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**An Analytical Study of Private And Government Plant Nursery In Sangli District**

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**Prajakta patangrao lad**

Research student, Department of Economics, Shivaji University Kolhapur

**Corresponding Author- Prajakta patangrao lad**

Email- [prajaktapawar1307@gmail.com](mailto:prajaktapawar1307@gmail.com)

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**Introduction:**

Agriculture is the mainstay of the Indian economy and is the principle means of livelihood for over 70 % percent of the population GDP was no more than 17% percent during 2008-09 and dropped further to just around 16 percent in 2009-10 .Even though India is primarily an agricultural economy with almost two third of its population make our their existence from farmland. However challenges before agriculture have been increasing problems. Therefore there is need to apply intensive technique and diversification through plant nursery production.

A plant nursery is a managed site designed to produce seeding grown under favourable conditions until they are ready for final planting plant nurseries are key success factor for many forestry and agricultural development programs. A plant nursery can be an informal small scaled arrangement or a large commercial enterprise nurseries vary in size facilities ( Supplies tools equipment etc) types of seeding produced and operations ( World agro forestry centre 2010). They also differ significantly in quantity and quality of planting stocks produced nursery establishments can generally be grouped in to private and public depending on the ownership size and ultimate goal of their establishments .One major distinction between the private and public nursery is priority on profit maximization .The motive and goal of any private business enterprise is no make as much profit as possible while the public enterprise has the ultimate motive of catering for the welfare of the masses. Plant nurseries may after provide income generating opportunities for the operators and enhance the social, capital, technical capacity and leadership skills communities. Plant nursery enterprises certainly play an important role in the production of goods and services and in the generation of substantial employment and income in almost all countries both developing and developed .Income generated in plant nursery enterprises would depend largely on the nature of local economy .In a country with a high percentage of active adult with employment problem .There is need for studies that create awareness for people in prospecting the hidden opportunities in the government for the provision of jobs and create awareness on how people could become self employment opportunity low investment expenditure and there by possesses the potential of enhancing the socio economic aspects of the economy.

A survey reported by filanietal (1994) on the business operating in Ibadan revealed that plan nursery private and government nursery enterprise is not exceptional .The main objective of this research was to determine the cost and profitability of establishing a plant nursery enterprise in Sangli district they specific objectives are to assess the demographic characteristic of owners. Identify species raised and classify them. Carry out benefit cost analysis of the enterprise determine factors affecting the establishment of private and government plant nursery in the study area. The study therefore serves A Analytical study of private

and Government plant nursery in Sangli district

**Definition of Nursery:**

“Nursery is a place where plants are grown nutturied and sold out generally various commercial crop growers require a good quality saplings or grafts of genuine type.”

**Types of Nurseries:**

1) **Temporary Nursery :**

This type of nursery is development only to fulfil the requirement of the season or targeted project.

The nurseries for production of seedlings of temporary nature. Likewise

temporary arrangement for growing forest seedlings for planting in particular area can also be done in temporary nursery.

## 2) **Permanent Nursery :**

This type of nursery is placed permanently so as to produce plants continuously .These nurseries have all the permanent mother plants .The work goes on continuously all the year round in this nursery .According to type of plants produced nurseries are classified in to following types;

### i) **Fruit plant nurseries :**

In this nursery seeding and grafts of fruit crops are developed.

### ii) **Vegetable Nurseries :**

In this nursery seeding of cauliflower cabbage brinjal and tomato are prepared.

### iii) **Flowers plant nurseries :**

The seedlings of flowering plants like gerbera carnation salvia rose are developed in this nursery.

### iv) **Forest Nurseries :**

The seeding of plants useful for forestation like pine teak eucalyptus casuarinas are prepared and sold.

### v) **Miscellaneous Nurseries :**

In such type of nurseries plants with great economic value rare and medicinal herbal plants are propagated .In this nursery plant like geranium rose calendula and marigold are propagated.

Statement of the problem:

In the view of Indian farmer transformation of traditional agricultural to modern agricultural produce is key problem. Somehow progressive farmer capable to increase productivity but lock of marketing knowledge and its importance they get losses. The respondents were asked to give their opinion regarding the problem of plant nursery business. In this respect respondents expressed more than one opinion which was ranked according to the importance of problems. The study revealed that non availability of improved seed/ seeding in the study area was the crucial problem for private and government plant nursery. On the other hand the lack of adequate funt was the first ranked problem for government plant nursery. The second most important problem faced by all nursery owners was law orice of sapling and seeding .The other socio economic problems of nursery business were damage of seeding lack of efficient labour attack of insect and diseases lack of technical knowhow inadequate irrigation and credit facilities.

## **Statement of the Problem:**

In the view of Indian Farmer transformation of traditional agricultural to modern agriculture is not one problem but also proper marketing of agricultural produce is key problem. Somehow progressive farmer capable to increase productivity but lack of marketing knowledge and its importance they get losses.

The respondents were asked to give there opinion regarding the problem of plant nursery business .In this respect respondents expressed more than one opinion which was ranked according to the importance of problems.

The study revealed that non availability of improved seed in study area was the crucial problem for private and government plant nursery. On the other hand the lack of adequate fund was the first ranked problem for government plant nursery. The second most important problem faced by all nursery owners was law price of sapling and seeding .The other socio economic problem of nursery business were damage of seeding lack of efficient labour attack of insect and diseases lack of technical knowhow inadequate irrigation and credit facilities.

## **Significance of the study:**

Today Indian Agricultural sector faced so many problems farmers suicides is one of the major problem exist in agricultural sectore.The reason of farmers suicides is unprofitability in agricultural sector. If plant nurseries are started by the farmers then they will get good profit .As well as by using various plants the farmers also get more quality production in low production cost .The employment generation also increasing by establishing plant nurseries. Hence an analytical study of plant nurseries is important. Plant nursery is very important for farming if seeds are directly planted in the farm the spacing between them after they grow might be uneven but if they grow to a sapling stage in the nursery and then are planted the spacing between them will be equal throughout. This is necessary so that there is no competition for water and minerals between the plants to keep plants safe from too cold or too hot weather.

## **Objective of the study:**

To study the development of plant nursery.

To estimate per hectare cost and returns of selected plant nursery under field cultivation.

To estimate benefit cost ratio of selected plant nursery.

To examine the input output relation of selected plant nursery

To check the relationship between private and government selected plant nursery.

To make available high health status plant nursery in sufficient quantity to meet the public demand.

#### **Hypotheses of the study:**

1) Per hectare cost and returns of selected plant nursery under field cultivation is high.

2) Highly benefit cost ratio of selected plants nursery.

3) There is relation of input output of regarding plant nursery.

4) There is significant different between private and government selected plant nursery.

#### **Research Methodology:**

The present research work depends on the primary as well as secondary data provided by selected nursery. They study will consider the appropriate indicators of socio-economic development of nursery owner. These indicators also bring about a comparative analysis with reference to the selected four governments and eight private from study command area .Therefore it is purely an analytical and a comparative type of research study.

#### **Sample Design.**

This research study will select the two different groups of nurseries like government and private. for this study will select the eight nurseries from government owner and private owner for the comparative analysis of nursery though appropriate indicators considering the availability of the statistical primary as well as secondary data. There are two groups of the selected nursery namely private and government. First four private nurseries will be selected from three talukas of sangli district due to private nurseries existed only these threes talukas

1) Kupwad Tahasil

2) Islampur tahasil

3) Miraj Tahasil

Second, four government nurseries will selected from following area of sangli district are as follows.

1) Tasgaon

2) Miraj

3) Jat

4) Shirol

Thus our total sampling size of the study comprises of in eight from the different area of sangli district .The selection of private nurseries will be based on the convenient sampling method .Besides selection of government nurseries will be based on the census method.Hence, researcher will use different sampling methods for different group of nursery.

#### **Methods of the data collection**

The analytical research study depends on the primary as well as secondary data primary data will collected though interview and questionnaire methods along with necessary secondary data will be collected for period from 2001 To 2016-17relating to private as well as government nurseries.

#### **Methods of Data analysis:**

The important and suitable statistical software's will be used for the data processing and analysis purpose namely SPSS Excel etc .The necessary and appropriate tool will be used for data analysis which will be Correlation Coefficient of Variation Regression Simple and Compound Growth Ratio Analysis etc.Along with these Techniques for hypothesis testing purpose the researcher will unsent test as per the needs and requirements and suitability of the method.

#### **Scope Of The Study:**

1. **Geographical Scope:** The geographical scope of the study has limited to Sangali district.

2. **Topical Scope:** The topical scope has focused on the 'A Analytical study of private and government plant nursery in Sangli District.'

3. **Analytical Scope:** Analytical scope has covered the fulfilment of the objectives set out and testing of the hypothesis.

#### **1.8 Limitations Of The Study:**

The noteworthy limitations of the present research study are as follows:

1. The present study covers the period only from 2000-01 to 2016-17 and neglects all other.

2. The conclusion will be drawn from the selected Sangli District.

#### **Review Of Literature:**

The researcher has conducted review of literature regarding the selected research problem. He has reviewed some published articles, journals, magazines, research papers, M.phil dissertation and PhD thesis related to research study.

1) **Hannah Jaenicke (1999):**

**“Good Tree Nursery Practices”  
Practical Guidelines for Research  
Nurseries, International centre for  
research in Agroforestr, Pp- 1 To 94.**

The researcher studied describes what we mean by ‘quality seedlings and discuss targeting seedlings to the conditions you expect at the site where you will plant them. The researcher using primary as well as secondary data has been used, and deeply explain the why important good tree nursery, management of nursery etc. the researcher is personally opinion in this paper is Quality seedlings targeted for different sites may look different from each other but they all have one thing in common: a well-developed root system with many root tips from which new roots can quickly develop. In areas with adverse environments, such as dry, flooded, saline or nutrient-deficient sites. Seedling quality depends on the ability to produce new roots quickly, the speed with which seedlings get anchored in the ground, and start assimilating and growing after planting out, a well-developed root system, sun-adapted foliage, a large root collar diameter, a balanced shoot root ratio, good carbohydrate reserves, an optimum mineral nutrition content, the establishment of adequate mycorrhizal or Rhizobium infection etc. the researcher explaining different point relating to quality seeding. The prescribed that the staff is professional, careful and honest, the processes in a germinating seed, a rooting cutting or a growing seedling, and the importance of high humidity, watering, shading, etc. will help prevent many errors in daily work. Only when all workers feel that they are part of the nursery operation, when they understand the part they play and when they feel proud of it, not only those applying the chemicals, ought to know the basics of handling pesticides, Use gloves and safety equipment Staff training can take the form of scheduled courses or of regular (weekly, monthly) staff meetings covering a particular topic. This can be reinforced by repeating explanations of techniques during work.

**2) Haque1monayem Miah and Rashid (2007):**

**“An Economic Study of Plant Nursery Business in Gazipur And Jessore Districts Of Bangladesh” ISSN 0258 - 7122 Bangladesh J. Agril. Res. 32(3), Pp- 375-385.**

The present study was conducted in Jessore and Gazipur districts during 2002-2003 to

assess the socio-economic status of plant nursery business in Bangladesh. The researcher has been selected a total of 40 private plant nurseries, four government nurseries (BADC) and six NGO nurseries (BRAC) were selected for the study. The collected data were edited, summarized, tabulated, and analyzed to fulfil the objectives of the study. Tabular method was used in analyzing the collected data for the study. The focus the study was (i) know the socio-economic conditions of private plant nursery owners; (ii) find out the income and employment potentials of plant nursery business. The study revealed that 60% of the private nursery owners had secondary level of education and 50% owners performed their business on leased land. More than 55% owners had 6-10 years of experience in nursery business. It was found that 1) the main sources of income of the 73%, 20%, and 7% of the respondents were plant nursery, agricultural activities, and poultry business, respectively 2) the socio-economic problems of nursery business were damage of seedling, lack of efficient labour, attack of insect and diseases, lack of technical know-how, inadequate irrigation and credit facilities etc. they conclude that the Therefore, government should release adequate fund for the plant nursery so that private nursery owners can also receive improved saplings of different trees from government nurseries. Besides, government should provide training to the private nursery owners personnel on improved nursery management techniques.

**3) Moses R Munjuga, Agnes N Gachuri, Daniel A Ofori, Mathew M Mpanda, Jonathan K Muriuki, Ramni H Jamnadass and Jeremias Mowo (2013):**

**“Nursery management, tree propagation and marketing A training manual for smallholder farmers and nursery operators” World Agroforestry Centre, ISBN: 978-92-9059-339-3, pp- 1to 60.**

The aim of this manual is to familiarize the nursery operators, farmers and institutional nurseries with, and to get them involved in, the project techniques of propagation and establishment of small scale-nurseries. The learning activities in this manual are presented in five different modules. This manuals topic covered 5 module such as: 1) sourcing and selection of seeds for seedlings or rootstock propagation, preparation of seedbed and germination medium, techniques of enhancing seed germination

and sowing of seeds in the germination bed, uprooting and transplanting of germinated seeds in the nurseries. 2) the establishment and management of nurseries. The activities include site selection and land preparation, field layout and planting techniques, seedling management, weeding and control of seedling diseases. 3) The concepts, principles of practising vegetative propagation and the steps with illustrations on the production of quality planting. 4) Deals with making of compost and mixing of the soil in the nursery. The learning activities include mixing of media and making of compost from the nursery waste and lastly 5) discusses the tree nursery as an enterprise or business. They also conclude that the this manual aims to facilitate the learning process by incorporating practical activities that provide better and clearer understanding of the principles involved in nursery establishment and management and to enable participants to translate such knowledge and skills into entrepreneurial action projects.

**4) Dorji K. and Lakey L. (2015):**

**“Citrus nursery management – A technical guide. Department of Agriculture”, Thimphu, Bhutan. pp 1 to 67.**

The main objective of this study was to institute citrus certification process to sustain Bhutanese citrus industry and to make available high health status seedlings in sufficient quantity to meet the public demand. Citrus is a very important export commodity for Bhutan, but fruit production has declined due to poor orchard management and the impact of significant pests and diseases. Major diseases of citrus include Huanglongbing (HLB) (also known as greening disease), powdery mildew and viral diseases such as strains of Citrus tristeza virus (CTV) and Citrus exocortis viroids, etc. Three main programs under certification process include: 1. Quarantine program, 2. clean stock program, 3. Certification program. Researchers conclude that the Bhutanese citrus industry today faces numerous challenges of which across the globe today citrus Huanglongbing (HLB) management is limited to three strategies: (1) reduction of bacterial inoculum (by rouging of infected trees), (2) controlling vector population, and (3) use of disease free seedlings. While rouging out infected trees and control of vector population has been sporadically practiced in our country,

production of disease free seedlings is still a major constraint. Seedling demand far exceeds supply forcing growers to produce substandard seedlings of their own. Thus, these seedlings not only spread diseases but also die prematurely before they attain productive stage.

**5) Ir. Anja de Feijter (2015):**

**“Importance of nursery raising in vegetable production” The conference “Promoting Innovation and Trade in Horticulture”, pp- 1 to 22.**

The main purpose of this paper has been that the importance of nursery raising in vegetable production the selected study area. Researcher hint that the contribution of quality seed to the total production is 20% depending upon the crop it can be further raised up to 45% with efficient management of other inputs, like the use of healthy seedlings. A high rejection rate of plants before delivery indicates a production problem which must be addressed and cannot be tolerated. Near the water source, continuous supply of good water and the seed bed should be kept moist not continually wet.

**6) Rosenani, Rovica, Cheah, and Lim (2016):**

**“Growth Performance and Nutrient Uptake of Oil Palm Seedling in Prenursery Stage as Influenced by Oil Palm Waste Compost in Growing Media” Hindawi Publishing Corporation International Journal of Agronomy Volume 2016, Article ID 6930735, pp 1 to 8.**

They study focussed on the growth performance and nutrient uptake of oil palm seeding. This study was conducted under shelter in University Putra Malaysia (2°59'N, 101°42'25"E) with air temperature of 24–33°C. Oil palm waste of pressed oil palm fruit mesocarp and POME were obtained from Golden Hope Plantation Berhad and composted in University Putra Malaysia. The researchers using various statistical tools such as ANOVA, Regression analysis, Trend analysis, Growth performance and determine the relationships between oil palm waste compost and the chemical characteristics of the media and the growth parameters and nutrient contents of oil palm seedling. Initial characteristics of the treated growing media characteristic were analysed. They conclude that the Prenursery polybag medium amended with oil palm waste compost up to 70% increased

oil palm seedling growth. Meanwhile, 72% of the compost mixed with topsoil could produce the best planting material with respect to the high DMW production, oil palm seedlings growth, and development as well as greater nutrient uptake. Further study is required to investigate whether the amount of chemical fertilizer employed during nursery stage could be reduced, thus cutting operational cost by making use of oil palm waste compost as polybag growth medium.

**7) Singh1, Meena and Paramveer Singh (2017):**

**“High Tech Nursery Management In Horticultural Crops: A Way For Enhancing Income” International Journal Of Current Microbiology And Applied Sciences, ISSN: 2319-7706 Volume 6 Number 6 (2017) Pp. 3162-3172.**

The aim of good nursery management is to make available planting material of the highest possible quality for new development areas and replanting and the present study is based on the high tech nursery management in horticultural crops. The researcher discussing in this paper has packaging nursery plan, hat water treatment of the plant, comical treatment, nursery plant sale management and up to data experiment record. It is concluded that the aim of good nursery management is to provide material of the highest possible quality for new development areas and replanting. The importance of good nursery practices cannot be over-emphasized. The nursery should be maintained at the highest Nursery care is therefore essential as it provides a cheap and good background for the seedlings to develop before field planting. So, the selection of good planting materials and strict culling in nursery are the important step. It also provides an opportunity to cull the poor seedlings. Small-scale tree nurseries and their managers have an important role in ensuring the sustainable development of rural communities. It is essential that they obtain access to the knowledge, skills and resources necessary to maintain and enhance their capacity to produce the seedlings which form an integral part of the local agro forestry systems.

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