

# Empowerment of SC Beneficiaries through SGSY: A Performance Evaluation of Indian States

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The paper is an attempt to measure various types of efficiencies (OTE, PTE, and SE) with the help of DEA of 24 sampled Indian States, adopting and implementing SGSY for the empowerment of scheduled caste beneficiaries. It was found through the study that the State of Goa is the only state attaining a perfect efficiency scores (one) at all the three fronts of the efficiency measurement, though the volume of inputs and outputs are very small in comparison to other sampled states. Five States were found to be perfect at the front of PTE, one each at OTE and SE, otherwise, remaining States were adjudged as inefficient States. The improper use of inputs by the States was found to be the main cause of inefficiency among the States. The mean efficiency scores of sampled States at the fronts of OTE, PTE and SE were found to be 0.546, 0.708 and 0.776 respectively during the period under study which signifies the scope for further improvement in the respective areas.

**Key Words:** Empowerment, SGSY, SC Beneficiaries, Indian States, DEA.

## Introduction

Unemployment leads to poverty which dogs consequently the leading of a dignified life. The economic recession of 2008 started from the US, and the Euro Debt-Crisis, are still impacting millions of poor and susceptible people around the globe. Approximately two billion people are living on just 1.25 US Dollars per day worldwide, out of which approximately 3/4th live in villages. The Indian economy is passing through a phase of increased food and energy inflation, resulting into low purchasing power of the currency and contracting employment opportunities in consonance with the global economy. The malice situation has mounted up pressure on the economic condition of poor and marginalized rural people, and also has become a very big threat to the governance of several countries. The Government of India drafted and implemented various schemes like- the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Indira Awaas Yojana (IAY), Integrated Watershed Management Programme (IWMP), National Social Assistance Programme (NSAP), etc. from time to time for the welfare of the vulnerable group of people in the country by employing the limited precious resources for their success.

## Swarnjayanti Gram Swarozgar Yojana (SGSY)

The GOI launched on 1st April 1999 Swarnjayanti Gram Swarozgar Yojana (SGSY), an integrated scheme for providing opportunities of self employment to the rural poor. Under the scheme, assistance is given to the poor families living below the poverty line in rural areas for taking up self employment (either individually or in groups, called the Self-Help Groups), and they are known as Swarozgaris. The 4 or 5 activities are selected (Key Activities) in each block with the help of officials, non-

officials and the Bankers and should be such that they can generate income for Swarozgaris after the loan repayment. The skillful persons belonging to BPL family may approach Sarpanch/ the BDO/ the Branch Manager of the nearest bank for taking up the activity. Since, the self-employment includes procurement of raw material, production, marketing of goods and dealing with finance hence, a single Swarozgari may not be able to do all this and consequently, the Swarozgaris form a group of 10-20 persons known as the Self-Help Group. Generally, all members of the group should belong to BPL families but, a maximum of 20 per cent, and in exceptional cases, up to 30 per cent, the members may be from families marginally above the poverty line, living continuously with BPL families and are acceptable to them; the APL members of group will not be eligible for subsidy under the scheme and becoming office bearers. A group may comprise of persons below the poverty line with diverse disabilities or of both disabled and non-disabled persons. The subsidy under the SGSY is 30 per cent of the cost of project, subject to a maximum of Rs. 75,000.

## Review of Literature

Jyoti (2011), through her study highlighted the effectiveness of three schemes- Swarnjayanti Gram Swarozgar Yojana (SGSY), Prime Minister Rozgar Yojana (PMRY) and Swarna Jayanti Shahari Rozgar Yojana (SJSRY), for poverty alleviation in Haryana. Under the scheme of SGSY, total funds were available during the year 2008-2009 Rs. 1464.09 lakhs, against which Rs. 832.10 lakhs were utilized for assisting 8825 swarozgaris up to the end of December, 2008. Out of total assisted swarozgaris, 4573 swarozgaris belonged to Scheduled Castes (SC) and 6725 were women.

Siddharth N. Madare (2012), exhibited the effectiveness of

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rural women skill development and empowerment schemes in Chandrapur district of Maharashtra State of India, and pointed out that there was no or low awareness about the government policies among the rural people and particularly among rural women. Study showed that the Swarna Jayanti Gramswarojgar Yojana is successful in achieving its aims up to a great extent. The study also suggested that there is a greater need to increase awareness about self-employment, rural development, women skill development and empowerment programmes among rural women.

Singh, Karanpreet (2011), evaluation impact and assessment of Swarnjayanti Garmin swarojgar Yojana in generating sustainable livelihood. Study results showed that many SHGs could not get credit even after three years. The long term vertical movement of the activity was apparently insignificant and thus, sustainable increase in income was not achieved. Ultimately, BPL remained BPL or in some cases even fell in debt cycle and went even below the BPL level.

Devi, R. Uma (2012), appraised the role of SGSY scheme in generation of self-employment opportunities and found that the scheme was focusing on identifying the key activities, infrastructure, required skills and technology, and has been successful in the states of Andhra Pradesh, Tamilnadu and Kerala by the approach of Self-help model in which thrift, multiple lending, participatory process of identification and pursuit of economic activities were carried out. The study concluded that SGSY was playing a vital and significant role in eradication of poverty by generating wage-based self-employment to both rural and urban people, and ultimately in the development of the economy as a whole.

Makarand, Rajhans Snehal (2012), exhibited the role of SGSY in the developing of rural area in Sangli District and also assessed the impact of the programme on the beneficiaries in selected villages of the district especially in terms of rural reconstruction. The study found a successful implementation of the scheme in the district with the help of concerned authorities were out of sampled villages, 1081 SHGs were established under the scheme involving 13, 229 beneficiaries. The study confirmed that the social status of around 95 percent beneficiaries improved significantly with the help of the programme.

Patel, Dhiren B. (2005), emphasized through his study that SGSY and other such schemes should be computerized and a base data of them should be generated showing in detail the provisions of the scheme, persons entitled, beneficiaries, etc. and if there is a change in any aspect of the scheme, should be exposed automatically. Computerization i.e. E-Yojana is a must for the success of the scheme, according to the study.

Balasubramaniam and Barani (2012) found that the SHG movement of SGSY substantially reduced poverty and

unemployment from the society by bringing important changes in the lives of the members of the group such as getting respect from members of their family, to participate in social activities, awareness about environment, health, sanitation, empowerment activities and rehabilitation services, etc. The members were adequately trained, resulting into increase in their knowledge and skills, making them capable of running the economic activity successfully and earning profit, indicating towards the SHGs are the real 'Change agents' in the lives of the members of the Groups.

Sivachithappa, K (2012), analyzed the role of SGSY in poverty alleviation in Tumkur district of Karnataka State by selecting a sample of 250 swarozgaris and found that 228 respondents, accounting for 91.2 percent, asserted that they were fully employed after availing of the SGSY loan since, the scheme was aimed at assisting the poor families by providing income-generating assets through bank credit and government subsidy, ensuring at least Rs. 2,000 net income to the assisted families.

It is clear from the above discussion that though, several studies have so far been conducted by the researchers to see the impact of the scheme on the beneficiaries and hence, adjudging its success/failure in different parts of the country; but no comparative study has yet been made showing the comparative performance of the Indian States with their efficiencies, utilization of resources and generating employment opportunities for SC beneficiaries. That is why the researcher took up the study to give a new dimension and solution to the problem.

#### Objectives of the Study

1. To measure technical, overall technical, and scale efficiency of the sampled Indian States with the help of DEA;
2. To study the slacks in outputs and inputs and their impact on the efficiencies of the sampled States; and
3. To make viable suggestions.

#### Research Methodology

##### Sample of the study

All states of India adopting and implementing the Swarnjayanti Gram Swarojgar Yojana (SGSY) constitute the universe and form the population of the study. Out of them a total 24 states have been selected as the sample of the study to measure the various types of efficiencies for the purpose of the study and, the states and union territories have been left out whose data either were not available or incomplete.

##### Data Collection

he present study is purely based on secondary data. The data for the study were collected for all 24 sampled states, for the purpose of analysis, from the Annual Report of the Ministry of Rural

Development, Government of India, for the financial year 2011-12.

#### Statistical Tool: Data Envelopment Analysis (DEA)

The Data Envelopment Analysis is basically a non-parametric technique which was originated by Farrell (1957), transformed into a mathematical programming by Charnes, Cooper and Rhodes that constructs a non-parametric piece-wise frontier (1978), and further extended by Banker et al (1984). It uses the principles of linear programming theory to examine as to how a particular Decision Making Unit (DMU) operates relatively to other DMUs, as the sampled states in the present study. The DMUs signify to the firms, institutions, departments/divisions or administrative units, states, etc. with the same goals and objectives, and are having common inputs and outputs. The technique has generally been used in making studies regarding banking sector but, it has also been used successfully in the fields of insurance (Life and General Insurance by Chhikara and Sangita, 2012), electricity (Chhikara and Deepak Bhatia, 2012), MGNREGA and transport (Chhikara and Suraksha, 2012). The analysis through the technique gives the efficiency scores between 1 and 0. The units scoring 'one' on the frontier are adjudged as efficient perfectly, but if the score is less than that, it will be inefficient in comparison to the perfect units by the difference score; and if the score is zero, then the unit is perfectly inefficient. The technique is capable of generating

probable targets vis-à-vis actual inputs and outputs and hence, helps in bringing out the improvement in the performance of the units by using inputs and outputs more rationally. The highly performing units with same inputs and outputs are the peers for the lesser performing units. The efficiency level of high performing units becomes a target for the low performing units. These units are called as the peer units and their values of inputs and outputs serve as the targeted values for the inefficient units.

#### Input-Output selection

There is no consensus among the researchers regarding the selection of inputs and outputs under the technique, and hence, their selection is based on the availability of the data and the objectives of the study to be achieved. The input and output variables for the present study selected by the researcher are as follows:

Inputs: 'Credit Disbursed', and 'Subsidy Disbursed'; and Output: 'SC Swarojgaris'.

#### Results and Discussion

The analytical Table 1 portrays various types of efficiency scores pertaining to 24 sampled states which were calculated after analyzing the 'credit' and 'subsidy disbursed' by the states to generate the employment for the beneficiaries of scheduled caste under the scheme of SGSY, through DEA. It is evident from the results that

**Table 1 : Efficiency Scores of the Sampled States at Various fronts of Efficiency Measurement**

S.No.	Name of the State	OTE	PTE	SE		Peer count
1	Andhra Pradesh	0.474	0.634	0.747	drs	0
2	Assam	0.757	1.000	0.757	drs	16
3	Bihar	0.746	1.000	0.746	drs	8
4	Chhatisgarh	0.409	0.527	0.777	drs	0
5	Goa	1.000	1.000	1.000		2
6	Gujarat	0.467	0.582	0.802	drs	0
7	Haryana	0.403	0.527	0.765	drs	0
8	Himachal Pardesh	0.550	0.698	0.787	drs	0
9	Jammu & Kashmir	0.446	0.458	0.974	drs	0
10	Jharkhand	0.477	0.818	0.583	drs	0
11	Karnataka	0.459	0.609	0.753	drs	0
12	Kerala	0.536	0.704	0.761	drs	0

13	Madhya Pradesh	0.731	0.976	0.750	drs	0
14	Maharashtra	0.443	0.590	0.751	drs	0
15	Odisha	0.508	0.677	0.750	drs	0
16	Punjab	0.447	0.574	0.779	drs	0
17	Rajasthan	0.493	0.650	0.759	drs	0
18	Sikkim	0.438	0.544	0.804	drs	0
19	Tamil Nadu	0.517	0.690	0.750	drs	0
20	Tripura	0.400	0.456	0.878	drs	0
21	Uttar Pradesh	0.457	1.000	0.457	drs	0
22	Uttaranchal	0.467	0.601	0.778	drs	0
23	West Bengal	0.510	0.679	0.751	drs	0
24	Pondicherry	0.973	1.000	0.973	drs	12
	Mean Score	0.546	0.708	0.776		

Source: Author's calculations.

out of total 24 sampled states, only five states- Assam, Bihar, Goa, Uttar Pradesh and Pondicherry performed perfectly (with score 1) at pure technical efficiency front (PTE); and Goa is the only state achieving a perfect score of 'one' at all the three fronts (PTE, OTE, and SE); though, all the sampled states combined together were operating at a level of approximately 71 per cent (mean score 0.708) at the front of PTE, two more states - Madhya Pradesh and Jharkhand with a PTE score of 0.976 and 0.818 respectively, besides the perfect scores, were operating at a level more than the mean score; otherwise remaining 17 states were operating below the average level. Tripura was found to be the least performer (PTE score 0.456) followed by Jammu and Kashmir (0.458), Chhattisgarh and Haryana (each 0.527), Sikkim (0.544), Punjab (0.574), Gujarat (0.582), etc. It can be concluded safely that the majority of the Indian states are under performers in utilizing the financial assistance provided to the schedule caste beneficiaries at the front of PTE. The mean score of overall technical efficiency (OTE) and scale efficiency (SE) for all sampled states was found to be 0.546 and 0.776 respectively during the period under study, which signifies that the overall technical efficiency is 55 per cent (approximately) while, the scale efficiency is around 78 per cent. Only five states (excluding Goa with a perfect score of one) - Pondicherry (0.973), Assam (0.757), Bihar (0.746), Madhya Pradesh. (0.73) and Himachal Pradesh (0.550) were found to be operating at a higher (more than mean score) level at the front of OTE,

otherwise, remaining 18 states were performing at below average. Nine states (Chhattisgarh, Gujarat, H.P., J & K, Punjab, Sikkim, Tripura, Uttaranchal and Pondicherry) besides the state of Goa (Score 1) were operating at a level of more than mean score (approximately 78 per cent) at the front of SE, albeit, remaining 14 states were performing miserably (below mean score). Goa was found to be the only state of India performing perfectly at all the three fronts of efficiency measurement, though its volumes of inputs and outputs are very small in comparison to the other sampled states. The analytical Table 1 also confirms the fact that all inefficient states (23 out of 24 sampled) are suffering from the problem of diminishing returns to scale, indicating towards the urgent requirement of contraction in inputs to enhance the level of efficiency. It is a proved fact that the output generated is not in consonance with the volume of inputs employed by the states to generate employment opportunities for the SC Swarojgaris. Assam with the highest peer counts (16), Pondicherry (12), and Bihar (08) emerged out as the leading states setting targets for remaining states. The state of Goa is having only two peer counts, though it performed perfectly at all the three fronts of efficiency measurement which no other state could achieve, but could not become a leader due to the very low amount of inputs and outputs in comparison to other states, hence, it's a perfectionist State by chance.

Table 2: Actual and Targeted values of Output and Inputs

S.No.	Name of the State	OUTPUT			INPUTS							Slacks (Rs. lac)	Slacks (%)
		SC Swarojgaris Actual	SC Swarojgaris Targeted	Slacks	Credit Disbursed Actual (Rs. lac)	Credit Disbursed Targeted (Rs. lac)	Slacks (Rs. lac)	Slacks (%)	Subsidy Disbursed Actual (Rs. lac)	Subsidy Disbursed Targeted (Rs. lac)			
1	Andhra Pradesh	39521	39521	0	10940.72	3903.881	7036.839	64.32	3650.52	2313.257	1337.26	36.63	
2	Assam	13044	13044	0	1335.51	1335.51	0	0	754.11	754.11	0	0	
3	Bihar	60692	60692	0	5957.55	5957.55	0	0	3559.95	3559.95	0	0	
4	Chhatisgarh	4178	4178	0	1152.64	421.477	731.163	63.43	446.38	235.131	211.249	47.32	
5	Goa	8	8	0	0.35	0.35	0	0	0.35	0.35	0	0	
6	Gujarat	2383	2383	0	2658.34	236.423	2421.917	91.12	223.44	130.059	93.381	41.79	
7	Haryana	6819	6819	0	2300.76	693.749	1607.011	69.85	739.97	389.724	350.246	47.33	
8	Himachal Pradesh	3180	3180	0	1131.8	318.589	813.211	71.85	253.02	176.712	76.308	30.16	
9	Jammu & Kashmir	165	165	0	47.9	14.53	33.37	69.67	16.2	7.412	8.788	54.25	
10	Jharkhand	8210	8210	0	978.98	800.804	178.176	18.2	753.16	473.242	279.918	37.17	
11	Karnataka	17211	17211	0	4418.4	1739.725	2678.675	60.63	1642.22	999.491	642.729	39.14	
12	Kerala	9067	9067	0	2081.4	925.504	1155.896	55.53	740.58	521.313	219.267	29.61	
13	Madhya Pradesh	26744	26744	0	4711.41	2664.463	2046.947	43.45	1599.98	1560.86	39.12	2.45	
14	Maharashtra	21424	21424	0	4378.71	2148.402	2230.308	50.94	2113.56	1247.582	865.978	40.97	
15	Odisha	25856	25856	0	5226.46	2578.402	2648.058	50.67	2228.43	1508.568	719.862	32.3	
16	Punjab	3968	3968	0	1255.95	399.827	856.123	68.17	387.96	222.838	165.122	42.56	
17	Rajasthan	10846	10846	0	3437.73	1108.909	2328.821	67.74	962.21	625.448	336.762	34.99	
18	Sikkim	78	78	0	12.26	6.672	5.588	45.58	7.8	3.498	4.302	55.15	
19	Tamil Nadu	25315	25315	0	6191.51	2525.844	3665.666	59.2	2140.51	1476.71	663.8	31.01	
20	Tripura	1084	1084	0	373.76	102.504	271.256	72.57	118.52	54.02	64.5	54.42	
21	Uttar Pradesh	131674	131674	0	36217.15	36217.15	0	0	12610.08	12610.08	0	0	
22	Uttaranchal	4156	4156	0	1190.37	419.209	771.161	64.78	388.95	233.843	155.107	39.88	
23	West Bengal	21600	21600	0	3265.01	2165.475	1099.535	33.68	1852.67	1257.946	594.724	32.1	
24	Pondicherry	695	695	0	62.4	62.4	0	0	31.25	31.25	0	0	

Note: The actual figures are from the Annual Report of the Ministry of Rural Development, GOI, while the targeted amounts have been calculated by the author

The analytical Table 2 explicates clearly that no slacks were observed as far as the outputs in the form of 'Swarojgaris' are concerned i.e. the jobs are provided according to the targeted plans by the sampled states throughout the country. But on the other hand, serious slacks/deviations were observed in case of 19 states regarding both the inputs-'credit disbursed' and 'subsidy disbursed'. Assam, Bihar, Goa, Uttar Pradesh and Pondicherry are the states leaving no sign of variations in outputs and inputs under the study. The remaining 19 states are infected by the virus of slacks in their inputs, which dogged their efficiency and they are in woods, as far as the perfect efficiency level attainment by them is concerned.

When the slacks in 'credit disbursed' were analyzed, it was found that the State of Gujarat (91.12 per cent) was having the highest variations in the input followed by Tripura (72.57), Himachal Pradesh (71.85), Haryana (69.85), Punjab (68.17), and Rajasthan (67.74), etc. but, the absolute figures tell a different story. The state of Andhra Pradesh showed a very substantial slack of Rs. 7036.839 lac which was much higher than the State of Gujarat (Rs. 2421.917 lac) having highest slacks on the basis of percentage. Similarly, other important states showing significant slacks in the input in terms of absolute amount are-Tamil Nadu (Rs. 3665.67 lac), Karnataka (Rs. 2678.675lac), Odisha (Rs. 2648.058 lac), Gujarat (Rs. (Rs. 2421.917 lac ), and Rajasthan (Rs. 2328.821 lac).

Almost similar situation was observed in case of slacks in 'subsidy disbursed' input. Here, the top position was held by Sikkim (55.15 per cent) followed by Tripura (54.42 per cent), Jammu & Kashmir (54.25 per cent), Haryana (47.33 per cent), Chhattisgarh (47.32 per cent), Gujarat (41.79 per cent), and Maharashtra (40.97 per cent). But the actual slacks in absolute amount are much higher in the states of Andhra Pradesh (Rs. 1337.26 lac), Maharashtra (Rs. 865.978 lac), Odisha (Rs. 719.862 lac), Karnataka (Rs. 642.729 lac), and West Bengal (Rs. 594.724 lac).

It was revealed through the analysis that the big states investing huge amounts under the scheme observed bigger slacks in comparison to the smaller states.

### Conclusion And Suggestions

The study of 24 sampled Indian States implementing the scheme of SGSY for the empowerment of the scheduled caste beneficiaries found all states inefficient at all the fronts of efficiency measurement i.e. PTE, OTE and SE except the State of Goa. The State of Goa is a perfect performer by chance, as its investment and total scale of working is very small in comparison to other sampled states under the study. Since, the Overall Technical Efficiency (OTE) is the product of Pure Technical Efficiency (PTE) and the Scale Efficiency (SE), and its mean score for all the states under study is approximately 55

percent, hence it can easily be presumed that the inefficiency to the tune of 45 per cent is prevailing in the functioning of the sampled states in general. Likewise, the mean score of all the states under study regarding PTE and SE is approximately 71 and 78 per cent respectively signifying thereby that inefficiency level of 29 and 22 per cent is persisting for all the states taken together which becomes an obvious target to be achieved in general by the states to make the scheme a success and assuring the inclusion of SCs in the main stream of development of the nation. Since all the sampled states are functioning at diminishing returns to scale, hence, it is advised that the scale of operations must be readjusted by the respective states in an optimum manner by decreasing the volume as per the requirement by consulting Table 2 under the study. The functioning of the State of Pondicherry may be followed by other inefficient states since; it emerged as leader among all the states by utilizing the resources in an optimal manner. All the sampled states got the outputs as per the expectations, by using the inputs and showed no signs of slacks but, when it came to the inputs, serious slacks were observed in both the inputs by almost all the States except five, meaning thereby that the same results regarding the outputs would have been achieved with the targeted amounts of the inputs which has been attained through the actual. The big States investing huge amounts have shown bigger slacks of substantial amounts, which need to be controlled in the interest of the States in particular and of the nation in general. The excessive amounts invested exhibits the lack of interest and negligence on the part of the implementing authorities who are required to take immediate action to control the wasting scarce resources of the country and to help the vulnerable population to grow with dignity by contributing positively towards a strong national building process.

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