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Community Managed Food and Nutrition Security Initiatives in High Poverty States in India

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Implementation Completion Report

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South Asia
The World Bank
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AWC</td>
<td>Angan Wadi Centers</td>
</tr>
<tr>
<td>BMGF</td>
<td>Bill and Melinda Gate Foundation</td>
</tr>
<tr>
<td>BPL</td>
<td>Below Poverty Line</td>
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<tr>
<td>CBO</td>
<td>Community Based Organization</td>
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<td>CRHP</td>
<td>Comprehensive Rural Health Project</td>
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<td>CRP</td>
<td>Community Resources Persons</td>
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<td>EC</td>
<td>Executive Committee</td>
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<td>GOB</td>
<td>Government of Bihar</td>
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<td>GOI</td>
<td>Government of India</td>
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<tr>
<td>ICDS</td>
<td>Integrated Child Development Scheme</td>
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<tr>
<td>ICT</td>
<td>Information Communications and Technology</td>
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<tr>
<td>IKP</td>
<td>Indira Kanthi Patham</td>
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<tr>
<td>IYCF</td>
<td>Infant and Young Child Feeding</td>
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<tr>
<td>MIS</td>
<td>Management Information System</td>
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<tr>
<td>MNCHS</td>
<td>Maternal, Newborn, Child Health and Sanitation</td>
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<tr>
<td>NDCCs</td>
<td>Nutrition and Day Care Canters</td>
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<td>NFHS</td>
<td>National Family Health Survey</td>
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<td>NFSM</td>
<td>National Food Security Mission</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>NREGS</td>
<td>National Rural Employment Guarantee Schemes</td>
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<td>NRLM</td>
<td>National Rural Livelihoods Mission</td>
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<tr>
<td>NRLP</td>
<td>National Rural Livelihoods Project</td>
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<tr>
<td>ODF</td>
<td>Open Defecation Free</td>
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<tr>
<td>PDO</td>
<td>Project Development Objective</td>
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<td>PDS</td>
<td>Public Distribution System</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<td>PoP</td>
<td>Poorest of Poor</td>
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<td>RD</td>
<td>Rural Development</td>
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<tr>
<td>RCT</td>
<td>Randomized controlled trial</td>
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<tr>
<td>SBM</td>
<td>Swachh Bharat Abhiyan (Clean India Mission)</td>
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<tr>
<td>SC</td>
<td>Scheduled Caste</td>
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<tr>
<td>SERP</td>
<td>Society for Elimination of Rural Poverty</td>
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<tr>
<td>SGRY</td>
<td>Sampoorna Grameen Rozgar Yojana (Universal Rural Employment Program)</td>
</tr>
<tr>
<td>SHG</td>
<td>Self Help Group</td>
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<tr>
<td>SPIP</td>
<td>State Perspective and Implementation Plan</td>
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<tr>
<td>SPMU</td>
<td>State Project Management Unit</td>
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<td>SRI</td>
<td>System of Rice Intensification</td>
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<td>SRLM</td>
<td>State Rural Livelihoods Mission</td>
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<td>ST</td>
<td>Scheduled Tribes</td>
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<tr>
<td>TFR</td>
<td>Total fertility rate</td>
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<tr>
<td>UP</td>
<td>Utter Pradesh</td>
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<tr>
<td>VHW</td>
<td>Village Health Worker</td>
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<td>VO</td>
<td>Village Organizations</td>
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<tr>
<td>VRP</td>
<td>Village Resource Person</td>
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<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
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EXECUTIVE SUMMARY

This report describes the activities, outputs and results of a three year non-lending technical assistance program that allowed lessons from community-managed food and nutrition security initiatives in Andhra Pradesh and the rest of India to be incorporated in low income states of India, particularly Bihar in Eastern India. This report also describes how aspects of food security and nutrition can be embedded in rural livelihood programs being implemented throughout the country and especially in low income states in Eastern and Central India. These programs target the 250 million poorest households through social and economic empowerment of women through self-managed self-help groups and federations. These programs are supported primarily by local community resources, the government and commercial banks. The World Bank is supporting the Indian government and 16 Indian state governments to implement these programs.

The report is organized into nine sections, the first section is on context; the second on objective and key outputs; the third on technical assistance and outputs; the fourth on technical assistance for integrating health, nutrition and sanitation; the fifth on knowledge products; the sixth on food production, productivity, availability and affordability; the seventh on knowledge dissemination and events; the eighth on outcomes of The South Asia Food and Nutrition Security Initiative (SAFANSI) supported non-lending technical assistance, knowledge and learning programs and the ninth on dissemination. In addition, there are four annexures, the first a table of malnutrition in states of India; the second on financial statements; the third on deliverables and the fourth the result framework.

In erstwhile Andhra Pradesh (now Andhra Pradesh and Telangana) there has been a significant investment in social and economic empowerment of women, particularly from poor households, since the year 2000. These programs have reached significant scale, creating one of the largest institutional platforms of organized communities. Eleven million poor households have been mobilized into multi-layered community institutions—including self-help groups and their federations—in more than 36,000 villages. Nearly 90% of poor households in the state are members of these community institutions. Some of the key outcomes include savings at the household level of more than US$1 billion and significant financial inclusion with credit access over the last ten years of more than US$10.5 billion. In addition, 3.8 million acres of land (~1.2 million farmers) have been brought under sustainable agricultural practices and 257,000 dairy farmers in 3,800 villages have been linked to formal dairy markets. These programs have been facilitated by the Society for Elimination of Rural Poverty (SERP), an autonomous institution promoted by the Government of Andhra Pradesh.

In this context, SERP worked on testing and developing a community managed health and nutrition approach in selected villages. This approach combined universal and targeted interventions. The universal interventions included: (i) fixed health and nutrition days for
self-help groups and women members to enable regular growth monitoring, promotion and social audits to enable community organizations to focus on nutrition outcomes; (ii) access to regular health savings funds, health insurance and a community managed health risk fund to keep health care costs affordable and accessible; and (iii) community kitchen gardens to reduce anemia and increase micronutrient uptake. The targeted interventions include community managed and assisted Nutrition and Day Care Centers (NDCCs). These NDCCs serve as a one stop shop for providing nutrition and related services, including providing a balanced diet to pregnant and lactating women, as well as children under 2 years.

In Andhra Pradesh (AP) SERP has facilitated 4,264 community-managed health and nutrition centers (NDCCs) covering about 100,000 households. These community managed health and nutrition services have reduced malnutrition levels in pregnant women and children and improved maternal health indicators, health-seeking behavior of households, and access to various services — including access to neo-natal care, safe delivery and immunization rates. These approaches demonstrate proof of concept for using community managed approaches for effective delivery of health and nutritional services at the household level. This enabled the institutional platform developed for financial and economic inclusion to be used for delivering health and nutrition services.

Jeevika (Bihar Rural Livelihoods Promotion Society, BRLPS) is an independent society created by the Government of Bihar in 2007 and supported by the World Bank with the objective of enhancing the social and economic empowerment of the rural poor. BRLPS facilitates social, financial, and economic inclusion of the poor. In Bihar, 4.2 million rural households have been mobilized into 360,000 self-help groups (SHGs), 14,000 village organizations, and 300 cluster-level federations through community-to-community scale up. In Bihar however health and nutrition status is one of the lowest in the India. More than half the children below five years of age were underweight or stunted, indicating chronic malnutrition. Malnutrition was one of the biggest factors of morbidity in the state at around 45 % of total mortality for children under 5 years of age. The Government of Bihar and Jeevika studied the program in AP and requested technical assistance and knowledge management from the World Bank to use what had been learned in AP for Bihar.

The objective of the SAFANSI supported project was to support technical assistance, cross learning and capacity building in Bihar, learn from other community based approaches in India, particularly AP, and use this knowledge and learning to pilot these approaches. The technical assistance approach used community-to-community, project-to-project and thematic area to thematic area interaction and exchanges. A series of outputs including training manuals, diagnostic reports, framework documents, implementation plans and application software for mobile based tracking systems were developed as part of the technical assistance.

SERP provided technical assistance to Jeevika to develop capacity in Bihar within government, project staff, and community organizations; provide access to handholding and
technical expertise from AP and develop an implementation and intervention framework to implement a community based health and nutrition service delivery program on a significant scale. The TA project has implications on health and nutrition services in other low income Indian states such as Orissa, Jharkhand and Madhya Pradesh, where similar community institutional platforms were being mobilized. The South Asia Food and Nutrition Security Initiative (SAFANSI) supported this proposal. Technical assistance from SERP helped Jeevika establish and support 92 Community-managed Health & Nutrition Care Centers (CHNCC) at the village level to address malnutrition among vulnerable poor communities—especially pregnant and lactating women and children up to 2 years of age. The CHNCC facilitates linkages with government health services, such as immunization of pregnant women and children and services available at the primary health centers (PHCs). By mid-2015, 3882 pregnant women and 4254 lactating mothers had enrolled in the CHNCCs and 82% of their children were found to have a birth weight higher than 2.5 kg compared to the baseline average weight of 2.1 kg in non-treatment households. Each community is also being mobilized to access health financing through a health risk fund, improve the quality of service provision at the PHCs through the placement of Case Managers (Swastha Mitra), and increase access to PHCs through greater awareness and mobilization by the Health Worker (Jeevika Saheli). At the grassroots level, sahelis act as catalysts of change and play a critical role as conduits of information for the target women. These interventions complemented the CHNCCs to develop a one stop shop approach for pregnant women in the context of Bihar.

The activities supported through the SAFANSI TA grant have resulted in leveraging three strategic partnerships with other agencies and programs that want to work in the area of health and nutrition services using the institutional platform of SHGs and their federations. The first activity proposed working with 150,000 SHGs supported by the Bill and Melinda Gates Foundation (BMGF) integrating maternal and child health, nutrition, family planning and sanitation services in partnership with Project Concern International. The second activity supports community sensitization through Participatory Learning and Action (PLA) methodology on health, nutrition and sanitation issues with the Bihar government implemented BTAST/DFID\(^1\) in 5 Districts. The third activity involves Food Fortification work with GAIN and NIDAN\(^2\). These activities will have to be assessed and evaluated to determine the differential impact of various interventions.

Jeevika’s approach to Health and Nutrition has incorporated food security: access and diversification of diets through agriculture and related interventions. The supported

\(^{1}\) BTAST/DFID is known as Bihar Technical Assistance and Support Team/ Department of International Development.

\(^{2}\) GAIN /NIDAN The Global Alliance for Improved Nutrition (GAIN) is an international organization driven by the vision of a world without malnutrition.
activities include increased access to food through productivity enhancement, timely access to the Public Distribution System, collective purchase of food grains through a dedicated Food Security Fund and grain banks. It also includes diet diversification through increased access to pulses and vegetables through System of Crop Intensification (SCI) and the development of the dairy and poultry sectors.

Jeevika’s SCI program enables very small farmers to undertake intensive farming and produce significantly higher outputs from small plots of land. This approach, which began with rice, has been used for wheat, green gram, oil seeds and vegetables in Bihar. Production diversification has significantly increased yields for vegetables (20%), pulses (56%), oil seeds (50%), wheat (72%) and rice (86%). SCI is supported through community managed extension approaches organizing farmer field schools and extension through participatory development of content and videos through digital libraries for farmers. These approaches were documented, analyzed, and disseminated using SAFANSI funds and made into an implementation framework.

More recently, Jeevika has integrated sanitation into the health and nutrition agenda in view of the increasing evidence of links between nutrition and sanitation. This included a number of diagnostic activities being carried out in Bihar in partnership with the Water and Sanitation Program (WSP) of the Bank. The SAFANSI project supported a National Workshop on links between sanitation and nutrition; Community Lead Total Sanitation (CLTS) and enterprise-based approaches for sanitation services organized for various low income states, including Bihar and Orissa. Subsequently, an exposure visit to Bangladesh to look at innovations adopted by BRAC was organized jointly with WSP with all senior functionaries from Bihar introduced to sanitation services relevant to their state. This resulted in the development of Project Implementation Plans for implementing community-lead approaches in six districts in Bihar. At the policy level, a memorandum of understanding (MoU) has been signed between the Public Health and Engineering Department (PHED) and Jeevika to smooth the flow of funds to community organizations and their clients under Swachh Bharat Abhiyan (Clean India Mission).

The second major set of activities supported by SAFANSI included production of a series of knowledge products to inform the next generation of multi sectoral health and nutrition programs in poorer regions of AP and Telangana: Andhra Pradesh Rural Inclusive Growth Project (APRIGP) and Telangana Rural Inclusive Growth Project (TRIGP). These programs work on converged service delivery (demand and supply), developing entrepreneurial approaches to providing health and nutrition services, designing and implementing social safety nets and conditional cash transfers, a one-stop-shop for e-governance and service delivery, data analytics and use of Information Communications and Technology (ICT) for feedback and decision making.

Various knowledge and learning products were produced to inform the design of the AP and Telangana programs. Large-scale programs were analyzed and studied. These included the Integrated Child Development Scheme (ICDS), a national program for delivering nutrition
services in India; the Comprehensive Rural Health Project (CRHP) in Jamkhed, Maharashtra, one of the earliest community managed public health initiatives in India; and Progresa/Oportunidades, an international best practice conditional cash transfer program administered by the Federal Government of Mexico. Lessons from a South-South Knowledge Exchange program between SERP and Progresa were also incorporated. The studies looked at key outcome variables in terms of health and nutrition indicators and the costs associated with it. The study aimed at understanding the strengths and weaknesses of each program to draw lessons for design and implementation.

The second study looked at the characteristics of health and nutrition security at the household level. The study highlighted the factors that lead to enhanced nutrition in Poorest of Poor (POP) households. This was collected at the level of day care center and primary health center. Based on the data, strategies to induce nutrition-seeking behavior in these households were recommended. The data collected showed a high correlation between the weight for age characteristics of children, extent of non-anemic women, access to backyard gardens (vegetable consumption), dairy animals (milk consumption), and poultry assets (egg and meat consumption). The study showed that programs enabling access to productivity enhancement assets and practices should precede supplemental nutrition programs.

The SAFANSI grant has been in integrating health, nutrition and sanitation thinking in community managed rural livelihood programs. It has helped deepen technical expertise and content in these areas. This grant has created a platform and ecosystem for innovation, piloting, and learning in the area of community managed nutrition and health services. It has also enabled governments in low income states of India, especially Bihar, to develop a large scale proof of concept for implementation and initiating multi-stakeholder platforms in partnership with other agencies. Results from these programs have the potential to be replicated through another national program, the National Rural Livelihood Mission (NRLM), which works with 250 million households, particularly in low income states of India.
I) CONTEXT

**Sectoral/Institutional Context and Relationship to CAS:** India is home to the world’s largest hungry population, where over 200 million are food insecure. According to the 2008 Global Hunger Index (GHI-2008), the state of Madhya Pradesh had the most severe hunger levels, followed by Jharkhand and Bihar. The malnutrition scenario in India is a cause for concern. Child malnutrition levels are worse in India than in Sub-Saharan Africa, despite large expenditures under programs like the Integrated Child Development Scheme (ICDS), Mid-Day Meal Scheme (MDM), Reproductive and Child Health programs (RCH), etc. The status of food availability and nutritional status of poor in high poverty states is given in Annexure 1. Nearly 40% of children under three are underweight and 45 per cent are stunted. 36% of adult women and 34% of adult men suffer from chronic energy deficiency. Twenty two to thirty per cent of children are born with low birth weight.

Food and nutritional outcomes are closely linked with issues of livelihood opportunities. Social mobilization of the poor into community based institutions is a key instrument for reducing poverty. It also strengthens demand for services provided by the state and ensures better outcomes for members in the form of improved food security, improved health indicators and an eventual decline in poverty.

The proposed initiative is consistent with the Country Assistance Strategy (CAS 2009-12) through engagement with high poverty states to help India achieve the MDGs and make growth more inclusive. The experiences of state-supported rural livelihood programs has shown that investments in social and economic mobilization of the rural poor leads to increased voice, participation and representation of the rural poor in local governments and creates demand-side accountability and pressure for improvements in local governance and last mile service delivery.

These include better targeting of the development programs, increased access to nutrition services, reduced malnutrition and infant and maternal mortality, increased access to social safety nets including the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), pensions, PDS entitlements and insurance services.

**Andhra Pradesh**

In erstwhile Andhra Pradesh (now Andhra Pradesh and Telangana) there has been a significant investment in social and economic empowerment of women, particularly from poor households since 2000. These programs have reached significant scale, creating one of the largest institutional platforms for women. Eleven million poor households have been mobilized into community institutions including self-help groups and their federations in more than 36,000 villages. Nearly 90% of poor households in the state are members of these community institutions. Some of the key outcomes include savings at the household level of more than $1 billion and significant financial inclusion, with credit access over the last ten years of more than $10.5 billion. In addition, 3.8 million acres of land (~1.2 million farmers) have been brought under the sustainable agricultural practices and 257,000 dairy farmers in 3,800 villages have been linked to formal dairy markets. In addition, youth from poor households have received skills and placement services resulting in more than half a million youth getting access to jobs in the formal labor market (Fig. 1). These programs
have been facilitated by the Society for Elimination of Rural Poverty (SERP), an autonomous organization promoted by the Andhra Pradesh. This program has been supported by the World Bank through series of investment lending programs.

![Diagram of Institutional Platforms of poor]

**Figure 1: Community-Based Institutional Platform.**

In this context, SERP worked on testing and developing a community managed health and nutrition approach in selected villages. This approach included a combination of universal and targeted interventions. The universal interventions included: (i) fixed health and nutrition days for self-help groups and women members to promote and monitor regular growth and social audits to enable community organizations to focus on nutrition outcomes; (ii) access to regular health savings funds, health insurance, and a community managed health risk fund to keep health costs affordable and accessible; and (iii) community kitchen gardens to reduce anemia and increase micronutrient uptake. The targeted interventions include community managed and assisted Nutrition and Day Care Centers (NDCCs). These NDCCs serve as a one-stop-shop for providing nutrition and related services, including providing a balanced diet to pregnant and lactating women and children under 2 years.
In Andhra Pradesh (AP) SERP has facilitated 4,264 community-managed health and nutrition centers (NDCCs) covering about 100,000 households. These community managed health and nutrition services had an impact on reduced malnutrition levels in pregnant women and children, improved maternal health indicators, health-seeking behavior of households, and access to various services — including access to neo-natal care, safe delivery and immunization rates. Some of the key impacts included more than 9 kg mean weight gain for pregnant women, increase in mean birth weight for children of up to 2.9 kg, increased detection of anemia during pregnancy, higher numbers of safe deliveries, frequency of ANC visits, increase in colostrum feeding, breastfeeding and rate of immunization. These approaches demonstrated proof of concept for using community managed approaches for effective delivery of health and nutritional services at the household level. This allowed the institutional platform developed for financial and economic inclusion to be used for delivering health and nutrition services.

The following chart summarizes the impact of community-based health and nutrition approach on various health and nutrition indicators (Fig 3).
Figure 3: Impact of community-based approach on various health and nutrition indicators from 2007-11.

An independent impact study carried out by CESS\(^3\) for households illustrated the impact of community organization membership on access to food and health services at the household level. Households which participated in the program reported an increased access of 3.28 kg of cereals from the Public Food Distribution System (PDS) as compared to the non-participants. The number of unsafe deliveries the participating women declined by 9%.

**Bihar**

Jeevika (Bihar Rural Livelihoods Promotion Society, BRLPS) is an independent society set up by the Government of Bihar in 2007 and supported by the World Bank with the objective of enhancing the social and economic empowerment of the rural poor. In Bihar, 4.2 million rural households have been mobilized into 360,000 SHGs, 14,000 village organizations, and 300 cluster-level federations through community-to-community scale up. Bihar however has some of the lowest health and nutrition status in India. More than half of children under five years of age were underweight or stunted, indicating chronic malnutrition. Malnutrition was one of the biggest factors of morbidity in Bihar at around 45% of total mortality of children under 5. The Government of Bihar and Jeevika studied the program in AP and requested the World Bank to provide technical assistance and knowledge management.

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\(^3\) CESS Impact study citing Giovanna and Abhishek Paper.
II) OBJECTIVE AND KEY OUTPUTS

The project development objective was to enhance institutional capacity of rural livelihood projects for effective planning, designing, implementation and monitoring of food security and nutrition initiatives in the context illustrated above.

The objective of the SAFANSI supported project was to support technical assistance, cross learning and capacity building in Bihar, learn from other community based approaches in India, particularly AP, and use this knowledge and learning for piloting of these approaches. The technical assistance was aimed at developing capacity in Bihar within government, project staff and community organizations, getting access to handholding and technical expertise from AP and developing the framework to implement a community-based health and nutrition service delivery program on a significant scale. The NLTA project has implications on health and nutrition services in other low income states of India like Orissa, Jharkhand and MP where community institutional platforms have been mobilized through other World Bank supported programs like National Rural Livelihood Project, which has been implemented in 13 high poverty states. The SAFANSI supported project helped create knowledge and learning products that could be used in Andhra Pradesh and Telangana to develop next-generation rural inclusive growth programs with significant nutrition and food security components.

The total funding received for SAFANSI TA was US $300,000. Project expenditures totaled US $297,538. The funds were spent on technical assistance to state livelihood missions, development and preparing knowledge materials and dissemination of the project outputs, results and findings. A detailed breakdown of expenditures in each category is provided in Annex 2.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Assistance</td>
<td>1,63,573</td>
</tr>
<tr>
<td>Knowledge Products</td>
<td>1,08,019</td>
</tr>
<tr>
<td>Dissemination</td>
<td>21,600</td>
</tr>
</tbody>
</table>

The technical assistance approach was used in community-to-community, project-to-project and thematic area to thematic area interaction and exchanges. A series of outputs including training manuals, diagnostic reports, framework documents, implementation plans and application software for mobile-based tracking systems were developed as part of the technical assistance. These are illustrated in Annex 3.

Various knowledge products were prepared under the project. These included stocktaking reports, learning notes, case studies, blogs, analytical studies and other thematic papers. Some of these have been published and web links have been provided. A list of these outputs is illustrated in Annex 3.
Figure 4 provides a summary of activities, outputs and broader outcomes of the project.

SAFANSI TA was used to experiment with different approaches, learn from them and apply their findings to the livelihoods projects. We looked at trends to try to understand what other studies had found about health and nutrition in the Jeevika project.

![Image: Framework of intervention-Activities, outputs and outcomes under the project.](image)

Figure 4: Framework of intervention-Activities, outputs and outcomes under the project.

The progress made in relation to the proposed results framework is provided in Annex 4.

In the following sections we provide detailed description of various activities supported by the SAFANSI project, outputs and outcomes of the program over a three year period (2012-2015).

### III) TECHNICAL ASSISTANCE

Technical assistance aimed to develop capacity in Bihar within Government, project staff and community organizations, get access to handholding and technical expertise from AP and develop implementation and intervention framework to implement a community-based health and nutrition service delivery program on a significant scale. The technical assistance approach used community-to-community, project-to-project and thematic area to thematic area interaction and exchanges. A series of outputs including training manuals, diagnostic reports, framework documents, implementation plans and application software for mobile based tracking systems were developed as part of the technical assistance. The following sections summarize the various aspects of technical assistance carried out under the project:
A) TECHNICAL IMMERSION VISITS IN AP AND SCOPING MISSIONS CONDUCTED BY SERP IN BIHAR AND CRHP IN JAMKHED, MAHARASHTRA

This involved organization of orientation cum immersion program on the community-based health and nutrition activities carried out in AP for program leadership and field staff from Jeevika. The immersion programs included understanding the programmatic aspects of the program and field immersions in three districts to learn from program implementation and community management. The aspects covered included the inter-sectoral orientation of the health and nutrition activities, particularly links with financial inclusion and livelihood aspects in consultation with other thematic staff. They also interacted with various Project Directors to understand program management aspects. After returning to Hyderabad, the three teams exchanged their experiences and underwent reflective debriefing and learning. This phase of orientation and immersion helped the Bihar team understand the context where these activities were being implemented. They also understood the program content and management architecture and developed a better understanding of what could and what could not be adapted to work in Bihar. The team developed a better understanding of which thematic interventions to pilot and how. They accessed various manuals, films and training program curriculum developed by SERP over the years.

The team was exposed to the Community Rural Help Project (CRHP)4 in Jamkhed for three days to understand the mother project (CRHP) that had inspired SERP in AP. During that period they had the opportunity to understand the community health approach and interact with village health workers and master trainers. The purpose of organizing this visit was to provide an opportunity to understand the successful community health model implemented by CRHP Jamkhed since decades and expose them to the various systems, protocols and processes CRHP had used to build capacity of the community managed Village Health Workers. Once the participants had an overall understanding of CMH&N programs implemented by SERP and the CRHP Jamkhed’s support for a systematic capacity building of the Health Activists, they could visualize the overall approach that the SERP adopted and implemented. SERP facilitated a design and diagnostic workshop where participants from Bihar were able to analyze Bihar’s health and nutrition situation vis-à-vis the public health and nutrition service delivery system and analyzed the role of Jeevika as a whole.

Figure 5 presents a schematic view of various aspects covered in the three programs.

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4 From the initial 30 villages in 1970, the project had expanded to a region of over 250,000 people after the first 25 years. Infant mortality fell from over 176 per 1,000 births to 23 per 1,000 (and was at its lowest down to 17 per 1,000 for some villages). Link: http://www.jamkhed.org/impact/impact
B) TECHNICAL DIAGNOSTICS OF VARIOUS HEALTH AND NUTRITION INTERVENTIONS OF JEEVIKA CHNCC

The initial technical consultation and field visits helped BRLPS (facilitated by SERP) to diagnose the existing Community Health and Nutrition Care Centers CHNCCs and create strategies for strengthening CHNCCs. The priority was to create architecture for community managed health and nutrition interventions and supplement the architecture with an action plan for improving implementation. The three key aspects included in the action plan were:

1. Village Organization (VO) ownership in establishment and day-to-day management.
2. Involvement of all the field staff facilitated the process for quick grounding of CHNCC activities.
3. During the diagnostic phase a Strength Weakness Opportunity and Threat SWOT analysis was done (Fig 6).

<table>
<thead>
<tr>
<th>NDCCs - SERP</th>
<th>CRHP</th>
<th>BRLPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate wing for HN.</td>
<td>Strong Support for Village Health Workers.</td>
<td>Strong institution building</td>
</tr>
<tr>
<td>Role of CRP's</td>
<td>Weekly Trainings for VHW</td>
<td>Regular visits by project staff to CHNCCs</td>
</tr>
<tr>
<td>ICMAR standard.</td>
<td>Adolescent Girls Programme</td>
<td>Wide coverage and high enrollment</td>
</tr>
<tr>
<td>Periodical Trainings.</td>
<td>PRA methods for data collection</td>
<td>Focus on changing food selection and intake practices</td>
</tr>
<tr>
<td>Comprehensive Training Modules.</td>
<td>Innovative IEC methods.</td>
<td>Trying to improve service delivery irrespective convergence</td>
</tr>
</tbody>
</table>
SWOT methodology was based on immersions visits of BRLPS staff in SERP projects, field visits of SERP staff in BRLPS health and nutrition projects. The visits were followed by consultations and group discussions.

![SWOT Analysis Diagram]

**Strengths**
- VO involvement
- Regular functioning
- Enrollment
- VO agenda

**Weaknesses**
- NOT child centric
- Drop out of SC over OBCs
- Not nutritionally balanced diet
- Not fixed training calendar for JS/CHNCC beneficiaries
- Not diet cost reduction measures towards sustainability
- Not monitoring & review system to measure outcomes
- Not as a platform for BCC
- JS is into all aspects rather the promotion of MHG

**Opportunities**
- Positive support from ICDS
- Availability of livelihood specialists
- Partnerships for technical inputs
- SHG network

**Threats**
- Dependent on external support
- Feeding center rather to focus on BCC
- Not everybody into SHGs

Figure 6: SWOT analysis of CHNCC in Bihar.

Based on SWOT analysis the following recommendations were made for Bihar:

- Ensure the VOs to develop as pressure groups rather than involving themselves only in implementation;
- Encourage the VOs to develop internal facilitators/CRPs rather than wait for external support;
- Continue hand holding and regular capacity building of VOs and their functionaries;
- Enhance technical knowledge and skills of facilitators at all levels;
- Have a Technical Advisor with Public Health and Nutrition expertise for the project;
- Track member-wise details, do community based monitoring and review outcomes;

SWOT analysis suggested that NDCC interventions should be designed around sustainability. The major elements of sustainability identified were a revenue generation stream, reduced diet cost, convergence with other government programs and internal spearhead teams. The following figure summarizes the sustainability features of NDCC:
A summary of recommendations from the diagnostic work was incorporated into the design of H&N interventions under Jeevika. The main recommendations from the diagnostics that are part of interventions are: Incorporating Standards of Practice such as life cycle approach, balanced diet, CHNCC ambience, financial management and sustainability and diet cost reduction measures. In addition other recommendations, --Community based monitoring and review systems to measure the outcomes, CRPs development from existing centers and scheduling growth monitoring were included in the design and project implementation.

The final project design took an integrated and holistic approach. For example, health and nutrition has been included in the agenda of self-help group meetings and functioning. Self-help groups include health and nutrition in their household micro-plan. VOs often act as a pressure group to improve the function of the Public Distribution System (PDS). In some cases, VOs have been franchised dealerships of PDS. VOs are playing an important role on the demand side by facilitating convergence of the project with ICDS, the Social Welfare department and the Health department. An MOU has been signed with ICDS and the Social Welfare department for users to give systematic feedback. A community report card is being developed by VOs on health and nutrition services. Wherever possible the VOs are encouraged to take up the PDS dealership themselves.

Following the diagnostics a framework was developed for health, nutrition and sanitation.
C) FRAMEWORKS FOR DESIGN AND IMPLEMENTATION OF HEALTH, NUTRITION, FOOD SECURITY AND SANITATION PROGRAMS

The various diagnostics and design exercises and workshops lead to development of various frameworks that have been used in Bihar and are available to other states implementing rural livelihood programs. Some of the key frameworks are described below:

1. FOOD AND NUTRITION SECURITY FRAMEWORK

This framework envisages the institutional platform of women self-help groups and empowerment as the key vehicle for food and nutrition security. The four key pillars of this holistic framework are nutrition sensitive agriculture interventions, an enterprise approach to ensure availability of nutritious food in local stores, improving health, nutrition and sanitation seeking behaviors and practices, especially in the 1000 day cycle, and community managed initiatives to access safety nets and entitlements. The framework also suggests multiple pathways for attaining food and nutritional security. Pathway choice depends on situation and scale.

![Diagram](image)

*Figure 8: Multiple Pathways to Improve Food and Nutrition Security.*

Nutrition sensitive agriculture incorporates three key dimensions: food security, access to food and diet diversification. It envisages increased access to food through multiple mechanisms. These include productivity enhancement, timely access to the Public Distribution System, collective purchase of food grains through a dedicated Food Security Fund, and village grain banks. Diet diversification is envisaged through increased access to
pulses and vegetables through System of Crop Intensification (SCI) and development of the dairy and poultry sectors.

2. HEALTH, NUTRITION AND SANITATION (HNS) INTERVENTION FRAMEWORK

The HNS Framework envisages that the project considers key health outcome indicators of poor households as part of Health, Nutrition and Sanitation framework of livelihood project rather than IMR/MMR/TFR. The project envisages a comprehensive health, nutrition and sanitation intervention that encompasses a balance between preventive and curative approaches for achieving better health outcomes. The major focus however should be to promote behavior change with correct information and knowledge dissemination as well as improved communication skillsets of front line service providers. The correct health information at household level and SHG level will lead to dialogue, decision and action at the individual and collective level. Building blocks of interventions and key ingredients of community managed health and nutrition intervention in each block are shown (Fig. 9).

**Key Area of intervention**

![Figure 9: Health, Nutrition, and Sanitation Framework-key areas of intervention.](image)

The HNS framework suggested the following key outcome indicators for monitoring the project:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Reduction in the health expenditures.</td>
</tr>
<tr>
<td></td>
<td>Institutional or safe delivery in hospitals.</td>
</tr>
<tr>
<td></td>
<td>Reduction in anemia among pregnant and lactating mothers.</td>
</tr>
<tr>
<td></td>
<td>Reduction in the diarrhea cases.</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Increase consumption of nutritional food in terms of food quantity and frequency.</td>
</tr>
<tr>
<td></td>
<td>Reduction in anemia among pregnant and lactating mothers.</td>
</tr>
<tr>
<td></td>
<td>Normal weight of newborn baby.</td>
</tr>
<tr>
<td></td>
<td>Improved child growth as per WHO</td>
</tr>
<tr>
<td>Sanitation</td>
<td>Cleanliness of houses.</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>ODF Households and village.</td>
</tr>
<tr>
<td></td>
<td>Reduction in the diarrhea cases.</td>
</tr>
</tbody>
</table>

3. **VALUE CHAIN APPROACH TO DESIGN OF INTERVENTIONS FOR HEALTH SERVICES AND OUTCOMES**

This framework looks at three key aspects of delivery of health services in a value chain perspective and looks at intervention design with three elements. These are preventive and promoted health care, curative care, financing and service delivery. The framework is illustrated below (Fig. 10).

In the agriculture program a set of indicators have been included, they are related to diet diversification and access to food. The Jeevika Health and Nutrition approach incorporates food security, access and diversification of diet through agriculture. It includes increased access to food through productivity enhancements, timely access to the Public Distribution System, collective purchase of food grains through a dedicated Food Security Fund and grain banks. It includes diet diversification through increased access to pulses and vegetables through System of Crop Intensification (SCI) and also development of dairy and poultry sectors.

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**Figure 10: Health Value Chain.**
D) TRAINING MATERIAL AND MANUALS

To improve the performance of NDCC functionaries and volunteers, training materials were created in the local language. These training materials are visual and easy to read and understand. They cover topics such as pre-natal and post-natal care, mother and child health care and nutrition for pregnant women, lactating mothers and children under age of 5. The material also covers sanitation issues at the household and community level. These materials have been developed by BRLPS and are being used in CHNCC Bihar. They have been contextualized and translated into local languages. A number of videos in local languages have been produced and disseminated at the community level.

E) TA FOR ICT APPLICATION IN COMMUNITY MANAGED HEALTH AND NUTRITION ACTIVITIES

In Andhra Pradesh, a community managed tracking system to assess progress and outcomes known as mNDCC has been developed using mobile phones and ICTs. The mNDCC captures and track attendance, health outcomes, and sustainability at the village-level nutrition NDCC using mobile phones has been developed. The outcome indicators tracked by community level functionaries and field staff include immunization, ANC and PNC coverage, nutrition status of children and pregnant mothers and other data for NDCC. An overview of the architecture of the mNDCC is provided (Fig 11). Bluefrog (a software company) originally developed the mNDCC application in the context of Andhra Pradesh. The application won a mHealth Alliance Award sponsored by the United Nations Foundation. Under the project, Bluefrog supported Jeevika to develop and adapt the software application to be used in Bihar using the local language through field trials and local calibration.
F) TA FOR ICT APPLICATION IN BACKYARD POULTRY

In Bihar over 50% of landless and marginal farmers depend on poultry and rearing small ruminants for their livelihoods. The poultry sector provides direct employment to over two million people and poultry supplements household-level nutrition by providing good quality protein through eggs and meat. The Backyard Poultry supported by Jeevika has carried out a successful intervention with 28000 households. The intervention has been inclusive as 76% of the households belong to the poorest and most marginalized Scheduled Caste (SC) community. Independent studies show that the intervention has resulted in an additional net income of US $350-650 per household per year. Localizing the poultry sector with an emphasis on developing tightened backward and forward linkages and embedding ICT based monitoring and support, is a challenge Jeevika has been trying to address.

The SAFANSI TA was used to study and diagnose the problem associated with backyard poultry and improve ongoing backyard poultry activity. The study looked at the entire value chain of the backyard poultry and provided recommendations on relevant such as, with the help of ICT applications. This could include the provision of real-time application information on income and produce and using it among other parameters that will be available to the team in real time for targeting and customized interventions. The GIS application can be used with the best practices to search for villages with similar ecosystems. This process will help rapid scaling of the program. Furthermore this study provided how ICT can be used with backyard poultry. These recommendations are under discussion and being used to develop an assessment if ICT application is feasible in backyard poultry.
G) HEALTH AND NUTRITION EVALUATION FRAMEWORK

With the support of SAFANSI TA an Evaluation Framework of the impact of Livelihoods Project has been developed to assess the degree to which the project's interventions improve income, human development indicators -- particularly Health, Nutrition and Sanitation -- and access to social safety nets and services. The proposed evaluation would follow a quasi-experimental approach, constructing a control group of villages from similar non-project sub-districts, where interventions would not be implemented.

The evaluation will answer key Health, Nutrition and Sanitation questions, such as:

* Are households in program villages better able to access health services when needed?*

* Do households in program villages have more individual latrines and follow better hygiene practices?*

* Do households in program villages have access to more nutritious food and do they achieve better nutritional outcomes?*

The aim of the Evaluation Framework is to provide a clear direction to the project implementation to achieve higher order Health, Nutrition, and Sanitation indicators.

IV) TA FOR INTEGRATING HEALTH NUTRITION AND SANITATION

In response to discussions in India over the last year on stronger sanitation-nutrition linkages and the need to work concurrently on sanitation issues at the community level, the SAFANSI project hosted a number of learning events and workshops at the state and national levels to stimulate interest in working on integrated approaches to preventive aspects of health and nutrition. These events focused on behavioral change among households, women, men and children to understand the linkages between sanitation, malnutrition and stunting. These events also targeted senior decision makers from both federal and state Government and senior functionaries of state level rural livelihood projects as well as water and sanitation programs. Participants included best practitioners, reputed NGOs, the private sector, social entrepreneurs from various states of India and other countries with similar experiences. This program was organized in close collaboration with WSP program Sanitation Team at the World Bank. This program has led to the development of significant sanitation and nutrition components in World Bank supported rural livelihood programs in Bihar, Maharashtra, Andhra Pradesh, Telangana and Tamil Nadu.
The first major activity was facilitating scoping visits and two state level workshops by Prof. Robert Chambers of IDS Sussex. He facilitated two major learning workshops, one in Patna and the other in Hyderabad on “Participatory Approaches to promote ODF - Rural Spaces”. These workshops were attended by many senior government secretaries, directors, CEOs and functionaries of World Bank supported programs along with field practitioners, including the community members. Data highlighted the magnitude of the problem and links between sanitation and malnutrition in context of India and Bihar. Fifty three % of the households in India practice open defecation. Forty eight % of the children below 5 years are stunted and 32.6 % of the children are malnourished. There is high correlation between open defecation, stunting and malnutrition. Globally, 60 % of the households practicing open defecation are in India. Bihar has the second highest number of malnourished children per square km after UP in India. Annually, 212,000 children die from diarrhea in India.

Figure 12: Open defecation, Poverty and Stunting: The Causal Syndrome.

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5 Prof. Chambers is an international expert, practitioner and trainer on participatory approaches including Community Lead Approaches to sanitation (CLTS). He has also extensively researched and written on the relationship between sanitation, stunting and malnutrition in India and advises many programs working on this agenda.

6 Please refer to the workshop proceedings and various presentations.
Figure 13: Correlation in India between open defecation (% of household practicing open defecation in a given State for both urban and rural) and stunting.

Similar data was presented on AP and Telangana. This laid the context and raised awareness among senior decision makers and staff members about the magnitude, nature and urgency of the challenge.

The second part of the discussion focused on how the institutional platform of SHGs and federations should work to implement community managed sanitation and nutrition programs and what should be the content, focus and process of such programs. The key issues and recommendations included the use of self-help groups and federations as triggers, change agents and catalysts for community lead sanitation. Most participants agreed that SHGs should enable the change of focus of sanitation program from “construction of toilets” to "use of toilets", which involves behavioral change. The data also shows that in spite of significant increase in resources for toilet construction since, the use of toilets has not expanded significantly.
Other recommendations included decentralized social mobilization for CLTS for behavioral change, community management of the toilet construction accompanied by availability of material through rural sanitary marts, flexible financing arrangements, assured supply chain fund flow managed through micro plans made by VOs, community and ICT based monitoring and maintenance of toilets and institutionalized institutional collaboration between government, CSOs and community organizations.

The National Workshop on community-led and entrepreneurial approaches to provisioning sanitation and nutrition services focused on innovative and entrepreneurial approaches used in India and other countries, including Rajasthan in India and BRAC in Bangladesh, Ethiopia and Indonesia. The results from BRAC work on sanitation demonstrated that 80% of the users continue to use the toilets.
The International Consultancy Monitor Group has examined the possibility of creating an entrepreneurial ecosystem to provide for provision of sanitation services in Bihar also presented a possible approach and framework illustrated below (Figs. 16-18). These examples have stimulated interest among the rural livelihood projects in the five states to look at entrepreneurial approaches to delivering sanitation services through self-help groups, village organizations and federations. This learning caused senior decision makers and project staff to visit Rajasthan and BRAC in Bangladesh to see the work firsthand and interact with local counterparts. This has resulted in the design of sanitation and nutrition components in rural livelihood programs.

The use of sanitation facilities in BRAC’s projects is shown in Table 1.

<table>
<thead>
<tr>
<th>Use by All</th>
<th>Use When?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HCP</td>
</tr>
<tr>
<td></td>
<td>HCP</td>
</tr>
<tr>
<td>4</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>3</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>0</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>NA/NR</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>above BM</td>
<td>76%</td>
</tr>
<tr>
<td>at BM</td>
<td>6%</td>
</tr>
<tr>
<td>below BM</td>
<td>14%</td>
</tr>
</tbody>
</table>

Table 1: Use of sanitation facilities in BRAC’s projects.

Figure 15: Toilet Penetration (%) in States of India.
Figure 16: Approach and Analytical Construct.
Figure 17: Bihar Sanitation Landscape and Sanitation Ecosystem.
V) KNOWLEDGE PRODUCTS

A) A STOCKTAKING OF MAJOR INITIATIVES AND PROJECTS

Stocktaking exercises are key community-based initiatives in India related to Health, Nutrition and Sanitation services. These included 29 initiatives representing a large cross section. The key filters used for developing the typology included maternal and newborn care services; programs helping poor households to manage food shocks; programs on monitoring, evaluation, accountability and advocacy as well as programs delivering integrated food, nutrition and WASH services. Typology and project profiles were developed to enable learning of lessons, particularly for Bihar and other low income states.

Figure 18: Typology of major programs on Food and Nutrition in India.

B) ANALYTICAL COMPARISON OF LARGE SCALE HEALTH AND NUTRITION PROGRAMS

Various knowledge and learning products were produced to design the next generation of AP and Telangana programs in India. Secondary data from large scale programs delivering health and
nutrition services in India were analyzed and studied along with an international comparator from Mexico. The paper looked at four public health programs that work primarily with rural households to offer similar service packages comprised of maternal and child health care, nutrition and health education, immunization, hospital check-ups and referrals to secondary or tertiary care facilities. These programs are:

1. ICDS -- Integrated Child Development Scheme -- Government of India.
2. CRHP Jamkhed -- Comprehensive Rural Health Project, Jamkhed, Maharashtra, India.
3. CMHN SERP -- Community Managed Health and Nutrition, Society for Elimination of Rural Poverty, Andhra Pradesh, India.

The paper used investment per person and the resulting change in health outcomes to compare project performance. These performance ratios offer a way to measure the cost effectiveness of these public health programs and provide insights into why some programs fare better or worse than others. This paper looks at four projects with similar objectives and compares their performance over nine indicators. It also compares methods of service delivery and incentive -- benefits transfer through supplementary nutrition (ICDS); complete nutrition (CMHN); cash (Progresa) or intensive investment in community capacity development (CRHP).

**Descriptive features of programs:**

Table 1 gives a snapshot of the scale, time period and major activities of ICDS, CRHP, CMHN and Progresa. Table 2 provides their performance rates with respect to key health and nutrition indicators. While the first three are from India, Progresa is a conditional cash transfer program of the Mexican Government. CRHP Jamkhed is the longest running of the four and CMHN is the most recent. All four projects cover PLM (Pregnant and Lactating Mothers) and children up to 6 years. CRHP and Progresa also cover other members of the household. ICDS and CMHN are more targeted towards PLM and children and offer a range of maternal and child services comprised of direct transfer of nutrition, immunization, pre- and post-natal check-ups and health education sessions focused on care during and after pregnancy. ICDS is one of the largest child centric nutrition programs in the world, with centers across India. It has different variants in several states, with the Tamil Nadu model showing the most promising results. This variant has thus been included to show health outcomes in an ideal ICDS implementation model.

Progresa transfers benefits in the form of cash transfers to the female head of the family are conditional upon compliance with requirements such as compulsory enrollment of children in school, regular pre- and post-natal check-ups of PLMs and annual check-ups of all family members. The CMHN program provides three balanced meals a day for PLMs and supplementary nutrition (milk, eggs and fruits) for children. ICDS provides packaged or cooked food as supplementary nutrition to PLM and children. CRHP Jamkhed focuses on village health worker capacity building and dissemination of health awareness about preventable diseases and hygiene practices.

CMHN and CRHP require a one-time investment in a village with a five year period to stabilize the projects. Thereafter, the projects are self-sustaining and managed by community members. ICDS
and Progresa require recurring investments with the disbursement of biweekly or monthly benefits to beneficiaries. The amount of investments for each program is given in Table 1.

Table 2: Key descriptive features of health and nutrition interventions

<table>
<thead>
<tr>
<th>Description</th>
<th>ICDS</th>
<th>CRHP</th>
<th>CMHN</th>
<th>Progresa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period</td>
<td>1975-</td>
<td>1970-</td>
<td>2007-</td>
<td>1997-</td>
</tr>
<tr>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
</tr>
<tr>
<td>Years of operation</td>
<td>38</td>
<td>43</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Number of beneficiaries covered in 2012 (in millions)</td>
<td>43.6</td>
<td>0.5</td>
<td>0.22</td>
<td>25</td>
</tr>
<tr>
<td>Number of villages covered in 2012</td>
<td>1.05 mn</td>
<td>300</td>
<td>4200</td>
<td>0.1875 mn</td>
</tr>
</tbody>
</table>

5. Characteristics of Beneficiaries:

- Men (all ages) Yes
- Women: Pregnant and Lactating Mothers (PLM) Yes
- Women: All ages Yes
- Children: 0-2 years Yes
- Children: 2-6 years Yes
- Children: >6 years Yes
- Adolescent girls Yes
- Adolescent Boys Yes
- Elderly citizens Yes

6. Key Activities:

- Training of field health worker Yes
- Provision of infrastructure for service delivery (building, supplies, books, medical kits) Yes
- Maternal and child health counseling and services Yes
- Nutrition and health education Yes
- Pre-School Education Yes
- Primary education Yes
- Supplementary nutrition Yes
- Complete nutrition Yes
- Cash Transfer Yes
- Referral services to advanced care facilities Yes
- Community mobilization Yes
- Water and sanitation Yes
- Health Insurance Yes

7. Annual investment per beneficiary:

- $18
- $6
- $16.60
- $16.50

8. Type of investment:

- Recurring
- One-time
- One-time
- Recurring

Methodology and data sources:

1. Data for indicators in Tables 2, 3 and 4 was collected through a review of secondary literature on the four programs. For studies in India, data was also cross-checked with NFHS data before being included in this report.
2. The calculation of annual investment per beneficiary was done on an annual basis for ICDS and Progresa. For CMHN and CRHP, the initial investments of US $5,818 and US $45,000 were spread over a 5 year period per beneficiary.

3. Limitations: All efforts were made to include only studies of good econometric rigor in this paper. However, several ICDS studies have been included that did not use matching controls or propensity score matching. RCT studies were available only for CRHP and Progresa. Due to the absence of recent studies or national surveys in 2012, most of the reported 2012 figures are projections based on available data. Quality was not evaluated in determining access or use levels of services. The indicators chosen for evaluation are highly dependent on the functioning of the National Rural Health Mission (NRHM) in India. NRHM performance has not been included in this study and its effect has been assumed to be uniform across all projects in India.

**Indicators:**
The objectives common to all programs discussed above were chosen as indicators to compare performance. Values per program are listed in Table 3.

1. **Infant Mortality Rate (IMR):** The Infant Mortality Rate is defined as the number of children dying before their 1st birthday per 1,000 live births. CMHN shows the lowest IMR (10) among the four programs while CRHP has the highest absolute reduction (156). The rate IMR decline is the highest in CMHN (7.8). While this rate looks lower for Progresa with regard to other programs, it is noted that IMR in Mexico is extremely low (13) and thus, reductions occur more slowly than in India where the IMR is much higher (54.3).

2. **Maternal Mortality Ratio:** The maternal mortality ratio (MMR) is the ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time period. It is noteworthy that it took CRHP Jamkhed 40 years to reduce the MMR to 8, while the MMR was reduced to <1 by CMHN in 5 years. However, the absolute difference in MMR is larger for CRHP, from 532 in 1970 to 8 in 2010, compared to all other programs. ICDS has had a substantially smaller absolute reduction in MMR, but it is decreasing at a promising rate of 15.6 per year.

3. **Low Birth Weight (LBW) babies:** Studies show that babies born with a birth weight < 2.5 kg are much more likely to have arrested physical and mental development as well as higher likelihoods of staying malnourished and developing weak immune systems. The number or % of low birth weight babies is thus an important measure of the efficiency of health and nutrition programs. Progresa has the best outcome in this aspect, with only 5% babies being < 2.5 kg, followed by CMHN at 5.4%. This data was not available for CRHP Jamkhed. The ICDS figures stand the poorest, at 29%. The annual rate of decline in LBW babies is the lowest for ICDS at 0.87% per year and highest for CMHN at 5% per year.

4. **Mean birth weight:** The current mean birth weight of Indian babies is 2.7 Kg. The same for Progresa beneficiaries in Mexico is 3.4 kg. CMHN babies have the highest mean birth weight (3.1 kg) among Indian programs in this comparison followed by CRHP (2.9kg). It is interesting to see that Progresa is able to maintain a 25gm/year gain in birth-weight even after a substantially higher baseline compared to Indian programs. CMHN has the fastest growth rate at 80gm/year followed by CRHP at 13.33gm/year.

5. **Immunization:** Complete immunization for children up to 1 year old is a key determinant of child mortality and morbidity. CRHP and CMHN achieved 100% immunization followed by ICDS at 90%. Assuming constant rate of growth at 3.57% per year, ICDS can achieve 100% immunization by 2016.
6. **Stunting**: Among all measures of chronic malnutrition, stunting is considered the most accurate. Stunting is defined as having a lower height for a particular age than normal. This comparison is obtained from country specific growth charts issued by WHO. Children who fall below the 2nd or 3rd standard deviation of height for their age are considered chronically malnourished. CRHP Jamkhed tops the performance in this indicator with <1% stunted children, followed by Progresa at 8%. The rate of stunting is declining fastest for Progresa at 5% per year. ICDS fares the poorest and CMHN data is not available.

7. **Access to public services**: This primarily includes the % of households that accessed public health services for pre- or post-natal care. CRHP and CMHN achieved 100% access and use of public services, followed by Progresa at 90%. The rate of increase in use was highest for Progresa at 8.4% per year followed by CMHN at 7.9% per year.

8. **Anemia in women ages 18-45**: Iron deficient anemia (IDA) is one of the most widespread reasons for morbidity in women and complications in pregnancy and labor. Maternal IDA is associated with adverse health outcomes, including low infant birth weight, inferior newborn health and maternal mortality. An analysis of several studies showed there was a higher incidence of iron deficiency among infants born to mothers with IDA during pregnancy, compared to infants born to mothers with adequate iron status. Iron deficiency at birth has also been associated with postpartum depression and developmental delays in children. At present, 51.8% of women between the ages of 18-45 in India suffer from IDA. The number for ICDS is higher at 54%. CRHP has the lowest IDA % among Indian programs, at 37.3%. Progresa has the lowest % of women with IDA (20%) across all four programs. IDA data is not available for CMHN.

9. **Safe Deliveries**: A leading cause for high MMR is the delivery of babies in unsafe conditions without the supervision of a trained birth assistant. Safe deliveries, either at a hospital or at home in the presence of a nurse or mid-wife, are an important indicator of success for public health programs, especially in India. At present, 54% deliveries in India are safe, with CRHP having the best performance at 100% safe deliveries followed by CMHN at 88.6%. CRHP has also seen the fastest rate of increase in safe deliveries per year (3% per year). The growth rate of safe deliveries per year for CMHN is 1.46% per year and 0.6% per year for ICDS.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Impact</th>
<th>India</th>
<th>ICDS</th>
<th>ICDS TN</th>
<th>CRHP</th>
<th>CMHN</th>
<th>Progresa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Infant Mortality Rate (IMR per 1000 live births) in 2012</td>
<td>54.3</td>
<td>50.3</td>
<td>35</td>
<td>20</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Annual rate of decline in IMR (per 1000 live births)</td>
<td>1</td>
<td>1.67</td>
<td>2</td>
<td>3.9</td>
<td>7.8</td>
<td>0.33</td>
</tr>
<tr>
<td>2</td>
<td>Maternal Mortality Ratio (MMR per 100,000 live births)</td>
<td>200</td>
<td>200</td>
<td>111</td>
<td>8</td>
<td>0.33</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Annual rate of decrease in MMR (%/yr)</td>
<td>15.67</td>
<td>15.67</td>
<td>4.627</td>
<td>13.3</td>
<td>51.33</td>
<td>0.775</td>
</tr>
<tr>
<td>3</td>
<td>% of Low Birth Weight (LBW) babies born in 2012</td>
<td>29%</td>
<td>29%</td>
<td>1733</td>
<td>Data NA</td>
<td>5.4%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Annual rate of decline in LBW babies (%/yr)</td>
<td>0.87</td>
<td>0.87</td>
<td>1</td>
<td>Data NA</td>
<td>5</td>
<td>0.92</td>
</tr>
<tr>
<td>4</td>
<td>Mean birth weight of</td>
<td>2.7</td>
<td>2.7</td>
<td>2.7</td>
<td>2.9</td>
<td>3.1</td>
<td>3.4</td>
</tr>
</tbody>
</table>
Key findings

1. IMR and MMR reductions are eventual outcomes of increased birth weight, reduced anemia, access to services and safe deliveries. It is noteworthy that even though Progresa has better performance with regard to mean birth weight, safe deliveries, anemia and utilization of public services, CMHN performs better with regard to IMR and MMR. This can probably be attributed to providing three balanced, nutritious meals every-day, along with personalized training and follow-ups by the village health activist.

Studies show that among the entire population of children receiving supplementary nutrition, children of relatively wealthier families have much higher improvements in weight and morbidity outcomes than poorer households. For such children, it is possible that supplementary nutrition is enough to ensure nutrition security. The poorest quartile however, in ICDS, CMHN and Progresa, require higher amounts of assistance and supplementary nutrition is not enough to bridge their daily nutrition gap.

3. Progresa has demonstrated that it is possible to reduce chronic malnutrition in a relatively short period of time. The inadequacy of ICDS is further pronounced with the highest absolute % of stunted children as well as the slowest rate of decrease in stunting per year. This is probably due to the combined reasons of poor targeting and inadequate supplementary nutrition.

4. It is clear from Table 3 that CMHN should make concerted efforts to monitor anemia in women and anthropometric measures in children. In the absence of this, it will be difficult to make conclusive judgments about long-lasting health benefits due to the program. It is possible that Progresa has maintained a mean birth weight of 3.4 kg and an annual increase of 25 gm per baby because of lower levels of anemia in women.

5. CMHN should follow the CRHP model in safe deliveries. CRHP trains all village health workers to conduct safe deliveries, which is reflected in their achievement of 100% safe deliveries. CMHN can consider training its village Health Activists in similar skills for increasing its % of safe deliveries.

6. The analysis above indicates that CMHN and CRHP are much more cost effective compared to ICDS and Progresa. Both of these programs rely on a very important aspect of social mobilization and cannot operate in isolation. CRHP has created a strong support system of water and sanitation, adolescent girl groups, entrepreneurial activities such as manufacturing of the Jaipur foot and agriculture assistance to farmers. Similarly, CMHN is built on a strong foundation of women's self-help groups in convergence with social security schemes, sustainable agriculture and livelihood services. Creating a nurturing ecosystem is therefore very important in achieving cost effective outcomes. In the absence of such an ecosystem of support mechanisms, investment-heavy program like ICDS are inadequate to meet desired outcomes.

7. The annual cost per person in reducing IMR by 1 may be compared between ICDS and CMHN. ICDS is 5 times more expensive than CMHN and about 3 times more expensive than CMHN with respect to annual cost per person for reducing MMR by 1.

8. CMHN relies heavily on accessing publicly available services. CRHP on the other hand has its own mobile health team and tertiary care hospital. Beneficiaries of CRHP thus have a self-sufficient system. It is possible that this is the reason it has marginally higher costs than CMHN in key
outcomes. The question then becomes, should CMHN also invest in its own tertiary care systems or should it wait for strengthening the service delivery capabilities of the government systems? In the case of Progresa, public service systems were strengthened from the start of the program. It is not easy to replicate that in India given the contextual differences, but it is unknown which strategies should be pursued over the short and long term?

Table 4: Performance Ratios of 4 health and nutrition programs

<table>
<thead>
<tr>
<th></th>
<th>ICDS</th>
<th>CRHP</th>
<th>CMHN</th>
<th>Progresa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Investment per beneficiary (annual)</td>
<td>$18</td>
<td>$6</td>
<td>$16.60</td>
</tr>
<tr>
<td>2</td>
<td>Cost of reducing IMR by 1 (per 1000 births) per person per year</td>
<td>$10.75</td>
<td>$1.54</td>
<td>$2.13</td>
</tr>
<tr>
<td>3</td>
<td>Cost of reducing MMR by 1 (per 100,000 births) per person per year</td>
<td>$1.15</td>
<td>$0.45</td>
<td>$0.32</td>
</tr>
<tr>
<td>4</td>
<td>Cost of reducing LBW babies by 1% per person per year</td>
<td>$20.7</td>
<td>NA</td>
<td>$3.32</td>
</tr>
<tr>
<td>5</td>
<td>Cost of increasing mean birth weight by 10gm per person per year</td>
<td>$23.4</td>
<td>$4.5</td>
<td>$2.1</td>
</tr>
<tr>
<td>6</td>
<td>Cost of reducing stunting by 1% per person per year</td>
<td>$50</td>
<td>$6</td>
<td>NA</td>
</tr>
</tbody>
</table>

Key findings:

1. The analysis above indicates that CMHN and CRHP are much more cost effective than ICDS and Progresa. Both programs rely on a very important aspect of social mobilization and cannot operate in isolation. CRHP has created a strong support system of water and sanitation, adolescent girl groups, entrepreneurial activities such as manufacturing of the Jaipur foot, and agriculture assistance to farmers. Similarly, CMHN is built on a strong foundation of women’s self-help groups in convergence with social security schemes, sustainable agriculture and livelihoods services. Creating a nurturing ecosystem is therefore very important in achieving cost effective outcomes. In the absence of such an ecosystem of support mechanisms, investment-heavy program like ICDS are inadequate for meeting desired outcomes.
2. It is interesting to compare the annual cost per person in reducing IMR by 1 between ICDS and CMHN. ICDS comes out to be 5 times more expensive than CMHN. It is also about 3 times more expensive than CMHN with respect to annual cost per person for reducing MMR by 1.

3. CMHN relies heavily on accessing publicly available services. CRHP on the other hand has its own mobile health team and tertiary care hospital. Beneficiaries of CRHP thus have a self-sufficient system. It is possible that this is the reason it has marginally higher costs than CMHN in key outcomes. The question this observation begs is, should CMHN also invest in its own tertiary care systems or should it wait for the government to strengthen service delivery capabilities systems?

In the case of Progressa, the strengthening of public service systems was pursued aggressively right from the start of the program. It is certainly not easy to replicate that in India, given the contextual differences, but it is unknown what strategy should be pursued over the short and long run.

C) A MICRO-STUDY OF POOREST OF THE POOR HOUSEHOLDS, THEIR NUTRITIONAL STATUS AND FACTORS THAT AFFECT NUTRITION-SEEKING BEHAVIOR

The second study looked at the characteristics of health and nutrition security at the household level. The sample size was 95 households with positive deviant households identified and reasons for positive deviance ascertained. The study highlighted the factors that lead to enhanced nutrition in Poorest of Poor (POP) households. This was collected at the level of day care center and primary health center. Based on the data, strategies were recommended to induce nutrition-seeking behavior change in these households. The data collected showed a high correlation between the weight for age characteristics of children and the extent of non-anemic women (women with hemoglobin levels \( \geq 10 \text{ mg/dl} \)) and access to backyard gardens (vegetable consumption), dairy animals (milk consumption) and poultry assets (egg and meat consumption). The study showed that supplemental nutrition should be preceded by programs enabling access to productivity enhancement assets and practices. The key findings of the study and the quantitative distribution of households is indicated in the following analytics:

**Finding 1:** Children who had a backyard kitchen garden at home were more likely to be healthy compared to those who did not.
**Finding 2:** Women with backyard kitchen gardens were more likely to be healthy (non-anemic) compared to women without back yard gardens.

**Finding 3:** Women of households with either dairy or poultry animals were more likely to be healthy compared to those without.

**Finding 4:** Children who were fed weaning powder from 6 months of age were more likely to be healthy compared to those who were not.
Finding 5: Children of households with either dairy or poultry animals were more likely to be healthy compared to those without.

Finding 6: Children of POP women who attended NDCC regularly during pregnancy were more likely to be healthy compared to others.

Finding 7: POP women who attended NDCC regularly during pregnancy were more likely to be healthy compared to others.
Among the factors producing a major difference in the nutrition status of POP women, NDCC enrollment has the highest magnitude (67%), followed by dairy and poultry (49%) and backyard kitchen garden (46%). Table 5 presents this in decreasing order of magnitude:

**Table 5: Factors affecting maternal nutrition**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Difference in %age points for POP women</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDCC enrolment</td>
<td>67</td>
</tr>
<tr>
<td>Dairy and/or poultry</td>
<td>49</td>
</tr>
<tr>
<td>BKG</td>
<td>46</td>
</tr>
</tbody>
</table>

Similarly, child nutrition is affected by a combination of household backyard gardens and vegetable consumption, weaning food, consumption of dairy and poultry, and care provided by NDCC (Table 5).

**Table 6: Factors affecting child nutrition**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Difference in %age points for POP children</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHs with BKGs</td>
<td>71</td>
</tr>
<tr>
<td>Weaning food</td>
<td>62</td>
</tr>
<tr>
<td>Dairy and/or poultry</td>
<td>49</td>
</tr>
<tr>
<td>NDCC</td>
<td>39</td>
</tr>
</tbody>
</table>

Based on the study a strategy to build nutritional services ecosystem in a village was suggested based on household stratification by food production, affordability and access. These included self-sufficient producer households, insufficient producer households, non-
producer households including the landless who can afford regular purchase and non-producer households who cannot afford regular purchase (Fig. 19). The key elements of the service delivery ecosystem include production support, distribution support and distribution support through subsidies or entitlements.

![Figure 19: Strategies for building a nutrition ecosystem.](image)

The study also suggested an organization strategy of service delivery and behavioral communication to implement a program to build this ecosystem. The strategy includes blocks as shown in figure 20. Details of the strategy are as follows:

**Nutrition Transformation Teams:** There is a need for Nutrition Transformation Teams to examine possible ways to ensure nutrition safety in a holistic manner. These teams should consist of people from across the agriculture, dairy, health, social protection, water and sanitation sectors. They should develop customized solutions for POP households by linking Farmer field schools, Krushe Marts, Rural Water Supply and behavior change communication together. Each Nutrition Transformation Team should develop a guidance that forms backward and forward linkages to ensure local availability of nutritious food for household production.

**Consumption Counseling:** Households with efficient production and distribution mechanisms will not be able to improve their nutrition unless they understand the reasoning behind nutritious consumption. There is a need for special communication methods (Digital Green videos, TV, radio, print media and personal counseling) that explains why nutrition is important and how it affects a person’s progress in life. This must be combined with knowledge transfer of diet composition and
demonstration of cooking methods. So far, we have focused on explaining how to improve nutrition, but in order to affect behavior change; all members of a household must now learn why nutrition should be a priority and how available resources can be leveraged to achieve desired outcomes.

**WASH:** Behavior change communication has to be accompanied with access to clean water supply for daily consumption, construction of toilets, effective messaging for toilet use and adoption of sanitary practices. This will have to be done in convergence with NREGS and Swach Bharat Mission (SBM). SBM has a provision where households are offered NREGS wages for constructing a toilet in their homes with a small contribution from the household. Schemes like these will have to be leveraged to implement WASH in all POP families.

![Behavior Change Communication model](image)

The above analysis and knowledge products helped in designing two new projects: Andhra Pradesh Rural Inclusive Growth (APRIG) and Telangana Rural Inclusive Growth (TRIG). The details of these projects have been mentioned in the Impact section of this report. Please refer to Project Appraisal Document of TRIG:


### VI) FOOD PRODUCTION, PRODUCTIVITY, AVAILABILITY AND AFFORDABILITY

The Jeevika Health and Nutrition approach incorporates food security, access and diet diversification through agriculture and related interventions. It includes increased access to food through productivity enhancement, timely access to the public distribution system, collective purchase of food grains through a dedicated Food Security Fund and grain banks. It also includes
diet diversification through increased access to pulses and vegetables through System of Crop Intensification (SCI) and development of dairy and poultry sectors.

A) AGRICULTURAL LIVELIHOODS THROUGH SYSTEM OF CROP INTENSIFICATION FOR SMALL AND MARGINAL FARMERS

Through the community institutional platform, Jeevika has been implementing System of Crop Intensification (SCI). SCI enables small and marginal farmers to undertake intensive farming and significantly increase productivity over a range of crops from small parcels of land. SCI has been implemented by Jeevika and the learning note was prepared with the support of SAFANSI TA.

The System of Crop Intensification (SCI) evolved from a well-known farming method called System of Rice Intensification. It has been customized and adapted for wheat, green gram, oil seeds and vegetables in Bihar by a community managed extension and technology transfer model through farmer field schools. Crop intensification has helped in diversifying options for production and consumption, particularly for poorer households. Diversification has improved balanced nutrition uptake through consumption of such as pulses and vegetables.

A panel survey was conducted in 2012 on a sample of about 6,242 farmers for rice interventions (5,684 participants and 558 non-participants) and 2,699 for wheat intervention participants. Data were analyzed and documented in the form of a learning note, prepared and disseminated using resources from the SAFANSI project. Key results are illustrated and described below:

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Enhancing Agricultural Livelihoods through Community Institutions in Bihar, India

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This approach, starting from rice, has been used for wheat, green gram, oil seeds and vegetables in Bihar. Production diversification has enabled significant increase in yields for vegetables (20%), pulses (56%), oil seeds (50%), wheat (72%) and rice (86%).

The increase in productivity of various crops has improved food security in poor and vulnerable households. According to a 2012 independent study, a significantly higher proportion of participant households that faced food shortage in 2007 became food secure in 2010. These approaches were documented, analyzed and disseminated in the form of a learning note under the SAFANSI project and converted into an implementation framework.

Inspired by the success of Jeevika’s SCI intervention, the Bihar government has made a policy to cover 10% of paddy and wheat cultivable areas under SCI. According to current estimates, there will be 8 million acres for paddy and 5.7 million acres for wheat. This will help thousands of smallholder and marginal farmers across all districts in Bihar.

B) COMMUNITY MANAGED FOOD SECURITY PROGRAMS
Other initiatives which to ensure food security were documented throughout the project and are as follows:

**Food Security Fund**

An exclusive Food Security Fund is earmarked to finance village organizations. Nearly 5,000 Village Organizations have taken up this activity. The intervention involved identifying the requirements of all poor households who do not have access to sufficient food in bulk and are undertaking collective procurement to purchase food in the lean period. Households have the option to pay back the amount in installments or one lump sum when they sell their crop at harvesting season. The interest income earned by the village organization is used to meet the costs of running the scheme and reducing the price at household level in subsequent purchases. A study by the Social Observatory, with a sample of 1,530 households, found that the SHG members in the treatment villages were able to eat the quantity of food that they desired 0.2 days per week more than residents in control areas. SHG members in the treatment villages were able to eat the type of food that they desired 0.4 days per week more than residents in control areas.

**Grain Bank**

The bank is run by poor women with minimal support funding from the project. During harvesting members deposit their grain into the bank and withdraw at the time of food scarcity (especially during flood and drought) with the commitment of repaying with 25% more in the next harvesting session. More than 200 Grain Banks are running in different districts of Bihar, such as Patna, Bhojpur Jamui, Saharsa and others. The concept is being replicated in other project areas.

**Enhancing access to the Public Distribution System (PDS)**

Ensuring access to PDS is another important strategy. This includes SHGs and VOs exercising their bargaining power to improve PDS functioning. To do so, village organizations are systematically building capacity and the necessary facilities to ensure they can engage with agencies implementing PDS to ensure regular and on time delivery.

**VOs taking over PDS management:**

In some locations the VOs have been given the responsibility of running the PDS dealership by the Civil Supplies Department. The necessary management training of the PDS is provided to the VOs.

C) INNOVATIVE AGRICULTURE EXTENSION APPROACHES FOR SMALL AND MARGINAL FARMERS AND DIGITAL LIBRARIES
This initiative is supported through community-managed extension approaches involving organizations of farmer field schools and extension through participatory development of content and videos through digital libraries for farmers. Community-driven programs traditionally used local facilitators to disseminate information and external best-practices. The massive scale of these programs however has made this strategy both times consuming and expensive. Livelihoods Projects in Bihar and eight other states in India have prompted an innovative ICT-based Rural Digital Libraries project in collaboration with Digital Green, a social enterprise in India. Digital Green trains members of local communities on group facilitation, videography and basic video production. These videographers create digital content locally, highlighting both internal and external best practices. The videos are stored at the village level as well as uploaded to Youtube, creating a local and online digital library disseminated widely through a network of village resource people using low-cost pico-projectors. These libraries are a decentralized, localized solution that combines the institutional platform with a digital knowledge platform to create multiple nodes of communication and learning in rural communities across the country. Initial results have shown that this approach can triple the adoption rate compared to traditional extension systems at one-fifth the cost. In Bihar small and marginal farmers are participating at village-level video screenings, rural digital libraries offer a promising solution for faster and more accessible livelihood knowledge sharing and extension in geographically dispersed communities. Leveraging a video production and screening platform, community organizations have started to develop a localized, scalable model for agricultural extension, financial literacy, health and nutritional awareness and technology and livelihood training.

![Video production by farmers on best farming practices](image1)

![Local level, just in time, customized extension of best farming techniques and practices](image2)

Figure 23: Participatory Bottom-Up Knowledge Creation.

Jeevika and Digital Green partnership, with the help of local communities, produced videos that can be viewed online and offline. The videos cover questions such as how to prepare nutritious food at home using locally available ingredients at low cost. The food produced by this method is recommended for pregnant women and lactating mothers. Videos of kitchen gardening, backyard
vegetable gardening, household and community sanitation practices were also produced and screened. Many households learned health and nutrition practices and how to sell their products to CHNCCs.

This program was documented in the form of learning note and a blog through SAFANSI resources. These links provide valuable information on how digital communication has transformed agriculture.

Examples of videos can be seen at the following links:


Example of e-learning video: [http://www.digitalgreen.org/blog/safansi-jeevika-topics/](http://www.digitalgreen.org/blog/safansi-jeevika-topics/)


![Safansi Jeevika Topics](image)

The produce is sold to CNCC

Figure 24: A screenshot of a video.

VII) KNOWLEDGE DISSEMINATION AND EVENTS

A) KNOWLEDGE EVENT: BIHAR INNOVATION FORUM II
SAFANSI TA supported organizing the 2nd Bihar Innovation Forum. The forum offered an important opportunity to enable the key social entrepreneurs working in the country to present innovative solutions to the problems faced by poor households in Bihar across different sectors in the areas of rural livelihoods, agriculture, livestock, food security, health and nutrition, ICT and service delivery. The forum also included the sharing of knowledge, ideas and innovations among social entrepreneurs, rural livelihood programs in the country and senior decision makers from government, private sector foundations, civil society, incubation fund managers, financial agencies and social enterprise community. The top innovators were selected by a jury and were enrolled in a public private partnership program rendering them eligible for mentoring and financial support to work with poor households in Bihar with Jeevika. After the forum a database was created of 79 innovators working in Food Security, Health and Nutrition area. This database is used for accessing innovators and developing partnership when needed. A few examples of innovators who were selected for further assistance are: SEWA BHARAT, Rite Water Solution, Rural Health Care Foundation, Embrace India, Gram Vikas and Real Medicine Foundation. A small documentary was also produced capturing the experience of the Bihar Innovation Forum. The documentary is available on Youtube and can be viewed with the link: https://www.youtube.com/watch?v=tCO_sf5Hj38

VIII) OUTCOMES OF SAFANSI SUPPORTED NON LENDING TECHNICAL ASSISTANCE, KNOWLEDGE AND LEARNING PROGRAM

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8 The documentation was co-financed with SAFANSI resources
This section describes some of the key outcomes attributable to the SAFANSI supported program. There are many other variables that have influenced the outcomes. Those outcomes attributable to the SAFANSI program or that were triggered and catalyzed by the program are illustrated. Various levels of analysis were carried out from household level to ecosystem level. The report did not look at direct causality in a rigorous manner as it was beyond the scope of a small project, but instead examined various data sources including quantitative, qualitative and descriptive data and information. An overview of knowledge products and their linkages leading to overall improvement of projects and policies as follows:

![Diagram](image)

Figure 25: An overview of Theory of change of the knowledge products and outcomes.

A) IMPACT ON HEATH AND NUTRITION STATUS

Ninety two Community Managed Health and Nutrition Care Centers (CHNCC) centers were established by 2014. By Mid-2015, 3,882 pregnant women and 4254 lactating mothers were enrolled in these centers and 1,986 children were born to mothers at these centers. Of these, 82%
children were found to have birth weight higher than 2.5 kg and 76% of these deliveries were institutional. ⁹

An independent impact assessment by the Bill and Melinda Gate Foundation compared the health and nutrition outcomes for SHG members that carried out health-related mobilization with a control group that did not do so. The sample was comprised of female members and group leaders of SHGs groups overseen by Jeevika, recruited from the eight districts in Bihar, namely Patna, Saharsa, East Champaran, West Champaran, Samastipur, Begusarai, Gopalganj and Khagaria. Survey participants were comprised of women belonging to SHGs (n=2,407) and SHG leaders (n=747). Information on norms related to family health and sanitation behaviors among backward castes and other castes was collected from key informants including panchayat members, political leaders, community social workers, frontline health workers, SHG mobilizers, doctors, nurses, NGO staff, and SHG mobilizers (n=295).

Female members of self-help groups were asked about their knowledge, practice, and social norms for Maternal, Newborn, Child Health and Sanitation (MNCHS) behaviors, comprising:

a. MNCHS behaviors, specifically ANC; pregnancy complications; birth preparedness; safe and institutional delivery; PNC, STSC, and clean cord care; newborn care; early and exclusive breastfeeding; age appropriate complementary feeding; FP, and compliance with recommended immunization schedule.

b. Water and sanitation behaviors, specifically hand washing with soap and water; safe storage and handling of potable water; toilet access and usage and safe waste disposal.

c. Collectivization characteristics, specifically leadership; enabling environment; collective efficacy; collective agency and collective action.

d. Individual psychosocial beliefs, specifically self-efficacy; self-confidence and individual agency and control.

The performance variables measured for the study included the % of institutional deliveries, extent of breastfeeding within 1 hour of birth and immunization rate. These results are summarized in Figure 25. The study results indicate that SHGs with health-related mobilizations and activities are performing better in terms of reproductive and child health care. The difference is most pronounced in case of the breastfeeding practices for mothers who are members of SHGs.

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⁹ Outcome indicator data from Project MIS.
Figure 26: A comparison of SHGs with health activities and without health activities.

The Food Security Fund is a revolving fund managed by the village organization (VO). The VO is given an initial grant of USD 1,700 to start a food security fund (FSF) and members are given the chance to take an in-kind loan of food grains that they pay back over next three months at 0% interest, plus a small service charge. After members have repaid, the cycle starts anew. A study was conducted in 2014 with a sample of 18 clusters of 6 blocks assigned to have their VOs either start the FSF program (treatment) or not start (control). A baseline survey of 1,530 households in 5 VOs per cluster was done in mid-2012, the midline survey covering the baseline HH’s was done in Feb-Mar 2013, end line survey covering the same households completed in the end of 2013. One measure of nutritional health is called the z-score of weight for age, which measures how much a child of a given age and gender weighs relative to how much that child should weigh (according to World Health Organization standards). This measure increases by 0.2 standard deviations in children age 0.5-5 years. The above improvement is equivalent of a five year old girl being 17.70 Kg in the control or 18.22 Kg in the treatment, a gain of 0.52 Kg (Fig. 26).

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10 This study was conducted by the Social Observatory Team in Bihar.
B) IMPROVED HOUSEHOLD AND COMMUNITY SANITATION IN BIHAR

BRLPS initially implemented Swach Bharat Abhiyan (SBA) programs in three districts (Gaya, Purnia and Nalanda) through collaboration with PHED Dept. of Bihar. BRLPS supported construction of 3,800 toilets through Village Organizations in 10 blocks. Each block received USD 15,000 per nodal Village Organization as CIF funds as a revolving sanitation fund. An intensive approach was implemented where villages had been identified by the “Swachhata Mitra” (Case Managers) and Community Resource Persons (CRPs) after a health and sanitation survey. This program focused on highly needy villages. UNICEF provided technical assistance for launching the sanitation campaign. The key aspects of community management and implementation included mobilization by SHG members, procurement of materials by the Procurement Committee of Village Organizations; training and skill development of female masons for toilet construction, development of toilet monitoring by Village Organization Office bearers and final reimbursement of incentives for toilet construction as per PHED norms and guidelines. A significant change has been seen in many villages where women are aware of the need for sanitation services and are involved in mobilizing through songs and storytelling. There is increased demand for toilets in villages, but the focus is on the use of toilets.

SIGNIFICANT INCREASE IN OUTREACH OF HEALTH, NUTRITION AND SANITATION ACTIVITIES IN BIHAR

SAFANSI TA has helped increase outreach of various activities undertaken by Jeevika in partnership with various governmental and non-governmental programs.
Table 5: Summary of Health, Nutrition, Food security and Sanitation Interventions in Bihar

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Partnerships</th>
<th>Geographical coverage</th>
<th>SHGs Covered/to be covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Parivartan: Integrating activities related to maternal and child health,</td>
<td>Bill and Melinda Gates foundation</td>
<td>11 districts and 101</td>
<td>Currently covering 26,000</td>
</tr>
<tr>
<td>and child health, family planning, nutrition and sanitation</td>
<td>through Project Concern International</td>
<td>blocks</td>
<td>SHGs to be scaled upto 150,000 SHGs in the next 3 years</td>
</tr>
<tr>
<td>2  Gram Vartha: Integrating activities related to maternal and child</td>
<td>BTAST/DIFD</td>
<td>35 blocks of 5 districts</td>
<td>24563 (48000)</td>
</tr>
<tr>
<td>health, family planning, nutrition and sanitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  CHNCC: Establishing one stop centers that provide a range of health and</td>
<td>technical Assistance from SAFANSI</td>
<td>11 blocks of 3 districts</td>
<td>92 centers that have covered nearly 7000 pregnant and lactating mother thus far</td>
</tr>
<tr>
<td>nutrition services to the pregnant and lactating mothers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4  Sanitation: Community-wide WASH approaches on saturation basis to cover</td>
<td>WASH</td>
<td>12 blocks and 6 initial districts of Jeevika</td>
<td>3800 HHs</td>
</tr>
<tr>
<td>all households and use existing institutions like community managed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>health and nutrition care centers (CHNCCs),</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5  Community managed food security intervention at the Village Organization</td>
<td>Jeevika</td>
<td>All Districts</td>
<td>Nearly 5000 Village</td>
</tr>
<tr>
<td>level</td>
<td></td>
<td></td>
<td>Organizations</td>
</tr>
<tr>
<td>6  Health risk fund</td>
<td>Jeevika</td>
<td>All Districts</td>
<td>Nearly 5000 Village</td>
</tr>
<tr>
<td>7  Food Fortification</td>
<td>GAIN and NIDAN</td>
<td>4 blocks of Gaya &amp; Khagaria</td>
<td>685 AWCs</td>
</tr>
</tbody>
</table>

C) BRLPS FACILITATED MULTI-STAKEHOLDER PARTNERSHIP WITH FOUNDATIONS AND TRUSTS
In Bihar leveraging community platforms such as self-help groups (SHGs) and their federations has been identified by the Bill and Melinda Gates Foundation as one of the key strategies to achieve its goals. Over the last three years, the Foundation has leveraged SHGs and built partnerships with National Rural Livelihoods Mission (NRLM) and state Missions viz., Jeevika/BRLPS in Bihar and Prerana/UP SRLM in UP where the World Bank team has played a catalytic role.

The primary objective of the proposed investment with the World Bank is to leverage the existing investments made and partnerships built by the Bank over the years in advance of integrating various thematic interventions in SHGs and strengthening Foundation collaborations with NRLM and state missions especially in Bihar and UP with Jeevika and Prerana. It is expected that this investment will provide an enabling environment to support and complement the existing investments made by the Foundation to leverage community platforms. This partnership will build on existing efforts to integrate health, nutrition and family planning interventions in Bihar and UP, as well as provide new opportunities to initiate layering of agriculture and sanitation interventions in community platforms across Bihar, UP, Odisha and Jharkhand.

The proposed technical support from BMGF to the Bank would enable the creation of quality groups in Bihar and UP through ongoing monitoring and handholding support by resident representatives placed in each state. Advocacy efforts for state and national missions would integrate and scale up health, nutrition, family planning, sanitation and agriculture interventions to ensure integration of different thematic interventions in the larger context of livelihood promotion under NRLM. This investment would also provide greater potential to experiment and scale up the BMGF work on agriculture and sanitation with the state rural livelihood missions (SRLMs) funded by the Bank over next two years viz., Bihar Rural Livelihoods Project, Odisha Rural Livelihoods Project and the National Rural Livelihoods Project (with a focus on Uttar Pradesh and Jharkhand). The intended outcome of this grant is to complement existing efforts of the Foundation to build capacity of the SRLMs and support them in demonstrating proof of concept, evolving suitable protocols, guidelines and systems for successful integration and scale up of specific thematic interventions.

*Jeevika* has also initiated community sensitization through Participatory Learning and Action (PLA) methodology on health, nutrition and sanitation issues in 35 blocks in partnership with BTAST, and a DFID funded initiative.

The Bihar innovation Forum has enabled many social entrepreneurs with innovative ideas and solutions to work with Jeevika and community organizations.

The TATA 11 administrative services have agreed to depute two of its officers in rural livelihood projects to provide private sector thinking and skills to these programs in the area of nutrition.

The SAFANSI technical assistance program has created an enabling ecosystem and now Jeevika is leveraging resources and partnering with key stakeholders in health, nutrition and sanitation sector for investment in poor households in Bihar.

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11 TATA is the largest corporate house in India with a significant development wing called Tata Trust working on health, nutrition and livelihoods.
D) BRLPS AND WASH PARTNERSHIP

BRLPS has partnered with the WASH program supported by WSP. The key policy impact of BRLPS and WASH partnership is that a MoU has been signed between PHED and BRLPS to smooth the flow of funds to VOIs and their clients under SBM and increase use of Jeevika and VOIs as facilitators of SBM. BRLPS is increasing investments to improve access to food security, health, nutrition and sanitation services. The project envisions a comprehensive health, nutrition and sanitation intervention that encompasses balance between preventive and curative approach for achieving better health outcome. To ensure the economic gains made through livelihoods investments are not drained off, the projects are increasing investing to improve access to food security, health and sanitation services by the poorest households.

The financial leverages, approach, entry strategy, key interventions, scale and scope, enabling environment of this partnership has been mapped (Fig. 28).

Figure 28: Engraining WASH into core design of Rural Livelihoods Projects.

Other policy level impacts as are follows:

- National Workshop on Participatory WASH Approaches (August 2014)
- South-South Exchange between Indian RLPs and BRAC, Bangladesh
- National Workshop on Enterprise Promotion: Nutrition-WASH Linkage
- GWADAR Projects in Andhra Pradesh, Bihar, Maharahstra & Telangana
- Leadership, Learning and Innovation in Maharashtra
- BB and Melinda Gates Foundations in Bihar
- SRTT and Allied Trusts in Andhra Pradesh, Maharahstra & Telangana
- MNREGS Convergence in 4 States except Maharahstra
- Swachh Bharat Mission is implemented by Telangana RDP in Telangana
- Similar initiative is coming up in Tamil Nadu (integration design is being finalised)
a. Government Orders, Guidelines, issued in Tamil Nadu and Telangana making the rural livelihood programs implementing agencies of Swach Bharat Mission (Rural).

b. Dedicated teams of WASH Professionals hired, trained and placed in Maharashtra State Rural Livelihoods Mission (MSRLM).

c. Pilots have been launched in WASH mobilization; WASH funding; Behavior Change Communication (BCC), WASH Enterprises (for procurement and construction of Toilets).

d. Telangana has piloted innovative Behavior Change Communication (BCC) campaign using street plays, folk theater and Digital Green platforms

E) DEVELOPMENT OF INSTITUTIONAL ECOSYSTEM FOR HEALTH, NUTRITION, LIVELIHOOD AND SANITATION SERVICES IN BIHAR

The SAFANSI TA has created an institutional ecosystem (Fig. 28) for integrating livelihoods, health, food and nutrition services at the household level in a holistic manner.

As part of deepening livelihood interventions, the project has mobilized nearly 1,522 producer organizations; 762 for agriculture, 500 dairy cooperatives and 260 for non-farm activities. Seventy two poultry mother units were established to mobilize poultry producer organizations among 21,600 households. These producer organizations are leading to improved food security and nutritional outcomes. The project continues to strengthen convergence initiatives that enable access to entitlements such as the public insurance programs and social security pensions, PDS and MGNREGA.

F) TWO NEXT GENERATION RURAL INCLUSIVE GROWTH PROJECTS (APRIGP AND TRIGP)
The second major set of activities supported by SAFANSI TA included the production of a series of knowledge products to inform the next generation of multi-sectoral health and nutrition programs in poorer regions of AP and Telangana: Andhra Pradesh Rural Inclusive Growth Project (APRIGP) and Telangana Rural Inclusive Growth Project (TRIGP). These programs work on converged service delivery (supply and demand), developing entrepreneurial approaches to providing health and nutrition services, designing and implementing social safety nets and conditional cash transfers, a one stop shop for e-governance and service delivery and data analytics and use of ICT for feedback and decision making.

The analysis and knowledge products, especially those related to health and nutrition and a South-South Knowledge Exchange between SERP and Progresa Mexico, helped in designing two new projects: Andhra Pradesh Rural Inclusive Growth and Telangana Rural Inclusive Growth. The project will be implemented in the 300 most backward and remote mandals of AP and Telangana. In these mandals the majority of population is STs, SCs, and PoP. They are socially and geographically excluded. Both projects take an enterprise-approach to achieving food, nutrition and sanitation outcomes and are developing a converged institutional approach combining community, public and private efforts.

IX) DISSEMINATION

The project has taken an approach of concurrent dissemination of various products and learning materials. Significant amounts of material produced as a result of NLTA has been disseminated in the form of implementation manuals, training materials and communication materials in local languages during implementation of the program in Bihar. Frameworks for implementation, interventions and monitoring have been included in various policy documents and included in Project Implementation Plans produced by implementing agencies. Various knowledge products including learning notes, innovation briefs, analytical studies and workshop reports disseminated through both offline and online mechanisms. On occasion blogs were written and disseminated based on key learnings and findings. Many of these outputs have been presented and disseminated at state and national level workshops. Some of the results have been disseminated at various learning events within the Bank at the last AG FORUM attended by all staff of AG GP. Brown bag seminars have been also organized to disseminate some findings. Key outputs will be converted videos and materials for e-learning. Outputs will also be disseminated through the SAFANSI portal. Finally, joint dissemination with NRLM and State Governments is planned in the next phase.
X) ANNEXURE 1: NUTRITIONAL STATUS OF POOR IN NRLP STATES

FOOD AVAILABILITY AND NUTRITIONAL STATUS OF POOR IN NRLP STATES

<table>
<thead>
<tr>
<th>S. No.</th>
<th>NRLP States</th>
<th>Rural Poverty Headcount in % (Tendulkar estimates)</th>
<th>% of households with BPL cards (DLHS 2008)</th>
<th>Offtake of PDS in kg/HH/year (2003-04)</th>
<th>Offtake by PDS by BPL families in kg/HH/year (2003-04)</th>
<th>% of rural population consuming less than 1890 Kcal/cd/day (NSS 2004-05)</th>
<th>% of women with below normal BMI (NFHS-3, 2005-06)</th>
<th>% of ever married women (15-49 years) with Anemia (NFHS-3, 2005-06)</th>
<th>% of children underweight (NFHS-3, 2005-06)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bihar</td>
<td>55.7</td>
<td>26.9</td>
<td>138.1</td>
<td>12.2</td>
<td>16.0</td>
<td>45.1</td>
<td>67.4</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>Chhattisgarh</td>
<td>55.1</td>
<td>56.8</td>
<td>NA</td>
<td>NA</td>
<td>16.2</td>
<td>43.4</td>
<td>57.5</td>
<td>47.8</td>
</tr>
<tr>
<td>3</td>
<td>Gujarat</td>
<td>39.1</td>
<td>31.9</td>
<td>320.2</td>
<td>169.5</td>
<td>17.1</td>
<td>36.3</td>
<td>55.5</td>
<td>41.3</td>
</tr>
<tr>
<td>4</td>
<td>Jharkhand</td>
<td>51.6</td>
<td>33.3</td>
<td>NA</td>
<td>NA</td>
<td>13.8</td>
<td>43.0</td>
<td>69.5</td>
<td>54.5</td>
</tr>
<tr>
<td>5</td>
<td>Karnataka</td>
<td>37.5</td>
<td>55.9</td>
<td>460.5</td>
<td>139.9</td>
<td>26.5</td>
<td>35.5</td>
<td>51.5</td>
<td>33.2</td>
</tr>
<tr>
<td>6</td>
<td>Madhya Pradesh</td>
<td>53.6</td>
<td>42.3</td>
<td>365.6</td>
<td>124.0</td>
<td>16.0</td>
<td>41.7</td>
<td>56.0</td>
<td>57.9</td>
</tr>
<tr>
<td>7</td>
<td>Maharashtra</td>
<td>47.9</td>
<td>31.5</td>
<td>347.3</td>
<td>227.3</td>
<td>19.7</td>
<td>36.2</td>
<td>48.4</td>
<td>32.5</td>
</tr>
<tr>
<td>8</td>
<td>Orissa</td>
<td>60.8</td>
<td>52.2</td>
<td>276.4</td>
<td>175.9</td>
<td>15.4</td>
<td>41.4</td>
<td>61.2</td>
<td>39.4</td>
</tr>
<tr>
<td>9</td>
<td>Rajasthan</td>
<td>35.8</td>
<td>19.4</td>
<td>366.5</td>
<td>238.4</td>
<td>5.2</td>
<td>36.7</td>
<td>53.1</td>
<td>36.9</td>
</tr>
<tr>
<td>10</td>
<td>Tamil Nadu</td>
<td>37.5</td>
<td>13.3</td>
<td>526.0</td>
<td>181.1</td>
<td>23.4</td>
<td>28.4</td>
<td>53.2</td>
<td>25.9</td>
</tr>
<tr>
<td>11</td>
<td>Uttar Pradesh</td>
<td>42.7</td>
<td>27.7</td>
<td>285.2</td>
<td>92.7</td>
<td>8.0</td>
<td>36.0</td>
<td>49.9</td>
<td>41.5</td>
</tr>
<tr>
<td>12</td>
<td>West Bengal</td>
<td>38.2</td>
<td>28.3</td>
<td>316.8</td>
<td>246.2</td>
<td>11.9</td>
<td>39.1</td>
<td>63.2</td>
<td>37.6</td>
</tr>
<tr>
<td></td>
<td>All India</td>
<td>41.8</td>
<td>30.6</td>
<td>380.0</td>
<td>160.3</td>
<td>13.2</td>
<td>35.6</td>
<td>55.3</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Malnutrition status across states with Agriculture/Livelihood Projects
XI) ANNEXURE 2: FINANCIAL STATEMENT

Cost Table with Main Components and the Associated Costs

<table>
<thead>
<tr>
<th>Categories</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Assistance</td>
<td>163,573</td>
</tr>
<tr>
<td>Knowledge Products</td>
<td>108,019</td>
</tr>
<tr>
<td>Dissemination</td>
<td>21,600</td>
</tr>
<tr>
<td>Misc.</td>
<td>4,346</td>
</tr>
<tr>
<td>Available Balance</td>
<td>2,461</td>
</tr>
</tbody>
</table>

XII) ANNEXURE 3: LIST OF DELIVERABLES

List of various Technical Assistance reports and outputs

1. Report on Technical Consultations and Exchange visits between AP and Bihar;
2. Technical Diagnostics of Health and Nutrition situation in Bihar;
3. Design workshop and consultation report for design of community nutrition and health initiatives in Bihar;
7. Guidelines for incorporating Community managed sanitation in Rural Livelihood Projects
8. Mobile based ICT Application (app) for monitoring community managed health and nutrition programs for Jeevika in Bihar;

List of Knowledge Products

1. Stocktaking report of major health and nutrition initiatives and programs.
2. Analytical comparison of performance ratios and returns on investment in large scale health and nutrition programs.
3. A micro-study of Poorest of the Poor households: their nutrition status and factors that affect nutrition seeking behavior
7. Presentation on Rural Livelihoods, Health and Nutrition nexus.
8. Environmentally-sound and economically viable agriculture through small and marginal farmers’ institutions in Andhra Pradesh and Bihar, India. Link for paper: Link: http://www.ecoagriculture.org/publication_details.php?publicationID=695
List of various Dissemination and Learning Activities under SAFANSI

1. Knowledge EVENT: Bihar Innovation Forum II.
2. Workshop on Participatory Approach Sanitation
3. Findings of SAFANSI TA were presented at Agriculture Business Forum 2015.
4. Findings of SAFANSI converted into a video and e-learning.
5. 2015 Global Partners Forum – Collaborating for Global Health Impact, Women and Girls:
   Leveraging evidence for greater impact presentation by Dr. N. Vijaya Lakshmi, CEO, Jeevika.
7. Lunch seminars.

XIII) ANNEXURE 4: RESULT FRAMEWORK
<table>
<thead>
<tr>
<th>Output component</th>
<th>Deliverables</th>
<th>Description</th>
<th>Actual deliverables</th>
</tr>
</thead>
</table>
| Knowledge Product | One learning note | 1. Enhancing Agricultural Livelihoods through Community Institutions in Bihar, India  
|                  |              | 2. Women’s empowerment and socio-economic outcomes: impacts of the Andhra Pradesh rural poverty reduction program | |
|                  |              | 4. Digital Libraries for the Poor Facilitating Bottom-Up Innovation through Video-based Learning Platform | |
|                  |              | 5. Environmentally-sound and economically viable agriculture through small and marginal farmers’ institutions in Andhra Pradesh and Bihar. | |
|                  |              | 6. Stocktaking report of major health and nutrition initiatives and programs | |
| Two Guidance Note | 1. Design workshop and consultation report for design of community nutrition and health initiatives in Bihar | Six guidance Completed |
|                  | 2. Guidelines for incorporating Community managed sanitation in Rural Livelihood Projects. | |
|                  | 3. A micro-study of Poorest of the Poor households: their nutrition status and factors that affect nutrition seeking behavior | |
Jeevika program in Bihar.


Field Practioners Tool Kits

| Training manual and Project Implementation Plan for Community Managed Health and Nutrition in Bihar (English and Hindi) | Completed |

Two training modulus

1. Training module of spearhead team: Mobile based ICT Application (app) for monitoring community managed health and nutrition programs for Jeevika in Bihar.
2. Training module for community managed food security, health, and nutrition initiatives.

Completed

One trainers of Trainers

| Development of spearhead teams (Community Resource Persons, Experts, and YPs) | Completed |

Action Research Pilots

| Pilot in at least 50 villages | Community Managed Food Security and health and Nutrition Initiatives. | Pilot commenced in 82 villages in Bihar |

National Level workshop

| Two innovation briefs | 1. Analytical comparison of performance ratios and returns on investment in large scale health and nutrition programs. |
| | 2. Bihar Innovation Forum II event and report |

Completed

One policy Note

| Findings of SAFANSI TA were presented at Agriculture Business Forum 2015 and an e-learning produced to disseminate the lessons to TTLs, and policy makers. | Completed |

National Level Workshop

| Workshop on Participatory Approach on Nutrition and Sanitation nexus attended by high level policy makers and project managers was conducted by Prof. Robert Chambers. | Completed |

XIV) REFERENCES:
1 APRIG and TRIG PAD
2 ICRAPPRP
5 Parvati Singh and Parmesh Shah (2014) micro-study of Poorest of the Poor households, their nutritional status and factors that affect nutrition seeking behavior in Thornalla village (Medak District) in Andhra Pradesh, India.


ix Evaluation of the community mobilization (Parivartan) project promoting family health and sanitation behaviors in Bihar, http://www.ananya.org.in/pci_document