



The Sociological Impact of Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) on Small & Marginal formers in Tamiraparani River Basin - NAINAR.B¹

Abstract:

The Government of India led by our Hon'ble PM must empower the PM-Kisan in such a manner that it ensures that the marginalized section of rural India are not deprived of social security and are provided with a sustainable livelihood as it is the sole responsibility of Government of India under the PM-Kisan. Ministry associated to it must allocate funds appropriately and there should not be any reduction on funds so as to avoid late payments. The decadal population growth of the Scheduled Caste from Census 2001 to 2011 has been 23.66% against the 17.69% of the entire population should be kept in mind and resources should be appropriately used to ensure that the objectives of PM-Kisan are fulfilled across the Indian states. The study would analyse the real field issues that crop up while implementing the scheme, help the beneficiaries realize the concern of the central government over small and marginal farmers of India and carry the shortcomings of the scheme, if any, to the officials concerned thus acting as an effective liaison unit to help both the sides.

Key Words: BPL Family, Non-farm Employment, Agricultural laborer, Doving Time Profile Model.

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Introduction

The Government of India has implemented a new Central Sector Scheme, namely "Pradhan Mantri Kisan Nidhi (PM-KISAN)", for augmenting the income of farmers by providing income support to all small and marginal farmer families across the country. The scheme will be 100 percentage funded by Government of India. Under the scheme, financial benefit of RS.6,000/- (Rupees Six Thousand Only) per year will be provided to all small and marginal farmer families having total cultivable holding of up to 2 hectares. This will be provided in three equal installments of RS.2,000/-(Rupees Two Thousand only) each in a period of every four months in a financial year. The benefit came into effect from 01st December 2018. A small and marginal farmer family, for the purpose of the calculation of the benefit, is defined as "A family comprising of husband, wife and minor children (up to 18 years of age) who collectively own cultivable land up to 2 hectares as per land records of the State concerned".

Statement of the Problem

In the past three decades, the share of agricultural labour has increased, but the growth in employment and the percentage of people employed in agriculture has come down. Population, land-man ratio, agricultural machinery and liberalization of industrial and government policies led to withdrawal of labour force from agriculture and shifting of the same to non- agricultural activities, especially industrial and service sector activities, either within the rural areas or out in the urban areas. If this trend is allowed to continue there will be a dangerous change in our rural employment structure in the next few years. This type of shift in labour force in rural areas reveals that traditionally dominant agriculture sector is losing its relative importance and gradually the workforce in the non-farm sector is increasing. The circumstances being so the present study seeks to analyze the changing structure of agricultural employment in Southern districts of Tamil Nadu.

Objectives of the Study

With a view to provide income support to all Small and Marginal farmer families having cultivable land the Government has launched the **PM-KISAN**. The objectives of the study are;

1. To supplement the financial needs of the farmers in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income.

2. To analyse the dynamics of agrarian structure particularly, in Tamiraparani River Basin.
3. To study the trend in the growth of agricultural output and employment at the Tamiraparani River Basin compared with State level growth.
4. To analyse the determinants of farm and non-farm employment in the study area.
5. To Strengthen decentralized, participatory planning through convergence of various anti-poverty and livelihood initiatives in Tamiraparani River Basin and
6. To suggest remedial measures to improve the status of Small and Marginal farmers.

Hypothesis of the study

1. Agricultural workforce among the total workforce has considerably declined.
2. The proportion of agricultural workers who participate in non-farm employment keeps increasing in the recent years.
3. Micro-regions with a concentrated farm size structure (dominated by large farms) exhibit higher agricultural labour force than micro-regions with a fragmented farm size structure (many smaller farms).
4. In the absence of updated land records and complete databases, the scheme may end up benefitting only those who hold land titles and not the small, marginal or tenant farmers who are the most vulnerable.

Research Methodology:

This study is an Empirical Research based mainly on field study. Secondary data have also been used in this study about the Small and Marginal farmers in Tamiraparani River Basin.

Research Area:

River Tamiraparani rises in Agastya hills of the Western Ghats, joins the plains and flows through the district of Tirunelveli and Thoothukudi. The river gets water from both southwest and northeast monsoons and never goes dry. Parambiyar joins Tamiraparani at the foot of the hills and by Kothaiyar further down. At Papanasam, the river has been dammed for regulating the supply of water for irrigation and generation of electric power. The river flows through 16 taluks in Tirunelveli, Tenkasi &

Thoothukudi district and joins the sea at Punnakayal in Tiruchendurtaluk of Thoothukudi district. Parambiyar, Manimuthar, Godumudiyaru, KaruppaNathi, Kundar, AdaviNainar, North Pathchiyar, Nambiyaru, Kothaiyar and Servalar are the chief tributaries of Tambraparani.

Profile of the Cultivation:

The three district (Tirunelveli, Tenkasi&Thoothukudi) has a total cultivated area of 1,51,806 hectares. The net area shown is 1,22,047 hectares. Area sown more than once is 29,759 hectares. The total irrigated area through Government canals, tanks, wells, tube wells and other sources in the district is 1,07,822 hectares. According to 2001, census, there were 3,05,655 agricultural land holdings covering an area of 2,37,800 hectares. The average size of holding was 0.788. **Paddy** is mainly cultivated in 68,040 hectares of land, millets and other cereals in 6,387 hectares, pulses in 14,372 hectares, sugarcane in 3,025 hectares, groundnut in 4,329 hectares, gingerly in 1,779 hectares and cotton in 11,619 hectares which are the other principal crops cultivated in the district.

Research Methodology Drovig Time Profile Model

Time profiles for analysis of inter-relation between the growth rates of population and the non-agricultural work force, is and the analytical framework designed by Drovig (1964). It is assumed that the total labour force is equal to the total of the workforce and involuntarilyunemployed persons in any country or state. Further, for simplicity, it is generally assumed that the growth rate of the population is equal to the growth rate of the labour force because in the population census, in India, the labour force is not enumerated and only workforce is enumerated. In that short-run the two growth rates may deviate but in the long run they will be equal.

Dovring estimates the time profile to change the share of non-agricultural workforceemployment using the following method.

$$\begin{aligned} & \text{Initial non-agricultural} \\ & \text{employment} = x \text{ Initial} \\ & \text{total population} \qquad \qquad \qquad = y \\ & \text{Share of non-agricultural population} = (x / \\ & y) * 100 \text{ Compound growth rate of} \\ & \text{population employment} = g \text{ Compound} \end{aligned}$$

growth rate of population = p, such
 that $g > p$ Number of years = n
 n^{th} year final population = y_1
 n^{th} year final non – agricultural employment
 = x_1

But, by compound growth rate, in n^{th} year

$$x_1 = x (1 + g)^n$$

$$y_1 = y (1 + P)^n$$

In the n^{th} year, the share of non-agricultural

employment = $(x_1 / y_1) * 100 = [x (1+g)^n / y$

$$(1+p)^n] * 100 \dots \dots \dots (1)$$

$$(x_1 / y_1) = (x / y) [(1+g)^n / (1+p)^n] \dots \dots \dots (2)$$

From (2), if we know (x / y) , n,g, and p, we can calculate (x_1 / y_1)

Alternatively, if we know (x / y) , (x_1 / y_1) , g and p we can calculate n, the number of years in which the shift in non-agricultural workforce taken place from (x / y) to (x_1 / y_1) .

Table 1 Number of agricultural labour working under contract

Sl. No.	Contract or Leasing type labour	No	Per cent
1	Yes	65	29
2	No	160	71
Total		225	100

Table 1 highlighted the number of agricultural labour working under contract or leasing type labour². Majority of the respondents (71%) worked as a contract or leasing type of labour whereas 29 per cent of them only did not work as a contract or leasing type of labour. Thus, it was observed that the agricultural labour in the study area expected assured rate of income so that they were interested to enter into a short term contracts or leasing agreements.

Table -2 Number of days worked per week as a contract type of labour

Days	No	Per cent	Hours	No	Per cent
3	3	5	3	7	11
4	34	52	4	32	49
5 & above	28	43	5 & above	26	40
Total	65	100	Total	65	100

Table 2 shows the number of days worked per week as a contract type of labour. 52 per cent of the respondents stated that they engaged in contract type of work for 4 days in a week whereas 43 per cent of them worked for 5 days and above if they undertake a contract type of labour. The hours worked per day as a contract type of labour. 49 per cent of the respondents of agricultural labour group had worked 4 hours per day as a contract type of labour. 40 per cent of them worked 5 hours and above in a day whereas only 11 per cent of them had worked for 3 hours in a day as a contract labour. Thus, it was implied that the respondents were engaged for less time to do the work in the case of contract type of employment.

Table -3.Awareness about Agricultural Beneficiary Card

Sl.No	Particulars	Agricultural Labour		Cultivator	
		No	Per cent	No	Percent
1	Highly aware	105	47	88	39
2	Aware	12	5	70	31
3	Not Aware	56	25	30	13
4	Highly Not Aware	52	23	37	17
Total		225	100	225	100

The Government of Tamil Nadu has established the Tamil Nadu Agricultural Labour Welfare Board. Through this board, the Government is implementing the Tamil Nadu Agricultural Labourers and Farmers social Security and Welfare Scheme. This scheme is providing various welfare benefits like education assistance, marriage assistance, maternity assistance, pension, assistance for funeral expenses and compensation to poor agricultural

labourers, farmers and their families. Under this scheme 1.73 crore persons belonging to 76 lakh families have enrolled so far. Welfare assistance to the tune of Rs.415 crores has been provided to 5.10 lakh beneficiaries so far. A sum of Rs. 152 crores has been allocated for implementing this scheme in the financial year 2010 – 2011.

Table -4 Membership in Self Help Groups

Sl.No	Particulars	Agricultural Labour		Cultivator	
		No.	Per cent	No.	Per cent
1	Yes	99	44	29	13
2	No	126	56	196	87
Total		225	100	225	100

Table 4 exemplified the membership of the agricultural labour in Self Help Groups (SHG). 56 per cent of the respondents of the agricultural group did not have membership whereas 44 per cent of them had the membership in SHGs. Contribution to a common pool through SHGs can improve the standard the living of them in the study area. But majority of them did not join in these groups. 87 per cent of the cultivators group did not have membership whereas 13 per cent of them had the membership in SHGs. Contribution to a common pool through SHGs can improve the standard the living of them in the study area. But majority of them did not join in these groups.

Table -5 Duration of membership in Self Help Group

Self Help Group in years	Agricultural Labour		Cultivator	
	No.	Per cent	No.	Per cent
2 - 3	45	56	16	55
4 - 5	44	44	13	45
Total	99	100	29	100

Table 5 depicted the duration of membership of agricultural labour in SHGs. 56 per cent of the agricultural labour had the membership in SHGs between 2-4 years and 44 per cent of them had the membership between 4-5 years. Thus, it was observed that none of the respondent of agricultural labour group had the membership in SHGs more than 5 years in the study area.

Table -6. Participation of Agricultural labour in Income Generation Activities through SHGs

S.No	Particulars	No	Per cent
1	Yes	19	19
2	No	80	81
Total		99	100

Table 6 portrayed the participation of agricultural labour in income generation activities through SHGs. Respondents of agricultural group (19 %) involved in income generation activities such as agarpathi making, tailoring, preparation of puppad and pickle, fancy shop and dry cleaning whereas only 81 per cent of them did not involve in any income generation activities in SHGs. So, it was observed that SHGs in the study area helped the agricultural labour to earn additional income through the investment of their savings in productive avenues. There is no significant difference between the duration of the agricultural experience and average number of days worked as agricultural labour. To find out whether there exists any statistically significant difference between the duration of agricultural work experienced and that number of days of agricultural employment, the ANOVA table is used. Table 6.37 (b) shows the ANOVA results.

Table -7 Number of days worked as Agricultural Labour -Male and Female in year

Years of Experience in Agriculture	Male				Female			
	Number of respondents	Mean	Mini mum days	Maxi mum days	Number of respondents	Mean	Mini mum days	Maxi mum days
Up to 10	41	157	70	280	51	145	110	180
11-15	41	145	80	230	40	155	135	165
16-20	32	151	60	220	38	148	110	185
21-25	32	162	90	240	36	143	80	200
26-30	22	160	70	240	17	165	140	213
Above 30	24	121	50	250	25	146	122	180
Total	192	150	50	280	207	149	80	213

Table -8 ANOVA for number of days worked as Agricultural Labour-Male

Years of Experience in Agriculture	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29863.401	5	5972.680	3.636	**
Within Groups	305518.344	186	1642.572		
Total	335381.745	191			

The table 7&8 shows the one way ANOVA was applied to find whether there is significant difference among the duration of the work and number of days worked as agricultural male labour. The ANOVA result shows that the calculated F value is 3.636 which are greater than the table value of 3.117 at 1 % level of significance. Since the calculated value is greater than the table value, it is inferred that there is significant difference among the duration of the work and number of days worked as agricultural male labour. Hence, the hypothesis is rejected.

Table -9. ANOVA for Number of days worked as Agricultural Labour-Female

Years of Experience in Agriculture	Sum of Squares	df	Mean Square	F-value	Sig.
Between Groups	8657.492	5	1731.498	5.631	**
Within Groups	61802.894	201	307.477		

Table.9 shows one way ANOVA was applied to find whether there is significant difference among the duration of the work and number of days worked as agricultural female labour. The ANOVA result shows that the calculated F value is 5.631 which are greater than the table value of 3.110 at 1 % level of significance. Since the calculated value is greater than the table value, it is inferred that there is significant difference among the duration of the work and number of days worked as agricultural female labour. Hence, the hypothesis is rejected.

Ho. There is no significant difference among the duration of the work and average number of days worked as non - farm employment male and female labour in a year.

Table 10. Number of days worked as Non – Farm Employment -Male and Female in a year

Years of Experience in non –farm employment	Male				Female			
	Number of respondents	Mean	Minimum days	Maximum days	Number of respondents	Mean	Minimum days	Maximum days
Up to 10	34	282	191	312	9	294	260	312
11-15	9	306	260	312	4	299	260	312
16-20	19	273	208	312	5	312	312	312
21-25	14	297	260	312	4	312	312	312
26-30	21	312	312	312	8	299	260	312
Above 30	18	306	260	312	8	312	312	312
Total	115	293	191	312	38	303	260	312

Table 11 ANOVA for Number of days worked as non - farm labour in an year-male

Years of experience in non – farm male	Sum of Squares	df	Mean Square	F-value	Sig.
Between Groups	23353.792	5	4670.758	5.769	**
Within Groups	88248.869	109	809.623		
Total	111602.661	114			

Table 10 & 11 shows one way ANOVA was applied to find whether there is significant difference among the duration of the work and number of days worked as non - farm employment male labour. The ANOVA result shows that the calculated F value is 5.769 which are greater than the table value of 3.190 at 1 % level of significance. Since the calculated value is greater than the table value, it is inferred that there is significant difference among the duration of the work and number of days worked as non - farm employment male labour. Hence, the hypothesis is rejected.

Table –12 Probit Model for Cultivators - Parameter Estimates

Variables	Estimate	Std. Error	Wald	df	Sig.
Threshold [NFE = .00]	1.575	1.114	1.998	1	Ns
Age of the HOH	.028	.017	2.727	1	Ns
Education of Family member-1	-.275	.108	6.492	1	**
Education of Family member-2	.126	.076	2.763	1	Ns
Education of Family member-3	.220	.057	15.135	1	**
Education of Family member-4	-.224	.111	4.064	1	*
Total value of Assets (Rs. Lakhs)	.107	.094	1.292	1	Ns
Net operational holdings (acres)	-.118	.050	5.680	1	*
Availed loan	.679	.290	5.482	1	*
Years engaged in agriculture	-.016	.015	1.144	1	Ns
Have sufficient agriculture labors	.275	.390	.497	1	Ns
Did you get agricultural training	.268	.268	.994	1	Ns
Existence of industry in the village	.613	.244	6.288	1	*
Member of Self Help Group	-1.340	.371	13.005	1	**
Extent of usage of Modern Technology	.009	.088	.011	1	Ns
No. of days family members worked own farm/acre	-.008	.013	.424	1	Ns
No. of labour hired/acre	.019	.008	5.377	1	*

From the regression table 12 it is seen that the variables age of HOH some of the variables relating to education of the family members, value of assets, the extent of usage of modern technology, and number of labour hired per are having positive effect on the outcome variable. That these variables tend to increase the probability of engaging in Non - Farm Employment. On the other hand, increase in the value of variables of „net operational holding“, „number of days family members worked in their own farm per acre“, no. of years engaged agriculture lead to decrease in the probability of going for Non - Farm Employment. There are other dichotomous variables (whether the household are in debt (availed loan), have sufficient agriculture labours, whether received any training in agriculture and any industry setup in the village (coded as 1-Yes, 0-No), if answered in affirmative, tend to increase in the probability of going for Non - Farm Employment. If any of the members of the household is a member of SHG, it decreased the probability of going for Non - Farm Employment. However it could be seen from the Wald test statistics and the associated significant levels that all these predictors do not significantly contribute to the probability of going for Non - Farm Employment. But many variables, namely, education of some of the family members, Net operational holdings, whether taken loan, any industries setup in the village, Member of SHG, number of labour hired/acre have significantly contributed to Non - Farm Employment at either 5 % or 1% level.

Major Recommendations:

- Vulnerable landholding farmer families, having cultivable land up to 2 hectares, will be provided direct income support at the rate of Rs 6,000 per year.
- Income support will be transferred directly into the bank accounts of beneficiary farmers, in three equal installments of Rs 2,000 each.
- This programme will entail an annual expenditure of Rs 75,000 crore and will be funded by Government of India. Around 12 crore small and marginal farmer families are expected to benefit from this. It came into effect on 1st December 2018 and the first installment for the period up to 31st March 2019 would be paid during this year itself. It is a welfare program to support farmer's investment for two crops a year.
- The government is providing 58.33 lakh farmers, Rs.4000 per acre per season to support the farminvestment, twice a year, for rabbi and khaki seasons.
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- The government is providing 58.33 lakh farmers, in 4000 per acre per season to support the farminvestment, twice a year, for Rabi and kharif seasons.
- This was the first direct farmer investment support scheme in India, where the cash is paid directly.
- State Government of Tamil Nadu aims to lend farmers with an all inclusive and flexible support system, ensuring accelerated agricultural prosperity.
- It will cover 92% of the small and marginal farmers of the State. An amount of 10,000 per family at the rate of Rs.5,000 for Kharif and Rabi shall be provided as financial assistance for taking up cultivation.
- The farmers will have complete independence to take up interventions as per their needs.
- This component is not linked to extent of land owned and will greatly benefit share croppers and actual cultivators most of whom own very small extent of land.

Conclusion:

Under *PM-KISAN*, the Government of India has notified Social Audit Rules that mandate the establishment of a Social Audit Unit, to facilitate social audit by these Scheme. The Social Audit Unit can be either a society or a directorate, in each case independent of the implementing Principal Secretary of Agriculture, Government of Tamil Nadu. The Social Audit Unit will be responsible for capacity building programme of Government Social Security Scheme such as *PM-KISAN* for conducting social audit by identifying, training and deploying suitable resourcepersons at village, block, Town Panchayat, Municipalities, district and State level. The Social Audit Unit will create awareness amongst the small and Marginal formers about their rights and entitlements under the guidance and facilitate verification of records with primary stake holders. Complementing the social audit will be one by the Comptroller and Auditor General (CAG), Government of India. All expenditure on *PM-KISAN* will be audited both at the level of the Central and Government of Tamil Nadu. In addition to the financial audit, the CAG will conduct a performance audit with regard to these schemes.

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