Swarnajayanti Gram Swarojgar Yojona as a Safety Net: Evidence from Murshidabad **District of West Bengal**

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This paper assesses the role of Swarnajayanti Gram Swarojgar Yojona (SGSY), a government sponsored microfinance programme, as a safety net. The initial survey was conducted in 2006 in Murshidabad District of West Bengal, India while the same households were surveyed again in 2008. The results show that the programme is well designed to restrict the decline of transient poor or to uplift the chronic poor from below the poverty line. However, there are serious lacunas in implementing the programme. As a result, the SGSY programme as a safety net has failed to fully deliver anticipated benefits to the programme participants. The picture becomes worse if one measures the targeting efficiency of the programme. It is revealed that the "programme" suffers from both inclusion and exclusion errors. The study, however, suffers from the conventional errors of sampling and the limited time frame may not be adequate to measure the full efficacy of the programme.

Key words: Microfinance, Safety net, Social security, Welfare programme

JEL Classification: O17, I38, H53, H55,

I. INTRODUCTION

Though India has registered a high growth, benefits of that growth have not adequately percolated to the grass roots level. The Asian Development Bank (ADB), using a higher poverty line of \$ 1.35 per day per person rather than of \$ 1.25 benchmark of the World Bank, estimates the number of poor in India between 622 and 740 million in 2005, well over double the Planning Commission's estimate. The ADB estimates further show that India had the second highest poverty ratio (54.8 per cent), next only to Nepal. Chen and

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Ravillion (2008), using \$ 1.25 line, showed that the trend rate of poverty reduction is .72 per centage point per annum (ppa); using \$ 1.00 the trend is 0.71 ppa. They further argued that India's overall rate of poverty reduction is lower than average for the developing world.

However, since the Fourth Five Year Plan, the Government of India has been making larger efforts in reducing poverty. Following "Bhagwati Committee" report in 1973, the Government took measures like "Rural Work Programme." "Integrated Dry Land Agricultural Development Programme," "Area Development Scheme" and "Crash Programme for Rural Employment." The "Food for Work Programme" was restructured and renamed as "National Rural Employment Programme (NREP)" in October 1980. Additional employment of the order of 300-400 million man-days per year for the unemployed and underemployed is envisaged under the NREP. The Rural Landless Employment Guarantee Programme (RLEGP) was launched in 1983 with the objectives of generating gainful employment, creating productive assets in rural areas and improving the overall quality of rural life (Datt and Sundaram 2009). In the Sixth Five Year Plan, multiple rural employment schemes were merged, and replaced by single programme named "Integrated Rural Development Programme (IRDP)." In 1989 "Jawhar Rozgar Yojona" (JRY) was launched merging all existing rural wage employment programmes. JRY has two sub-schemes, viz., "Indira Awas Yojona (IAY)" and "Million Wells Scheme (MWS)." MWS provide open irrigation wells, free of cost, to poor, small and marginal farmers belonging to poor households. IAY is aimed at providing houses, free of cost to the members of poor and socially oppressed class. Recent addition in this bandwagon is "Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)." This will provide a legal guarantee for at least 100 days of employment to begin with on asset creating public works programmes every year at the statutory minimum wage of Rs. 120 per day in 2009 prices. In spite of the existence of so many anti-poverty schemes, a sizeable section of the country's population still lives below the poverty line. It warrants examination of efficacy of the major safety net programmes for alleviating poverty. Section II shows how safety net and targeting has been conceptualized. Section III describes the relationship between microfinance and safety net. Section IV analyses the role of SGSY as a safety net.

II. CONCEPTUALISING SAFETY NET AND TARGETING

Social safety net is a non-contributory transfer programme taken by the government in order to prevent the vulnerable section of its population to fall beyond a certain level of poverty. Safety net programmes are usually designed with four principal purposes: to minimize ex-ante risks that households and

groups face, and their exposure to shocks; to help households mitigate risks by facilitating income smoothing; to promote movement out of poverty, e.g., through investments in human capital formation; and to provide direct support to the chronically poor. With the nature and cause of poverty, design and nature of social safety net programme varies. Poverty can be broadly classified into transient poverty and chronic poverty. The former refers to households that remain in poverty over time due to their low asset base. The latter refers to households that fall into poverty due to their inability to sufficiently protect themselves from shocks, whether anticipated or not. Dreze and Sen (1989) identified two distinct but interrelated roles for public policy to cope with these problems. The first is the promotional role, the elimination of chronic poverty by enhancing the asset base of households, and the second is the protective role, the prevention of households vulnerable to adverse shocks from entering into a spiral of poverty. It is now widely accepted that effective social safety nets are important components of any comprehensive poverty alleviation strategy.

Social safety nets have been designed with various objectives. Based on these objectives they could be classified into income transfers through cash, food related transfer programmes, prices subsidies, human capital related social safety nets, public works programmes, and micro credit programmes. Poverty reduction is typically seen to be the objective of targeted transfers in poor countries. "Poverty" is typically defined as the inability to afford specific consumption needs in a given society. To raise the living standard of the poor either government can target types of spending i.e. broad targeting or targeting categories of people i.e. narrow targeting. Spending on basic social services, such as primary education and primary health care, is one example of broad targeting. Rural development is another. In narrow targeting benefits are intended to be targeted directly to the poor. Some examples are food stamp schemes targeted to poor mothers, innovative microcredit schemes aimed at rural landless women, and development programmes that focus on poor geographical areas. Within each of these categories differences in how much the programme relies on administrative targeting and how much it depends on self-selection, based on behavioral responses to the incentives built into the programme. Each approach has benefits and costs to the poor and to others.

It is often claimed that narrow targeting of the poor will allow governments to reduce poverty more effectively and at lower cost. But narrow targeting has also hidden costs, and once these costs are considered, the most finely targeted policy may not have any more effect on poverty than a broadly targeted one. While targeting is a potential instrument for enhancing programme impact on poverty, the most targeted programme needs not be the one with the greatest

impact on poverty (Vande Walle 1998). This can happen when finer targeting undermines political support for the required taxation (Besley and Kanbur 1993, Gelbach and Pritchett 1997), or when targeting generates deadweight losses (Ravallion 1993).

One of the most widely used methods of targeting is to reduce welfare benefits as income rises. Although the need for such targeting is clear, it also entails two important difficulties. Firstly, the prospect for the recipients of losing part of their benefits, if they were to earn more can be a deterrent to work harder. Secondly, by reducing the number of recipients, targeting reduces the political support for taxation and redistribution. De Donder and Hindriks (1998) have shown that targeting may be fatal for redistribution though it rejects strictly less than the richest half of the population, and that it is not possible for a coalition of the extremes to form and reject the middle income group from the welfare system. Vande Walle (1998) has found that targeting can help, but it is not a cure-all. Reducing poverty calls for broadly targeted social sector spending combined with narrower targeting of cash and in-kind transfers to specific groups. It is also important for governments to experiment with schemes that offer better incentives, to carefully monitor the costs and outcomes, and to be flexible and pragmatic in their policy responses.

It should not be forgotten that the scope for efficient redistribution and insurance of safety net is constrained by the information available and administrative capabilities for acting on that information. Problems of information and incentives are at the heart of policy design. Ravillion (2004) prescribed the following antidotes to reduce this problem:

Indicator targeting: Transfers according to covariates of poverty, such as living in a poor area, age (both children and the elderly), and landlessness in rural areas.

Conditional transfers: One class of these programmes combines transfers with schooling (and sometimes health-care) requirements. An example is India's "Mid-Day Meal" programmeme

Community-based targeting: Community participation in programme design and implementation has been a popular means of relieving the informational constraint. Central governments delegate authority to presumably better-informed community (governmental or non-governmental) organisations, while the centres retain control over how much goes to each locality. Indira Awas Yojona (IAY) and National Old Age Pension Schemes (NOAPs) are some examples of community based targeting.

Self-targeting: The informational constraints on redistributive policies in poor countries have strengthened arguments for using self-targeting mechanisms. The classic case is workfare, in which only the poor impose work requirements on welfare recipients with the aim of creating incentives to encourage participation. An example is the famous 'National Rural Employment Guarantee Programme (NREGP) in India.

III. MICROFINANCE AND SAFETY NET

In this context it should be noted that access to credit to the poor people might be an efficient instrument for reducing poverty, particularly during credit market failure. Credit market failure implies that poor people are unable to invest in physical as well as human capital. Aggregate output is the sum of the individual outputs, each depending on own capital, which in turn determined by own wealth given the market failure. Therefore, aggregate output will ultimately depend on the distribution of wealth (Galor and Zeira 1993, Benabou 1996, Aghion and Bolton 1997). The output loss from the market failure will be greater for the poor if marginal productivity of capital decreases.

Uninsured risk can perpetuate poverty via production and portfolio choices. Several empirical studies have found costly behavioral responses to income risk in poor rural economies. Outmoded agricultural technologies can persist because they are less risky. Risk can induce poor credit-constrained households to hold high levels of relatively unproductive liquid wealth. If borrowing is not an option when there is a sudden drop in income, then liquid wealth will be needed to protect consumption. For example, Indian farmers have been found to hold livestock as a precaution against risk even though more productive investment opportunities are available (Rosenzweig and Binswanger 1992). Other potentially costly response to risk identified in the literature include adverse effects on human capital. Jacoby and Skoufias (1997: 311-335) analysed seasonal effects of income risk on schooling in "semi-arid" areas of India.

Credit from microfinance organisations plays a pivotal role in the daily life of households in rural Bangladesh. Pitt and Khandker (1998) find that access to microfinance significantly increases consumption and reduces poverty. Amin, Rai and Gupta (2003:59-82) find that poor households that join in a microcredit programme tend to have better access to insurance and smoothing devices compared to those who do not. Morduch (1998) and Pitt and Khandker (2002:1-24) find that microcredit can help to smooth seasonal consumption. Their results indicate that household participation in microcredit programmes is partially

motivated by the need to smooth the seasonal pattern of consumption and male labour supply (Islam and Maitra 2008).

Wright *et al.* (1999) in their study in Uganda have observed that financial services through microfinance system under joint liability can reduce vulnerability of the poor households. Women's human assets like self-esteem, bargaining power, control over household decision and skill improvement programme can help the rural households to reduce their vulnerability. Almost a similar type of study was done by Cohen (1999). She observed that microfinance service is helping the rural participating households to protect against risk ahead of time. Swain and Flora (2008) on the basis of longitudinal data, find out that SHG members have lower vulnerability as compared to a group of non-SHG members.

Most studies of microfinance programmes in the World indicate that the poor, and especially poor women, have been effectively targeted, and that microfinance programmes have been successful in opening up economic opportunities for their clients, increasing access to resources and contributing to their confidence and wellbeing. It is based on the notion that the poor are roughly equally poor in the poorest countries. It is now well established that even in the poorest countries, the differences in levels of living amongst the poor can be sizable. A lion share of the poor in the world is in absolute poverty. They are told hardcore poor. Studies, as well as impressionistic evidence, suggest that these hardcore poor generally remain outside the net of conventional microfinance programmes.

These hardcore poor remain out of the ambit of microfinance services for strict repayment schedule and disciplined group approach at the supply side. On the demand side, these poor self exclude themselves because they may not consider themselves to be "creditworthy," may not feel they have enough resources to generate sufficient incomes to pay back loans, and often lack the confidence to join credit programmes (Hashemi 2001). However, there are some programmes dedicated to deepen the outreach.

There are two basic models of linkage between MFIs and safety net programmes. In the first model, safety net programmes themselves develop basic financial services for their clients to help them better manage their livelihoods. The MFI simply coordinates with the safety net programme to recruit successful "graduates" as customers. The second model involves a more intense collaboration between an MFI and a safety net programme. In this model, the MFI works directly with safety net participants. The Rural Maintenance Programme (RMP) of Bangladesh and the Central Region Infrastructure

Maintenance Programme (CRIMP) of Malawi are two exponents of the first model, whereas the Income Generation of Vulnerable Groups Development (IGVGD) of Bangladesh, Towards Self Employment Projects (TESP) of Egypt and Swarnajayanti Gram Swarojgar Yojona (SGSY) of India are some examples of the second model. In the next section we critically analyse the role of SGSY as a safety net.

IV. SGSY AND SAFETY NET

4.1 Features of SGSY

The government directly participates in microcredit initiatives through introduction of Swarnjayanti Gram Swarozgar Yojana (SGSY) on 1 April 1999. The SGSY traces its roots to the Integrated Rural Development (IRDP) and its allied self-employment programmes and replaces all of them. While painstaking care has been taken in the SGSY guidelines to avoid the mistakes made in earlier programmes, some loose ends remain (Ghosh 2000). The SGSY scheme has been designed on three features: "joint liability," "progressive lending" and "back ended subsidy." Joint liability means if one member of the group defaults, entire group will be responsible for repayment. "Progressive lending" implies higher amount of future loans for successful repayment of existing loans. In West Bengal "Commercial Banks" interpret "back- ended subsidy" as follows: a part of the subsidy is retained by the "Bank" and release after repayment of entire loan. At the time of group formation, preference is given to local married rural women belong to socially and economically downtrodden communities. This is based on the belief that women are inherently less likely than men to default on loans due to their socialized compliance (Kabeer 2001), and they are more sensitive to such social sanction, particularly verbal humiliation than men (Kundu 2008).

The scheme tries to establish a large number of micro enterprises or businesses in the rural areas. The Below Poverty Line (BPL) households, identified through BPL census and approved by "Village Council," form the basis of identification of families for SGSY programme. Further, the programme aims to ensure appreciable and sustained income over a period of time. This objective is being achieved by organising the rural poor in Self-Help Groups (SHGs) that are the grassroots level organisations.

In some cases, 20 per cent of the Above Poverty Line (APL) families and in exceptional cases 30 per cent of the group members may belong to APL families, but these APL members of the groups are not permitted to hold the position of office bearer and not entitled to get subsidy. Fifty per cent of the group formed in each block should be exclusively for women who will account for at least 40

per cent of the Swarozgaries. This scheme is based on the joint liability principle through forming SHGs. The group is formed sometimes through selfselection mechanism and sometimes through the initiative of local Panchayat, NGO or District Rural Development Authority (DRDA) of the State Government (Kundu 2008). Initially, each member has to contribute some amount to her group corpus regularly. At least after six months from the formation of the group, each SHG has to appear in I-gradation test. The performance of a group depends on the average number of meetings arranged by the group in a particular month, regularity of the monthly contribution by all the members, regularity of the repayment of loans by the borrowing members, etc. This gradation test is conducted in order to minimize the adverse selection problem, which may arise when the borrowers have characteristics that are unobservable to the lenders and that may affect the probability of the loan repayment. Consequently, the group has to go through the II-graduation test, and ultimately become eligible to get subsidy. As groups pass different gradation tests, they become eligible to get higher amount of credit (progressive lending).

In West Bengal this scheme was introduced in April 2000. Under this scheme 1,867.514 million rupee has been disbursed in 2011-2012 (till December). The total number of SHGs under this scheme is 337,599. Out of this total SHGs, 287,362 are women-SHGs, 282,640 SHGs passed Grade-I and 964,79 passed Grade-II. Some of these groups have identified the economic activity, while some are still in the process of inter lending and finalising bank linkages. The economic activities suggested by the "village council" or identified by the group itself have not attained the level of proper income generation. The scheme has been able to uplift only 4,861 BPL families. Therefore, in West Bengal the SGSY programme is far from its avowed goal of lifting the poor above the poverty line.

At "All India" level the performance is also not satisfactory. The programme is going on in all the 29 states and seven union territories. To review the credit related issues Ministry of Rural Development, Government of India, appointed a high level committee chaired by professor R Radhakrishna. As per the report of the committee on "Credit Related Issues under SGSY 2009," nearly 3.1 million SHGs were formed over a period of ten years since 1999-00. Out of them, 2 million obtained the status of Grade I and .95 million Grade II. But only about .7 million SHGs could obtain credit for undertaking economic activities. Thus the proportion of SHGs taking up economic activities financed by bank credit and supported by subsidy was only 22 per cent. Social composition of the assisted

swarojgaris was in favour of the most vulnerable groups, such as scheduled tribes and scheduled castes, which accounted for nearly half of the assisted swarojgaris in 2007-08. Women accounted for 66 per cent, disabled two per cent and minorities 8.4 per cent. Most of the assisted SHGs were engaged in primary sector with little diversification in their livelihood base. Even in the better performing State of Andhra Pradesh, the income gain to a swarojgari from enterprise activities under SGSY was a mere Rs.1228 per month (Purushotham 2008). The target for credit under SGSY increased very moderately from Rs.32,050 million in 1999-00 to over Rs. 37,440 million in 2007-08 at current prices. Credit actually mobilized was only Rs.1,0560 million in 1999-2000 and rose to Rs.2,7600 million in 2007-08 but still much below the target. There are lacunas in the links for marketing, identifying key activities, capacity building, raw materials, designing of products and pricing policy and hence, the SHGs are not earning enough.

4.2 Sampling Scheme

The District of Murshidabad, West Bengal, has been chosen as the field of study. According to the Census-2001, the district is most densely Muslim populated district in the country. Indicas Analytics, a research firm, has assessed that the district is one of the most backward districts in the country. Therefore, it is also interesting to observe whether benefits of a government subsidised microfinance programme like SGSY have been percolated at receiving ends of a backward and religious minority prevailing district of the country. In the District of Murshidabad, there are 5 Sub-Divisions, 26 Blocks, 256 Grampanchayats¹ and 2,290 Mouzas.² In order to grasp the ecological variation in the study, we have chosen Kandi Sub Division, part of "Rarh Bengal," and Berhampore Sub Division, part of Ganges delta. Households are sampled in villages that are with and without the SGSY programme. In programme villages⁴ both the programme participants and non-participants are sampled. The sampling was done from the detailed list of Self Help Groups (SHGs) provided by the District Rural Development Cell (DRDC). Thirty groups, each having two years age, were chosen from each Sub-Division. Five members from each group were chosen randomly and interviewed. Each group consists of 10 to 15 members. Therefore, a total of 300 SHG members were interviewed. Seventy individuals having the

¹ Lowest tire of the three tire 'Panchayati Raj System'.

² Lowest land revenue collection unit.

³ Lies between the Western Plateau and high lands (Bordering Chhotanagpur Plateau and Ganges Delta).

⁴ Those who participate in the SGSY programme

same socio-economic background as SHG members' from the programme villages of each region were interviewed. Similarly, 30 individuals from the nonprogramme villages of each Sub-Division were interviewed. Initially, it was done in 2006. The survey started from January and ended in July to minimise recall period about their pre- SHG participation socio-economic situation. As all the SHGs are two years old, pre-SHG year implies 2004. In 2006, the sample contains 122 Muslim SHG members and 60 SHG members were interviewed for each of the other three SRCs. All these individuals were resurveyed in 2008. During this period 23 SHG members have left the group, whereas 8 individuals who were non-SHG members became SHG members in programme villages in 2008. Therefore, in 2008 we have 277 individuals who are SHG members and 132 individuals who are non-SHG members in programme villages and 60 non-SHG members from non-programme villages. Programme villages in Kandi Sub-Division are Salar, Raigram, Agardanga, Alugram and Masla, whereas Villages in Berhampore Sub-Division are Bazarsau, Kamnagar, Saktipur, Mirzapur and Simuldanga. Non programme villages in Kandi Sub-Division and Berhampore Sub-Divisions are Berbari, Bhabanipur, and Ibrahimpur and Sonar Gram respectively. An overview of sampling across subdivisions is presented in Table I.

TABLE I
OVERVIEW OF SAMPLE SIZE ACROSS SUB-DIVISIONS

District: Murshidabad Sub Divisions Covered	No. of Villages with SGSY programme Covered	No. of Villages without SGSY programme Covered	under cove Progr	f SHG SGSY red in amme ages	Men Under Gro Cove Progr	f SHG nbers SGSY oups red in amme ages	Men Cove Progr	SHG nbers red in amme ages	Men Cove No Progr	SHG nbers red in on- amme ages
			2004	2008	2004	2008	2004	2008	2004	2008
1. Kandi	5	2	30	30	150	140	70	65	30	30
2. Berhampore	5	2	30	30	150	137	70	67	30	30
Total	10	4	60	60	300	277	140	132	60	60

4.3 How Does SGSY Act as a Safety net?

SGSY programme acts as a safety net by minimising ex-ante risk by cheap credit, generating savings and social capital, promoting movement out of poverty through investment in human capital formation and providing direct support to the economically active poor in the form of "Back-Ended" subsidy.

Cheap Credit, Savings and Social Capital

Risk can be broadly classified as idiosyncratic risk and covariate risk. Among idiosyncratic risks, health hazard is the dominant problem, followed by death of the household head and death of the others faced by the households in the survey area. Under covariate risk flood dominates followed by draught, live stock epidemic and pest attack. Health and health related expenditures, large customary expenditure on marriages, death feasts and high interest private consumption credit are the principal reasons to decline into poverty for transient poor. In the survey area health and health related expenses are mentioned as critical in 78 per cent cases for declining economic status. Death feasts and large marriage expenses are significantly involved in 71 per cent and 59 per cent cases respectively. The impact of idiosyncratic shocks is crucially dependent on the ability of the households to insure against such shocks. In particular, the literature focuses on the role of credit, savings, other assets and social networking. Gertler and Gruber (2002), Jalan and Ravallion (1999) and Besley (1995) all reach essentially the same conclusion: wealthier households are better able to insure against income shocks. This implies that financial institutions could have an important role to play in insuring consumption against income shocks. Unfortunately, commercial financial institutions in developing countries are, more often than not, weak and do not adequately service the poor. These institutions are typically not conveniently located, have substantial collateral requirements and impose large costs on savings (Morduch 1999). In contrast, microfinance institutions hold substantial promises. The micro finance programmes are typically targeted to the poor (and the near-poor), do not impose significant physical collateral requirements and actively promote savings (Islam and Maitra 2008). However, individuals had to borrow a significant portion of their credit from private money lenders.

TABLE II SOURCE OF CREDIT FOR SHG MEMBERS UNDER SGSY

Source of credit Year	Formal	Informal	Formal and informal both
2004	15	78.8	6.2
2008	20.8	0	79.8

During 2004 i.e. pre- SHG situation informal lenders were the sole source of borrowing for 78.8 per cent of the swarojgaris (Table II), whereas 15 per cent of

the swarojgaris borrow from an institutional source only, and the 6.2 per cent swarojgaris borrow from both institutional and informal sources. The informal source includes private money lenders, friends and relatives.

TABLE III
DIFFERENT INTEREST RATES CHARGED BY THE MONEY LENDERS

Nature of collateral	Without Collateral	Gold	Silver or Brass
Interest rate (%)			
Interest rate (2004)	84-90	48-60	60-72
Interest rate (2008)	70-80	30-36	40-45

Source: Calculated from field investigations.

In the pre- SHG situation, depending on the collateral, moneylenders charge exorbitant interest rate. Moneylenders lend money to the people without any collateral at the rate 84 to 90 per cent interest rate (Table III). If the collateral is gold then interest rate lies between 48 and 60 per cent, and if it is 'silvers and other thing' then interest rate varies between 60 and 72 per cent per annum. In the post- SHG situation the interest rate declined to 70-80 per cent, 30-36 per cent and 40-45 per cent respectively for the above mentioned three cases. Therefore, SGSY scheme has made credit cheaper from the informal sources too. SGSY programme participants also get cheaper credit from formal agencies like DRDC. Another way of mitigating ex-ante risk is to strengthen social capital. The free flow of information within the village and among SHG members may play a crucial role in insuring against risk. SHGs also respond to many types of risk by transferring income from one household to another, through intra household transfers of individual members of the households, and through indigenous insurance mechanisms and community institutions that help vulnerable groups within the communities. In the "Eleventh Plan" SGSY guideline clearly advocates insurance to cover death, disability illness and asset loss, pensions to cover old age and disability, and social safety net to cover the shortfall of income due to periodic crises. Proposal of pension has already been put in place by the government.

The village level federation may tie-up with the insurance company for getting life insurance coverage. The guideline has mentioned about schemes like "Janashree Bima Yojana" or "Aam Aadmi Bima Yojana" which provides low premium rates coupled with high sum assured in the event of death or permanent or partial disability. The guideline has also talked about health insurance but that will be realised only after the formation of "District Level Federations."

Human and physical capital

The SGSY identifies key activities in each block and makes the provision of the complete range of development support which includes market survey, credit, technology, training leading to skill up gradation and establishment of forward and backward linkages (SGSY guidelines, MORD June 2003). These activities should be selected on the basis of local resources, the aptitude and skill portfolio of swarojgaris and ready market for the products. The guidelines did advise to seek expertise and help from as many line departments in the Block. The involvement of line department depends largely on the local resources, scope of generating self-employment and technical knowledge of the swarojgaris. In the survey area involvement of "Animal Husbandry" and "Horticulture" were prominent. The programme guideline also made provision to seek expert opinion from the professional organisation for the formation of SHGs, social mobilisation and training of the swarojgaris. Though the SGSY guideline advocates multiple activities but "programme participants" take a few activities. It is evident from Table IV that 43 per cent of the swarojgaris (programme participant) took up dairy and poultry, followed by land leasing (19 per cent), paddy husking (13.8) per cent), weaving bamboo baskets (7.2 per cent), petty trade (5.5 per cent) fallen hair (4.5 per cent) selling fish (4.2 per cent) and raring pig (2.8 per cent). Respondents choose these because these activities are based on the local resources, availability of backward and forward linkages, easy liquidity options and beneficiaries' aptitude skill level and risk perception. In the survey area 41.7 per cent swarojgaris had no pre-project economic activities. Others are engaged in their caste or religion based professions, for example, most Muslim women are engaged in paddy husking, Schedule Caste women are engaged in selling fish, rearing pigs, and a large number of women from milk-man community are engaged in dairy.

TABLE IV ACTIVITIES TAKEN BY SHG MEMBERS UNDER SGSY SCHEME

Activities Taken by SHG Members	Percentage
Dairy and Poultry	43
Land Leasing	19
Paddy Husking	13.8
Weaving Bamboo Baskets	7.2
Petty Trade	5.5
Fallen Hair	4.5
Selling Fish	4.2
Rearing Pig	2.8
Total	100

Source: Calculated from field investigations.

Training swarojgaris for entrepreneurial capacity is an integral part of SGSY programme. This feature was absent in erstwhile Integrated Rural Development Programme (IRDP). Through one or two days basic orientation programme, the SGSY programme tried to impart training for enhancing functional as well as entrepreneurial skill. Through this programme SHG members become familiar with the objectives, responsibilities, elements of book keeping, knowledge of marketing, acquaintance with costing and pricing and dealing with the bank. However, activity wise analysis in the survey area indicates that in the case of dairy and poultry 81 per cent of the swarojgaris get skill development training. In other activities no skill development training was imparted. Interview with swarojgaris reveals that only 21 per cent swarojgaris have bookkeeping skill. Among them, 43 per cent belong to Upper Caste (UC) Hindu, 39 per cent belong to (OBC), 11 per cent belong to the Muslim Community and 7 per cent belong to SC communities.

The viability of self-employment crucially depends on understanding the market and launching product accordingly. Each initiative of SHG members has to be preceded by market appraisal. Expert opinion from the external agencies regarding marketing strategy gives a boost at the viability prospect of swarojgari's project under SGSY. The SGSY has also advocated networking of SHGs as an enterprise development strategy. There is a huge market potential for SGSY products if intra-SHG sales were encouraged and promoted. Through networking SHG members can share their problems and evolve strategies to ward off those problems and can act as an entity to bargain with other organisations. Government administration in several parts of the country helps swarojgaris to build very profitable initiatives by integrating them with different development projects of the government. However, in the study area it is observed that this networking exists for the trading of "falling hare", dairy and poultry. The scheme has also made room for building synergies through linking SHG projects and public programmes. For example, food canteen run in the State Transport Department in Kerala, dispatch of official letters in Tamil Nadu and supply of food for social welfare hotels in Orissa. In West Bengal SHGs have been engaged in the midday meal scheme. Besides, DRDC and state level development departments made provisions for marketing of SHG products at district, state and national level through organising exhibitions cum sale (National Study on SGSY, NIRD, 2006).

Back Ended Subsidy

Banks in West Bengal have chosen to interpret the provision of 'back-ended subsidy' in the following way: When the SHGs become eligible to the credit facility from the banks, the latter does not release the full amount but keep back

the subsidy part as a collateral for the credit (Banerjee and Sen 2003). In diverse population where social capital is not very strong or group corpus is not very high, back-ended subsidy can ensure repayment of a loan (Mukherjee and Kundu 2008). The department of rural development is implementing SGSY scheme, under which rural poor are organised into SHGs, assisted in capacity building and provided financial assistance to set up economic activity through a mix of credit and subsidy (Mehrotra and Mander 2009). In the "Eleventh Plan" SGSY guideline, it has been envisaged that subsidy would be given to those groups who go in for economic activity as per the procedure in the existing scheme. There will be two types of subsidy, firstly, at the individual level for the BPL beneficiary to enhance his corpus and be in a position to compete with others for a certain minimum level of credit, and secondly for common infrastructure for economic activity so that the basic viability of the activity is ensured. For individual swarojgaris, subsidy under SGSY will be uniform at 30 per cent of the project cost, subject to a maximum of Rs.7,500. In respect of SC/STs, however, these will be 50 per cent and Rs.10,000 respectively. For group swarozgaris (SHGs), the subsidy would be at 50 per cent of the project cost subject to per capita subsidy of Rs.10,000 or Rs.1.25 lakh, whichever is less. There will be no monetary limit on subsidy for irrigation projects (SGSY guideline MORD, GOI). In the Tenth Plan total investment was Rs. 123,630 million, of which Rs. 82,290 million was disbursed as credit, and Rs. 40,340 million was disbursed as a subsidy. These elements of subsidy and cheap credit make this scheme lucrative to even non-poor borrowers. Non-poor borrowers pretext to be poor borrowers, and participate in the SGSY programme. To safeguard the interest of the poor borrowers there are certain provisions in the scheme like non poor borrowers will never be able to hold key positions in the group like president, secretary and treasurer etc. Only poor borrowers will get the subsidy. However, we should note that the poor are not homogeneous in nature. Working poor might have higher productivity to repay the credit, but very poor, who do not have any technical or entrepreneurial skill, might not thought themselves capable to repay the loan, and do not participate the SGSY programme. Section 4.4 finds those factors that determine the likelihood of participation in the SGSY programme.

4.4 Determinants of SGSY Participation

Several socio-economic factors determine the participation of an individual in SGSY programme. The participation rule followed by an individual is specified in equation (1) where the decision to participate, P_i , by an individual is specified as a function of

$$P_i = f(X_i, Z_i, Y_i, R_i)$$
(1)

 P_i is a binary variable. If any member of the i^{th} household joins or forms group in the base line time period under SGSY programme, then P_i takes value 1 otherwise zero (for the non-member households). X_i is a vector of social networking, Y_i describes the variables of social intermediation and Y_i stands for control variables. Control variable gathers information regarding household. R_i is index of perceived risk of repayment failure. A linear specification of equation (1) would be:

$$P_i = \alpha + \beta X_i + \gamma Z_i + \delta Y_i + \mu R_i + e_i \tag{2}$$

As Sharma and Zeller (1999) rightly point out that it is in principle very difficult to identify all the explanatory variables separately. In equation 2 it is very difficult to find variables that will affect social intermediation but not perceived risk of repayment failure or social networking. It would be more practical to treat coefficients of X Z Y R to be common and represented by the vector W_i , as:

$$P_i = \alpha + \sum vW_i + e_i \tag{3}$$

where ν is the combined effect of four determinants of SGSY participation. A priori expectations on the sign of ν are difficult to assume unless β γ δ μ are of the same sign. It is possible, however, to make inferences based on the signs of the estimated coefficients on the relative strength of some subset of variables.

W_i contains the following variables.

Number of years living in the same locality: We postulate that the members of a locality know each other better and develop social ties with the passage of time. As groups are formed among homogeneous borrowers i.e. safe borrowers form group with safe borrowers and unsafe borrowers with unsafe borrowers, therefore, it is expected that long habitation in locality enhances the probability of participation in the programme.

Index of women's access to public offices and processes of political activities: ⁵ Women's access to public offices and processes of political activities imply casting vote at own will, attending "Village Council" meeting, whether know about the legal rights of the women and different government programmes and schemes going on at their locality, and participation in political campaign. Therefore, as the index of Individual's access to public offices and processes of

⁵ Index of women access to public offices and political process has been constructed on the basis of five questions. For each positive response the respondent will get one and for each negative response the respondent will get zero in the 0-5 scale. The total score will be divided by

political activities increases, likelihood of participating in the SGSY also increases.

Index of household's social capital:⁶ Household social capital is computed as involvement of the household members in different organisations like Village Education Committee (VEC), Water Users Associations, Festival Committee. Local Clubs and political parties. A priori expectation is positive between participation in SGSY and index of Households social capital.

Education Level: Mean education level of the adult women has been taken as the explanatory variable. Here education level of the prospective participant is considered and that is expressed as number of years in school. Here we expect a positive relationship between education level and SGSY participation.

Education Level²: Here we take square value of education to see whether there exists any non linear relationship between education level and likelihood of joining SGSY.

Religious Status: In our study, respondents can be stratified in four Socio Religious communities (SRCs) viz. Upper Caste Hindus (UCs), Other Backward Castes (OBCs), Scheduled Castes (SCs) and Muslims. Here Muslims mean General caste. It is expected that compared to the reference category other SRCs would have higher chance of participating in the SGSY.

Wealth of the household:⁷ It is expected that with higher level of wealth there will greater probability of SGSY participation.

Wealth of the household²: Square value of the wealth has been taken as independent variable to see whether there exists any non-linear relationship between wealth and likelihood of SGSY participation.

Gender of the Household: It is expected that women-headed households have high probability of participating in the SGSY programme. It is treated as dummy variable and takes the value 1 if the household of the prospective member is woman, and otherwise zero.

Occupation of the household head: We postulate that if the occupation of the household head is non agriculture like petty trading, then there is greater likelihood to participate in SGSY programme.

Most of the programme participants are agricultural labourers, petty trader and marginal farmers. They do not have any regular flow of income. So wealth has been taken as proxy of economic status. There is a high correlation between income and wealth.

⁶ Here also index is based on five questions. One point is obtained for each 'yes' and zero otherwise. Each question has equal weight. The total score will be divided by

Index of perceived risk of repayment failure⁸: This index has been constructed on the basis of respondents answer over issues like: (a) incidence of idiosyncratic shocks, health hazards, death of the family members etc; (b) Covariate shocks, drought, cyclone, flood, etc., in last two years; (c) number of repayment failure to money lenders and banks; and (d) number of dependent family members in the households.

V. RESULTS AND DISCUSSIONS

A summary of the estimated logic equation is given in Table V. "Number of years living in the same locality" has no significant impact on the decision of participation. Living in the same place for a long time makes people familiar in their locality. Therefore, the result is not in the line of our expectation.

"Access to public offices and involvement in political processes" has strong and significant positive impact. Higher value in this sphere can motivate a woman to join in SGSY. Interacting with the people outside the domestic sector makes them confident to take a minor venture like self enterprise.

"Social capitals of the households" also have a statistically positive significance on the participation variable. Women of the households, which are socially well connected, feel comparatively free to come out of their households and participate in the "programme."

"Years of schooling" has a significant relationship with the likelihood of programme participation. From Table V it is evident that initially with higher level of schooling chance of participating in the programme enhances, but higher level of education increases the opportunity cost of time. Therefore, better-educated people do not assess the programme much worthwhile. As a result education level and SGSY participation have inverted U shaped relationship. The trend is alike for 'household wealth' also. We also find an inverted U shaped relationship between wealth level and the chance of programme participation.

Among SRCs, "UC" has less likelihood of participating in SGSY programme compared to reference category, but SCs and OBCs have significant likelihood of

observedrvalue – min *imumvalue*

max *imumvalue* – min *imumvalue*

After obtaining a score for each question, a simple average is taken as the value of the index.

 $^{^{8}}$ Here all questions have equal importance. For each question, score is obtained by the formula

joining SGSY. A sizeable section of the women of SC or ST community is engaged in their caste or community based professions. These women have higher willingness to participate in the group.

"Index of perceived risk of repayment failure" has a very strong negative influence on the participation in SGSY. If households feel that they are unable to repay the loan, then there will be lower likelihood of participating in the programme.

Remaining factors do not have any significant impact on the likelihood of participating in the SGSY programme. As the above analysis shows that there is an inverted 'U' shaped relationship between wealth and probability of participation, the programme might not have been able to target the poor efficiently.

TABLE V
FACTORS DETERMINE HOUSEHOLD
PARTICIPATION IN SGSY

Serial	Variables	В	Standard Errors	E (B)
Number				
1.	Number of years living in the	. 0551	. 3885	1.0522
	locality			
2	Index of Women's access to	. 3585**	. 1691	1.2442
	public offices			
3	Index of Social capital of the	. 3217**	. 1438	1.4221
	households			
4.1	Years of Schooling	. 1491*	. 0549	1.1619
4.2	Years of Schooling ²	3028*	. 06	. 7291
5	SRC (Ref: Muslim)			
6.1	UC	. 0828	. 0552	1.0831
6.2	OBC	. 2658*	. 0632	1.3048
6.3	SC	. 1446*	. 0486	1.1463
7.1	Wealth	. 7324**	. 3488	1.6419
7.2	Wealth ²	8773*	. 2816	. 8127
8	Gender of the household head	. 0392	. 0429	1.041
9	Occupation of the household	. 1484	. 0561	1.1518
	head- Non Agl			
	(Ref: Agl)			
10	Index of perceived riskiness of	327*	. 04	. 9671
	repayment failure			
11	Constant	. 4753	. 6853	1.6230

Notes: Cox and Snell R square 0.554, Nagelkarke R square 0.607.

5.1 Targeting Efficiency

Efficacy of safety net programme depends on targeting the desired beneficiaries. The scheme was designed to provide economic assets to poor families so that they can generate income on a sustained basis and cross poverty line. All members of the group should belong to families below the poverty line.

^{**} and * denote 5% and 1% significance level respectively.

However, if necessary, a maximum of 20 per cent and in exceptional cases, up to a maximum of 30 per cent of the members in a group may be taken from families marginally above the poverty line living contiguously with BPL families and acceptable to the BPL members of the group. It will help the families of occupational groups like agricultural labourers, marginal farmers and artisans marginally above the poverty line, or who may have been excluded from the BPL list to become members of the SHG.

Most of the targeted poverty programmes in India have not been able to deliver the desired level of outcome. Only a small fraction of the resources allotted in these schemes reach the poor due to inefficient delivery mechanism i.e. targeting inefficiency, leakages, participation cost and large administrative cost. Targeting error arises due to exclusion of eligible households as well as inclusion of ineligible households. The first one is known as Type-I⁹ error and the last one is known as Type-II¹⁰ error. Here we have classified the entire respondents belonging to the "extremely poor," "marginal," "vulnerable," "middle income" and "high income" groups if the monthly per capita expenditure (MPCE) of their household is below a specified limit. In classifying the respondents in terms of poverty status, we have followed the methodology used by Sengupta, Kanan and Ravendran (2008).¹¹

⁹ SGSY programme is designed for the economic improvement of the poor through generating self-employment and social mobilisation. The programme is targeted in nature, and if most of the programme participants belong to non-poor section, then the poor gets excluded. Exclusion of this eligible from the programme is called type-1 error.

¹⁰ Benefits of back ended subsidy and post of president or treasurer of a SHG can be enjoyed by BPL members only, but the status of a SHG member depends on what type of ration card she is holding irrespective of her actual economic status. If a non-poor member has a BPL ration card, then she is eligible to be included in the programme. This is known as type-II error.

¹¹ Sengupta *et al.* (2008) have classified people as "extremely poor," "marginal," "vulnerable," "middle income" and "high income" groups if the monthly per capita consumption expenditures (MPCEs) are less than or equal to Rs. 269, 348, 438, 609, 1098, and 2,776 respectively. This categorisation is based on the data set available from the surveys of National Sample Survey Organization on employment-unemployment and consumption expenditure in 2004-05. The poverty lines as applicable to data set available from the Employment Unemployment Survey (EUS) turn out to be RS. 346.2 for rural areas. But to get parity with the estimate of the poverty line from the consumer expenditure survey (CSE), some adjustments were also made to the estimate of the poverty line from EUS. The adjusted poverty line becomes Rs 348 per capita consumption expenditure per month. Classification of people among different economic classes is based on some specified multiple of this poverty line.

From Table VI it is evident that none of the SGSY beneficiary is from "extremely poor" strata. Either they have excluded themselves on the assumption that they do not have enough capability to generate income to repay the loan; or other SHG members think that inclusion of the poorer people will enhance their risk of default of loan. Only 13.4 per cent of the SGSY beneficiaries belong to poorest quintile. Most of the beneficiaries belong to "marginal" and "vulnerable" categories. Therefore, in the survey area the SGSY programme has not been able to reach among the poorest people.

TABLE VI
PER CENTAGE OF SGSY BENEFICIARIES BY POVERTY STATUS

Poverty Status	Percentage of SGSY Beneficiaries
Extremely Poor	0
Poor	13.4
Marginal	36.6
Vulnerable	34
Middle Income	10.5
High Income	5.5

Source: Calculated from field investigations.

Proper identification of vulnerable people is most crucial for proper allocation of scarce resources through government interventions. The actual targeting instrument varies considerably across programmes. Targeting is further complicated if any programme uses a combination of targeting instruments. For instance, while SGSY schemes are primarily meant to benefit BPL cardholders, minimum participation by STs or SCs and women are further specified. Table VII shows that 10.3 per cent of the "swarojgaris" of the "poor" strata do not have BPL cards, whereas 54.5 per cent of the "high income" swarojgaris have BPL cards. SGSY programme earmarked certain provisions so that richer people cannot push the poor at the periphery and corner the lion share of the benefits, which are meant to poor. From Table VII it is revealed that in the survey area the SGSY programme has not been able to target the beneficiaries efficiently. It suffers from both Type-I and Type-II errors.

TABLE VII
PER CENTAGE OF SGSY BENEFICIARIES HAVING
DIFFERENT RATION CARDS

re of Ration APL BPL No C

Nature of Ration	APL	BPL	No Card
Card Poverty Status			
Poor	10.3	72.4	17.3
Marginal	17.9	67.9	14.2
Vulnerable	23.6	62.6	13.8
Middle Income	18.3	66.8	14.9
High Income	25.6	54.5	19.9

Source: Calculated from field investigations.

VI. CONCLUSION

The paper shows that there are certain provisions in the SGSY scheme like providing cheap credit, generating savings, forming social capital, investing in human and physical capital, and distributing back-ended subsidy to restrict the decline of transient poor or to uplift the chronic poor from below the poverty line. However, these recommendations remain confined in papers only. Seriousness puts into designing the programme has not been reflected in implementing the programme. The paper further shows that none of the programme participants come from "extremely poor" strata. Most of the programme participants belong to "marginal" or "vulnerable" category, i.e. transient poor. People from "extremely poor" strata feel that if they get credit from SHG, they will not be able to repay the loan. Therefore, the "programme" has not been able to target the very poor. As the SGSY programme participants get cheap credit and subsidy, non-poor people pretext as poor. To eliminate this adverse selection problem, the Government of India has introduced "Below Poverty Level (BPL)" card for identification of the poor. Subsidy of the "programme" is meant for only the BPL card holders. But, a sizeable section of the BPL card holders in India is non poor, i.e. though the programme was intended for the poor, but a significant portion of the benefits is appropriated by the non-poor section.

Some important policy conclusions follow from our study. In the survey area health and health related expenses were mentioned as critical in 78 per cent cases for declining economic status. It implies more accessible and more accountable health care facilities might be a core element for reducing poverty in this region. To reduce covariate risk, micro credit should be integrated with insurance like crop insurance, livestock insurance, etc. To bring the "extremely poor" in the

credit net, there should be some "tailor made" financial schemes that will suit their financial needs. The success of any targeted programme depends on the identification of eligible beneficiaries. Programme meant for the poor use "BPL Card" for identification of the poor, but as non poor too hold the "card", there should be major overhauling in existing policies of distributing "BPL Cards." In analysing the role of SGSY as a safety net, we, however, recognise that four years are not sufficient to measure the role of the 'programme'. We further acknowledge that all these conclusions are based on a survey in a district, and the conclusions cannot be generalised for the entire country. Future studies in this area may cover large area and find better proxies for targeting efficiency.

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