bagging any additional benefits, in terms of project assistance
5. Does any benefits which could be obtained to the institution missed due to the over emphasis on politics.

Infrastructure Facilities

1. Whether the institution possesses satisfactory level of infrastructure facilities
2. Do they get any external assistance in building up the present infrastructure facilities
3. Whether the lack of adequate infrastructure facilities affect the functioning of the project
4. Do the present project has any provision of assistance for the development of infrastructure facilities of the institution

Community support

1. Whether the local community has anytime acted against the overall performance of the institution
2. Does the institution could successfully organise a public meeting
3. Whether local community involve actively in such public functions organised by the institution
4. Do the officer bearers of the institution take lead initiative in conducting general meetings/symposiums in the village

Inter-institutional Linkages

1. Whether the institution is ready to share its services to other similar institutions free of cost
2. Whether the institution seeks services of other similar institutions for improving its well being
3. Do the institution has any formal or informal arrangement in some strategic areas of functioning (e.g., infrastructure, production, marketing etc)

Stake Holder Participation

1. Does a general body meeting is conducted to decide on the various types of projects needed for development of the members of the institution
2. Whether majority of the members participate and actively involve in the discussions
3. Whether a sub committee of beneficiaries is formed within the institution in order to ensure fruitful implementation of projects

4. Do the institution follow any standard criteria in identification and selection of beneficiaries for its projects
5. Do the institution publishes its evaluation reports for a live discussion in the general body meeting

Cultivable land owned			**Private investment in agriculture**	
Sl.No	**Area of cultivable land owned**	**Response**	**Amount invested in agriculture (Rs/ha)**	**Response**
1	Up to 0.20ha		Up to 1000	
2	0.21ha to 0.40ha		1001-5000	
3	0.41ha to 0.60ha		5001-10000	
4	0.61ha to 0.80ha		10001-15000	
5	0.81ha to 1.00ha		Above 15001	

Family income from sources other than agriculture

Family income (Rs)	**Response**	**Family income (Rs)**	**Response**
Up to 5000		5001-10000	
10001-20000		20001-50000	
Above 50001			

Possession

Degree of possession	**Response**	**Degree of possession**	**Response**
Not at all		Low level	
Medium level		High level	

Benefit receipt

Sl.No	**Percentage of Benefits**	**Response**
1	< 10 per cent of the total income earnings	
2	11 – 25 per cent of the total income earnings	
3	26 – 50 per cent of the total income earnings	
4	51 – 75 per cent of the total income earnings	
5	> 76 per cent of the total income earnings	