PERFORMANCE OF HASSAN FOOD PROCESSING SPECIAL ECONOMIC ZONE

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Project Report submitted to the

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In partial fulfillment for the award of degree of

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Affectionately Dedicated To My

Beloved Parents,

Brothers

DEPARTMENT OF AGRICULTURAL MARKETING, COOPERATION AND BUSINESS MANAGEMENT
UNIVERSITY OF AGRICULTURAL SCIENCES
BENGALURU - 560065

CERTIFICATE

This is to certify that the Project Report entitled, **"PERFORMANCE OF HASSAN FOOD PROCESSING SPECIAL ECONOMIC ZONE"** submitted by **Mr. MANJUNATHA, A. L., MBAL 1013** in partial fulfillment of the requirements for the degree **MASTER OF BUSINESS ADMINISTRATION (AGRIBUSINESS MANAGEMENT)** to the University of Agricultural Sciences, Bangalore is a record of bonafide research work carried out by him during the period of his study in this University under my guidance and supervision and the Project Report has not previously formed the basis for award of any degree, diploma, associateship, fellowship or other similar titles.

BENGALURU
July, 2013

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Bangalore
July, 2013 ***Manjunatha, A. L.***

PERFORMANCE OF HASSAN FOOD PROCESSING SPECIAL ECONOMIC ZONE

MANJUNATHA A L

ABSTRACT

The study was conducted on Performance of Food Processing Special Economic Zone for the year of 2012-13 in Hassan district of Karnataka. The objectives of the study are to examine the Project planning and implementation of Food Processing Special Economic Zone, to assess the level of farmer's participation and benefits realized through Special Economic Zone and to document the constraints in implementation of Hassan Food processing Special economic Zone (HFPSEZ). The data was collected from 5 companies and 60 farmers. Descriptive statistics, percentage and Garret ranking tools were used to analyse the data. The findings of the study indicated that only few companies started business and there was delay in implementation of the HFPSEZ. The farmers involved in the production of cereals, pulses, fruits, vegetables and plantation crops are not participating in the HFPSEZ. Eighty three per cent of farmers interested to participate in the HFPSEZ in future and 71.42 per cent the farmers expressed the interest in contract farming with the companies. The problems encountered by HFPSEZ are non availability of raw material throughout the year which was the major problem, non availability of skilled labour, electricity and water in the project area were the other constraints. These problems could be addressed by the government and promoters. The promoters have to invite new companies and encourage farmers participation.

(Mr. P. V. RAMEGOWDA)

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ಹಾಸನದ ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯ ಕಾರ್ಯಕ್ಷಮತೆ

ಮಂಜುನಾಥ, ಎ. ಎಲ್.

ಸಾರಾಂಶ

ಹಾಸನದ ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದ ಸಾಧನೆಯನ್ನು ೨೦೧೨–೧೩ರಲ್ಲಿ ಅಧ್ಯಯನ ಕೈಗೊಳ್ಳಲಾಗಿತ್ತು. ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದ ಅನುಷ್ಠಾನ ಮತ್ತು ಯೋಜನೆಯನ್ನು ಪರೀಕ್ಷಿಸುವುದು, ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದಲ್ಲಿ ರೈತರ ಪಾಲ್ಗೊಳ್ಳುವಿಕೆ ಹಾಗೂ ರೈತರಿಗೆ ಆದ' ಪ್ರಯೋಜನೆಗಳು ಮತ್ತು ಹಾಸನ ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದಲ್ಲಿ ಕಂಡು ಬಂದಂತಹ ಸಮಸ್ಯೆಗಳನ್ನು ದಾಖಲಿಸುವುದು ಈ ಅಧ್ಯಯನದ ಉದ್ದೇಶಗಳಾಗಿದ್ದವು. ಈ ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧ ಪಟ್ಟಂತಹ ಮಾಹಿತಿಯನ್ನು ೫ ಕಂಪನಿಗಳ ಮಾಲಿಕರಿಂದ, ೬೦ ಜನ ರೈತರಿಂದ ಹಾಗೂ ಪ್ರವರ್ತಕರಿಂದ' ಸಂಗ್ರಹಿಸಲಾಗಿದೆ. ವಿವರಾತ್ಮಕ ಸಂಖ್ಯಾಶಾಸ್ತ್ರ, ಶೇಕಡವಾರು ಮತ್ತು ಗ್ಯಾರೆಟ್ ಶ್ರೇಣಿಯ ಸಾಧನಗಳನ್ನು ದಶಮಾಂಶ ವಿಶ್ಲೇಶಿಸಲು ಬಳಸಲಾಯಿತು. ಹಾಸನದ ಆಹಾರ ಸಂಸ್ಕರಣಾ ಆರ್ಥಿಕ ವಲಯದಲ್ಲಿ ಕೇವಲ ಕೆಲವು ಕಂಪನಿಗಳು ವ್ಯಾಪಾರ ಆರಂಭಿಸಿದ್ದು ಮತ್ತು ಇದರ ಅನುಷ್ಠಾನದಲ್ಲಿ ವಿಳಂಬವಾಗಿರುವುದು ಕಂಡುಬಂದಿದೆ. ವರ್ಷವಿಡೀ ಕಚ್ಚಾವಸ್ತು ಲಭ್ಯತೆ ಪ್ರಮುಖ ಸಮಸ್ಯೆಯಾಗಿದೆ. ಧಾನ್ಯಗಳು, ದ್ವಿದಳ ಧಾನ್ಯಗಳು, ಹಣ್ಣುಗಳು, ತರಕಾರಿಗಳು ಮತ್ತು ತೋಟದ ಬೆಳೆಗಳ ಉತ್ಪಾದನೆಯಲ್ಲಿ ತೊಡಗಿಸಿಕೊಂಡಿರುವ ರೈತರು ಪ್ರಸ್ತುತ ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದಲ್ಲಿನ ಘಟಕಗಳ ಜೊತೆ ಸಂಪರ್ಕ ಇರುವುದಿಲ್ಲ. ಭವಿಷ್ಯದಲ್ಲಿ ಹಾಸನ ಜಿಲ್ಲೆಯ ರೈತರು (೮೩.೩೩%) ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದಲ್ಲಿ ಭಾಗವಹಿಸಲು ಆಸಕ್ತರಾಗಿದ್ದಾರೆ. ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯದ ಸುತ್ತಮುತ್ತಲಿನ ರೈತರು (೭೧.೪೨%) ಕಂಪನಿಗಳ ಜೊತೆ ಗುತ್ತಿಗೆ ಕೃಷಿ ಮಾಡಲು ಆಸಕ್ತಿಹೊಂದಿದ್ದಾರೆ. ಆಹಾರ ಸಂಸ್ಕರಣಾ ವಿಶೇಷ ಆರ್ಥಿಕ ವಲಯವು ಪರಿಣಿತ ಕಾರ್ಮಿಕರ ಸಮಸ್ಯೆಯನ್ನು ಎದುರಿಸುತ್ತಿದೆ. ಯೋಜನೆಯ ಪ್ರದೇಶದಲ್ಲಿ ವಿದ್ಯುತ್ ಹಾಗೂ ನೀರಿನ ಕೊರತೆಯು ಹೊಂದಿದೆ. ಈ ಸಮಸ್ಯೆಗಳನ್ನು ಸರ್ಕಾರ ಸೂಕ್ತ ಪರಿಹಾರವನ್ನು ಸೂಚಿಸಬೇಕಾಗಿದೆ. ಪ್ರವರ್ತಕ ಹೆಚ್ಚಿನ ಸಂಖ್ಯೆಯ ಸಂಸ್ಕರಣಾ ಘಟಕಗಳನ್ನು ಕರೆತಂದು ರೈತರಿಗೆ ಹೆಚ್ಚಿನ ಮಾರಾಟ ಅವಕಾಸ ಮಾಡಿ ಕೊಡಲಾಗಿದೆ.

ದಿನಾಂಕ: ೨೨/೧೦/೨೦೧೩

ಸ್ಥಳ: ಬೆಂಗಳೂರು

(ಪಿ. ಪಿ. ರಾಮಗೌಡ)

ಪ್ರಧಾನ ಸಲಹೆಗಾರರು

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Introduction

CHAPTER I

INTRODUCTION

Special Economic Zones (SEZs) have been recognised as an important mechanism for trade and investment promotion, creation of infrastructure, employment generation, promotion of regional development, increase in foreign exchange earnings, improving export competitiveness and transfer of skills and technology. These are considered as growth drivers in the developing countries. The SEZs have been in existence for decades, but have attracted renewed attention world-wide in recent years due to globalisation of trade and financial markets. Historically, SEZs were the result of the spurt in economic growth. It is well recognised that the SEZs are instrumental in developing local and regional infrastructure facilities, which in turn are necessary for overall economic development of a country.

"A Special Economic Zone is a geographical region with different economic laws than a country's typical economic laws with the main goal of attracting foreign investment. In economic terms, a SEZ is a specifically delineated duty free enclave and shall be deemed to be foreign territory for the purpose of trade operations and duties and tariffs" (Abhyankar, 2006). The concept of SEZs is an improvement over the concept of Export Processing Zones (EPZs). India was one of the first in Asia to recognize the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. With a view to overcome the shortcomings experienced on account of the multiplicity of controls and clearances, absence of world-class infrastructure, and an unstable fiscal regime and with a view to attract larger foreign investments in India, the special economic zones (SEZs) policy was announced in April 2000.

This policy intended to make SEZs an engine for economic growth supported by quality infrastructure complemented by an attractive fiscal package, both at the Centre and the State level, with the minimum possible regulations. Special economic zones in India functioned from 1.11.2000 to 09.02.2006 under the provisions of the foreign trade policy and fiscal incentives were made effective through the provisions of relevant statutes.

To still in confidence in investors and signal the Government's commitment to a stable SEZ policy regime and with a view to impart stability to the SEZ regime thereby generating greater economic activity and employment through the establishment of SEZs, a comprehensive draft SEZ Bill prepared after extensive discussions with the stakeholders. A number of meetings were held in various parts of the country both by the minister for commerce and industry as well as senior officials for this purpose. The special economic zones act, 2005, was passed by parliament in May, 2005 which received presidential assent on the 23rd of June 2005. The draft SEZ rules were widely discussed and put on the website of the department of commerce offering suggestions or comments. Around 800 suggestions were received on the draft rules. After extensive consultations, the SEZ Act, 2005, supported by SEZ rules, came into effect on 10th February, 2006, providing for drastic simplification of procedures and for single window clearance on matters relating to central as well as state governments. The main objectives of the SEZ Act are, generation of additional economic activity, promotion of exports of goods and services, promotion of investment from domestic and foreign sources, creation of employment opportunities and development of infrastructure facilities.

The SEZ Act 2005 envisages key role for the Central Government in export promotion and creation of related infrastructure. A single

window SEZ approval mechanism has been provided through a 19 member inter-ministerial SEZ Board of Approval. The applications duly recommended by the respective State Governments or Union Territories administration are considered by this board of approval periodically. The SEZ rules provide for different minimum land requirement for different class of SEZs. Every SEZ is divided into a processing area where alone the SEZ units would come up and the non-processing area where the supporting infrastructure is to be created.

SEZ to India

In India, there are just two or three privately developed SEZ, exceeding 1,000 hectares. Most of the others approved are less than 100 hectares. But it is heartening to realize that the government has decided to up the ante and have made guidelines to have a minimum of 1000 hectares of area for approving an SEZ. It hardly needs reiteration that only a large sized zone can generate economic activity on some reasonable scale. In a small zone, the requisite infrastructure and services cannot be provided nor can multiple economic activities be promoted.

TAX Benefits

The incentive package in India is quite liberal and may even be a shade better than that for Chinese SEZs. In fact, it is more or less on a par with the package for the existing Export Processing Zones. Duty free import of capital goods and raw materials, reimbursements of Central Sales Tax, tax holiday for specified period, 100 per cent repatriation of profits for subcontracting facilities are allowed. The Government has done well by extending incentives for the infrastructure sector to zone developers and the units as well. This can attract foreign direct investment for providing internationally competitive infrastructure.

Labour Laws

The companies could adopt hire and fire policy, once the private and foreign players gained confidence in the Chinese workers' productivity, this was replaced by the Contract system. India has to understand that the import-export business is highly dependent on uncertain international market conditions, rejection of consignments etc. hence a flexible labour policy is the need of hour in the SEZs.

Domestic Tariff Areas

It is to understand that the reason for the Foreign investors to invest in Industrial, Manufacturing sector in India is not only to cut down on their costs because of cheaper and competitive products but they also see the vast Indian consumer markets, which has seen great income rise and standard of living. So apart from exports itself, the domestic market itself provides immense opportunity for sale of products. The companies in SEZ being levied a full import duty on sale in domestic areas does not seem a bright idea. In this case SEZ's will only promote export driven industries which are highly dependent on import of raw materials. To further make use of full potential of SEZ's Industries which are capable of indigenous generation of raw materials should be provided with tax holidays in terms of benefits to facilitate competitive pricing in the domestic tariff areas.

The Reserve Bank of India says that large tax incentives can be justified only if SEZ units establish strong "backward and forward linkages with the domestic economy" which is a doubtful proposition. Even the International Monetary Fund's (IMF) Chief Economist Raghuram Rajan has warned: "Not only will [the SEZs] make the government forgo revenue it can ill afford to lose, they also offer firms an incentive to shift existing production to the new zones at substantial cost to society."

As much as 75 per cent of the SEZ area can be used for non-core activities, including development of residential or commercial properties, shopping malls and hospitals. Developers will surely use this to make money via the real estate route rather through export promotion. This represents a potentially humongous urban property racket of incalculable dimensions.

The functioning of the SEZs is governed by a three tier administrative set up. The board of approval is the apex body and is headed by the secretary, department of commerce. The approval committee at the zone level deals with approval of units in the SEZs and other related issues. Each zone is headed by a development commissioner, who is ex-officio chairperson of the approval committee.

Once an SEZ has been approved by the board of approval and central Government has notified the area of the SEZ, units are allowed to be set up in the SEZ. All the proposals for setting up of units in the SEZ are approved at the zone level by the approval committee consisting of development commissioner, customs authorities and representatives of State Government. All post approval clearances including grant of importer-exporter code number, change in the name of the company or implementing agency; broad banding diversification, etc. are given at the zone level by the development commissioner. The performances of the SEZ units are periodically monitored by the approval committee and units are liable for penal action under the provision of foreign trade (development and regulation) act, in case of violation of the conditions of the approval.

The incentives and facilities offered to the units in SEZs for attracting investments into the SEZs, including foreign investment are duty free import or domestic procurement of goods for development, operation and maintenance of SEZ units, 100 per cent income tax

exemption on export income for SEZ units under section 10AA of the income tax act for first 5 years, 50 per cent for next 5 years thereafter and 50 per cent of the ploughed back export profit for next 5 years. Complete exemption from minimum alternate tax under section 115 JB of the income tax act. External commercial borrowing by SEZ unit's upto US $ 500 million in a year without any maturity restriction through recognized banking channels. Complete exemption from central sales tax. Complete exemption from service taxes. Single window clearance for Central and State level approvals. Complete exemption from State sales tax and other levies as extended by the respective State Governments.

The major incentives and facilities available to SEZ developers include exemption from customs or excise duties for development of SEZs for authorized operations approved by the BOA. Income tax exemption on income derived from the business of development of the SEZ in a block of 10 years in 15 years under section 80-IAB of the income tax act. Complete exemption from minimum alternate tax under section 115 JB of the income tax act. Complete exemption from dividend distribution tax under section 115O of the income tax act. Complete exemption from central sales tax (CST). Complete exemption from service tax (section 7, 26 and second schedule of the SEZ act).

Keeping in view of the above issues, having importance in project planning and implementation of Hassan Food Processing Special Economic Zone, a study is conducted in Hassan District.

Specific objectives of the study are:

1. To examine the Project planning and implementation of Food Processing SEZ,
2. To assess the level of farmers participation and benefits realized through Special Economic Zone and

3. To document the constraints in implementation of Hassan Food processing Special economic Zone.

Hypothesis

1. There are flaws in the project planning of Hassan Food Processing SEZ.
2. Very few farmers are participating in Hassan Food Processing SEZ.
3. Many constraints are faced by Hassan Food Processing SEZ.

Scope of the study

In the present study, project planning and implementation of firms, level of farmer's participation and constraints in implementation of Hassan Food Processing Special Economic Zone were critically analyzed.

The study further analyses the project implementation, stage of implementation, present status of the firms, facilities provided to firms, promoters of the firms, farmers participation, their level of awareness, reasons for delaying the implementation work and many more. The study is of first of its kind, no study has been conducted in Karnataka about the Food Processing Special Economic Zone.

Limitations of the study

The study is confined only to Hassan district of Karnataka. The study only confined to food processing special Economic Zone and not other small scale processing firms which comes under Ministry of Food Processing Industries.

Review of Literature

CHAPTER II

REVIEW OF LITERATURE

This chapter deals with a brief review of the related research done in past, which helps in identifying the conceptual issues for the study. The reviews are presented in the following headings.

2.1 Project planning and implementation

2.2 Participation of farmers and benefits realized through SEZ

2.3 Constraints in implementation

2.1 Project planning and implementation

Ejembi *et al.,* (2006) determined food chain activities of women and implications for women in agriculture. Three hundred respondents randomly selected from the six districts that make up the local government area constituted the sample for the study. Results of the survey showed that women in the area were responsible for many activities in the food chain, including planting, harvesting, weeding, marketing and transportation of farm produce. Major post-harvest processing activities of women were milling, parboiling, pounding, peeling, threshing and grinding. Others were slicing of okro, picking of palm fruits and melon, and crushing of palm kernels. The main storage methods used by the women were smoking, salting, stacking of grains on wooden platform (oda) and storage in barns. Most of the women travelled a distance of less than one kilometre to and from their sources of drinking water. The most important sources of fuel were firewood and kerosene stoves. Field observation revealed that the women were largely responsible for the nutrition and health care of family members, particularly children. Constraints to the food chain activities were inadequate time for farming, too much involvement in domestic activities, poor financial resources and storage facilities.

Sampers *et al.,* (2011) measured the performance of Hazard Analysis and Critical Control Points (HACCP)-based food safety management systems (FSMS) implemented in Japanese milk processing plants. Since 1995, Japan has a comprehensive approval system for food manufacturing establishments by evaluating the development and implementation of GHP and HACCP by the food manufacturing companies/operators. An FSMS-diagnostic instrument was applied to assess the level of the core control and assurance activities in the FSMS and to judge the risk level of the context wherein the companies operate. The data were collected in 13 dairy companies (mostly located around Tokyo area) and involved in-depth interviews performed (by the National Institute of Public Health) with responsible quality assurance persons of respective companies.

Malini (2011) analysed the performance of seven conventional Indian special economic zones (SEZs) at the disaggregate level is analysed within the framework of the zone-trade performance index, for the period between 1986–87 and 2007–08. The analysis reveals variations in performance across zones as well as within the zones over the reference period. The variations in performance are found to be statistically significant as well. The zones specifically located in economically developed states performed better than the zones in other states. This reveals the pressing problem of regional disparities finding reflection in the SEZs structure and calls for policy intervention. Further, zones are found to be equally sensitive to external economic fluctuations. On the positive side, the introduction of the SEZs policy in 2000–01 has had a favourable impact on the performance of these enclaves.

James *et al.*, (2011) investigated the proposed steps to incorporating climate change into project planning developed by USAID could be applied in practice using the town of Polokwane in north-eastern South Africa as a case study. Two Regional Circulation Models (RCMs) and statistical downscaling from a range of General

Circulation Models (GCMs) were used to produce a set of monthly climate scenarios for 2025 and 2050. These scenarios were used to estimate the impact on surface water runoff in the Oliphant's River catchment and the Letaba River catchment, and groundwater recharge in the Sand River Aquifer. The impact on the potential yields from the existing Flag Bashielo Dam and other proposed dams in the Oliphant's River catchment were determined using the Water Resources Yield Model (WRYM). The results of the analysis were discussed at a regional stake holders' workshop. The workshop participants concluded that the higher priority for now should be on water conservation and demand management (WCDM) and to consider a phased approach to developing additional storage capacity. The results of this study show that the six-stage process for incorporating climate change into resource planning can be applied in practice and that the potential threat of climate change can give emphasis to existing win-win approaches such as WCDM and phased implementation that should form part of any sustainable water resource planning approach.

Nengyeliu *et al.,* (2011) examined China's domestic legal regime for the prevention of vessel source pollution. It pays special attention to the recently adopted Regulation on Prevention and Control of Marine Pollution from Vessels. Potential challenges and emerging issues that China has to confront are addressed, including: application of the legislation to disputed sea areas between China and its neighbours, freedom of navigation in the exclusive economic zone, reduction of emission from ships, and prevention of invasive species from ballast water.

Levien (2012) studied the land question: special economic zones and the political economy of dispossession in India. The peculiar agrarian transformation the SEZ has generated through land dispossession and commodification.

Maddalena (2012) examined the application of project management principles in organizational strategic planning. A six-phase project management algorithm is presented to serve as a framework for implementing various aspects of an organization's strategic plan, with a particular emphasis on accountability processes. The processes associated with generating an organizational strategic plan are well addressed in the management literature. This article succinctly outlines the application of basic project management principles to the implementation of strategic plans and organizational success, focusing on accountability processes.

Paoli *et al.,* (2013) analyzed a beach restoration project performed in Liguria region, NW of Italy. Main purpose was to evaluate the environmental cost associated with project fulfilment to evaluate if they are correctly estimated by economy and provide a valid tool to managers to consider them in cost benefits analysis or in overall evaluation of environmental projects. To this aim authors applied to case study Energy analysis, a system evaluation method able to convert all employed items in a sole unit of measure. Results proved that environmental cost is largely greater than economic cost (two orders of magnitude).

Sebastian *et al.,* (2013) evaluated and quantified the sustainability of different planning options for given contexts. The evaluation of these indicators relies heavily on (expert) stakeholder development – is often not considered on equal terms in decision making and planning compared to environmental risks and economic considerations. In this paper we propose a scheme to transfer the evaluation of site-specific sets of sustainability indicators into automated quantitative and spatially explicit assessments, which can be integrated into multidisciplinary spatial optimization algorithms. Using simple landscape metrics along with typical spatial data and stakeholder knowledge on a Brownfield near Potsdam, Germany, this transfer is implemented for an existing site-specific indicator set to

evaluate the sustainability of brownfield redevelopment options in a case study.

2.2 Participation of farmers and benefits realized through SEZ

Paliniswami and Easter (1984) studied the management strategies and investment alternatives of irrigation tanks in south India and concluded that farmer's cooperation for efficient management of tank irrigation was very important. They have suggested that farmer's organizations should be encouraged. Further, identification of a strong local leadership was also stressed as a first step in helping farmers to organize.

Raby (1991) evaluated the experience of participatory irrigation management in Sri Lanka and observed that the inclusion of farmers in the decision-making process of management of irrigation systems has been now accepted as necessary to increase productivity and income among the poor in the third world. Therefore, he argued that the farmer participation was not simply a call for empowerment and mobilization of a hither to powerless group but, more fundamentally a development strategy.

Tekynel and Aksu (1997) studied Turkish experiences on participatory irrigation management. This study highlighted the achievements in the process of transfer of irrigation systems to the users. Beyond all expectations, it showed remarkable success. The government encouraged participatory approach through establishing Irrigation Groups (IGs) or Water User Groups (WUGs).

Ul-Haq and Shahid (1997) summarized the strategies and models proposed by various agencies for PIM (participatory irrigation management) and evaluated their main strengths and weaknesses. They also discussed major issues and options for improved irrigation performance and outlined the prospects for the farmer's participation in irrigation management. Their overall recommendation was to pursue comprehensive and integrated strategies for improved

irrigation management which needed to be done in conjunction with the institutional framework of the local society.

Yasin and Ahmad (1997) studied modernization of irrigation schemes in Pakistan, of the 17.5 Mha-m of water available in Pakistan Rivers, 10.5 Mha-m was lost through inefficiencies in the national irrigation system. In this context the study described the system's major constraints and outlined the rationale for introducing participatory irrigation management for reduced governmental costs, improved system performance, better response to external pressures and improved environmental sustainability of system.

Shashikumar (1998) reported that people's participation was found to be significant in different programme planning steps *viz.*, implementation, execution and evolution stages complemented by NGOs in Karnataka.

Sharma (2001) opined that the success of the watershed development implemented by an NGO Tarun Bharat Sangha (TBS), based at Kishori village of Alwar district in Rajasthan was due to effective participation of beneficiaries in the programme. The NGO formed a Jal Biradari (water work force), the Biradari has people from rural as well as urban areas, who work together to make community participation in watershed development programme.

Chandran *et al.,* (2001) reported that, Farmers' participation through Water Users' Associations (WUAs) under Command Area Development Programme (CADA) in Malampuzha Irrigation Project, Kerala State has been quantified. The study has shown that only about 30 per cent of participatory activities envisaged for WUAs are being undertaken by farmers and hence participation is low. Most of the activities undertaken are related to irrigation water management. Activities such as consolidation of landholdings, group farming, adoption of suitable cropping pattern etc are not carried out by most of the WUAs. Farmers were found to contribute money / labour for

maintenance of concrete field channels constructed by CADA in order to ensure water availability. However, a system of farm channels for carrying out scientific on-farm water management through channel to field irrigation and Rotational Water Supply (RWS) does not exist for majority of the WUAs. Location (reach) of WUAs on the canal network was not found to influence farmer participation since water scarcity was not a problem in the different reaches. However, size of their landholding was found to influence extent of participation.

Madhavareddy (2001) reported that majority of the NGO beneficiaries had high level of participation in the watershed development programme activities like planning steps *viz.*, collection of facts (66.70%), analyzing the situation (80%), identifying the problem (78.30%), deciding objectives (68.30%), developing a plan of work (66.80%) and execution of plan (66.80%) and medium level of participation was observed in determining the progress (63.40%) and reconsideration with evaluation (66.80%).

Abdulkadir *et al.,* (2002) recorded experiences in farmers' management of large scale irrigation and drainage projects in Nigeria. Nigeria's experience in farmers' participation in management of irrigation and drainage schemes has been described and the general status of both irrigation development and participatory irrigation management has been outlined. Seven projects were briefly reviewed to assess the levels of farmer's participation in local project management. Nigeria had not yet recorded many success stories on PIM (participatory irrigation management), PJM (participatory joint management) or on WUAs (Water User Associations). Two cases of fairly success of PIM and WUA activities have been noted - at KRIP (in Kano State) and in Jigawa State. At the state level, there were also reports of WUAs functioning marginally satisfactorily at 3 schemes. While the future of PIM and WUAs is highly promising in Hadejia Valley, most other places showed much less promise of WUA sustainability.

Mohan (2002) discussed the earlier and recent experiences with participatory irrigation management (PIM) and the irrigation tank systems in Tamil Nadu and Andhra Pradesh, India. The implications of the existing water policy from the point of view of irrigation tank systems were discussed. The effective involvement of water user's associations can be expected when they were entrusted with meaningful role with sufficient empowerment in terms of financial resources and decision-making abilities.

Sakthivadivel *et al.,* (2004) reported that, a study of 41 irrigation tanks in 22 districts of 8 Indian states was conducted under the IWMI-Tata Programme to identify the characteristics of high-performing local-managed tank institutions. This paper discusses some best management practices used by high-performing tank institutions with respect to the following key functions: water acquisition; water allocation and distribution; decision making; enforcement of rules and punishment of violators; and mobilizing financial resources.

Talati and Tushar (2004) studied institutional vacuum in Sardar Sarovar Project -framing rules of the game. The Sardar Sarovar Project (SSP) in Gujarat was envisioned to blaze a new trail in farmer participatory irrigation project design and management with water user associations building and their own distribution systems. The paper suggested that it was unlikely that the overall vision of the Sardar Sarovar Project for irrigation management will play out for several seasons to come. Farmers were certainly not ready and even the Sardar Sarovar Project was not quite ready to implement its strategy. Institutional alternatives for the Sardar Sarovar Project were recommended.

Suresh and Babu (2008) conducted a study during 2006-07 in Tumkur district of Karnataka. Majority of the respondents had medium extent of participation (64.77 %) followed by high (28.33%)

and low (7.5%) extent of participation. Majority of the respondents had medium extent of participation followed by high and low in activities like motivational meetings (62.50%, 26.67% and 10.83%), planning (68.34%, 23.33% and 8.33%), implementation (62.50%, 25% and 12.50%), maintenance (67.50%, 28.33% and 4.17%) and evaluation (66.75%, 29.16% and 4.17%). From the above studies, it could be inferred that more number of farmers had medium levels of participation, more number of farmers have actually participated in planning and implementation stages.

Zheng *et al.*, (2011) he studied and investigated the determinants of farmers' perception and their decision to participate in cooperatives, using a unique dataset from recently collected survey data of farming households in China's Jilin Province. The empirical results from probit and logit regression models suggest that educational attainment, risk comfort level, farm expansion, operational costs, geographic location and crop types are significant factors that influence producers' perception of cooperatives, as well as their participation behaviour.

Shahwahid *et al.,* (2012) he studied the critical factors that are influencing farmers on involvement in Kenaf cultivation using data collected from current tobacco and ex-tobacco farmers from Tok Bali, Bachok and Pasir Puteh, Kelantan, Malaysia. Results from the factor analysis showed that there are six factors that would influence farmers in their involvement in Kenaf cultivation.

2.3 Constraints in implementation

Gupta *et al.,* (1974) studied the stages of modernization of paddy milling industry; millers mentioned three major problems in paddy procurement, viz., and non availability of paddy in the market at the prices fixed by the government which resulted in loss in surrendering levy rice, there was a keen competition among millers to

procure paddy and not enough paddy was available in market due to the drought situation.

Rachhpal and Darshan (1996) studied that the performance of agro processing units in Punjab revealed that failure of these industries on the market front interms of brand was the major problem. Further, he opined that any such failure ultimately put question mark on the very survival of the industry or unit under consideration.

Brahmprakash and Dinesh (1997) studied the infrastructural requirements for the development of agro-processing industry in rural India and concluded that lack of market information, rapid and refrigerated transport system, storage facility, banking institutions, packing and post-harvest technology were the major constraints responsible for the slow growth of agro-processing industry.

Saravanan *et al.,* (2002) reported that the constraints of cashew nut processing units in Tamil Nadu. Constraints reported by the processors, were high wage rate, exporters by most of the processers (86.67%) in Kanyakumari district more than 80 per cent of the processors felt that the declining trend in imports and inadequacy in supply of raw materials from domestic market were major constitute for them. High purchase tax for raw nuts at 8 per cent purchased in domestic market and increasing competition from other countries in processing were the constraints faced by more than the 69 per cent of the respondents. Other problems were frequent power cuts during the processing period and wide fluctuation in the prices of the cashew kernels.

Methodology

CHAPTER III

METHODOLOGY

This chapter is intended to present the climatic and economic feature of the study area, nature and source of data collected, analytical tools and techniques employed to evaluate the objectives of the present study.

The chapter is presented under the following headings.

3.1 Description of the study area
3.2 Sampling design
3.3 Nature and sources of data
3.4 Analytical tools and techniques employed

3.1 Description of the study area

3.1.1 Karnataka State

Karnataka state is located in west central part of peninsular India. It consists of a narrow elongated belt between the Arabian Sea and Western Ghats and enhancing coast line of about 400 km.

The state has an area of 119257 sq. km and is situated between 11°5' and 18°45' north latitude and 74°12' and 78°40' East longitude. The state is bounded by Maharashtra on the north and by Goa and Arabian Sea on the west. It has a common border with Andhra Pradesh on the east and with Tamilnadu and Kerala on the south. The average rainfall of the state is 1139 mm. The state receives rainfall both from Southwest and Northwest monsoons. The climatic endowments are favourable for the adoption of cross red cattle and for the production of crops through the year, if the water is made available. The mean temperature ranges from 21.5°C to 32°C.

3.1.2 Hassan district

Lying between 12° 13´ and 13° 33´ North latitudes and 75° 33´ and 76 º 38´ East longitudes, Hassan has an area of 6, 826sq. Km in that 3, 93,500 ha are under Agriculture. Twenty per cent of the area is irrigated. In Hassan wide range of crops are cultivated, cereals are cultivated in an area of 2, 16,250ha, pulses in 51,620ha, oilseeds in 37,955ha commercial crops in 17,580ha and rest by horticultural crops. Hassan is near to Air port as well as sea port; both the ports are located at the distance of 174km in Mangalore and Bangalore is at the distance of 200 km. The district has huge scope for food processing industries and is recognized as an Agri. Export Zone. The greatest length of the district, from south to north, is about 129 kilometres, and its greatest breadth, from east to west, is about 116 kilometres. The District has 8 taluks 38 hoblies & 2369 villages. The geographic area of the district of Hassan is 6826 square kilometres. The population is 5.67 lakhs and the average rainfall is about 1031 mms annually. The major rivers are Hemavathy and Cauvery. Coffee, Black Pepper, Potato, Paddy and Sugarcane are the major agricultural crops. The District covers 8 taluks in this area. The district is located in the southern eastern part of Karnataka and bounded by Tumkur, Chickmagalur, Dakshina Kannada and Mandya districts Rich producer of spices & condiments. Well known for its tourist & coffee production

Hassan District is covered by metamorphic and igneous rocks, viz., peninsular gneisses close pet granites and Bababudan group schist's. Red loamy, sandy and black mix red soil constitute crust zone. 8.9 per cent of the geographical area is covered by forests.

The food industry has an important role to play in linking the farmers to the final consumers in the domestic as well as the international markets. India is the second largest producer of food in the world next to China. The turnover of the total food market is Rs. 2,

50,000 crores out of which value added food products comprise Rs.80, 000 crores. India's export of processed food products was Rs. 14, 924.96 crores in 2011. The installed capacity of fruits and vegetables processing industry has increased from 1.1 million tonnes in 1993 to 2.1 million tonnes. India stands as second highest fruit and vegetable production 213 million tonnes in 2011 in the world (3.7%) with cold storage facilities available only for 10 per cent of the produce. India has a total of 5400 cold storages, 4875 of which belongs to private sector, 400 owned by co-operatives and remaining 125 by the public sector units. Companies like ITC, HLL and Nestle entered the Indian market a long time ago and have made a deep penetration in the market. In India, Agricultural production and Food Processing account for 30 per cent of country's GDP and employs more than 70 per cent of its work force. Presently, 56 Food processing parks are operating in the country including 4 food processing parks from Karnataka.

Agro and Food processing SEZ is started implementing at Hassan in 263.53 acres in the year 2004. Presently, five companies are implemented; Coffee based industries are also present in the district.

3.1.3 Agro and Food Processing Industry

The project is implemented at KIADB Industrial Growth Centre, Special Economic Zone of Hassan District, and Karnataka State, India. The location has been selected considering major aspects like availability of raw materials, availability of water and grid connectivity. Availability of local skilled and semi-skilled workers, connectivity with road, rail, air and communication medias were also considered while selection of the project location. KIADB - Hassan Growth Centre is located on Hole Narsipur Road Hassan, Karnataka between 1, 20, 131 and 1, 30, 331 North longitude and 7, 50, 331 and 7, 60, 381 East Longitude about 3149 feet (945 meters) above mean sea level (MSL)

and 3 kms from National Highway. Nearest Railway Station with unloading facility is Hassan Junction, which is 5 5ms from the proposed Project Site. The nearest port is Mangalore, 170 Kms from Hassan on NH - 48 and the nearest Airport is Hassan Airport - 8 kms from Growth Center and under development in 496 acres. The nearest operational airport is the Mangalore Airport which is 186 kms from the site. Bangalore Airport is 195 kms from the site.

Location advantages:

1. Availability of raw materials and water availability.
2. Proximity for distribution of power within the project area.
3. Accessibility to KPTCL substation.
4. Well developed infrastructural facilities [transport, telephone exchange, banks, other civil amenities and housing facilities at Hassan town]
5. Abundance of skilled and semi-skilled labour.
6. Proximity to highways, railway station [Hassan]

All these factors have led to the unique identification of the project activity. The geographical location with rail/road connectivity of Hassan is detailed in the maps below. The companies or firms operating in the Food Processing Special Economic Zone are listed below.

3.1.4 Hassan Biomass Power Company Private Limited

Hassan Biomass Power Company Private Limited (HBPC) is all set to produce eight MW of power from biomass available in Hassan and neighbouring districts. The Hassan Biomass Power Company Private Limited started implementation in 2005 in an area of 20 acres. The cost of the project is 24.60 crores. The plant will use coconut fronds, rice husk, cotton stalk, cane trash, sunflower stalk, casurinas and eucalyptus wood as raw materials to produce power, and the requirement is about 70,000 tonnes a year.

3.1.5 Yakima Water filters

Yakima Filters Private Limited was established in the year 2005. They are supplier, manufacturer, wholesaler and provider of Coconut Shell Charcoal Granules, Coconut Shell Charcoal, Coconut Shell Charcoal Powder, Water Carafe, Activated Carbon, Carbon Filter Cartridges, IT Services and Embedded Bottles.

3.1.6 Fresco Foods Private Limited

The Fresco Foods Limited has been allotted in 2005 in an area of 8 acres, with project cost 11.60 crores. They procure gherkin from the Hassan district and neighbouring districts like Davangere, Tumkur and Chikmagalur, process them to final product and export them to countries like Europe, Switzerland, Russia, America, Australia, New Zealand, South Africa and Korea.

3.1.7 Sami Lab Private Limited

The Sami Lab Private Limited has been allotted on 16th December 2008 for an area of 38775Sqmtr. The cost of the project is 22.75 crores, they are the processors of herbal extracts and synthetic nutritional products for directory supplements.

3.1.8 First Choice Food Products Private Limited

The First Choice Food Products Private Limited has been allotted on 2nd April 2011 for an area of 26305.50 Sqmtr. The cost of the project is 910 lakhs; they are the processors and exporters of Diarice- low glycemic rice suitable for diabetic patients.

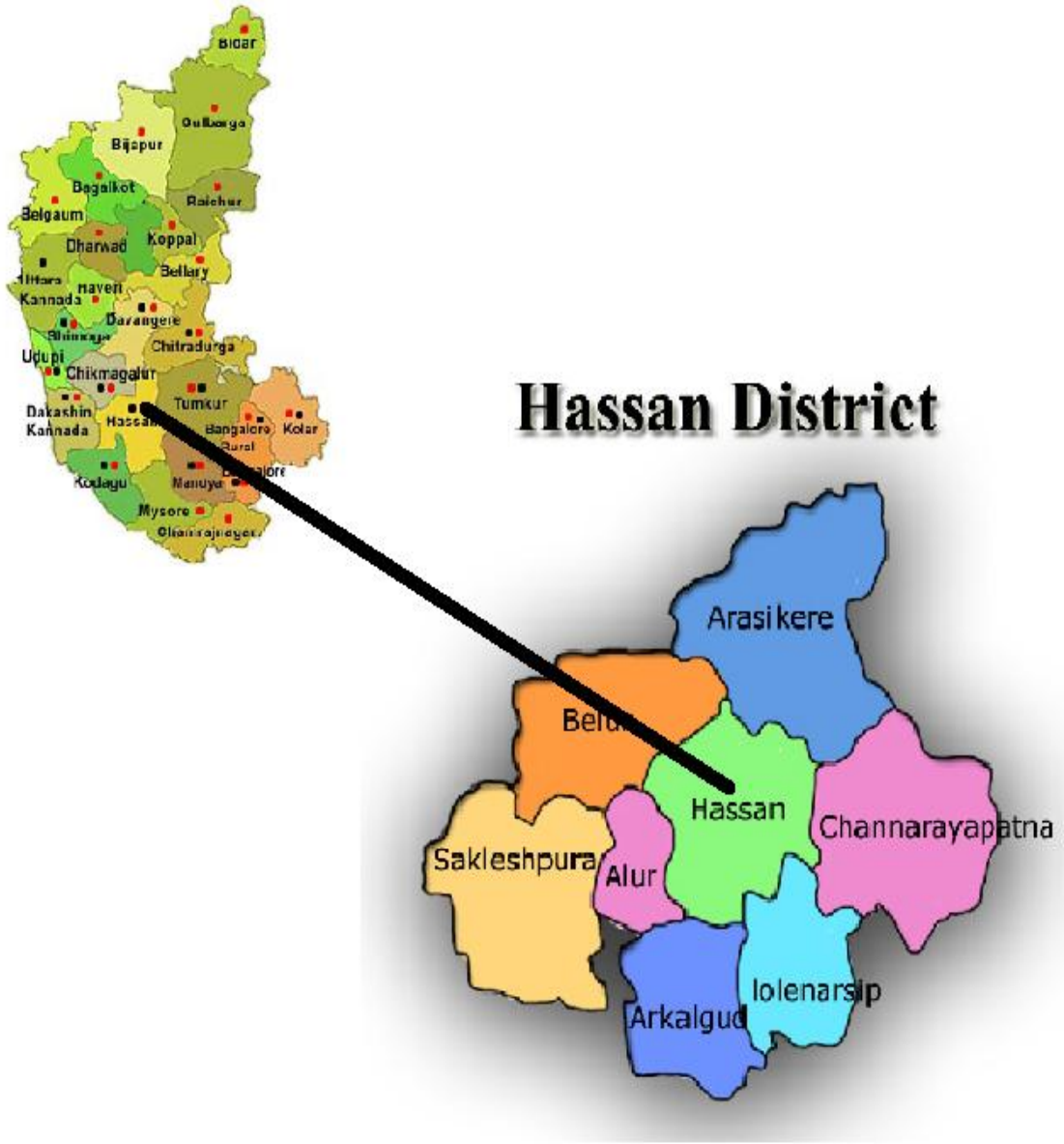

Fig.1: Study area- Hassan district

3.2 Sampling Design

The Special Economic Zone in Hassan is operating under three sectors namely Pharmaceuticals, Textiles, Agro and Food Processing Industries. Special Economic Zone is operating in three Taluks of Hassan Districts namely, Hassan, Channarayapatna and Holenarasipura. To fulfil the objectives of the study, Hassan district was purposively selected due to the presence of Agro and Food Processing industries under Special Economic Zone. The present investigation was confined to the industries under Agro and Food Processing Special Economic Zone in the Hassan District. It is well known that 5 companies started implementation in this area with lot of scope for processing and to create employment opportunities to people of the district. As the airport and ports are nearer to Hassan, it is easy to export finished products to foreign countries.

3.3 Nature and Sources of Data

3.3.1 Firms

The data required for accomplishing the objectives of the study were collected both from primary and secondary sources. The primary data collected from the company owners related to investment, type of food processing done, nature of transportation and distributing finished products to other countries, employment creation, power facility, facilities provided by promoters, Ministry of Commerce through Special Economic Zone and farmers in the area of Hassan taluk.

Secondary data were collected from the records maintained by the ministry of commerce, banks, promoters like KIADB and KPTCL.

3.3.2 Farmers

Primary data is collected from the farmers surrounding the area of Hassan Food Processing Special Economic Zone (HPSEZ). These farmers were purposively selected to know the awareness level of

farmers and willingness to participate in the activity of Agro and Food Processing Special Economic Zone.

3.3.3 Opinion survey

Opinions of farmers in and around the villages of Agro and Food processing Industry was collected to know their awareness level, willingness to take participation and benefits realized by the participated farmers.

The opinion from the 60 farmers in and around the villages of Agro and Food Processing Industry in Hassan Taluk are the source of primary data.

3.4 Analytical Techniques Employed

In order to analyze the objectives of the study, the data collected subjected to analysis through appropriate techniques as follows:

3.4.1 Descriptive statistics
3.4.2 Percentage
3.4.3 Garrett's ranking

3.4.1 Descriptive statistics

Descriptive statistics is the discipline of quantitatively describing the main features of a collection of data, or the quantitative description itself. Descriptive statistics are distinguished from inferential statistics (or inductive statistics), in that descriptive statistics aim to summarize a sample, rather than use the data to learn about the population that the sample of data is thought to represent.

3.4.2. Percentage

Percentages are used to express how large/small one quantity is relative to another quantity. The first quantity usually represents a

part of or a change in the second quantity which should be greater than zero.

3.4.3. Garett's ranking

To find out the most significant factor which influences the respondent, Garrett's ranking technique was used. As per this method, respondents have been asked to assign the rank for all factors and the outcomes of such ranking have been converted into score value with the help of the following formula: Percent position = 100 (R_{ij} – 0.5) N_j

Where

R_{ij} = Rank given for the i^{th} variable by j^{th} respondents

N_j = Number of variable ranked by j^{th} respondents

In the first stage, ranking given by 80 consumers for each factor was analyzed. E.g.: Rank given to 10 different factors were analyzed through the rank given to these factors by each respondent. Respondents have to give 1 to 10 ranks to these factors.

Respondent No.	**Factors**									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1.	8	5	1	2	9	10	6	7	4	3
2.	3	2	7	5	10	8	6	4	1	9
3.	3	6	9	8	7	10	5	2	1	4

In the second stage, thus assigned ranks by the individual respondents were counted into per cent position value by using the formula.

Per cent position = $100*(R_{ij}-0.50)/N_j$

Where

R_{ij} = Rank given for i^{th} item by j^{th} individual

N_j = Number of items ranked by j^{th} individual

The per cent position value for the same assigned ranks by the respondents as follows.

Respondent No.	Factors									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1.	75	45	5	15	85	95	55	65	35	25
2.	25	15	65	45	95	75	55	35	5	85
3.	25	55	85	75	65	95	45	15	5	35

In the third stage, for each per cent position scores were obtained with reference to Garret's tables and each per cent position value was converted into scores by reference to Garret's table.

Eg: Garret's table scores for the per cent position values as follows

Respondent No.	Factors									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1.	37	52	82	70	30	18	47	2	57	63
2.	63	70	2	52	18	37	47	57	82	30
3.	63	47	30	37	42	18	52	70	82	57

In the fourth stage, summation of these scores for each factor was worked out for the number of respondents who ranked for each factor.

Respondent No.	Factors									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1.	37	52	82	70	30	18	47	2	57	63
2.	63	70	2	52	18	37	47	57	82	30
3.	63	47	30	37	42	18	52	70	82	57
∑	163	169	154	159	90	73	146	169	221	150

In the fifth stage, mean scores were calculated by dividing the total score by the number of respondents.

Respon-dent No.	Factors									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1.	37	52	82	70	30	18	47	2	57	63
2.	63	70	2	52	18	37	47	57	82	30
3.	63	47	30	37	42	18	52	70	82	57
∑	163	169	154	159	90	73	146	169	221	150
Mean	54.33	56.33	51.33	53.00	30.00	24.33	48.67	56.33	73.67	50.0

In the last stage: Overall ranking was obtained by assigning ranks 1, 2, 3…. etc. in the descending order of the mean score.

Respon-dent No.	Factors									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1	37	52	82	70	30	18	47	2	57	63
2	63	70	2	52	18	37	47	57	82	30
3	63	47	30	37	42	18	52	70	82	57
∑	163	169	154	159	90	73	146	169	221	150
Mean	54.33	56.33	51.33	53.00	30.00	24.33	48.67	56.33	73.67	50.00
Ranks	III	II	V	IV	VIII	IX	VII	II	I	VI

With the help of Garrett's Table, the percent position estimated is converted into scores. Then for each factor, the scores of each individual are added and then total value of scores and mean values of score is calculated. The factors having highest mean value is considered to be the most important factor.

Results

CHAPTER IV

RESULTS

In consonance with the objectives of the study, the data collected from various sources were subjected to analysis using statistical tools and techniques to draw meaningful conclusions. The major findings of the study are presented in this chapter under the following subheads.

4.1 Project planning and implementation of Food Processing Special Economic Zone.

4.1.1 Details about SEZ

A special economic zone is a geographical region with different economic loss than a country's typical economic loss with the main goal of attracting foreign investment.

There are three types of SEZ namely, Multi product SEZs, Special sector SEZs and port or Airport SEZs. SEZ are set as public sector, private sector or joint sector or even by state government. The following incentives are provided to develop processing in SEZ. Hundred percent foreign direct investments are provided for basic services. Hundred percent income tax exemptions for first five years and fifty for the next two years. SEZ is providing due to free on import of materials. Complete exemption of service tax and central service tax.

Special economic zone generates 15, 75,452 employment opportunities to rural poor's in India. The agricultural processing in SEZ is promoting contract farming and the farmers will receive fixed rates for their products.

4.1.2 Hassan Biomass Power Company Private Limited (HBPCPL).

The company head quarters is located in Bangalore. The HBPCPL has been registered in the year 2004. HBPCPL is a segment of Nucon Energy Group Mauritius. HBPCPL is located in an area of 87, 017sq meters. The HBPCPL is in power generation of 8MV power generation by using biomass available in the surrounding area of Hassan Agro and Food Processing Zone. The plant has used biomasses such as coconut fronds, rice husks, cotton stalk, cane crash, sunflower stalk, casuarinas and eucalyptus wood as raw material for power generation.

The project cost of Hassan Biomass Power Company Private Limited was Rs. 33.4 crores. The power requirement of the plant was 50KV per day and the water requirement was 1, 92, 000Litres per day. The physical work for the power generation unit was started during January 2005.

Karnataka Industrial Area Development Board provided infrastructure facilities such as land, approach roads, electricity and drainage.

The Government delayed this project for three months to find out whether the project is environmentally safe or hazardous and finally it is proved that it is safe to environment.

It took one year 11 months for construction and implementation of biomass handling system with storage and processing arrangements, ash handling system, air pollution control devices, plant water system including de-mineralized water plant, cooling water system make-up, plant/service water system, cooling water system and cooling tower, de-mineralized (DM) water plant, compressed air system, fire protection system, air conditioning and ventilation, complete electrical system for power plant and grid interconnection including power evacuation, instrumentation, control systems etc.

Initially, power was utilized from Karnataka Power Transmit Corporation Limited (KPTCL) through KIADB. Raw materials to the plant are obtained from Shri Chamundeshwari Sugar Factory, Srinivaspura of Channarayapatna Taluk, coconut farmers from Channarayapatna, Arasikere, Holenarasipur and Hassan Taluk. Other places from where biomass was obtained were Sakaleshpur, Alur, Arakalagud and Belur taluks.

4.1.2.1. Details of Processing

The plant started its operation with all equipped facilities in 2006. The estimated biomass waste raw material procurement for poer generation was 1.70 lakh tones. However, the company was able to buy only 70,000 tonnes during 2006-07 and generate 60, 345 MW of power. The plant can produce 1MW of power with 1.16 tonnes of raw materials. The HBPCPL project generated 8.0 MW power and sold around 7.28 MW to the KPTCL grid with around 0.72 MW (9.1%) being used for meeting own auxiliary power needs. The plant was commissioned in May 2006 and exported only 53.59 MW of electricity in 2 years.

4.1.2.2 Failure of the plant

The power generation was gradually reduced from November 2006 due to acute shortage of raw materials throughout the year. The firm faced severe water problem for processing. The plant was unable to pay the due amount and repay the bank loan obtained from State Bank of India. The company failed to pay the salaries to 430 employees in time. The machineries equipped in the plant are getting damaged due to non usage for the last four years. Machineries in the plant are unused and rusting. Two watchmen are working for watch and ward. The power generation unit was closed during 2008.

4.1.2 Yakima filters Private Limited

The company headquarters is located in Bangalore. The company was registered during 2005. Yakima filters Private Limited is located in an area of 20, 231sq meters. They are manufacturer, wholesaler and provider of Coconut Shell Charcoal Granules, Coconut Shell Charcoal, Coconut Shell Charcoal Powder, Water Carafe, Activated Carbon, Carbon Filter Cartridges, IT Services and Embedded Bottles.

The cost of the project is 50 crores and requires a power facility of about 300 KV per day and water requirement of the plant is 30000 ltrs per day. The firm took 6 months more than the allotted period for implementation and paid penalty of 10 per cent at present cost of land.

The main raw material for the products is coconut shell. Hassan and its neighbor district Tumkur have the highest coconut area and use of coconut is more in the region for oil production, copra production, more desiccated coconuts are also available and used for culinary purposes, coconut shells are easily available for processing.

The firm has completed installation of all the machineries and yet to start processing. At present, the firm is in the activity of collecting raw materials. The firm has been integrating with small scale coconut oil producers and copra farmers to procure coconut shells in Hassan and Tumkur districts.

4.1.2.1. Failure of the plant to start processing within the stipulated time

The firm primarily did not avail money in time and capital was the major constraint followed by clearance from control board. Employment of experts and scientists was also a constraint, but now they have most talented and experienced professionals, trained and

Table 4.1: Details of Hassan Bio Mass Power Company Limited

Sl. No.	Attributes	Remarks
1.	Year of registration	2004
2.	Date of allotment	25-02-2004
3.	Plot No	457, 458, 459, 460, 461, 462 and 463
4.	Year of implementation	2005
5.	Project cost (Rs. in Crore)	33.4
6.	Area of allotment (Sq.mt)	87, 017
7.	Implementation period (Years)	2
8.	Power requirement (KV)	50
9.	Water requirement (Litres)	1, 92, 000
10.	Employment opportunity (man days)	430

Table 4.2: Details of Yakima Filters Private Limited

Sl. No.	Attributes	Remarks
1.	Year of registration	2005
2.	Date of allotment	27-12-2005
3.	Plot No	443 and 444
4.	Year of implementation	2006
5.	Area of allotment (Sqmtr)	20, 231
6.	Project cost (Rs. In Crores)	50
7.	Implementation period (Years)	2
8.	Power requirement (KVA)	300
9.	Water requirement (Litres)	30, 000
10.	Employment opportunity (Man days)	80

certified in a wide variety of data warehouse, data developers, operating systems and application of software packages. The firm now has a grip on leading software tools, processes and methodologies.

4.1.3 Sami Lab Private Limited

The global revenue of the company stood at USD 65 million (for 2009); with employee strength of 150 people internationally, more than 750 in India and over 110 scientists worldwide.

Sami Lab Private Limited is a Bangalore based company. It was registered in the year 2008 and started implementation on 19th August 2010. Two years implementation time was given for implementation. The implementation time has expired and they are paying penalty of 10 per cent land cost at present.

The firm is allotted in plot number 555-B in an area of 38775 sq. meter. The projected cost of the project was 22.75 crores. The power requirement for the plant is 520 KV. Water requirement of the plant is 50000 litres. They are the manufacturer of herbal extracts and synthetic nutritional products for dietary supplements. The project is still at the stage of lease agreement and building plan to be submitted for approval. Hence, this project was not implemented till date.

4.1.4 Fresco Foods Private Limited

Fresco Foods Private Limited has its headquarters at Bangalore. It was registered on 26th April 2008 and started implementation on 28th May 2008. Two years implementation time was given to the firm and they completed implementation within the period. The cost of the project is 11.6 crores. Rs 60 lakh is from internal accruals and Rs 6.50 lakh is from bank term loan. In addition, it received Rs 50,000 subsidy from the Ministry of Food Processing Industries, Rs 1.60 crore from the Ministry of Agriculture under the venture capital assistance

Table 4.3: Details of Sami Lab Private Limited

Sl. No.	Attributes	Remarks
1.	Year of registration	2008
2.	Date of allotment	16-12-2008
3.	Plot no	555-B
4.	Year of implementation	2010
5.	Project cost (Rs. In Crores)	22.75
6.	Area of allotment (Sq. mtr)	38, 775
7.	Implementation period (Years)	2
8.	Power requirement (KVA)	520
9.	Water requirement (Litres)	50, 000
10.	Employment opportunity (Man days)	180

Table 4.4: Details of Fresco Foods Private Limited

Sl. No.	Attributes	Remarks
1.	Year of registration	2008
2.	Date of allotment	26-04-2008
3.	Plot No	555/A
4.	Year of implementation	2008
5.	Project cost (Rs. In Crores)	11.6
6.	Area of allotment (Sq mtr)	32, 403
7.	Implementation period (Years)	2
8.	Power requirement (KV)	200
9.	Water requirement (Litres)	3, 00, 000
10.	Employment opportunity (Man days)	400

scheme of Small Farmers Agri business Consortium (SFAC). The power requirement for the operation is 200 KV per day and water requirement is 300000 litres per day.

The processing facility is located in the Special Economic Zone for agro and food processing. The facility spans on 8 acres of land and has a built-up area of 50,000 sq. ft. The company received this fund because of its backward linkages with farmers. The company has invested euro 3 lakh for machineries sourced from Germany, Spain and Greece. The production unit has a capacity of 10,000 tonnes. The first consignment of 25 containers of processed gherkins will be shipped to Europe, Switzerland, and Russia, valued at Rs 1.3 crore. After which 58 containers will be exported to the same regions, according to Fuzail Anees, Managing Director, Fresco Foods. The products are packed in bottles, jars, cans and barrels in sizes from 370 ml to 1400 ml. The bulk barrels are in 220 liters and 240 liters. In Europe, the gherkin jars and cans will be sold in super markets.

The barrels would be for the institutional sales. Fresco is getting into contract farming in Davangere, Tumkur and Hassan. They are yet to identify farmers in the region. The company has entered into an agreement with the farmers to buy back the produce at pre-agreed prices. The company is working to seek HACCP, IFS and BRC compliances which will take another six months. It is also looking at an approval of 'The United States Food and Drug Approval' (USFDA). It will cover North America, Australia, New Zealand, South Africa and Korea markets after consolidating its presence in Europe.

While most of the gherkin manufacturers solely focus on one product, Fresco will cater to a multi-product venture. These will include Jalapenos (Mexican chilly cherry), Indian tomato, silver skin onion, baby corn, bell pepper, paprika, cauliflower, red cabbage and small beetroots. With recession, prices had come down but demand

for gherkins was on the upswing. In the western world gherkins are indispensable in sandwiches. The firm is thinking to export 60 per cent of gherkins to European countries from Karnataka, followed by Tamil Nadu and Andhra Pradesh sharing the rest.

The plant has implemented all the machineries and building required for processing and has to start its activity. The firm is now on plan to identify gherkin farmers in Davangere, Tumkur and Hassan. They will be into contract farming with the farmers and supply inputs for the gherkin growers. The plant has stopped activities due to debt recovery tribunal (DRT).

4.1.5 First Choice Food Products Private Limited

First Choice Food Products Private Limited has its headquarters in Bangalore. It is registered on 2nd April 2011 in an area of 26305.50 sq. meters. It is allotted in the plot numbers 555-C, 553(P) and 552 (P). The cost of the project is 910 lakhs, it requires power about 250 KV per day and water requirement is about 13000 liters per day.

First Choice Food Products Private Limited is in the business of rice export which is helpful to diabetic patients (low glycerin rice). The firm is not at implemented; eighty per cent of the land cost is to be paid. Due date for payment has expired and firm has to pay the 10 per cent penalty of land cost at present land cost.

4.2. Farmers' participation and benefits realized through Special Economic Zone.

4.2.1 General characteristics of Farmers

The socio-economic characteristics of farmers like age, education, family size and size of holding were computed to understand the awareness and opinion of farmers to participate in Food Processing Special Economic Zone and the results are presented here under.

Table 4.5: Details of First Choice Food Products Private Limited

Sl. No.	Attributes	Remarks
1.	Year of registration	2011
2.	Date of allotment	02-04-2011
3.	Plot No	555-C, 553 (P) and 552 (P)
4.	Year of implementation	-
5.	Project cost (Rs. Lakh)	910
6.	Area of allotment (Sq mtr)	26, 305
7.	Implementation period (Years)	2
8.	Power requirement (KVA)	250
9.	Water requirement (Litres)	13, 000
10.	Employment opportunity (Man days)	261

4.2.1.1 Age-wise distribution

The distribution of the farmers according to age groups is presented in table 4.6. The numbers of farmers in the age group of 41 to 50 years were maximum in the interviewed farmers. Only three farmers were found to be within the age group of 20 to 30 years. Thus, more than 85 per cent of the farmers were found to be of the middle age group of 30-50 years under the interviewed farmers.

4.2.1.2 Education level-wise distribution

The education status of farmers is presented in Table 4.7. Maximum numbers of farmers were in above high school (21) and Pre University level (15). The number of farmers having education level up to primary was twelve, while the number of farmers having education up to graduation is seven. Illiterate farmers correspond to less number (5) in the interviewed farmers.

4.2.1.3 Family size-wise distribution

The results showing the distribution of farmers according to family size are presented in table 4.8. The number of farmers with a family size of four to ten members was max with 43, which form more than 70 per cent of the total sample. The number of farmers having family size of eleven and above were minimum, only 11.67 per cent followed by one to three members (16.67 %).

4.2.1.4 Land holding particulars of the respondents

The distribution of the farmers according to land holding is presented in table 4.9. The number of farmers having land holding of 2.01 to 5 acres were high with forty five per cent. The number of farmers having land holding two acres and less was minimum and constitutes only twenty per cent. Thus, more than 75 per cent of farmers had more than 2 acres of land in the interviewed farmers.

Table 4.6: Details of age of sample farmers in Hassan district

Sl. No.	Age group (years)	Farmers	
		No.	Percentage to the total
1.	20-30	3	5.00
2.	31 – 40	26	43.33
3.	41 – 50	29	48.33
4.	51 and above	2	3.33
Total		**60**	**100**

Table 4.7: Details of educational level of farmers in HFPSEZ

Sl. No.	Education level	Farmers	
		No.	Percentage to the total
1.	Illiterate	5	8.33
2.	Primary	12	20.00
3.	Secondary	21	35.00
4.	PUC	15	25.00
5.	Graduate	7	11.67
Total		**60**	**100**

Table 4.8: Details of composition of family of farmers in HFPSEZ

Sl. No.	Family size	Farmers	
		No.	Percentage to the total
1.	1 – 3 members	10	16.67
2.	4– 10 members	43	71.67
3.	11 and above	7	11.67
Total		**60**	**100**

Table 4.9: Details of land holding of sample farmers in Hassan district

(Acres)

Sl. No	Size of group (Acre)	Total	Percentage to the total
1.	<2	12	20
2.	02 to 05	27	45
3.	>5	21	35
Total		**60**	**100**

Table 4.10: Awareness about HFPSEZ

Sl. No	Yes	Percentage	No	Percentage
Awareness about Food Processing SEZ	42	70	18	30

Table 4.11: Details of source of awareness to HFPSEZ

Sl. No.	Sources of awareness	Number	Percentage to the total
1.	Newspaper	2	4.76
2.	Government	3	7.14
3.	Word of mouth	12	33.32
4.	KIADB	11	26.19
5.	Company	14	28.60
Total		**42**	**100**

4.2.2 Awareness of farmers about HFPSEZ

Farmers are found to be aware of Food processing firms to the extent of seventy per cent (42 in numbers) and remaining thirty per cent (18 in numbers) of farmers were not aware about the Food Processing Industry.

4.2.3 The source of awareness to farmers about HFPSEZ

The sources of awareness to farmers were majorly found to be through word of mouth, from one farmer to another farmer (33.32 %). The sources of awareness after the word of mouth were followed by through company initiatives (28.6%), next to that was KIADB officials (26.19%). The source of awareness is very less through newspaper (4.76%).

4.2.4 Willingness of farmers to participate in HFPSEZ

Out of sixty farmers interviewed, only forty two farmers (66.66 %) knew that there is Agro and Food Processing Industry in their area. Out of that thirty five (83.33%) farmers are interested to take part in activities which come under Agro and Food Processing Special Economic Zone. Thirty three (78.57%) farmers have interest to sell their produce to Agro and Food Processing Industry of Special Economic Zone.

Out of forty two respondents, thirty (71.42%) respondents have interest to do contract farming with Agro and Food Processing Industry of Special Economic Zone.

Table 4.12: Willingness of farmers to participate in HFPSEZ

Sl. No.	Particulars	Number	Percentage	Number	Percentage
1.	Number of farmers interested to take part in SEZ activities	35	83.33	7	16.67
2.	Interest in selling produce to SEZ companies	33	78.57	9	21.42
3.	Contract farming with SEZ food processing companies	30	71.42	12	28.57

Table 4.13: Constraints in infrastructure of HFPSEZ

Sl. No.	Problems	Mean Score	Rank
1.	Water	60	I
2.	Availability of electricity	59	II
3.	Approach roads	57	III
4.	Availability of land	38	IV
5.	Location	36	V

4.3 Constraints in implementation of the HFPSEZ.

4.3.1 Constraints in infrastructure of HFPSEZ.

The problems faced by the firm present in Agro and Food Processing companies under Special Economic Zone are recorded in the Table 13. Opinion survey was conducted to know the constraints in infrastructure of Agro and Food Processing Special Economic Zone and the results are discussed below.

Garret test is applied for ranking these constraints. In infrastructure facility, lack of water availability was the main constraint with the mean score of 60. Lot of water requirement is there for construction purpose and other purposes. Availability of electricity was the second constraint with mean score 59 in the infrastructure of Food Processing Special Economic Zone. Even though there are some constraints in location, availability of land and approach roads availability of electricity is the major constraint next to availability of water.

4.3.2 Constraints in procurement of raw material of HFPSEZ

The constraints recorded and analysed through Garret ranking in case of procurement of raw materials for Agro and Food Processing under Special Economic Zone. According to the Garret ranking availability of raw materials for processing was the major constraint with mean score 75, this is due to wide diversification in cropping pattern and climatic condition in Hassan district. The above constraint is followed by price of raw material with the mean score 60, as the district cropping pattern and yield of crops differ from time to time. These two constraints are further followed by transportation cost with mean score 50, as the raw material availability is scarce in the area and need to bring from other neighbouring districts.

Table 4.14: Constraints in Procurement of raw material of HFPSEZ

Sl. No.	Problems	Mean Score	Ranking
1.	Availability of raw material	75	I
2.	Price of raw material	60	II
3.	Transport cost	50	III
4.	Quality	34	IV
5.	Transport facility	31	V

Table 4.15: Constraints in Processing of HFPSEZ

Sl. No.	Problems	Mean Score	Ranking
1.	Availability of labour	69.00	I
2.	Maintenance of machinery	46.20	II
3.	Cost effective technology	34.00	III

4.3.3 Constraints in Processing of Food Processing in HFPSEZ

There are constraints recorded and analysed through Garret ranking in processing of Food Processing Special Economic Zone. Availability of labour is the major constraint with mean score 69, this is due to literacy rate of the district is increasing year after year and the migration rate for occupation has been increased and hence there is labour problem. Maintenance of machinery was next constraint with mean score 46.2, this is due to non availability of skilled labours.

4.3.4 Constraints in Marketing of HFPSEZ

There are constraints in the financial condition of the companies, according to Garret ranking availability of funds is the major constraint with mean score 69, as the funds released by the banks and other financial institution takes step by step and the companies failed to establish the construction process time to time due to above mentioned constraints. This constraint is followed by interest rates with mean score 59.

4.3.5 Constraints in Financial conditions of companies in HFPSEZ

There are some constraints in marketing of Agro and Food processing Special Economic Zone. Availability of transport vehicles are the major constraint with mean score 65.2, as they require heavy vehicle to transport construction materials.

Table 4.16: Constraints in Marketing of HFPSEZ

Sl. No.	Problems	Mean Score	Ranking
1.	Availability of transport vehicles	65.20	I
2	Commission/ taxes	53.80	II
3.	Transportation costs	31.00	III

Table 4.17: Constraints in Financial conditions of companies of HFPSEZ

Sl. No.	Problems	Mean Score	Ranking
1.	Availability of funds	69	I
2.	Interest rates	59	II
3.	Payment of farmers	50	III

Discussion

CHAPTER V

DISCUSSION

The results of the study presented in the previous chapter are discussed here under the following heads.

5.1 Planning and implementation of HFPSEZ.

5.2 Farmers participation and benefits realized through Special Economic Zone.

5.3 Constraints in implementation of HFPSEZ.

5.1 Planning and implementation of HFPSEZ.

5.1.1 Hassan Biomass Power Company Private Limited

The firm had shortage of raw materials for power generation. This is due to non availability of raw materials throughout the year. The district has diversified climatic condition like malnad, semi malnad and southern dry zone. The firm failed to procure biomass throughout the year. The firm did not avail water facility throughout the year. As there is water requirement for all other firms in the area including pharmaceuticals, textiles and other small scale industries, water is a problem. The plant was unable to pay the due amount and repay the bank loan obtained from State bank of India. The firm did not process biomass throughout the year; hence they failed to pay back the bank loan in time.

5.1.2 Yakima filters Private Limited

The firm primarily did not avail money in time. Capital was the major constraint followed by clearance from control board. Employment of experts and scientists was also a constraint, but now they have most talented and experienced professionals, highly trained and certified in a wide variety of data warehouse, data developers, operating systems and application of software packages. The firm now has a grip on market leading software tools, processes and methodologies.

5.1.3 Sami Lab Private Limited

The project is still at the stage of lease agreement and building plan to be submitted for approval. This project started late compared to other projects, release of funds and government regulation like environmental safety and other procedures took major time for approval and implementation. Hence, this project is still in implementation stage.

5.1.4 Fresco Foods Private Limited

The plant is equipped all the machineries and building required for processing and has to start its activity. The firm is now on plan to identify gherkin farmers in Davangere, Tumkur and Hassan. As the availability of gherkin growers in the district is very less, the firm is planning to engage contract farming with farmers of nearby districts such as Davangere and Tumkur. They are yet to identify farmers, they require around 1000- 1200 farmers for contract farming of gherkin. They will be into contract farming with the farmers and supply inputs for the gherkin growers. The plant has stopped activities due to debt recovery tribunal (DRT). This is also one of the reasons for delaying.

5.1.5 First Choice Food Products Private Limited

The firm is not at implemented; eighty per cent of the land cost is to be paid. As this firm started and submitted its project proposal very late, compared to other firms, the firm has to start construction work. Due date for payment is expired and firm has to pay the 10 per cent penalty of land cost at present land cost. This is due to failure to accumulate the required capital source, as there are step wise rules to release amount in financial institution, the fund is the problem.

There are flaws in the project planning and implementation of HPSEZ.

5.2 Farmers participation and benefits realized through Special Economic Zone.

5.2.1 Socioeconomic characteristics of respondents

5.2.1.1 Age-wise distribution

The distribution of the farmers according to age groups is presented in table 4. 6. The numbers of farmers in the age group of 41 to 50 years were max in the interviewed farmers. Here the result says that farmers between the age group 41 to 50 years are more involved in farming rather than youngsters, this is due to educational level and migration of young people to other towns and cities. Only three farmers were found to be within the age group of 20 to 30 years. Thus, more than 85 per cent of the farmers were found to be of the middle age group of 30-50 years under the interviewed farmers.

5.2.1.2 Education level-wise distribution

The education status of farmers is presented in table Maximum numbers of farmers were in above high school (21) and Pre University level (15). The farmers are near to the developing area and there is a thrust to be educated and to adopt scientific methods of farming. The number of farmers having education level up to primary was twelve, while the number of farmers having education up to graduation is seven. Illiterate farmers correspond to less number (5) in the interviewed farmers.

5.2.1.3 Family size-wise distribution

The results showing the distribution of farmers according to family size are presented in table 4.8. The number of farmers with a family size of four to ten members was max with 43, which form more than 70 per cent of the total sample. The number of farmers having family size of eleven and above were minimum, only 11.67 per cent followed by one to three members (16.67 %).

5.2.1.4 Land holding particulars of the respondents

The distribution of the farmers according to land holding is presented in table 4.9. The number of farmers having land holding of 2.01 to 5 acres were high with forty five per cent. The farmers in the area are medium farmers. The number of farmers having land holding two acres and less was minimum and constitutes only twenty per cent. Thus, more than 75 per cent of farmers had more than 2 acres of land in the interviewed farmers.

5.2.2 Awareness of farmers about HFPSEZ

Farmers are found to be aware of Food processing industry to the extent of seventy per cent (42 in numbers) and remaining thirty per cent (18 in numbers) of farmers were not aware about the Food Processing Industry.

5.2.3 The source of awareness to farmers about HFPSEZ

The sources of awareness to farmers were majorly found to be through word of mouth, from one farmer to another farmer (33.32 %). The sources of awareness after the word of mouth were followed by through company initiatives (28.6%), next to that was KIADB officials (26.19%). The source of awareness is very less through newspaper (4.76%).

5.2.4 Willingness of farmers to participate HFPSEZ

Out of sixty farmers interviewed, only forty two farmers knew that there is Agro and Food Processing Industry in their area. Out of that thirty five (83.33%) farmers are interested to take part in activities which come under Agro and Food Processing Special Economic Zone. Thirty three (78.57%) farmers have interest to sell their produce to Agro and Food Processing Industry of Special Economic Zone.

Out of forty two respondents, thirty (71.42%) respondents have interest to do contract farming with Agro and Food Processing Industry of Special Economic Zone.

There is no participation of farmers in HFPSEZ, except general procurement activity done by the Hassan Biomass Power Company Private Limited.

5.3 Constraints in implementation of HFPSEZ.

The problems faced by the firm present in Agro and Food Processing companies under Special Economic Zone are presented in the previous chapter have been briefly discussed below.

All the firms' opined problems regarding availability of water and electricity, availability of raw materials for processing, price of raw material, availability of labour, maintenance of machinery, availability of transport vehicles, commission or taxes, availability of funds and interest rates as the major problems.

The results from the Garrett ranking indicate that the major constraint in infrastructure facility was the lack of water availability with the mean score of 60. Lot of water requirement is there for construction purpose and other purposes and failure of the monsoon is the major problem. Inadequate availability of electricity was the second constraint with mean score 59 in the infrastructure of Food Processing Special Economic Zone. This constraint also indirectly refers to the non availability of water and government is not making arrangement to provide required quantity of electricity at the right time. Even though there are some constraints in location, availability of land and approach roads, and electricity is the major constraint next to availability of water.

The constraints were recorded through Garret ranking in case of procurement of raw materials for Agro and Food Processing under Special Economic Zone. According to the opinion survey, availability of

raw materials for processing was the major constraint with mean score of 75. This is due to wide diversification in cropping pattern and climatic condition in Hassan district. The firm has to depend on neighbouring districts for the raw materials. The above constraint is followed by price of raw material with the mean score of 60, as the district cropping pattern and yield of crops differ from time to time. These two constraints are further followed by transportation cost with mean score of 50, as the raw material availability is scarce in the area and there is a need to bring from other neighbouring districts.

There are constraints recorded through Garret ranking in processing of Food Processing Special Economic Zone. Availability of labour is the major constraint with mean score 69 and this is due to improved literacy rate of the district over the years and the resultant increase in migration rate for occupation, females after marriage are moving from native to other regions and there is labour problem. Maintenance of machinery was next constraint with mean score 46.2, it is due to non usage of the implemented material from time to time, due to some other reasons such as funds and availability of raw materials, this machineries are not used and due to non availability of skilled labours.

There are constraints in the financial condition of the companies, according to Garret ranking availability of funds is the major constraint with mean score 69, as the funds released by the banks and other financial institution takes step by step and the companies failed to establish the construction process time to time due to above mentioned constraints. This constraint is followed by interest rates with mean score 59.

There are some constraints in marketing of Agro and Food processing Special Economic Zone. Availability of transport vehicles are the major constraint with mean score 65.2, as they require heavy vehicle to transport construction materials, cost incurred in using this

vehicles is very high and non availability of such heavy vehicles in the region.

There are many constraints in the implementation of HPSEZ.

Summary & Policy Implication

CHAPTER VI

SUMMARY AND POLICY IMPLICATIONS

Special Economic Zones (SEZs) have been recognised as an important mechanism for trade and investment promotion, creation of infrastructure, employment generation, promotion of regional development, increase in foreign exchange earnings, improving export competitiveness and transfer of skills and technology. These are considered as growth drivers in the developing countries. The SEZs have been in existence for decades, but have attracted renewed attention world-wide in recent years due to globalisation of trade and financial markets. Historically, SEZs were the result of the spurt in economic growth. It is well recognised that the SEZs are instrumental in developing local and regional infrastructure facilities, which in turn are necessary for overall economic development of a country.

The objectives of the SEZ are, generation of additional economic activity, promotion of exports of goods and services, promotion of investment from domestic and foreign sources, creation of employment opportunities and development of infrastructure facilities.

The major incentives and facilities available to SEZ developers include exemption from customs or excise duties for development of SEZs for authorized operations approved by the BOA. Income tax exemption on income derived from the business of development of the SEZ in a block of 10 years in 15 years under section 80-IAB of the income tax act. Complete exemption from Minimum Alternate Tax under section 115 JB of the income tax act. Complete exemption from Dividend Distribution Tax under section 115O of the income tax act. Complete exemption from Central Sales Tax (CST). Complete exemption from Service Tax (section 7, 26 and second schedule of the SEZ act).

The food industry has an important role to play in linking the farmers to the final consumers in the domestic as well as the

international markets. India is the second largest producer of food in the world next to China. The turnover of the total food market is Rs. 250,000 crores out of which value added food products comprise Rs.80, 000 crores. India's export of processed food products was Rs. 14924.96 crores in 2011. The installed capacity of fruits and vegetables processing industry has increased from 1.1 million tonnes in 1993 to 2.1 million tonnes during 2012. India stands 2nd in fruit and vegetable production of 213 million tonnes in 2011 in the world (3.7%). However, cold storage facilities are available only for 10 per cent of the produce. India has a total of 5400 cold storages, 4875 of which belongs to private sector, 400 owned by co-operatives and remaining 125 by the public sector units. Companies like ITC, HLL and Nestle entered the Indian market a long time ago and have made a deep penetration in the market. In India, agricultural production and food processing accounts for 30 per cent of country's GDP and employs more than 70 per cent of its work force. Presently, 56 Food Processing Parks are operating in the country including 4 food processing parks from Karnataka.

The special objectives of the study are

1. To examine the project planning and implementation of Hassan Food Processing Special Economic Zone,
2. To assess the level of farmer's participation and benefits realized through Special Economic Zone and
3. To document the constraints in implementation of Hassan Food Processing Special Economic Zone.

Hassan Food Processing SEZ was purposefully selected for the study due to the presence of Food Processing Industry which comes under the Special Economic Zone in the state, and it is the first of its kind. Hence, importance was given to this Food Processing Special Economic Zone.

The present investigation was confined to the industries under Agro and Food Processing Special Economic Zone in the Hassan District. Five companies started operation in this area with lot of scope for processing and to create employment opportunities to people of the district. As the airport and ports are nearer to Hassan, it is easy to export finished products to foreign countries.

The primary data was collected from the company owners on investment, type of food processing done, nature of transportation and distributing finished products to other countries, employment creation, power facility, facilities provided by promoters like Ministry of Commerce and Industry through Special Economic Zone and farmers in the area of Hassan Taluk.

Secondary data were collected from the records maintained by the banks, promoters like KIADB and KPTCL.

Opinion survey was conducted to farmers in and around the villages of Agro and Food processing Industry to know their awareness level, willingness to take participation and benefits realized by the participated farmers. The opinion of 60 farmers in and around the villages of Agro and Food Processing Industry in Hassan Taluk are the source of primary data.

Descriptive statistics was followed to illustrate the present status and results of the firms about the project planning and implementation of the firms in HFPSEZ. Tabular analysis was followed to describe the opinion about the farmers. Garrett ranking technique was used to document the constraints in implementation of HFPSEZ.

Hassan Biomass Power Company Private Limited showed poor response to power generation due to acute shortage of raw materials throughout the year. The plant was unable to pay the due amount and repay the bank loan obtained from State bank of India. The company failed to pay the salary to 430 employees in time. The

company failed to have water facility throughout the year due to non availability of water. The machineries installed in the plant are getting damaged due to non usage of machineries for the four years. Machineries in the plants are covered with grass, only there are two watchmen at the gate to safe guard the plant.

Yakima Filters Private Limited, firm primarily did not avail money in time, capital was a constraint followed by clearance from Control Board. Employment of experts and scientists was also a constraint, but now they have talent and they are experienced professionals, highly trained and certified in a wide variety of data warehouse, data developers, operating systems and application of software packages. The firm now has a grip on market leading software tools, processes and methodologies.

Sami Lab Private Limited, project is still at the stage of lease agreement and building plan to be submitted for approval. This project started late compared to other projects. Release of funds and government regulation like environmental safety and other procedures took major time for approval and implementation. Hence, this project is still in implementation stage.

Fresco Foods Private Limited, plant has acquired all the machineries and building required for processing and has to start its activity. The firm is now on plan to identify gherkin farmers in Davangere, Tumkur and Hassan. As the availability of gherkin growers in the district is very less, the firm is planning to engage contract farming with farmers of nearby districts such as Davangere and Tumkur. They are yet to identify farmers, they require around 1000- 1200 farmers for contract farming of gherkin. They will be into contract farming with the farmers and supply inputs for the gherkin growers. The plant has stopped activities due to debt recovery tribunal (DRT). This is also one of the reasons for delaying of processing.

First Choice Food Products Private Limited, firm is not at all implemented. Eighty per cent of the land cost is to be paid. As this firm started and submitted its project proposal very late, compared to other firms, the firm has to start construction work. Due date for payment is expired (2-04-2012) and the firm has to pay the 10 per cent penalty of land cost at present land cost. This is due to failure to accumulate the required capital source, as there are step wise rules to release amount in financial institution, the fund is the problem.

The farmers are found to be aware of Food processing industry to the extent of seventy per cent (42 in numbers) and remaining thirty per cent (18 in numbers) of farmers were not aware of the Food Processing Industry.

The sources of awareness to farmers were majorly found to be through word of mouth, from one farmer to another farmer (33.32 %). The sources of awareness after the word of mouth were followed by through company initiatives (28.6%), and next to that was KIADB officials (26.19%). The source of awareness is very less through newspaper (4.76%).

Out of sixty farmers interviewed, forty two farmers knew that there is Agro and Food Processing Industry in their area. Out of that, thirty five (83.33%) farmers are interested to take part in activities which come under Agro and Food Processing Special Economic Zone. Thirty three (78.57%) farmers have shown interest to sell their produce in Agro and Food Processing Industry of Special Economic Zone.

Out of forty two respondents, thirty (71.42%) respondents have interest to do contract farming with Agro and Food Processing Industry of Special Economic Zone.

The major constraint is infrastructure facility, and lack of water availability with the mean score of 60. Lot of water requirement is

there for construction purpose and other purposes and failure of the monsoon is the major problem. Availability of electricity was the second constraint with mean score of 59 in the infrastructure of Food Processing Special Economic Zone. This constraint also indirectly refers to the non availability of water and government is unable to provide power in the required time with required quantity. Even though there are some constraints in location, availability of land and approach roads availability of electricity is the major constraint next to availability of water.

There are constraints in procurement of raw materials for Hassan Food Processing Special Economic Zone. According to the opinion survey availability of raw materials for processing was the major constraint with mean score 75, this is due to diversification in cropping pattern and climatic condition in Hassan district. The firms have to depend on raw materials for neighbouring districts. The above constraint is followed by price of raw material with the mean score of 60, as the district's cropping pattern and yield of crops differ from time to time. These two constraints are further followed by transportation cost with mean score of 50, as the raw material availability is scarce in the area and need to bring from other neighbouring districts.

There are constraints relating to processing in the Food Processing Special Economic Zone. Availability of labour is the major constraint with mean score 69, this is due to literacy rate of the district is increasing year after year and the migration rate for different occupation has been increasing, females after marriage are moving from native to other regions and there is labour problem. Maintenance of machinery was next constraint with mean score of 46.2, it is due to non usage of the implemented machineries from time to time, due to some other reasons such as funds and availability of raw materials, the machineries are not used and due to non availability of skilled labours.

There are constraints in the financial condition of the companies. According to Garret ranking availability of funds is the major constraint with mean score of 69, as the funds released by the banks and other financial institutions takes step by step and the companies failed to establish the construction process time to time due to above mentioned constraints. This constraint is followed by interest rates with mean score 59.

There are some constraints in marketing also, availability of transport vehicles are the major constraint with mean score 65.2, as they require heavy vehicle to transport construction materials, cost incurred in using these vehicles are very high and non availability of such heavy vehicles in the region.

Major findings of the study

1. There was delay in implementing the HFPSEZ.
2. Only few companies have started business under SEZ.
3. The availability of raw materials throughout the year was the major problem.
4. Farmers involved with production of cereals, pulses, fruits, vegetables and plantation crops are not participating in the HFPSEZ presently.
5. There are farmers who are interested to participate (83.33%) in the HPSEZ in future.
6. Availability of skilled labour is a major problem.
7. Electricity and water scarcity in project area were the major constraints.

Policy Implications

The following policy implications can be drawn from the investigation of the research on Performance of Hassan Food Processing Special Economic Zone.

1. Infrastructure facilities such as electricity, water, raw material has to be timely provided to the firms.
2. The farmers should be encouraged to tie up with the processing firms for supply of quality raw materials.
3. Special officer to identify the skilled labour in the district and recruitment may be taken up.

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CHAPTER VII

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