

## CHALLENGES AND OPPORTUNITIES TO IMPROVE THE LIVELIHOODS OF SMALLHOLDER FARMERS IN TAMILNADU

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### ABSTRACT

This paper examines the challenges and Opportunities of smallholder agriculture in Tamil Nadu. It covers trends in agricultural Products growth, cultivation patterns, participation of smallholder Farmer challenges and Opportunities of agriculture, the productivity performance of smallholders, linking smallholders with markets including value chains, the role of smallholders in enhancing food security and employment generation, differential policies and institutional support for smallholders and, challenges and future options for smallholding agriculture including information needs. It also provides lessons from the experience of India on smallholding agriculture for other regions. The effectiveness smallholder Farmer of creation units in most creating nations is exhibited by a noteworthy group of exact investigations demonstrating a converse connection between unit size and land efficiency. Besides, little smallholder Farmer regularly achieve higher land efficiency with inferior capital forces than huge units. These are significant productivity favorable circumstances in numerous helpless nations where land and capital are scant comparative with work.

**KEYWORDS:** Green Revolution, employment generation, linking smallholders,

### I. INTRODUCTION

For small and marginal farmers, marketing of their products is the main problem apart from credit and extension. In recent years, there has been some form of contractual arrangements in several agricultural crops such as tomatoes, potatoes, chilies, gherkin, baby corn, rose, onions, cotton, wheat, basmati rice, groundnut, flowers, and medicinal plants. There is a silent revolution in institutions regarding non-cereal foods. New production –market linkages in the food supply chain are spot or open market transactions, agricultural co-operatives and contract farming. The more noteworthy land profitability of little units comes from their more prominent plenitude of family unit work per hectare developed. Family unit laborers are normally more propelled than employed specialists are, and they give higher caliber and self-managing work. They additionally will in general think as far as entire employments or jobs as opposed to hours worked, and are less determined by wage rates at the edge than recruited laborers. E-agribusiness assumes key job in beneficial and expanded farming on the planet with the utilization of present day information technology strategies. Agriculture plays a significant role in addressing these challenges and moving the livelihood of Indian farmers (M.Manida et al (2020). Smallholder Farmers mistreat work utilizing advancements that expansion yields (thus land profitability), and they use work escalated techniques as opposed to capital-serious machines. Subsequently, their property and capital productivities are higher and their work profitability is normally lower than that of huge creation units. This is quality

in labor-surplus economies, yet it turns into a soft spot for the drawn-out feasibility of little scope creation as nations get more extravagant and work turns out to be progressively costly. In poor, work bountiful economies, little makers are progressively effective as well as a record for huge portions of the provincial and all-out poor, so Smallholder Farmers creation unit advancement can be win-win for development and destitution decrease. The advantages for farms fit in consistent supply of their items; stimulating of their inventory network; positive market acknowledgment; access to explicit market specialties, and improvement of their situation to deal with the dangers associated with the procedure (M.Manida et al (2019). Asia's Green Revolution demonstrated how farming development that arrives at huge quantities of little units could change provincial economies and raise gigantic quantities of individuals out of destitution. Ongoing investigations show that a progressively libertarian conveyance of land prompts higher monetary development as well as guarantees that the development accomplished is increasingly helpful to poor people. Little makers additionally add to more prominent food security, especially in means horticulture and in reverse territories where privately created nourishments maintain a strategic distance from the high vehicle and promoting costs related to many bought nourishments. Agribusiness exhibiting is constrained by the States as indicated by their agri-advancing bearings, under which, the State is divided into a couple of market zones, all of which is overseen by an alternate Agricultural Produce Marketing Committee (APMC) which powers its very own promoting control (G.Nedumaran et al (2018). Smallholder Farmers' family units have increasingly positive consumption designs for advancing the development of the neighborhood rustic economy, including country towns. They spend higher portions of gradual pay on country non-tradable than huge creation units, in this way making extra interest for the many work serious products and enterprises that are delivered in neighboring towns and towns. These interest-driven development joins give more noteworthy pay acquiring chances to little makers and landless specialists.

## II. REVIEW OF LITERATURE

- ✓ Fathima Nuskiya, (2019), in her paper entitled "Up-Country Vegetable Production and Marketing: Challenges and Opportunities" Observed that family labor widely used, and also most of the laborers were taken from rural areas for day payment in cultivation activities. The main production problems faced by farmers are high input cost, lack of finance, water availability, quality seeds, and poor extension. Additionally, farmers generally lack knowledge about proper pesticide management including safe pesticide handling and storage. While studies of pesticide productive are relatively common, few researchers have assessed the farmer's pesticide adoption on the socio-economic impacts.
- ✓ Dr. A.Jagadeesh babu (2015), in his paper entitled "Challenges and Opportunities of small farmers in India" Observed the role of small farms in development and poverty reduction is well recognized. The global experience of growth and poverty reduction shows that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture. Smallholdings play an important role in raising agricultural development and poverty diminution. Modern retailing has the prospective to spark venture in marketing competence and meting out that yields reimbursement to both producers and consumers.

- ✓ Argade Shivaji Dadabhau et al (2012), in their article entitled “Sustainable Rural Livelihood Security Through Integrated Farming Systems – A Review” concluded that function of integrated farming systems is easily overlooked when agriculture is examined through western eyes. Nevertheless, smallholders may not consider becoming specialist agriculture producers until an assured market and the reliability of income is clear, and most appear to prefer to integrate the various enterprises. This creates efficiencies in family labor usage, use of residues, and farm nutrient recycling. Potential improvements and increased productivity from the various enterprises can only come from a better understanding of the nature and extent of the interactions various enterprises and natural resources, economic benefits, as well as the impact on the livelihoods of small farmers and the environment.
- ✓ S.Mahendra Dev (2012), in his paper entitled “Small Farmers in India: Challenges and Opportunities” highlighted that real development in terms of growth shared by all sections of the population has not taken place. We have problems of poverty, unemployment, inequalities in access to health and education, and poor performance of the agriculture sector. One of the excluded sectors during the reform period was agriculture which showed low growth and experienced more farmers’ suicides. There are serious concerns on the performance of agriculture sector in the country. The post-reform growth was led by services.

### **III. OBJECTIVES OF THE STUDY**

- To study on Challenges and Opportunities to Improve the Livelihoods of Smallholder Farmers in Tamil Nadu
- Challenges and Opportunities to Improve the Livelihoods of Smallholder Farmers in Tamil Nadu
- Available opportunities for the improvement of smallholder’s farmers’ production and access to markets.

### **IV. METHODOLOGY**

The challenges and opportunities to improve the livelihoods of smallholder farmers have been studied conceptually from different sources in secondary data, the sources of obtaining data include web-sides, journals, magazines, news papers and government records.

### **V. MANAGING NATURAL RESOURCES BETTER**

Natural resource management the executives rehearses ordinarily raise the efficiency of family unit work through changes in farming practices, for example, overseeing water, soils, and harvest deposits to expand in situ catch and maintenance of precipitation and raise land profitability or controlling nuisances and weeds by misusing normal organic procedures. Approaches, for example, dry-land development, water reaping, and flood downturn cultivating just as dispersal of interest the executives' procedures, for example, water system water protection and wastewater reuse can help address the necessities of poor rural family units while advancing practical utilization of water. Hereditary upgrades can have a significant impact in these endeavors yet frequently accomplish more to decrease dangers by balancing out and expanding creation as opposed to amplifying yield. Building up the required common asset the

executives' advancements will require interests in science and innovation, and dispersing existing innovation will require broadly circulated and gifted specialized help on the ground.

## **VI. IMPROVING MARKET ACCESS**

Efficiency increases can mean little without extended access to business sectors. Market structures in numerous provincial areas of the creating scene are frail, so the assign the efficiencies that business sectors accomplish in quickly developing segments of their economies don't emerge. Rather, lacking business sector interest for yields demoralizes makers from raising creation, while the subsequent disappointment of earnings to ascend in rustic zones hinders private merchants and provincial endeavors from entering and working together. An endless loop. Without working markets, country regions stay caught in a means economy where neither the restricted horticultural creation division nor the more extensive provincial economy (the two of which produce off-ranch business openings) can develop.

In the past numerous administrations attempted to address horticultural market disappointments in provincial territories by making state-oversaw associations, for example, advertising sheets. The majority of these intercessions ends up being expensive disappointments, frequently empowering across the board debasement to grab hold to rustic economies, and are turning out to be less and less normal. The issues related with feeble markets remain, in any case, and new endeavors are required if the horticultural part is to start continued and quick development in helpless nations. These endeavors should concentrate on making viable markets through improving the empowering conditions for more extensive private division support. Expelling limitations on the development, deal and acquisition of rural items is one model where changes are required. Market changes in India planned for lessening hazard and expanding effectiveness have for quite a while been viewed as important to invigorate farming drove development. Over and over again in any case, these changes have not created the normal gracefully reaction. Nor have they expelled a large number of the value bends implanted in these business sectors. In this way, the changes have done little to profit little makers, particularly those in increasingly detached and underserved regions. The yields of significant staple harvests fall impressively and the utilization of rural sources of info decays forcefully as one move farther from business sectors. Without access to new markets, achievements in expanding creation oftentimes bring about enormous value drops on account of inelastic neighborhood request. The nonattendance of business sectors reflects maybe more than all else the absence of framework in numerous provincial territories of India. Numerous makers can neither get composts and different contributions at reasonable costs nor advertise their own items adequately. Helpless media communications framework additionally keeps makers in detachment. Additionally, low interests in such key administrations as wellbeing and training decrease agrarian part profitability.

## **VII. GROWING THE OPPORTUNITIES OF AGRICULTURAL SECTOR'S**

The gainful capability of farming is profoundly shifted and relies upon the regular enrichment, geological area, connections to the remainder of the economy, and social components of the populace. In any case, the general disappointment in late decades to accomplish continued paces of agrarian part efficiency and the genius helpless development connected to it, particularly in India, can be put down to improper strategies; insufficient organizations and administrations; disappointments to put resources into proper framework; and

disappointments to put resources into the advancement of the human, social and regular capital that farming family units need to accomplish higher profitability.

The extremely restricted limit of by far most of poor provincial families to get to, examine, and use new information on improved practices is a coupling limitation to upgraded profitability. Therefore, makers who come up short on the assets to get it all alone have not approached the data and advancements that would empower them to embrace improved creation procedures and increment the salary and prosperity of their family units.

Expert helpless techniques for horticultural examination and its dispersal should be custom fitted to the necessities of the rustic universes and know about the expansive scope of elements influencing their reception of new innovation. Examination techniques need to consolidate information from neighborhood entertainers, and an institutional structure dependent on a lot more noteworthy cooperation of a wide scope of partners should be created. Imaginative ways to deal with the conveyance of related data administrations, including open, private, and common society on-screen characters, likewise should be created.

In distinguishing the imperatives to efficiency improvement in the diverse rustic universes it is critical to perceive that both land and work profitability are integral to expert helpless development. In the beginning phases of improvement, land profitability is generally basic so as to make extra business openings in agrarian creation. In the later stages, work profitability increments in significance as off-ranch wage rates rise however requests for rural laborers stay high. Three general classes of innovation are accessible to build the efficiency of farming family units: heightening info based creation, overseeing regular assets better, and enhancing yields in essential creation or family present reap preparing on catch more worth included.

## VIII. EXPANDING MARKET OPPORTUNITIES

New, more information serious horticultural innovations can succeed just when little creation units produce for the available market. With exchange costs as high as they are in quite a bit of India, delivering for the market can have high dangers. Be that as it may, when advertises in the long run create, transport and exchange costs for the most part decrease considerably, which makes items for the market progressively appealing.

PRODUCTION BASED CHALLENGES	MARKETING BASED CHALLENGES
1. Climate variation	1. Transport
2. Lack of Knowledge	2. Pricing
3. Financial difficulties	3. Supply chain
4. Irrigation Facilities	4. Marketing Information System
5. Fertilizer/ pesticides use	5. Facilities

## IX. PRODUCTION BASED CHALLENGES OF SMALLHOLDER'S FARMERS

### i. Climatic Variation

The development exercises are for the most part dependent on the atmosphere basically temperature and precipitation. These two factors for the most part impact the creation of the vegetable. In the Up-nation Intermediate zone, there is an enormous variety among temperature and precipitation. Accordingly, in this examination zone, the normal temperature is above 15°C-18°C. So there are such huge numbers of climatic changes, occasional changes are causing difficulties to happen among the

ranchers. Occasional changes likewise basically impact in the vegetable development in Up-nation locale. That is to say, in May, June, July is known as blustery season. Thus, in view of this period the development of carrot for the most part happens. At the point when we center on these occasional changes two years back (May-July) couldn't get the breeze as referenced before. Along these lines, prior because of this issue, the ranchers confronted such huge numbers of troubles to deliver the yield of this development. As indicated by observe the occasional precipitation, this is likewise predominantly centered on the vegetable development in this specific territory. Yet, once in a while the occasional precipitation is missed because of some climatic inconstancy. Here is some development of the vegetable is indicated dependent on the occasional precipitation. In this way, on the off chance that they haven't to get a legitimate precipitation design the creation of the vegetable will be crippled. Substantial precipitation conditions watch out for vegetables become decay. Expanding temperature, decreased water system, water accessibility, and avalanche would be significant constraining variables in continuing and expanding vegetable efficiency and impulsive high-temperature spells will lessen the profitability of vegetable harvests. In the Up-nation locale, the May-September is recognized as the dry season, with the goal that it generally impacts to lessen vegetable profitability. Because of substantial precipitation examples or temperature expanding spread numerous sicknesses in vegetables. In some cases vegetables, for example, leeks, cabbage, were influencing by infection sicknesses. Subsequently, ranchers need increasingly numerous procedures to beat these difficulties. They have to pesticides and nutrients to secure the vegetables. Once in a while this condition diminishes collecting just as salary.

**ii. Lack of New Technology**

As indicated by creation challenges, new innovation is a significant reason that impacts the creation of vegetable development. In the Up-nation locale not have current innovation for plowing, developing and gathering and these circumstances lead to time utilization. There are such a large number of new advancements used to water the development exercises now daily. Be that as it may, here there is definitely not a legitimate method to watering the plants. Just as helpless information on the ranchers and absence of new strategies are utilized for the development of vegetables that most impact in the creation (absence of new techniques in preparing). The ranchers don't have a colossal spot for their development purposes, so they unfit to get high benefits specifically vegetation. Just as indicated by our gathering conversation, we recognized another issue that the ranchers can't utilize the high apparatus framework on their field. Since this district is a high raised uneven region. Thusly, they confronted such a significant number of challenges to convey the machines to the development territory.

**iii. Financial Problem**

In the Up-nation district, farming is the occupation for the greater part of the individuals. Some of the time they have a terrible condition in development because of the climate, compost, and less nature of seeds. At the point when they influenced by those sorts of issues, it prompts diminish the gathering and furthermore lessens the salary. That is the reason individuals who are relying upon this salary confronted numerous financial issues. Just as individuals who are concentrating in young (level is over 15), getting battle in considers. Along these lines, they are compelled to carry out any responsibility for their pay. Thusly, it builds the kid work power.

**iv. Labour Force**

Work power essentially impacts the creation of vegetable development. It is for the most part dependent on the customary cultivating framework, and furthermore, they not at all like to receive the cutting edge cultivating framework. It implies in prior the individuals who have own development land the family work is predominant on all exercises, for example, land readiness and gathering watering, treating and weed evacuating and so on. In any case, these days, the new age is to maintain a strategic distance from family work, they like to work in the development fields, so thusly, the proprietor of the land relies upon the work powers. Along these lines, they recovered works from outside for day by day installment. At the point when the family works chip away at their properties, the works should turn out to be very need and great. In any case, if the landowner had the work from outside the tasks exercises would have gotten defective. Along these lines, it prompts making a little clash among landowners and works.

**vii. Water Supply**

The up-country region is self-sufficient in water supply because naturally, it has so many springs. As well as some small streams are flowing through this area. This area is facing many challenges regarding the water supply. According to the group discussion with farmers, they told that here May- September is identified as a dry season. So that in this period many springs tend to dry. As well as the capacity of tributaries also tends to very low. In this manner, farmers are facing many challenges in supplying water for the vegetable cultivation. Hence farmers are facing many conflicts in water supplying. Avoid the conflicts among farmers, the Agrarian societies getting water from the natural river and other water bodies' altogether, they tended to an agreement and they put 'turn method' among farmers. According to that, each farmer gets some hours for water supply. One of the farmers who is cultivating in 2 hectares of vegetables he will get 5-6 hours of turning time. During this time, he only has rights to get water supply. In this period, it included as an illegal activity. After finishing his period next farmer will get water supply for his cultivation. According to these actions, some farmers tend to face inequity in water supply in remote areas.

**viii. Fertilizer/ Pesticides**

Use stability the toughness increase durability concerning permanency the plant longevity is durability primarily toughness based totally durability on durability manure stability usage. Longevity Both chemical or organic fertilizer is utilized of vegetable farming relying of the albumen and location. According after our education area, we observed upon 75% of the farmers applied chemical or organic fertilizer, then also through it study area the identified vegetables bear varies the volume of extract because their growth certain namely carrot, leeks, tomato, transcript Chilly, potato, beans Fertilizers – spud fertilizer, TDM, Urea, ammonium nitrate, ammonium sulfate, triple superphosphate, potassium nitrate stability Basically longevity the durability vegetable durability practice longevity has then toughness deep longevity consequences with the aid of durability the durability pest. Therefore, the grower exercise happens between the area is additionally confronted a mission primarily based on the affects about pest. Although it is a maintenance technique according to origin the sow even are and much negative affects within the usage of pesticides then also living life are depleting.

## **X. MARKETING BASED CHALLENGES OF SMALLHOLDER'S FARMERS**

### **i. Transport**

The study area is a high elevated hilly area. Due to this high elevation, the street has so many bends, and also it is known as a steep slope region. Transport facilities should be selected according to the distance to market. Therefore, the farmer faced so many struggles in transport. By the way the vegetables are transmitted to the market by various ways. Firstly, the vegetables are packed and they transformed through the food path to the minor road or Lorries from the cultivation area/field. Sometimes farmers tend to face major challenges in transforming their harvest. As well as some cultivation field are located in very far away from the main road. This could be considered as a major challenge in marketing process. According to discussions farmers said that, it leads to spend much money to carry the production to the market. Therefore, this causes to maintain distance between farmers and consumers. So, this is the reason for influence of commission agents in this marketing process.

### **ii. Price Fluctuation**

According in imitation of farmer's opinions, the predominance regarding farmers pronounced so increasing cost concerning production and increases the costs of vital objects as the bottom course over deteriorating Terms over Trade. At the same time, he hold stated numerous lousy motives that affected via cultivation. toughness Thus, longevity cultivated the same corn and the same types between the equal epoch via much farmers had been affected as much a imperative issue after limit the plant prices. Cultivate the same crop plants or range by means of predominance farmers, seasonal charge trend at some stage in the harvesting period, or lack over good marketing dictation should keep diagnosed so causes. Endurance Oversupply, vile prices, no dealing power, vile income, or after mean dwelling requirements should be considered as the effects. Permanence Growth, Quality about manufacturing ought to stand determined by the price. Therefore, the good boom about the plant could keep made at a excessive charge because the quality of the production is great. In kilter in accordance with reflect on consideration on the much less growth over greens offered into a vile amount. According to that matter, the virtue flutter over the region is recognized as like a fundamental venture between grower cultivation constancy.

### **iii. Supply Chain**

It was seen in the past so much the distinction into wholesale then retail expenses ranges significantly among the action over incomplete vegetables. Here the market statistics could remain defined so the records then the sense regarding statistics probably after assist growers, traders, or consumers. Focus about the marketing information applicable yet useful in imitation of improve the furnish chain. According in accordance with that data the everyday wholesale costs are launched on the radio through the advertising department chiefly in accordance with assist the vegetable producers imputed every above the land. According in imitation of our discipline area, Up-country Where considered respecting that matter, durability in the Up-country location in that place are some major troubles confronted via the farmers.

a. The absence of suitable competitive marketing agencies result is the dominance of the private marketing channels.

b. As well as the producer is heavily indebted to the private marketing agencies and consequently the benefit of higher prices is denied to them. Conclusion and Recommendation Agriculture plays a vital role in economic development in our countries. It argues that sub-sector of this vegetable production still has a significant role to play in assisting the country's economic growth. To this case, examining the challenges of the cultivating vegetable considered to be a difficult task among the farmers in the particular region. The research is known as that there are some obvious ideas to provide opportunities for this agrarian society and according to the research finding through the vegetable cultivation there are so many challenges identified. According to our case study of Up-country, this is also identified as a perfect place to produce the quality of vegetables. So these types of challenges mostly influence their peaceful life. The producers become more knowledgeable about the market and are less at the mercy of market forces. For the producers, the more availability of an additional market outlet may be an advantage, making possible greater flexibility and enabling them to spread their risk wider.

Farmer's capacity for quality production has improved. However, so far only a few farmers in the Up-country area have benefited. As the collection centres procure less quantity the farmers stay to continue to depend on other markets.

- a. Agrarian society leads after and helps according to edit a advice affinity including the farmers and the branch about agriculture because of improvement on the quantity/ attribute products.
- b. The agriculture department keep taken many neighborhood programs then recognition applications amongst the farmers, durability or it employer suggests the farmers via using the excellent fertilizing strategies then additionally a length regarding pesticide usage.
- c. Propose coaching software for the merchants or use on toughness "pretested" longevity writing about pest management, permanency outdoor advertisement, or utilizes about mass media certain as much durability TV, stability Radio, and Newspapers because of improvement about verbal exchange in imitation of farmers regarding pesticide use.
- d. Providing method where team discussion, agrochemical festivals or seminars should remain effectively ancient addicted the reality close farmers are literate yet half academic application should additionally improve the exiting habit of seeking club counsel out of partner farmers.
- e. As nicely so contact/training applications could stay equipped with the producer about the production or additionally encouraging them. To use modern technological improvement of their culture fields and recommendations in conformity with an current high degree regarding discipline could stay back in accordance with educate farmers any are inclined in accordance with examine in conformity with endorse in conformity with farmers so expand the usage about natural pesticide after minimize the cost and such helps according to expand the quality concerning the cultivation field.
- f. As well as advocated the instant technology to supply information respecting the vegetation yet encouraging them in conformity with do the study activities.
- g. Data over prescribe advertising concerning agriculture is now not reachable between the countrywide certain system. This is a constraint after civilize this specific region

hence, inclusive of prescribe marketing of the arable sensors it's needed because the future generation.

- h. Make lookup investments and coverage adjustments the underline improvement over pesticides yet utility applied sciences that attitude reduced after health hazards or are well suited including ecologically primarily based pest management.

## XI. CONCLUSION

Farmer cooperatives will have a significant task to carry out in the proposed nearby food creation and showcasing mediations. The worries of buyers should be put the middle of everyone's attention, except those of the genuine makers of the great food everybody wants are additionally considered similarly significant. Cultivator cooperatives can fill a significant specialty in the neighborhood food development and help raise open attention to the difficulties confronting ranchers over all these conventional little holder agro-ecologies. It has been seen that the interest for neighborhood food far exceeds current degrees of flexibly. Where small producers have been able to amalgamate into the supplying chains, supermarkets have existing enhanced protection and noticeably higher restrictions than the customary clients, such as wholesales and foodstuff. However, there is scope for utilization in agreement farming and great markets if rules are not framed appropriately.

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