

## Short summary of Dissemination Notes from South Asia Agriculture GP

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### South Asia Agriculture and Rural Growth Impact Note Series

South Asia Agriculture and Rural Growth Impact Note Series seeks to disseminate research and analysis focused on World Bank financed rural, agriculture and food systems programs in India.

1. What is the impact of women Self Help Group (SHG) programs on 'bottom up' political participation at the grass roots level? Results from the impact evaluation of one such long running program – Pudhu Vaazhvu Project (PVP) in Tamil Nadu indicate: significant improvement in women's participation in the gram Sabha by doubling attendance; significant increase in speech and floor time; increased social capital and women's sense of political efficacy and identity; and no evidence that improved participation leads to improved agenda setting power of women, nor of eliciting a response from government officials.  
<http://documents.worldbank.org/curated/en/374801571804731877/Are-we-listening-Results-from-a-World-Bank-Study-on-the-Effects-of-SHG-s-on-Deliberative-Political-Institutions>
2. Can targeted participatory community rural livelihoods programs that work in partnership with local governments improve the welfare of the poor, empower women and improve public action? An impact evaluation of one such program in rural Tamil Nadu targeted at vulnerable groups (historically disadvantaged castes, landless households and women) shows significant increase in consumption expenditure and skilled employment within these groups. Across the project area, the program significantly reduced the incidence of high cost debt and improved diversification of the household livelihoods portfolio. Women's empowerment within the household, measured by the ability to influence intra-household decision making, improvements in PVP areas and self-reports by women of a greater say in decisions such as purchase of household durables, children's education and livelihoods activities. The program also improved women's political participation in gram sabhas (village assemblies) and increased interaction with local government.  
<http://documents.worldbank.org/curated/en/831621571805270170/Enhancing-Women-s-Empowerment-Evidence-from-Tamil-Nadu>
3. Climate change is expected to increase the incidents of extreme weather patterns such as cyclonic storms. Large parts of the developing world including the Bay of Bengal region remain particularly vulnerable to adverse effects of such climate phenomenon. Odisha is located in one of the most disaster-prone areas in the Bay of Bengal region with geographical features exacerbating strong winds into catastrophic storm surges. More than 80 percent of its 46 million population lives in rural areas, and it ranks amongst the most impoverished areas in the region with low levels of women's welfare. As of 2017, the Human Development Index (HDI) of Odisha is 0.599, well below the national average of 0.639 but an improvement over the 2004 value of 0.482. Cyclone Phailin made landfall in Odisha on October 11, 2013 with wind velocities of 205-220

kilometers per hour on landfall (higher than the 200 kmph velocity of Hurricane Katrina). The cyclone affected approximately 256,000 households and 1.3 million hectares of agricultural land. It also led to one of the largest emergency evacuations on record, with over a million people moved to shelters. Post disaster reconstruction and rehabilitation costs were estimated to be 1.45 billion USD.

<http://documents.worldbank.org/curated/en/655211571805826079/Weathering-the-Storm-Role-of-SHG-in-Mitigating-the-Impacts-of-Natural-Disasters>

4. India has among the highest rates of child malnutrition worldwide, with Bihar one of the worst affected states. With the intent of combating food insecurity, the Government of India (GoI) and the state Government of Bihar (GoB) offer a Food Security Fund (FSF) via the Bihar Rural Livelihoods Promotion Society. The program has proved successful in giving rural women agency to ensure food security for themselves and their families. The scheme is most effective in reaching the poorest households when local committees procure the most affordable grains.  
<http://documents.worldbank.org/curated/en/242561571814658041/Combating-Malnutrition-Can-Group-Procurement-be-Equitable-Results-from-a-Food-Security-Program-in-Rural-Bihar>
5. In 2006, when the Bihar Rural Livelihoods Project was launched, the state's rural poverty ratio was 44.6 percent - 36 million of the total 82 million people in Bihar were living in poverty. Bihar is India's third most populous state with 8 percent of the total population but ranks lowest on the human development index (HDI). Rural communities in the state are often beset by pervasive social inequalities and caste and gender hierarchies. Simultaneously, Bihar has also had a long history of progressive movements that constantly challenged upper caste hegemony. However, these movements have had limited success in address gender inequality - Bihar ranked lowest on the Gender Equality Index with lower caste women facing double subordination. Overall, rural Bihar was characterized by weak service delivery, complex political and social dynamics, limited inclusion of the poor into institutions, few economic opportunities, and a frail development infrastructure. It was in the midst of this that JEEViKA was piloted and implemented.  
<http://documents.worldbank.org/curated/en/528581571807217865/Challenging-Cultural-Conventions-Qualitative-Evidence-from-Jeevika>
6. Bihar has historically been one of India's most impoverished states. The poverty headcount for Bihar was 53.5 percent in 2009-10, almost double that of the national index of 29.8 percent. In 2007-08, Bihar ranked 21st amongst 23 Indian states on the Human Development Index (HDI), with a value of 0.367, significantly below the national value of 0.467. GDP growth for Bihar in the same period, however, was 9.65 percent, as compared to the national rate of 8 percent. Approximately 89 percent of Bihar's 104 million people live and work in rural areas. Most are subsistence cultivators with fragmented landholdings. The high GDP growth in Bihar does not translate into substantial economic gains for its impoverished population, most of whom live in rural areas. The high poverty rate has particularly dire implications on marginalized groups such as lower castes and women. In Bihar, the sharp caste segregation implies a considerable correlation between being impoverished and being low caste. In an

average Bihar village, low caste populations live in a separate hamlet inside the village.

<http://documents.worldbank.org/curated/en/268451590646314944/Measuring-Empowerment-JEEViKA-s-Success-in-Empowering-the-Women-of-Rural-Bihar-Results-from-a-Retrospective-Survey>

7. Across Indian society, the hierarchical stratifications based on caste, class and gender determine an individual's status, opportunities and outcomes. However, there is contentious debate about how each of these powerful identities interact and shape the socio-economic prospects of an individual. Historically, through its emphasis on family status, caste played a pivotal role in restricting the autonomy of women, where prescriptive rules of pollution and purity demanded that women remain within the confines of the household. These normative patriarchal codes have been observed more stringently among high-status caste groups, while women from lower status castes suffer fewer restrictions on mobility and decision-making autonomy and have higher labor force participation. Among the more impoverished households, the relative freedom of women who worked outside the home was regarded a necessary evil. Sociological literature has documented the process of Sanskritization where upon economic advancement lower castes emulate the customs of the upper castes in order to enhance their social status.  
<http://documents.worldbank.org/curated/en/687101590647049640/Caste-Gender-and-Jati-An-Intersectional-Analysis-Aimed-at-Better-Targeting-Poverty-Alleviation-and-Women-s-Empowerment-in-Bihar-Orissa-and-Tamil-Nadu>
8. The Social Observatory Team at the World Bank conducted an impact evaluation of TRIPTI (Targeted Rural Initiatives for Poverty Termination and Infrastructure) in order to measure the effect of the project on the socioeconomic welfare of participating households. The project was successful in increasing membership to Self Help Groups (SHGs) that form the core of the participatory livelihoods approach. There were significant improvements in share of household consumption spent on women and children's goods, as well as on healthcare. There was a noticeable increase in women's empowerment. Women participants experienced greater mobility and decision-making authority within the household and reported an increased likelihood of pursuing institutional responses to domestic and public problems (such as domestic violence or alcoholism). <http://documents.worldbank.org/curated/en/330211590648097435/Impact-Evaluation-The-Promise-of-Participatory-Livelihood-Programs-An-Impact-Evaluation-of-TRIPTI-in-Odisha>
9. Self-employment promoted through women's groups has often been cited as a promising intervention to transition more women back to the labor force, especially in South Asia. This study provides empirical evidence on the impacts of a large-scale livelihoods project, on female labor force participation in India. The program has improved livelihoods by transitioning more women into work. The program has expanded access to credit, increased the proportion of savings, and reduced interest rates on credit for rural households. There are notable increases in the median income of women, across the sample.  
<http://documents.worldbank.org/curated/en/834211590648561758/Women-in-the-Workforce-How-has-the-National-Rural-Livelihoods-Mission-Improved-Female-Labor-Force-Participation>

## South Asia Agriculture and Rural Growth Discussion Note Series

South Asia Agriculture and Rural Growth Discussion Note Series seeks to disseminate operational learnings and implementation experiences from World Bank financed rural, agriculture and food systems programs in South Asia.

1. The Government of India (GoI) approved the National Rural Livelihoods Mission (NRLM) in June 2011 to implement a renewed demand-driven strategy of rural poverty alleviation and sustainable livelihoods, based on universal social mobilization, building community - managed institutions of the poor, and universal financial inclusion. The central objective of the NRLM is to 'establish efficient and effective institutional platforms of the rural poor that enable them to increase household (HH) incomes through livelihood enhancements and improved access to financial and public.  
<http://documents.worldbank.org/curated/en/671641590649091020/Social-Inclusion-Implementation-Outcomes-and-Key-Learnings>
2. The main design principle behind self help groups (SHGs) organizations of rural poor women at the village level was to empower women by mobilizing them into small groups, facilitating interactions and financial literacy, and federating them into higher-order organization to unleash the potential of self help. The movement was initiated in the late 1980s by the Mysore resettlement and development agency (MYRADA) in Karnataka and by professional assistance for development action (PRADAN) in Tamil Nadu and Rajasthan. In 2000, the World Bank supported the Andhra Pradesh district poverty initiative project (APDPIP or VELEGU) project, which leveraged their existing work on SHGs, integrated new lessons and scaled-up the SHG program across the state. In order to leverage the World Bank experience of supporting livelihoods projects in states like AP, Bihar, Odisha and Tamil Nadu, the government of India (GoI) approved a World Bank supported National Rural Livelihoods Project (NRLP) to be implemented in thirteen major States in the country and aimed at creating proof. The World Bank designed the NRLP in the year 2011 with a vision to mainstream SHGs as the primary intervention strategy for rural development. The major pillars for SHG functions were defined as institution building, financial inclusion, livelihood strengthening, women's empowerment, vulnerability reduction with partnerships and convergence as a cross-cutting theme. Experience suggests that triggering of women's agency at the community level through provision of strategic inputs coupled with a conducive micro-environment not only enhances a woman's well-being within her household but also has the potential to transform the community at large.  
<http://documents.worldbank.org/curated/en/305641590653383267/Institution-Building-and-Capacity-Building-in-NRLM>
3. Access to adequate and timely credit at affordable rates is critical for the rural poor to alleviate high cost debt and invest in livelihood opportunities. Despite the government of India's (GoI's) best efforts, financial inclusion of the rural poor has been beset with multiple challenges. The SHG-Bank Linkage Programme (SBLP) was initiated as an action research by the National Bank for Agriculture and Rural Development (NABARD) in 1989 and was subsequently crystallized into a pilot project in 1992. The pilot project

was conceived of as a partnership between SHGs, Banks and NGOs in which the Reserve Bank of India (RBI) allowed banks to lend directly to SHGs and NABARD committed to providing re-finance and promotional support. The SHGs have successfully leveraged about forty one billion US dollars loans from banks since 2013-2014.

Advocacy with the RBI, digital financial services (DFS) and Indian Banks Association (IBA) and interventions at the field level have resulted in exemplary growth in the SHG-Bank linkage credit portfolio. The key outcomes are summarized in this report.

<http://documents.worldbank.org/curated/en/486171590655967465/SHG-Bank-Linkage-A-Success-Story>

4. Due to the limited penetration of bank branches across rural India, access to formal financial services has been a pipe dream for millions of rural poor for decades. However, with the advent of branch-less banking channels and advancements in technology, this situation has improved considerably over the past decade. In 2013-2014, National Bank for Agriculture and Rural Development (NABARD) and German agency for International Cooperation (GIZ) jointly implemented a proof of concept entitled self help group (SHG) members as Business Correspondent (BC) Agents under the rural financial institutions programme (RFIP) and successfully demonstrated that SHG members as banking agents or customer service points (CSPs) could deliver last mile banking services to the rural community in a cost-effective and sustainable manner. It was in this context, that the Bank Sakhi (female banker friend) model - a gender focused variant of the traditional BC model, was adapted by National rural livelihood missions (NRLM) and piloted in seven states - via special funds made available under the dedicated funding line created under the National rural livelihoods project (NRLP) in 2015-2016. This pilot initiative was scaled up by several State rural livelihood missions (SRLMs), which charted different pathways to improve formal financial access for rural women-led households, and promoted linkages with public and private and non-bank financial institutions.  
<http://documents.worldbank.org/curated/en/662851590658776125/Self-Help-Group-Members-as-Banking-Agents-for-Deepening-Financial-Inclusion>
5. The agriculture sector is the largest employer in India, providing direct employment to more than fifty percent of the nation's workforce. Small and marginal farmers with landholdings of less than two hectares comprise eighty-six percent of all agricultural labour, reflecting high land fragmentation and low economies of scale. Mainstream extension and agriculture support services are not customized for these farmer segments, limiting their capacity to access improved production inputs and technology. The situation is even more complicated for women farmers who constitute nearly forty-three percent of India's agricultural labour force. The DAY-NRLM farm livelihoods strategy evolved against this background to leverage the program's social infrastructure of sixty-eight million households mobilized into exclusively women based self help groups (SHGs) and higher federations, in order to deliver intensive and targeted capacity building of small farmers and streamline access to credit for farm needs. Key sub-sectors under the DAY-NRLM farm livelihoods portfolio include agriculture, livestock and non-timber Forest Produce (NTFP), supported through a combination of programs including the Mahila kisan sashaktikaran pariyojna (MKSP), National rural livelihoods project (NRLP) and Sustainable livelihoods and adaptation to climate change (SLACC).

The farm livelihoods strategy under DAY-NRLM has evolved over the years from its initial focus on enhancing productivity through improved inputs and production methods, to a suite of interventions that address multiple entry points in the agriculture value chain. <http://documents.worldbank.org/curated/en/637531590663036212/Transforming-Rural-Farm-Livelihoods-The-NRLM-Journey>

6. Rural India is primarily an agri-based economy. Over-dependence on agriculture has meant declining percapita rural income which has gradually initiated a shift towards the non-farm sector. This transition from agriculture to non-farm sectors is considered an important source of economic growth. DAY-NRLM, which has been instrumental in reaching out to sixty-eight million rural poor women, witnessed a similar shift towards non-agricultural sources of income. This trend encouraged DAY-NRLM to adopt dedicated entrepreneurship promotion measures. Even though, NRLM is more than a decade old, enterprise development programmes have been initiated only in the last five years. These initiatives are expected to gain pace and momentum through National rural economic transformation project (NRETP), which aims to identify existing enterprises with growth potential and provide dedicated services to help them scale-up. <http://documents.worldbank.org/curated/en/443641590664641921/Transforming-Rural-Non-Farm-Livelihoods-The-NRLM-Journey>
7. Over the past two decades India has seen significant improvements in household incomes, agricultural productivity and child survival, although malnutrition among children remains high, despite improvements over the last decade. While stunting and underweight prevalence has gone down, trends in corporal wasting show an overall increase in the last decade. The decrease in stunting has been from 48 percent to 38.4 percent, (1 percentage point per year). Similarly, underweight prevalence has reduced by 0.68 percentage points from National Family Health Survey (NFHS)-3 (2005-06) to NFHS-4 (2015-16). <http://documents.worldbank.org/curated/en/138231590649792689/Integration-of-Health-and-Nutrition-into-Livelihood-Programs-under-DAY-NRLM>
8. The launch of NRLM to address rural poverty marks a paradigm shift in poverty alleviation because unlike other programs that preceded it, the NRLM focuses on training and capacity building, and enabling women to prepare and implement their livelihoods plans through own institutions and from banks. The importance of promoting convergence with other rural development programs, as well other ministries, is enshrined in the framework of NRLM. <http://documents.worldbank.org/curated/en/749361590650380798/Leveraging-Institutional-Platforms-to-Promote-Convergence>
9. Overview of implementation experience and progress: the first phase of the National Rural Livelihoods Project (NRLP), which aimed to reach 4.8 million rural women, was implemented across 13 states, 162 districts and 580 blocks of the country. NRLP was meant to support the launch and expansion of the Government of India's flagship program for poverty alleviation, the Deendayal Antyodaya Yojana National Rural Livelihood Mission (DAY-NRLM) and provide additional pro-poor investments in 13 states with the highest poverty rates which accounted for almost 85 percent of the poor in India. This program marked a strategic shift within the Ministry of Rural Development

(MoRD) from a focus on allocation, disbursement, and monitoring of central government financial resources, to the provision of skilled technical assistance to states under the aegis of the DAY-NRLM.

<http://documents.worldbank.org/curated/en/531871590651053019/Moving-Forward-towards-Rural-Economic-Transformation>

## **JOHAR Notes**

10. The JOHAR project was initiated in 2017 to aid targeted rural producer households to diversify and enhance their household income, and achieve a significant increase in real income until 2023 in selected blocks of rural Jharkhand. The JOHAR project recently completed a baseline for the project evaluation using a randomized controlled trial, supplemented with a non-random control group outside the program area that provides a counterfactual based on an additional quasi-experimental design. The purpose of this note is to present key baseline results and how they validate the project's theory of change. It summarizes the findings from the baseline, presents the status-quo on potential JOHAR beneficiaries, and outlines how the project can achieve its target of enhancing and diversifying the income of rural producer households.

<http://documents.worldbank.org/curated/en/368491591189704466/Leveraging-Community-Institutions-to-Support-Agri-Business-and-Livelihoods-in-Jharkhand>

11. JOHAR is a pioneer in enabling tribal communities to be an integral stakeholder in development by ensuring availability, accessibility and utilization of water resources for agricultural development. JOHAR supports 200,000 small and marginal farmers in primarily rainfed, backward, drought prone, upland and tribal areas of Jharkhand. It facilitates a unique approach, that of "community-led irrigation" which brings water directly to the fields, and fosters community ownership from the onset of project conception, to survey and implementation, right through to operations and maintenance. This note highlights JOHAR's focus on promoting such an approach through engaging the community, particularly women in planning, implementation, monitoring and overall management of their irrigation infrastructure.

<http://documents.worldbank.org/curated/en/959881591190178667/Learnings-From-Community-Based-Small-Scale-Irrigation-in-Tribal-Areas-of-Jharkhand-India>

12. Jharkhand's livestock production is in the hands of marginal and landless farmers with women accounting for over 70 percent of the production. The JOHAR project aims to enhance and diversify household income through the livestock component to target nearly 57,000 beneficiaries for enhancing productivity and accessing markets in selected value chains (broilers, layers, pigs, goats and dual purpose backyard poultry). Given the major role of women, especially from marginal and landless households, JOHAR livestock activities target over 90 percent female beneficiaries. While local service providers are an important feature in all livestock related investments the Bank finances, the JOHAR model is believed to be the most comprehensive and successful of all. This note highlights JOHAR's livestock activities, the JOHAR Pashu sakhi model, lessons learned and what makes the JOHAR model different.

<http://documents.worldbank.org/curated/en/329431591190384738/Building-Last-Mile-Livestock-Extension-Services-for-Rural-Communities-in-Jharkhand-India>

13. Small and marginal farmers in India struggle for access to good quality inputs in farming of crops (seeds, fertilizers, crop protection) and livestock (stock species, breed, density, feed consumption); credit; market acceptance (such as for a new product); connectivity (for bulk marketing); and storage facilities. Aggregation of farmers into Farmer Producer Companies (FPCs) has shown to overcome many of these problems. JOHAR FPCs are unique compared to existing ones because of their huge membership base (7,000–8,000 per FPC), shareholder composition (only women), and product basket with produce that helps double incomes. This note includes experiences and learnings of the implementation of marketing initiatives for: (i) a new poultry product, and (ii) increasing the marketing of tomato produce through post-harvest management practices and technologies.

<http://documents.worldbank.org/curated/en/250311591190848543/Leveraging-Farmer-Producer-Companies-to-Transition-to-Market-Based-Production-Systems-in-Jharkhand>

14. Jharkhand has a large proportion of marginal and small landholders (84 percent), who mainly practice rain-fed, single-crop subsistence farming, cultivating a low-yielding variety of paddy. A vast majority of these rural producers are unable to transition to high-value commodities. The average landholding per farmer is 1.17 hectares. Of the 3.43 million hectares of cultivable land, only 2.23 million hectares (65 percent) is being farmed leaving nearly 35 percent of cultivable land fallow. Small livestock rearing and fish farming in catchment farm ponds, tanks and reservoirs could be important potential sources of livelihood for these rural households. Collection and sale of non-timber forest produce (NTFP) contributes substantially to incomes of forest dwellers and inhabitants of hamlets surrounding forest areas, who are mostly disadvantaged and landless communities belonging to particularly vulnerable tribal groups. This note explains the skilling and rural agri-entrepreneurship approach, process design, learnings, and the way forward of the JOHAR skilling initiative.

<http://documents.worldbank.org/curated/en/766081591191054487/Pioneering-New-Approaches-to-Rural-Agri-Entrepreneurship-Skills-Development-in-Jharkhand-India>

15. Farmers in India, especially smallholders, face a number of challenges that make their income streams low and unreliable. Start-up companies have entered the agriculture sector with a fee-based revenue model alongside leading technology firms like Microsoft, IBM and Google. Armed with technology, data analytics capabilities and risk capital, these agritech firms provide a range of services to farmers from input sales and conventional cropping advisories, to hiring out farm implements and sales. For farmer collectives and for institutional buyers, farm Enterprise Resource Planning software are being used for automation across the value chain and for traceability. Finally, some forecast weather, pest and disease attacks and yield and loss estimates, automate optimal irrigation and provide intelligence on borrowers' creditworthiness and claims payouts to banks and insurers. There are around 450 agritech firms in India today; of these 35 were started in 2018 alone. Venture capital is rapidly increasing, and total investments jumped up from US\$73 million in 2018 to US\$248 million in 2019. This note explains the services offered by these firms and provides a perspective on these services based on experiences in World Bank projects and stakeholder interviews.



<http://documents.worldbank.org/curated/en/451041591191241818/Market-Provisioning-of-Technology-Enabled-Agricultural-Services-In-India>

16. Layer farming is an income-generating livelihood activity wherein egg-laying poultry birds are raised by a household for the purpose of egg production on a commercial scale. The few traditional rural producer households that are engaged in layer farming in Jharkhand are constrained by high input costs (such as pullets, feed, vaccinations), a high disease-based mortality rate, and poor access to credit, making it a less remunerative income source. Cereal-based feed is imported from Andhra Pradesh, Bihar and Madhya Pradesh, thereby escalating input costs<sup>1</sup>. Jharkhand is dependent on egg imports from neighboring states, thus presenting a promising marketing opportunity within the state. However, low and fragmented production, coupled with poor market linkages and inefficiencies make it a challenge for households to realize remunerative prices from their produce. As a part of its diversified and resilient production systems component, the JOHAR project has invested in layer farming under the livestock development sub-component, with the objective of improving rural livelihoods in Jharkhand. This note investigates a layer co-operative's federation, operational and production model as well as financial feasibility. An operational co-operative in Basia block, of Gumla district, was used as a case and analyzed in detail.

<http://documents.worldbank.org/curated/en/980591591191474770/Building-Rural-Poultry-Supply-Chains-To-Enhance-Incomes-Through-Community-Driven-Interventions>