

The Project Evaluation and Impact Assessment Report



WOMEN LED TRADITIONAL HEALTH CULTURES FOR RESILIENCE TO CLIMATE CHANGE INDUCED DISASTERS IN NORTH BIHAR, INDIA

PROJECT NO.321-110-1084 ZG

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Support: MISEREOR, Germany

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Abbreviation-

ANH	Agriculture, Nutrition and Health
AYUSH	Ayurveda, Yoda, Unani, Siddha, Homeopathy
BAPCC	Bihar State Action Plan on Climate Change
CBO	Community Based Organization
CCA	Climate Change Adaptation
CSA	Climate Smart Agriculture
CSO	Civil Society Organization
DRR	Disaster Risk Reduction
FFS	Farmer's Field School
FGD	Focus Group Discussion
GPSVS	Ghoghardiha Prakhand Swarajya Vikas Sangh
HH	Household
HNG	Health and Nutrition Garden
ICDS	Integrated Child Development Scheme
IWRM	Integrated Water Resources Management
KMM	Kasturba Mahila Mandal
KRAC	Knowledge, Resources and Advocacy Centre
NGOs	Non-Government Organization
THP	Traditional Health Practitioners
UNICEF	United Nation International Child Emergency Fund
USSW	Udaipur School of Social Work
VDMP	Village Development Management Plan
WASH	Water Sanitation and Hygiene
WLCCI	Women led traditional health culture for resilience to climate change induced

Acknowledgements

The Impact Assessment Report document **“WOMEN LED TRADITIONAL HEALTH CULTURES FOR RESILIENCE TO CLIMATE CHANGE INDUCED DISASTERS IN NORTH BIHAR, INDIA”** is an output of impact assessment exercise carried out during the month of January-February 2023 to assess interventions carried out by GPSVS team with the support of MISEREOR, Germany.

We take this opportunity to convey our sincere gratitude to GPSVS for providing us opportunity of partnership for conducting this impact study. The insights provided by members of GPSVS from time to time and evolving learning were tremendous and appreciable.

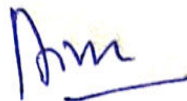
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1 Executive Summary

Climate change is impacting human life in many ways. It threatens essential ingredients of quality of life like clean air, safe drinking water nutritious food supply and safe shelter and has the potential to threaten decades of progress of human life. This temperature rise could also increase atmospheric moisture and raise the proportion of high intensity rainfall that causes flooding and other forms of disaster. This devastating changes effects all section of the society in general but particularly the women are impacted immensely especially in the state like Bihar which is one of the most climate-sensitive states in India. In the project area, of North Bihar, frequency of occurrence of climate change induced disasters like floods, heatwaves, cold-waves, thunderstorms, and droughts are becoming high. This results in negative effects on production and economic situation of small and marginal families. Climate change is making extreme climate events more frequent in the state and the incidences of landslides and flash floods and droughts are on the rise. Considering these factors GPSVS started working on revival of traditional health culture and economic sustainability for rural poor and undertook some pilot project on farmer's field school approach on climate smart agriculture in North Bihar. Understanding the importance of both climate change and disaster risk reduction, the community leaders of GPSVS emphasized that there is a need to work on both these subjects.

1.1 Evaluation and Impact Assessment -

As the project has already completed five semesters in January 2023 an evaluation was carried out to examine the activities implemented by the project over the last 4-years. The impact assessment process intended to know the impact of the project on the community and to rectify the shortcomings and to provide recommendations for the next phase of the project. The evaluation methodology included, review and analysis of project documents, interaction with team members, community member (KMM members, adolescent girls groups, FFS members, network partners, stakeholder consultation, visits to specific project components like Health and Nutrition Garden, Schools (CSSP & SAP), KMM Cottage Industry. Feedback survey with Paryavaran Swasthya Saheli (PSS) and PSPs.

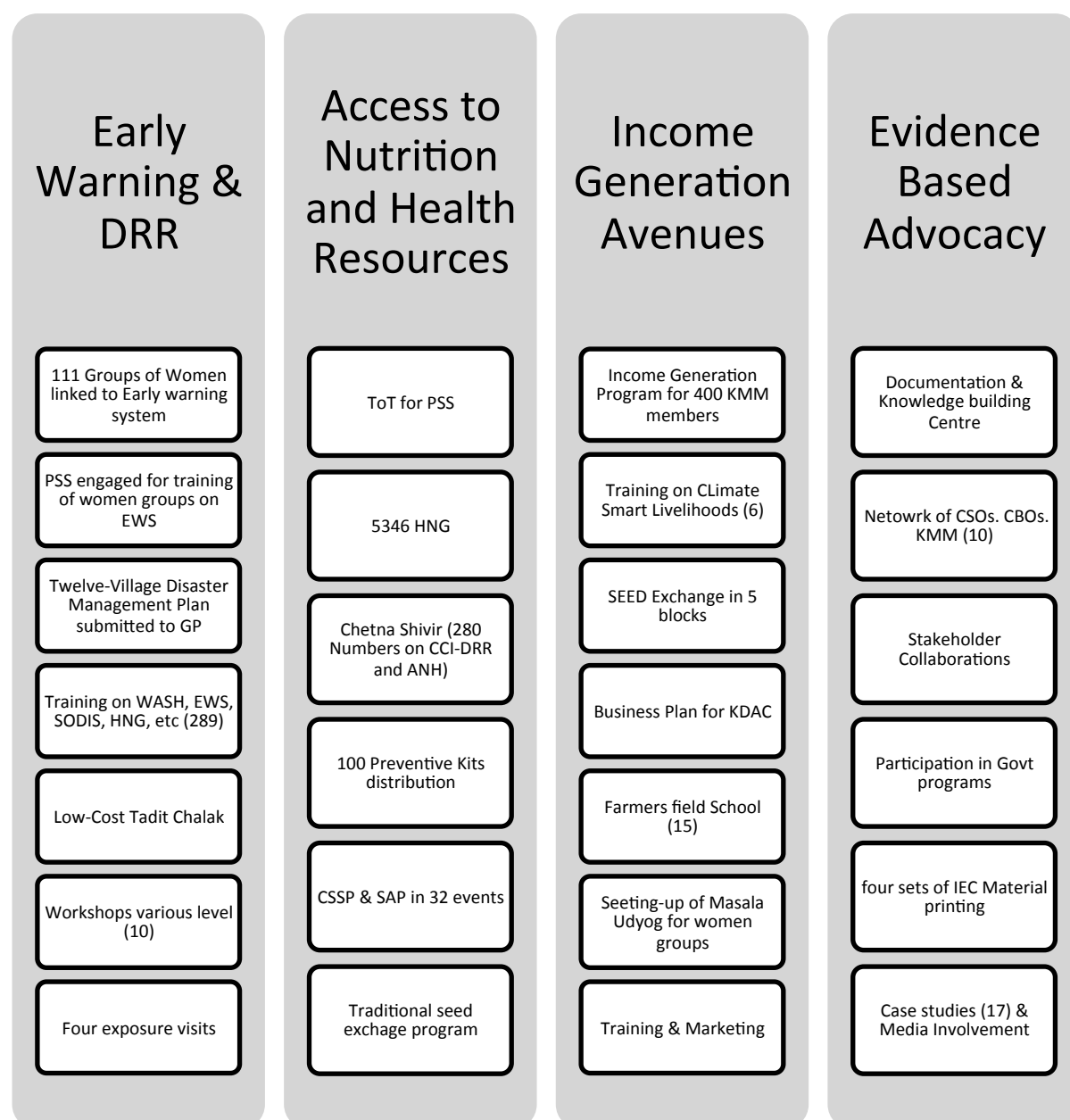
1.2 Project Profile

Thus, a project **“Women led traditional health culture for resilience to climate change induced disaster in North Bihar, India.”** was evolved with following specific objectives

1. Women groups' response to Climate-Change induced challenges has improved markedly by the end of the project period.
2. Women successfully applied knowledge about health, diversified kitchen gardening, family hygiene, water purity, and balanced nutrition.
3. Women groups successfully apply the traditional health practice system not least in the health challenges induced by climate change.
4. At the end of the project period and based on the evidence, women groups are increasingly involved in program for risk reduction and disaster preparedness as well

as in relevant decision-making processes.

1.3 Project Activities



1.4 Project Outputs and Outcomes

- ☐ One hundred groups (VDMC, CDMC, & SHGs) trained and Linked to Early Warning System focusing on community-based disaster risk reduction, disaster resilience, climate adaption and mitigation.
- ☐ 400 groups participated in various awareness programs on both CCI-DRR and THP.
- ☐ PSS, acted like community resource persons on CCI_DRR, CSA, WASH, ANH, etc. and organized 289 camps in project villages.
- ☐ PSP, PSS and THP are consistently working to address climate change induced health vulnerabilities in at least 10,000 households across communities through 5346 HNG.

- ❑ The result of the combined efforts of PSS can be seen in the form of health and nutrition awareness among women in the project area.
- ❑ The Women associated with KMM have not only successfully set up enterprise after getting climate smart livelihood training but have also started production of daily use products like cumin powder, turmeric powder, coriander powder, chili powder etc.
- ❑ 15 farmers field school for women group running effectively in the project area.
- ❑ Among the women of small and marginal family's ailments like Anemia and Leucorrhoea are frequently occurring diseases among women of reproductive age and adolescent girls.

1.5 Effectiveness & Sustainability

While the project is executed successfully and gave good number of learning

- ❑ Dedicated Grassroots team (PSPs & PSS) close coordination with Government system, and innovative approach of Hybrid methodology can helped the successful implementation during COVID.
- ❑ Majority, Health and Nutrition Garden have herbs like *Patharchatta*, *Kalpanath*, *Bakas*, *Tulsi*, and *Lalparni*, useful for treatment of some common diseases in the area. Most Gardens are good vegetable production at works but limited diversity, thus advised to evolve a standard model of Health Nutrition Garden.
- ❑ Project, worked well in spreading message on Indra-Bajra, and piloting for low cost Tadit-Chalk, community response is very positive and raising urgency for wider coverage and propagate the technique to save more lives.
- ❑ Farmer's Field School approach for adaption of organic approach in farming practices adapting climate smart agriculture (CSA), GPSVS can consolidated detail experience and share with agriculture department for replication. FFS approach can be utilized further to produce herbal and spice crops for KMM cottage industry and create income generation for women groups.
- ❑ The Masala Udyog indicates potential for widening its coverage for the economic gains for small and marginal family women, through cultivating herbal and spice crops, processing, marketing, and household enterprise.
- ❑ The component of School Awareness Programme was collaborated with the comprehensive school safety program of Government reaching urban students from public schools. The component was quite successful and reflects need for a separate objective in the coming projects. Such an exclusive drive for awareness building can reach to the level of network of friends of traditional health practitioners and inclusive DRR, might be an effective strategy.
- ❑ Climate change is affecting livestock based livelihood negatively, thus community reflected that traditional health system could include medicinal plants related to common diseases of cattle.
- ❑ The awareness generation program needs to update to inclusive DRR.
- ❑ KMM women groups and *Kishori Samuh* (adolescent girls' group) associated with ICDS Centre could be best change agents to tackle widespread prevalence of

common ailments, inclusive DRR, and One-health.

- Project innovation of “Traditional Medicine based Preventive Health Kit” contains Ayurvedic Medicines towards preventions and first-aid like pain balm, kara etc. slowly-slowly it need to replace with local products, kitchen material and HNG plants. A pamphlet giving guideline for a kit dedicated to women health issues and available at household level will be very useful.
- KDAC, Patna interacted with various stakeholders both virtual and actual and laid foundation for intense and targeted interactions with veterinary and agriculture education and research institutions, college youth, scout-guide, NCC, etc.

1.6 Recommendations

- GPSVS target to scale-up climate smart livelihood options for vulnerable women
- Creating an active network of Traditional Health Practitioners (Gunis), AYUSH Vaidya, PSPs, CSOs, PSS both young and elderly, as change agents.
- Community preparedness for effective sustainable development is an immense task; therefore, GPSVS can plan to use social media tools like WhatsApp, Twitter, Facebook or....
- Scale-up Comprehensive School Safety Programme, with inclusive-DRR and Traditional Health Practices.
- Consolidate the project experience and scale-up to other regions through outreach actions like using social media, community dialogue, print-media, and network actions.
- GPSVS needs to take-up a separate program. Therefore, it would be more appropriate to design a new strategy for adapting KMM and KMS as a vehicle of change or focus for behaviour change into a broader community.



Photo 1 Next Generation DRR Change Agents are picking-up

2 Project overview

GPSVS is implementing the project with the support of MISEREOR since 1st August 2020, five semester have already completed, thus external evaluation and impact assessment was carried out to capture prevailing issues in the area, relevance of project, its objectives, interventions, their output, outcomes, and impacts achieved so far. Hence GPSVS decided to conduct impact assessment in line with the achievements of the project, document best practices and prepare project documentation, so that the relevance of the project can be justified in context with area and community.

2.1 Context and background of the project

Climate-Change is a global challenge that burdens all of humanity, but not equally. The world's poor, the majority of whom are women, are impacted disproportionately, which is further exacerbated in local settings that are already affected by violent conflict, political instability, and economic strife. Though Climate-Change impacts men and women differently, yet both men and women can harness their respective capacities to act as active agents of change in response to this issue. As the world struggles to grapple with rapid onset disasters as well as respond to slower degradation caused by Climate-Change, it is critical to ensure that the plight of women is firmly on the agenda of concerns and that women – from different backgrounds – can participate in negotiations, design, and implementation of programs.

In the rural areas of India, particularly Bihar, it is often the woman's role to collect water, secure energy for the household and to undertake subsistence farming activities. Women are also the primary producers of food. Consequently, when the repercussions of Climate-Change hit rural areas, it increases the burden on those responsibilities primarily undertaken by women, meaning furthermore vulnerability for women. It is therefore vital to include a gender perspective in all Climate-Change policies and program to ensure that both women and men contribute to solutions. The proposed project is an effort to explore with community, how the community of woman groups works to ensure that gender equality is better integrated into Climate- Change actions at the community level, influence program and policies so they lead to sustainable future.

The state of Bihar, equipped with bountiful natural resources such as fertile soil, abundant water, varied climate, and rich cultural and historical heritage. Agriculture is the vital source of livelihood for about 79% of its population and it is the core competence of its people. Most farmers are intelligent and hardworking, but Changing climate has started putting them on higher trial year by year through frequent events of disasters particularly those of extreme precipitation, floods and droughts are on increasing trends. Together duo started effecting the environment, water, agriculture, food security, human health, ecosystems, and biodiversity. In this respect, the Bihar State Action Plan on Climate-Change-BAPCC, have shown that there is a high probability of an increase in the frequency and intensity of climate-related natural hazards in Bihar. Considering this GPSVS started applying climate lens to its program of the rival of traditional health culture and economic sustainability for

poor community and undertook some pilot on farmer field school approach on climate-smart agriculture in North Bihar, during its present project, which comes to an end by 2019. It has also implemented a program on disaster risk reduction-DRR in the district of **Supaul** with the help of UNICEF.

Working on these two themes GPSVS and its community leaders have started comparing these two approaches i.e. climate-proofing and disaster risk reduction and found that there are many common actions particularly community preparedness, thus there is a need to address these two aspects jointly. This made GPSVS evolve a theory of change of community preparedness to address both the faces of the problem of Climate-Change and disasters. Thus, we have evolved this project on **“Women-Led traditional health cultures for resilience to Climate-Change Induced Disasters in North Bihar, India”**, as a response to Climate- Change-induced disasters and sharing with you for considering it as a strategy for coming decade. Following paragraphs set the context for the need of actions to bring **women in lead role to address health and disaster risk and further acceleration to it due to the impact of Climate-Change** in the state of Bihar.

Table 1 Planned Objectives and Indicators

Objective	Indicator:
Objective-1: Women groups' response to Climate-Change induced challenges has improved markedly by the end of the project period.	It has been documented for 400 women groups that they take appropriate actions against Climate-Change induced disasters, e.g., floods.
Objective-2: Women successfully applied knowledge about health, diversified kitchen gardening, family hygiene, water purity, and balanced nutrition.	At least 5000 women in the project area with previous signs of malnutrition have shown in two-point improvement in their health status. Farming system losses due to e.g., floods have reduced by at least 25%.
Objective No. 3: Women groups successfully apply the traditional health practice system, not least in the face of health challenges induced by climate change	Traditional health practitioners (THPs) present and provide traditional methods of healing to 1,000 persons from one hundred communities.
Objective No. 4: At the end of the project period and based on evidence, women groups are increasingly involved in programs for risk reduction and disaster preparedness as well as in relevant decision-making processes.	Two relevant decisions of official institutions on the integration of women have been document

Table 2 measures and activities have implemented (Provided by GPSVS)

111 women groups (KMM/KMS & CDMC) have focused on Multi Hazard Early Warning System. Women groups from Indo-Nepal Trans boundary Citizen Forum were trained on weather-forecasting based early warning system.
PSS and PSP spread awareness among communities related to community disaster risk reduction, community-based health, and nutrition awareness with government programs.
12 Village Disaster Management Plans have been prepared by the community people and women groups members and it has been submitted to GP in association with this 8 VDMP plans are under process of submission.
GPSVS has built capacity and leadership skill of women, children, and adolescent in WASH promotion, IWRM at all levels (household, community, and trans-boundary).
GPSVS revived traditional water bodies and promoted indigenous techniques of water harvesting resulted in recharged ground water in the project areas of North Bihar. Hand pump retrofitting & Raised Cemented Platform with soak pit for improving water quality and water availability in flood prone areas. Community based institutions for ensuring Water Democracy has been strengthened.
5346 HNG has been developed at the HHs level and 100 Preventive Health Kits has been distributed to KMM Groups members and PSS
304 women of FFS are involved in traditional seed bank network, more than 10000 women are in the practice of traditional food preservation and management. GPSVS has promoted the preparation of dry food as well as traditional food systems to improve health and nutrition, especially dry vegetables and other products are important for flood time.
304 Women from FFS have involved in Climate Smart Agriculture practices in 11 Villages.
400 KMM and other women groups members have involved in the Income generation activities through their own KMM business model (Spice Business). They have identified the local Shops and done market survey and given sales target to the marketing/sales team. These raw materials were purchased from FFS members and local vendor.
Two Article published in Newspaper namely Dainik Jagran & Prabhat Khabar. Inspired by the activities of WFFS this newspaper published article on collective farming practices and traditional seed conservation practices of GPSVS.
KDAC continued its focus on strengthening the network with key stakeholders and developed region specific network of likeminded NGOs engaged in knowledge building, documentation, and Advocacy on CCI-DRR at local level.
There are several case studies prepared by GPSVS – WLCCI-DRR team members and also collected from NGOs/CBOs/CSOs network agencies.
1. Bihar State Disaster Management Authority has started Disaster Risk Reduction training for Jeevika Women Groups where GPSVS model has been adapted. 2. Promoting HNG through Jeevika Groups and this concept adapted by ICDS

2.2 Scope of Evaluation Exercise

This evaluation aims to assessment the activities that have been implemented for the 3-year of the program. This evaluation will help the program management, impact and to make results on how to effectively engage target group to have collaboration on implementing Climate change adaption & Traditional Health Cultures moralities in our work. The findings for this evaluation include lessons learned and recommendations in order to plan for the next step's planning & activities. ***The evaluation will specifically focus on the following dimensions taken from the GPSVS-MISEREOR-KZE Guidance:***



This evaluation aimed to assess the activities implemented for the 3-year of the programme. Hence, to bring out how to effectively engage the target group to have collaboration on implementing climate change adaption & traditional health culture moralities in our work. It also expected to provide recommendations to plan for the next phase planning & activities. Thus, the Impact assessment emphasized on following aspects.

- ☐ Logical linkages between activity, output and outcome and its relevance with the area and community.
- ☐ To document visibility of GPSVS and other stakeholders in the field.
- ☐ Potential for up-scaling and replication of good practices.
- ☐ To document physical visibility of GPSVS and other stakeholders in the field;
- ☐ To assess the technical soundness of the structures.
- ☐ Project approach, strategy adopted in executing the project.

Key Questions:

- ☐ To what extent was the project's approach relevant to the Leadership of Women community in the area?
- ☐ Was the set of activities sufficient?
- ☐ To what extent did the different types of activities complement each other?
- ☐ Did the project target the right group of beneficiaries?
- ☐ Did the participant's knowledge and skills in PSS & PSP and program management improve?
- ☐ To what extent did the project empower the community?
- ☐ To what extent did the skills learn to help the Indigenous Women community?
- ☐ How well was the program implementation process managed?
- ☐ How was the coordination between GPSVS's program leadership and partner in implementing it with CSO and CBOs?

3 Evaluation Methodology

MISEREOR-KZE-GPSVS has guiding principles for conducting program evaluations. These include participatory, culturally sensitive, committed to building capacity, affirmative and positive while honest and productively critical, and valuing knowledge and approaches from within the context. The evaluator will meet the project participants, partners, GPSVS staff and relevant stakeholders. Meetings will be conducted in field & at organization. The consultant evaluator will develop the methodology and tools of the evaluation finalize in consultation with GPSVS management and M&E staff.

This evaluation adapted the following methodologies.

- ☐ To undertake a review of the project documents, various reports, and proceedings of meetings, etc.
- ☐ Analysis of periodical reports and study of learning to developing questions and designing formats for capturing data.
- ☐ Stakeholder Consultation with representatives of various departments, NGOs, INGOs, Public School and Churches Representative, education institutions.
- ☐ Organize discussions with Community representatives and local leadership.

- ❑ Organizing discussion with GPSVS and PSS & PHP on process and impact.
- ❑ Meet all the members of PSS and FGD with community.



Photo 2 Talking to Students at Christ Church School



Photo 3 Discussion on Policy Issues



Photo 4 Adolescent girl sharing her knowledge



Photo 5 FGD with CDMC Members



Photo 6 Interaction with students at St Karen's High School

4 Key Findings

Like various other developing countries in India, also the overall health management system in urban and rural areas is privatizing and becoming more and more commercialized, demanding a higher percentage of income. In such a situation, the idea of the revival of the preventive health management system in remote rural areas is unique in its concept and approach. In our view, the restoration of traditional food and health practices is highly essential to save poor communities from exploitation on account of health expenses and reducing dependency on others by spreading the culture of preventive health management. In this direction, the project undertook various activities to reach and benefit target beneficiaries in around 100 villages of the three districts of North Bihar. This section discusses the findings of evaluation exercises with the lens of revival and adaptation of this critical and essential approach of health management in the area. We are talking about the following points here to take this concept further up to another level of adaptation by the wider community and other stakeholders, including government, which is a Himalayan task and demands for multifaceted actions.

4.1 Assessment of project concept and relevance

There is a high probability of an increase in the frequency and intensity of climate-related natural hazards in Bihar. Considering this GPSVS started applying climate lens to its program of the rival of traditional health culture and economic sustainability for poor community and undertook some project on **“Women-Led traditional health cultures for resilience to Climate-Change Induced Disasters in North Bihar, India”**, as a response to Climate- Change-induced disasters and sharing with you for considering it as a strategy for coming decade. Following paragraphs set the context for the need of actions to bring **women in lead role to address health and disaster risk and further acceleration to it due to the impact of Climate-Change** in the state of Bihar.

Table 3 Observations pertaining to indicators pertaining to specific objectives.

Objective	Indicator	Type Your Observations and comments here
Women groups' response to Climate-Change induced challenges has improved markedly by the end of the project period.	It has been documented for 400 women groups that they take appropriate actions against Climate-Change induced disasters, e.g. floods.	The objective is quite relevant particularly within the context of Rural Bihar
Women successfully applied knowledge about health, diversified kitchen gardening, family hygiene, water purity, and balanced nutrition.	At least 5000 women in the project area with previous signs of malnutrition have shown in two-point improvement in their health status.	The Component of Promotion of knowledge building by women groups is very important and thoughtful intervention for rural areas.

	Farming system losses due to e.g., floods have reduced by at least 25%.	Indicator of reduced farming system losses through FFS is vital
Women groups successfully apply the traditional health practice system, not least in the face of health challenges induced by climate change	Traditional health practitioners (THPs) present and provide traditional methods of healing to 1,000 persons from 100 communities.	PSS involvement and interaction with community is at various platforms and modes, this is difficult to track this indicator
At the end of the project period and based on evidence, women groups are increasingly involved in programs for risk reduction and disaster preparedness as well as in relevant decision-making processes.	Two relevant decisions of official institutions on the integration of women have been documented.	A state level centre for liaison with various departments and stakeholders involved in DRR and Health system is quite relevant

4.2 Observations on activities

Table 4 Activities and Achieved Effects/Output

Planned Activity	Activities Completed
Evolving pilot system of Women group led early warning system with 100-woman groups	Evolved a system of the early warning system involving women from 100 groups reaching 100 villages
Printing of IEC materials, on CCI_DRR, and early warning system.	4 sets of IEC material developed and distributed on CCI_DRR, and early warning system.
Chetna Shivir Organized with woman groups on ANH and CCI-DRR	280 number of Chetna Shivir Organized with woman groups on ANH and CCI-DRR
Training of Trainers - for Early warning system and CCI_DRR	10 phased ToT on Early warning system and CCI_DRR for PSS
Training of WG on early warning system and decision making	PSS undertook training of 158 WG on early warning system and decision making
Guide woman groups for preparation of CCI-DRR Plans and GP interaction	Woman Groups prepared and presented 12 GPDP and submitted them to GP
Paryavaran and Swasthya Saheli (PSS) and Paryavaran and Swasthya Prerak	A team of 4 PSPs and 20 PSS implemented the program at grassroots level
ToT for Paryavaran and Swasthya Saheli (PSS)	Ten Numbers of ToT for Paryavaran and Swasthya Saheli (PSS)
Training of Women Groups?	PSS organized 289 training camps for Women

	Groups
Printing of IEC materials, Teaching Aids, Charts & Leaflets on ANH, THS	Printing of 3 sets of IEC materials, Teaching Aids, Charts & Leaflets on ANH, THS
School level Awareness Programs	School level Awareness Programs & CSSP in 32 events
Preventive Health Kit	PSS, PSPs and others who are associated with the programs have got one hundred "Preventive Health Kit"
Number of health and Nutrition Garden Developed	5346 Number of health and Nutrition Garden Developed
Proposed Seed Bank Program for Nutritional and Health related plants	At 5 blocks community have started seed exchange program for Nutritional and Health related plants
Identification of women entrepreneurs for Climate Smart Agriculture Livelihood Training	Six training were organized on women entrepreneurs for Climate Smart Agriculture Livelihood
Farmers Field School for Women groups	Fifteen FFS for Women groups
Developing a business plan for KMM health and hygiene enterprises.	Business plan developed for KMM health and hygiene enterprises.
Establish KMM owned producer organization	KMM owned producer organization
Establishing a Centre for knowledge exchange on CCI_DRR	Establishing a Centre for knowledge exchange on CCI_DRR
Handholding and network support for 10 NGOs/CBOs	Handholding and network support for 10 NGOs/CBOs
Quarterly meeting of THPs from project intervention blocks.	Nine meeting of THPs from project intervention blocks.
Research, Case study and NEWS articles on Nutrition, Health and CCI-DRR	17-Case study and 2-NEWS articles on Nutrition, Health and CCI-DRR
Exposure and learning visits	Four number of exposure and learning visits
State and district level workshop on ANH, CCI-DRR, and THC	3 State Level, 4 District Level, 2 Regional Level & 1 Block Level (10 Workshop)

4.3 Project Outputs and Outcomes

All the activities and regular implementation of various activities resulted in number of outputs so far and linked outcomes as indicator given in table-5

Table 5 Status of Indicators as on 31st December 2022

Output Planned	Status with Comments
Linked with the early warning system, 10000 women members of SHGs are equipped with resilience against	111 women groups (KMM/KMS & CDMC) have focused on Multi Hazard Early Warning System. Women groups from Indo-Nepal Trans boundary Citizen Forum was trained on weather-forecasting based early warning system.
Regularity and innovative approach followed by PSS and PSP	PSS and PSP spread awareness among communities related to community disaster risk reduction, community-based health and nutrition awareness training related to government programs.
Adaption of CCI_DRR plans by Gram Panchayat and PRI department	12 VDMP submitted to GP in association
At least 50% regularly following improved WASH behaviour	Community adapted IWRM at household, community, and trans-boundary level. Women and children improved hand hygiene practices, like <i>Matka</i> ¹ Filter & SODIS adapted, rainwater harvesting.
At 50% members in groups follows some key WASH and Personal Hygiene	GPSVS revived traditional water bodies and promoted indigenous techniques of water harvesting resulted in recharged ground water in the project areas of North Bihar. Hand pump retrofitting & Raised Cemented Platform with soak pit for improving water quality and water availability in flood prone areas. Community based institutions for ensuring Water Democracy has been strengthened. In the VDMP plan, Safe drinking water, hygiene and sanitation practices have emerged for improving WASH.
Number of families adopted preventive health kit and Health Nutrition-Garden	5346 HNG has been developed at the HHs level and 100 Preventive Health Kits has been distributed to KMM Groups members and PSS

¹ Earthen Pot

Number of women involved in CMSS and varieties of traditional food	304 women of FFS are involved in traditional seed bank network, more than 10000 women are in the practice of traditional food preservation and management. GPSVS has promoted the preparation of dry food as well as traditional food systems to improve health and nutrition, especially dry vegetables and related products are important for disaster (flood) preparedness.
Number of women members involved in CCI actions and CSA	304 Women from FFS have involved in Climate Smart Agriculture practices in 11 Villages.
Women group members started Income generation activity	400 KMM and other women groups members have involved in the Income generation activities through their own KMM business model (Spice Business). They have identified the local Shops and done market survey and given sales target to the marketing/sales team.
Article Published in News Paper	Two Article published in Newspaper namely <i>Dainik Jagran</i> & <i>Prabhat Khabar</i> . Inspired by the activities of WFFS this newspaper published article on collective farming practices and traditional seed conservation practices of GPSVS.
Visible actions by network partners for promotion of THS and Women led CCI_DRR	KDAC continued its focus on strengthening the network with key stakeholders and developed region specific network of likeminded NGOs engaged in knowledge building, documentation, and Advocacy on CCI-DRR at local level.
Dissemination of Case studies in blogs, local and state media	There are several case studies prepared by GPSVS – WLCCI-DRR team members and collected from NGOs/CBOs/CSOs network agencies.
At least two actions at government level	1. Bihar State Disaster Management Authority has started Disaster Risk Reduction training for <i>Jeevika</i> Women Groups where GPSVS model has been adapted. 2. Promoting HNG through <i>Jeevika</i> Groups and this concept adapted by ICDS

4.4 Observations on Impact and Specific Achievements

GPSVS has spread this work in the other fifteen districts with a wider network. The collective efforts on community awareness and motivating other stakeholders for the promotion of the traditional health system are increasing the reach to realize the goal of revival. Stakeholders from governments like the Ministry and Department of AYUSH, educational institute, research institutes, and PRI are keen to remove constraints in terms of law rules, policy, programs, and budgetary support.

Table 6 Observations about indicators on specific objectives

	Particulars	Intended effects	Impact as on 31st Dec 2022
Objective-01	Women groups response to climate change induced health and disaster risks reduction is improved	Four hundred women groups take appropriate actions against climate change induced disaster.	With Regular training and awareness program four hundred women groups can reduce the risk related to CCI Disaster.
Objective-02	Women successfully applied learning on Agriculture, Nutrition, and Health (ANH) and attained improved water, sanitation, and hygiene (WASH) and nutrition behaviours	At least 20% women shows two-point improvement in health status.	In FGD members of KMM and Kishori Samuha indicated improved Health status, the data need to be collected from ICDS
		At least 25% reductions in farming system losses due to disasters risks.	FFS members indicated that mixed cropping and organic practices, are helping to reduce the input costs > 20 %
Objective-03	Women groups have successfully applied traditional Health Practice system effectively serving communities, not least in the face of climate change	PSPs and THPs are continuously providing access to at least ten thousand families in one hundred communities especially on climate change induced health vulnerabilities	Time to time reports from GPSVS indicates that the number is far-more, and need a simple indicator and tracking, may be based on shift in health practices
Objective-04	Evidence based advocacy on integration of women groups in climate change induced disaster risk reduction programs for effective decision making and actions in the state of Bihar	Two decisions making in favour of involvement of women groups in government and other agencies programs on CCI_DRR in other parts also.	BSDMA has incorporated Jeevika Didi (women groups) DRR training program along with GPSVS and KDAC and other institutions.

4.4.1 Women Led Early Warning System

111 groups of women are associated with the weather forecast based early warning system, which can be seen as an effective strategy in the event of a disaster. GPSVS is engaged in multipronged intervention for disaster mitigation planning. At the individual level, it focuses on installing the **Indra vajra** app to avoid mishaps related to thunderstorms. Whereas, at community level GPSVS has developed early warning system where, in case of any flash flood, information is disseminated from Nepal to India through Indo Nepal cross border citizen forum. This effort of GPSVS is commendable, in addition to this, it would be better if GPSVS makes a community-based strategy for early warning system and early response system for other disasters like heat wave, cold wave etc.



Photo 7 KMM Group at Amauja Sharing about the VDMP

4.4.2 Women Action - New Climate Change Phenomenon in the region

During interaction with KMM members it was found that elderly women have good knowledge of traditional local medicines compare to the middle-aged women. While adolescent girls associated with the KMM have the willingness to learn and explore the treasure of traditional medicines. Therefore, it is imperative to identify such adolescent girls from the community as a future activity of the project and guide them to act as change agent for reviving and inducing the culture of traditional medicines in every household of the project area. Following are some of the observations helpful to capture community awareness raised by the project.



4.4.3 Panchayat Level _ Disaster Risk Reduction in GPDP

This component was focused on involvement of women group members for evolving village development plan including component of disaster management. In this line project facilitated evolution of 12 numbers of Disaster Management Plans and submitted them for inclusion in GPDP at Gram-Panchayat Level. The whole exercise included resource mapping, social mapping, and identification of areas facing threats of different climate change linked hazards and propose potential solutions. Ward panch were involved in preparation, and women group members shared their plans with Gram Panchayat. Some components of these plans are included in GPDP at few panchayats. The participatory processes involved in preparation of these plans are now also part of government process of planning. The photos below show processes involved in the planning.

4.4.4 Collaborating with Other Programs of GPSVS

Team also made visits to some of the components of the project which have indicated constructive collaboration of different project of GPSVS for realizing benefits of achieving objectives of both the project. Following are specific project collaboration.

- 20 project villages in the Kamla Basin area is also part of project “Access to Safe Drinking Water” The components of both the projects are complementary to each other, focusing on reduction in terms of water-borne diseases and linkage with climate change. In this collaboration women groups are actively involved in adaptation of WADI system to access safe drinking water particularly at the time of the flood situation using solar disinfections (SODIS) technology.
- In the area around Jai Nagar, earlier a project formulated Trans Boundary Citizen Forum and associated village level CDMC and VDMC for Early Warning System, The groups formed during that time are still active, thus project evolved the process and incorporated that within the present early warning system. This helped in synergy development and also taking the learning to other basins also.
- With the help of World Neighbour, GPSVS is take-up a project on Tree Plantation for Health and Livelihoods. The project moves around large trees plantation. Women groups of semi-urban area of Khutona, and project tam worked to motivate the health centre here and develop a herbal garden using medicinal plants and trees. This action is has higher potential for scaling up in other hospitals and other departments with available common lands.



Photo 9 Setting-up Collaborative Model with Health PHC Khutona

4.4.5 Health and Nutrition Gardens

The project organized various events of awareness building and advised the community members for a preventive lifestyle for a healthy life. It guided them to use herbal plants for the treatment of various diseases and motivated them for an herbal garden at the household and village level. In most cases HNG has 10 to 20 crops/plants mostly nutrition (vegetables) and dual purpose (both nutritional and medicinal). But plants specific to specific medicinal purpose need to be incorporated more for quantity improvement and covering more diseases and ailments. The most found medical plants are Gurich, Neem, Patthalchoor, Tulsi, Vakas, along with trees like Mango, Mahogany, Guava, and arjuna. These plants are usable in 10-12 common diseases (Cough, fever, dysentery, gas, stone, hair-problem, skin, immunity, diabetes, nutrition, anti-biotic, and others). The evaluation team visited village Amauja, Balabakharm Jahali Patti, and Parmanandpur held meeting with the community, visited Herbal Garden of various families.

Most of the HNG have obvious greater proportion of nutrition linked vegetable composition than health and dual purpose one. The diversity is limited as compared to rich culture of Mithila region. The approach of HNG is now well accepted as family source to tackle both nutrition and medicinal need of family, friends, and relatives. The diversity, number and seasonal variations may not be sufficient to relay on availability of medicines. Thus, there is a need to further standardize the concept in term of the compositions and quantity of the garden. There are some specific plants which are not common, but specific to few HNGs only, this gives opportunities to identify such plants and make them common in the area for the benefit of wider community, for examples Sinduri, Giloy, Tekhur.



Photo 10 Farmers Field School



Photo 11HNG Garden



Photo 12A Vatika at Jahali Patti



Photo 13Sinduri HerbalPlan At Amauja

4.4.6 School Safety and Awareness

The GPSVS intervention with public school students is creditable in relation to disaster mitigation. Disaster management training is already being given regularly in government schools of Bihar, but students of private/public schools are deprived of such education. As a result, this program is being implemented not only in urban area but also for students of rural area in public school as well as with some government school students. This awareness program about disaster management and mitigation has reached to more than 5500 students of 32 schools. GPSVS has introduced two major components in the program. The first is a school awareness program that focuses on CCI-DRR along with traditional health practice and the second is a comprehensive school safety program that focuses only on CCI-DRR. An important vision of the program is to sensitize the students to respond to any disaster situation. Keeping in view the climatic conditions of the region It is imperative to recommend expansion of activities under this program. Since the GPSVS is the expert and pioneer in the field of traditional health culture in the state of Bihar, it would be appropriate to add a traditional health component to the comprehensive school safety program as well as a time bounded capsule course should be prepared for classes from upper primary to senior secondary on disaster management and mitigation.



Photo 14 Evaluation Team Interaction with participants of Comprehensive School Safety Program at Christ Church Diocesan School



Photo 15 Interaction with Girls about CSSP

Photo 16 Children sharing different learnings

4.4.7 Adolescent Knowledge Building and Traditional Health Culture

While conducting assessment process, team got the opportunity to interact with three women groups of different community in project area namely Amauja, Bala Bakhar and Jahali Patti. It is observed that adolescent girls across all groups have shown keen interest in promoting traditional health culture. It is observed that response of adolescent girls towards awareness about the inclusive DRR and traditional health practices are picking-up with the groups project has involved, but the area and number of young women and adolescent girls at risks are higher. Thus, there is need for taking this agenda of women health and traditional practices need to be taken-up to another level reaching wider community particularly for specific ailments related to women health anemia and leucorrhea, etc. The receptive attitude of adolescent girls and sense of wisdom among older women can be best harnessed to revive the traditional culture of health and nutrition in Bihar. Therefore, it is advised to take initiative to work more intensively with the group of adolescent girls. On the other hand, knowledge of traditional health culture will be transferred in the form of their improved knowledge of personal and family health.



Photo 17 Adolescent Group Members with Programme Director

4.4.8 Paryavaran Swasthya Saheli (PSS)

The grassroots level change makers for the project were young women; the evaluation team interacted with them. The FGD moved around the questions of what their perception of the whole program is, and how they find it. Later on, an exercise was taken-up to capture type of traditional health practices guided by PSS to their immediate community. The findings are analyzed presented in figure-01. This gives a very informative picture that nearly ten common diseases are guided by almost 60% PSS, but majority of PSS, PSP, and other team members can support for five-six ailment.

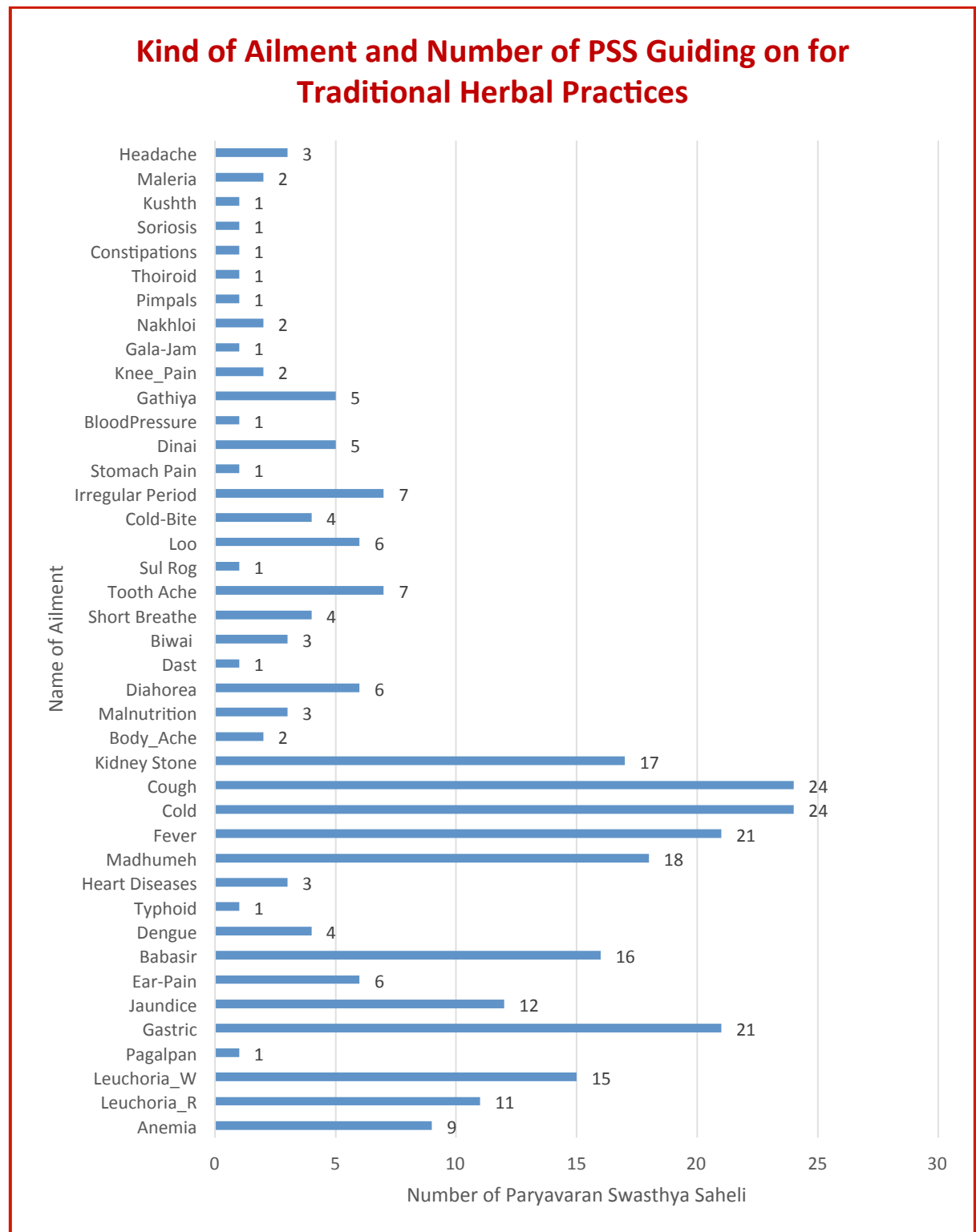


Figure 1 Common Ailment and Guidance provided by PSS to Community

The sharing indicated that they are real promoters of the traditional health practices; they share their knowledge with the community inclined towards raw herbal medicines and CCI-DRR

- ☐ Community have started accepting them as guiding individuals, though they are younger than many of their audiences, but now they are referred as “Didi”.

- Young PSS involvement has changed their lives in many dimensions; now, they know women's health issues, particularly reproductive health aspects.
- Confidence and self-esteem very high; they are open and discussed in detail about the diseases like white and red discharge commonly found in the area.
- PSS reflected containment over the process of helping community people.
- PSS also shared a few empirical examples of how they benefited the community people through locally available herbs.

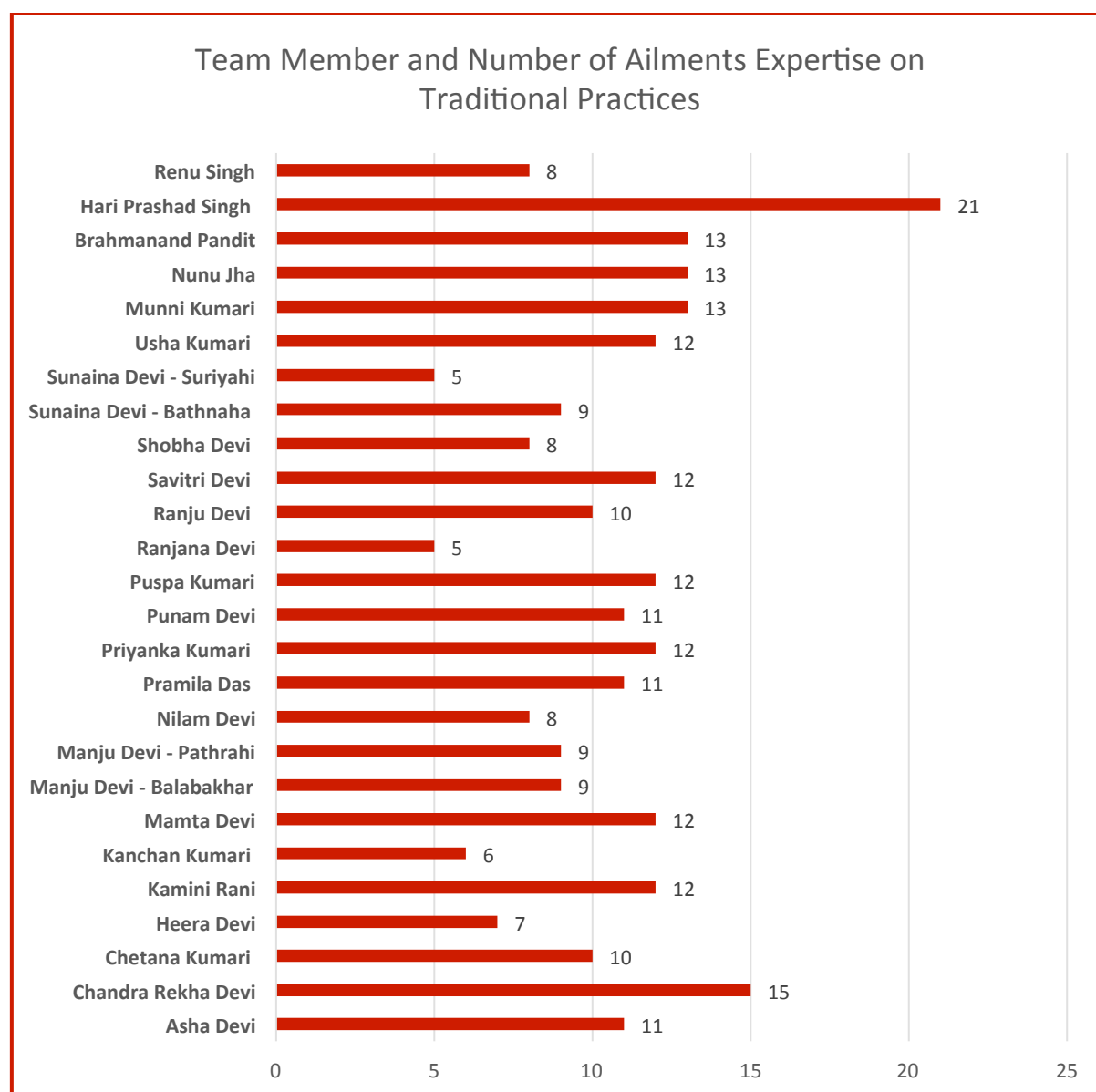


Figure 2 Team Members and Number of Ailments: Traditional Practices Promoted

Figure-2 offers an information which can be utilised for the further strategy for spreading the approach of traditional Health Practices to larger community.



Photo 18 Interaction With PSS



Photo 19 PSS Group with Preventive Kit

4.4.9 KMM-Led Community Entrepreneurship Women Livelihood

This entrepreneurship model run by women associated with KMM is a good option for women keeping in minds the needs and problems of the area. Since health, nutrition along with livelihood is important components resilience to climate change. It is a commendable initiative of GPSVS to involve marginalized women in the process of economic development. In its initial few months, the effort has produced more than 7195 KG of various products which is altogether a good beginning. The involvement and participation of women is encouraged to increase in future course of time. While discussing with women members of KMM, one of its members suggested that the raw material for this entire process should be purchased from the farms of the women members of KMM, this will not only increase the income of the KMM member, but GPSVS will also get quality organic material.



Photo 20 KMM Members working at Spices Cottage Industry

4.4.10 Project Stakeholders and Networking

Discussions also helped to capture how different external actions participated and their inputs were helpful in achievement of the project actions, output, and outcomes. Table-7 shares the findings.

Table 7 Stakeholders and nature of Input anticipated.

External Actors	Nature of the inputs	Observations
NGOs/CBOs,	Technical and resource-based collaboration, group initiatives on Women Leadership along with orientation and exposure visits.	Sharing through meetings and participation in Jal Jeevan, Hariyali mission
Church Organization	Involve as a network organization for the Traditional Health Practices learning & CCI-DRR	Sharing of project documents and learning with the CSOs/CBOs
Govt. Dept. Animal Husbandry, Education, Rural Development, Agriculture,	Technical, and governance support from the departments and policy level collaboration for the Promotion of CCI_DRR & Traditional Health	Motivating PSS to interact with officials and district, block, GP, and village & Sharing of Learning
Village and local level women leadership	Campaign of women empowerment to take responsibility for preparing meaningful women leadership.	Feedback to women leadership for linking project with the policy making bodies
International support agency like: WN, Water Aid, UNICEF, MISEREOR, WHH, and other INGOs	Collaboration for sustainable development and synergy for wider benefits	Explore learning material from these institutions; customize them for the local conditions.
State and National Network/Federation of CSOs	Policy level advocacy, latest information, moral boost up and other required cooperation	Share project learning with networks for wider community benefits
Other stakeholders (CBOs, Women's groups, PRIs, Media.)	Grassroots propagation and promotion of CCI_DRR & CSA, including policy/people advocacy.	Facilitation of grassroots level implementation,
BSDMA	Collaborating on various interventions and awareness building	Potential for institutional relations for long
Indigenous DRR Network	Learning Exchange and dissemination of project achievement for wider benefits	Explore learning to improve project actions and strategies

4.4.11 Knowledge Documentation Advocacy Centre - KDAC

KDAC has reached out to more than 20 districts of Bihar through its network of around 40 NGO's/CBO's. It has also collaborated with the State Government through Advocacy Initiative on various platforms especially in the events like Bihar Diwas and Sonpur Mela the activities of GPSVS are well recognized by the state government. Despite all around efforts of GPSVS still, there is a need for more advocacy initiative at every level for protecting women led traditional health culture and to mitigate the climate change induced disasters. This can be done through organizing various stake holders meeting like instead of meeting individual journalist, organizing a one-day meeting with the group of journalists at the divisional level could be a smart approach. This could enhance the visibility of GPSVS in newspapers and magazines. Similarly, other groups may be a group of doctors, Ayurvedic doctors and professors, agriculture department, animal husbandry professionals etc. who may take this subject forward. The revival of the traditional health management system has a long history of removal from the life and livelihood of the community in Mithilanchal. Therefore, GPSVS has incorporated advocacy as part of regular interventions within the broader program at all levels.

If we look from these angles, we can conclude to some extent that GPSVS has done excellent work on the advocacy front, particularly with the community and grass-roots level media, and local governance. Advocacy efforts are challenging to document, mainly due to different actions and regular actions. There are many direct and indirect actions, but as reflected by it. It was also evident that correspondence between the GPSVS team and state-level officials not adequately documented. It is understandable that as the preachers of mainstream medicines ignored traditional health practices, it will take time to show the fruits of advocacy done by the GPSVS team. Project reports shares in detail about the eleven orientation programs organized for the villagers to make them understand about the project, workshops are held at panchayat, district, and state level to persuade the public and the executives about the project outcomes. Therefore, it is a high time for GPSVS to convert the assurance of the government officials into the concrete circulars in favor of traditional health practices in Bihar. Advocacy initiatives built a positive environment in support of the traditional health care system in the state; key advocacy outcomes are;

- ☐ The regional level workshop has sensitized PRI representatives and officials for the promotion of traditional knowledge-based practices to mitigate efforts as a model within the Phulparas block with the support of panchayats.
- ☐ Based on climate hazard mapping under farmers' field school programs, panchayats have come-forward to take-up awareness programme on the effect of climate change on local life.
- ☐ Gram-Panchayat has also started supporting for plantation of indigenous trees under forestry and MGNREGA allocating 40% budget towards medicinal plants.
- ☐ Bihar AYUSH Mission has taken the work of GPSVS on a very positive note and assured support to this noble work.



बिहार राज्य क्षापदा प्रबंधन प्राधिकरण
BIHAR STATE DISASTER MANAGEMENT AUTHORITY



Ashok K. Sharma
Project Officer,
Environment & Climate Change Division

Email: aksharma@bsdma.org

Patna, Date: 11.01.2023

To Whom It May Concern

Choghardiha Prakhanda Swarajya Vikas Sangh (GPSVS), Madhubani based voluntary organisation is well known for its work on climate change induced disaster risk reduction. Promotion of community based traditional practices related to DRR, Climate change adaptation and environment protection has been its recognition. On occasion like Bihar Diwas and Sonepur fair 2022 it got the opportunity to show case its works. Its work has been appreciated by BSDMA and visitors on stall. It has been promoted traditional knowledge like organic farming, seed conservation, rainwater harvesting, *panchwati* (traditional way of tree plantation). It has helped to promote Akira Miyawaki method of plantation at Sonepur fair. Along with traditional/indigenous knowledge it is promoting scientific knowledge related to CCI-DRR through its -KDAC (knowledge Documentation and Advocacy centre). It is a community platform for knowledge creation and exchange on climate resilience. Since its establishment it has conducted several webinars, workshops and personal meetings. BSDMA has supported in organising these workshops and webinars. KDAC has helped to bring different stakeholders at one platform to exchange their knowledge mutually. It has facilitated the regular dialogue between CSOs, CBOs and community, farmers and different stakeholders with the help of webinar, workshops and personal interactions. KDAC has established community-based platform of CSOs and CBOS which have reach to remote community. Important thing about KDAC is that it is working to preserve and promote indigenous knowledge for climate change adaptation, natural resource management and DRR. Based on strength of its network with CSOS, CBOS and other stakeholders it will help community to enhance its resilience against climate and disaster risks.

We wish all the best for KDAC and support it for knowledge building and awareness programmes on community capacity building to mitigate impacts of climate change induces disasters.

(Ashok K. Sharma)

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To Whom It May Concern

Knowledge Documentation and Advocacy center (KDAC) established by GPSVS at Patna is working as a community knowledge exchange platform to bring expert knowledge and community practices to one platform for better understanding and pragmatic action for climate change and disaster risk reduction. I wish it a success.

Dr. Prashant

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दुरभाष ९८३५६७६६३
कार्यालय : ०६१२-२२२२०३१

TO WHOM IT MAY CONCERN

Knowledge Documentation and Advocacy Center (KDAC) established by GPSVS at Patna is working as community knowledge exchange platform to bring the Animal Husbandry Expertise and community practices together for better understanding and pragmatic action to mitigate the climate change impact and DRR planning for emergency management of livestock.

The organization is doing commendable work in the area of Sustainable Rural Development. I wish the very success of the organization.

(Pankaj Kumar)

SWAYAM SHIKSHAN PRAYOG
Self education for empowerment



To Whom it May Concern

KDAC (knowledge Documentation and Advocacy Center) established by GPSVS is very innovative idea. As knowledge exchange platform it is helping CSOS and CBOS to strengthen their knowledge and skills related to Climate Change, DRR, Environment protection and related issues. It has facilitated the regular dialogue between CSOs, CBOs and different stakeholders. With the help of IEC materials, case studies, webinar, workshops and personal interactions it has developed the culture of climate and disaster risk communication where community voice, who has first hand experience of responding to climate and disaster risk, is considered as authentic source of knowledge. The community based practices and knowledge supplement scientific knowledge. KDAC has helped to establish dialogue between BSDMA (Bihar State Disaster Management Authority), Civil Society, Academics, SDRF and community. It has helped to bring North Bihar CSOs and CBOs and discuss climate change and disaster issues in different climatic context. KDAC has helped to identify different advocacy issues like CSOs/CBOs role in implementing Jal Jeevan Hariyali Mission, Bihar State Disaster Risk Reduction Road Map (2015-30), organic farming, tree plantation, water and Soil management and other sustainable development issues. As an outcome BSDMA has recognized the strength of CSOs/CBOs network and advised them to help BSDMA in extending its community based DRR work like the awareness programmes on lightning, drowning, road accidents and others. It will provide support for it. BSDMA has shown interest in collection of indigenous knowledge. KDAC is doing very appreciating role in creating culture for recognizing indigenous knowledge related to climate and disaster risk reduction. KDAC integrated knowledge -based approach to meet the challenges of climate change and disasters has helped CSOS and their networks to focus on enhancing community knowledge as key tool for resilience against CCI-DRR. We wish the success of KDAC to achieve its purpose to strengthen community knowledge by facilitating mutual exchange of knowledge, skill and resources among different Risk holders.

All the best!!!

Thanking you,

(Gautam Kumar)

Coordinator - Swayam Shikshan Prayog.

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Photo 21 Assessment Team interaction with Stakeholders at Extension Directorate, Animal Science University, Patna

5 Observations on Effectiveness and Sustainability

The present project can be considered successful on four aspects, particularly community awareness, joint actions, active women groups, and knowledge of stakeholders. This section shares about the project learning and suggestions from team members for further strengthening of the program. This project laid a foundation for the sustainability of the achieved results, and the following points add to it.

- The start of project goes hand in hand with spread of pandemic of COVID restricting the direct interaction thus, awareness generation, training, stakeholder consultation, motivational meeting with PSS (Paryavaran Swasthya Saheli) got affected and project had to adapt hybrid mode (physical and Virtual both). But close interactions with the government departments with various programs helped GPSVS to work effectively during the COVID-period effectively. The grassroots institutions, women-groups were very active for quick response to pandemic.
- HNG are popular now but with limited diversity of both vegetable and herbal plants. People now well informed about the medicinal value of herbs like *Patharchatta*, *Kalpanath*, *Bakas*, *Tulsi*, *Lalparni*, etc. found useful for treatment of prevalent common diseases. They have cut down medical and vegetable expenses significantly. It has saved their time, labor, and money, and increased intake of green vegetables significantly. The intervention is appreciated by majority of the women member and community, as this component was felt most needed during the lockdown.
- There is a substantial improvement in the community knowledge about the plant biodiversity and their nutrition and medicinal application as preventive and curative. Still, there is need to strengthen MIS to record changes in behavior or utilization practices on the frequency of use and application in different cases, particularly about home-based measures, except for case studies captured and presented in

various reports, which offers positive changes in the community behavior.

- The frequency of widespread occurrence of lightening has reached to danger level. GPSVS piloted and demonstrated few numbers of Low cost Tadi-Chalk. BSDMA and other agencies have also incorporated awareness generation and pilot installation of low-cost conductors and saving their community in nearby area. The community has responded very positively towards it and indicated urgent need to propagate the technique for wider coverage to save more lives.
- Farmer's Field School with women groups proved its worth in adaption of organic approach in farming practices adapting the components of climate smart agriculture (CSA) further it can be applied to tackle need for quality supply of input for KMM cottage industry and create potential for income generation for women groups.
- The Masala Udyog (Spices Cottage Industry), though initiated little late due to COVID and follow-up lockdown through the existing project, indicates potential for widening its coverage for the economic gains for small and marginal family women. More women can be involved to earn income. Number of women can grow herbal and spice crops and earn through supply of input, production actions, marketing, in groups and individuals including household processing of traditional processed food.
- Students in senior classes and collages in different public and government schools could be effective change agents for motivation of community preparedness for multiple hazards and traditional behaviour linked healthy community. They can be ambassador on Leadership linked sustainable development. Exclusive drive for awareness building of such employees and create a network of friends of traditional health practitioners and inclusive DRR, might be an effective strategy.

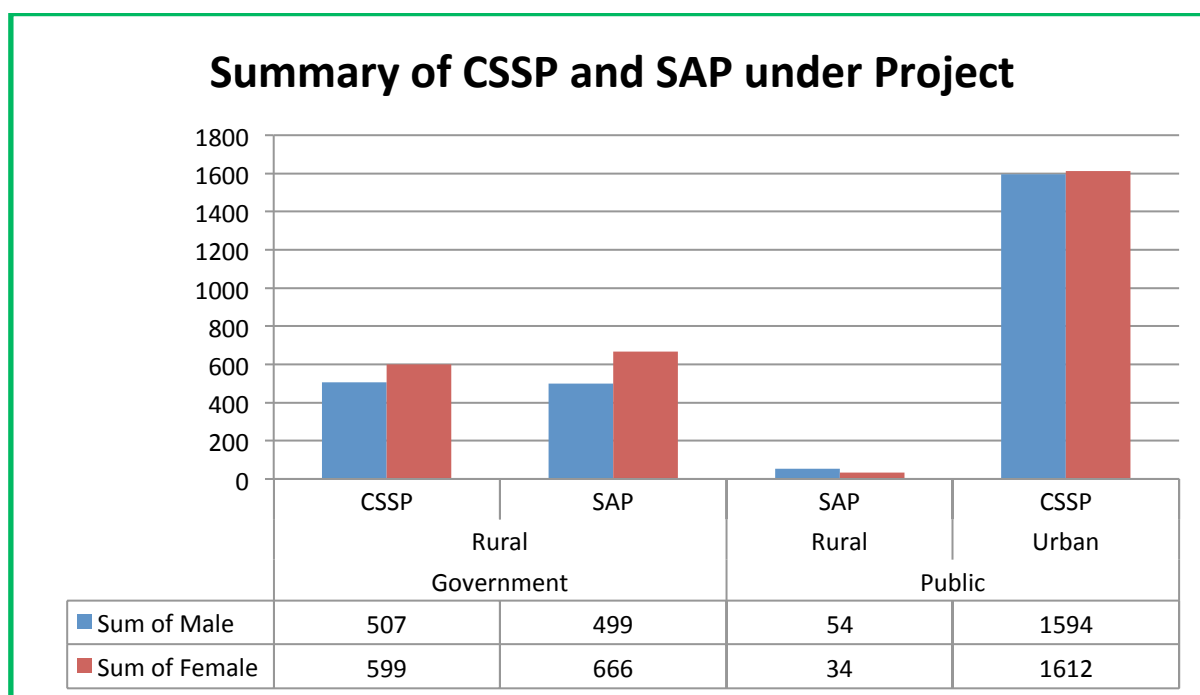


Figure 3 Participants of CSSP and SAP Programmes at Schools

- The Figure-3 shares summary of participating students under different programs, indicating rural and urban coverage.
- The state level KDAC at Patna could establish interaction with various stakeholders both virtual and actual. The foundation is good but must go longer to create an interactive platform for more intense and targeted interaction, interacting with more members of stakeholder like department of animal husbandry, veterinary and agriculture education and research institutions, college youth, scout-guide, NCC, etc.
- Stakeholder consultation indicated that livestock is one of the main livelihoods for people of Mithila region. Climate change induced disaster negatively affects most communities, but animals are affected the most. This is further indicated during spread of the Lumpy-viral disease among the animal, where community concerns about the transmission of diseases from animal to human and human to animal. Interaction with some of the traditional health practitioners also indicated that many of the medicines and approach of treatment are quite near to each other. In such situation, use of medicinal plants related to common diseases of cattle's may be convenient idea for cattle protection. These herbs/medicinal plants can be included more than 5000 HNGs already promoted.
- Thus, approach of "One-Health" would be important to protect against new generation diseases, endemic. It is also critical to save animals, as they constitute major portion of livelihoods of small, marginal farmers and landless families. Moreover, it is important and critical to explore practices pertaining to traditional ethno botanical medicines and traditional health practices related to human and animal both from different agro-climatic regions of the state of Bihar.
- Representative from BSDMA shared in the consultation that, Bihar is the state-facing multiple hazards both climate change induced (floods, lightening, droughts, high-velocity winds (tornado), cold-waves, heat stroke, etc.) and otherwise (earthquake, fire, accident, etc.). The awareness generation programs for CCI_DRR cannot be dealt separately. Therefore, it is rather important to work on inclusive DRR instead of CCI_DRR actions only.
- Analysis of all these situations and interactions with KMM women groups and *Kishori Samuh* (adolescent girls' group) associated with ICDS Centre indicate active participation and potential for further engagement by bringing them at driving seat to lead the program and tackle issues of widespread prevalence of common ailments, inclusive DRR, and One-health.
- Project has created an innovation in terms of "Traditional Medicine based Preventive Health Kit" which contains Ayurvedic Medicines towards preventions and first-aid like pain balm, kara etc. Project team indicated that as it is first time preparation available in the market are included, but slowly-slowly this preventive health kit will incorporate health practices linked with spices in kitchen, plants from Health and Nutrition Garden etc.
- FGD with women and adolescent girls at four locations Amauja, Jahali Patti, Bala Bakhar, and Durgipatti, reflected need for preventive kit dedicated to women health issues and available at household level. Dr. Usha, Ayurvedic Doctor also confirmed that need reflected by community to think about the possibility for such a dedicated

preventive health kit to deal with women health issues.

- Groups² are working on awareness building and motivating women to fight leucorrhoea and anaemia. Focus group discussions with leaders of these groups have indicated proneness to climate change-induced disaster risks and high prevalence of malnutrition, anaemia, and leucorrhoea. 5565 women especially adolescent girls, and pregnant and feeding mothers joined awareness at village/hamlets level. Thus, started adapting and discussing preventive measures and traditional health practices for common ailments of unknown origin, stomach upsets, and arthritis resulting in saving of health expenditure as one the success of the project. Thus, present project has succeeded in passing on an awareness about traditional health practices their cost-efficiency and create long-term positive impact and are mostly free of side effects. In this adoption of modern analytical practices such as pathological tests, efficiency tests of medicines and certification processes have helped in making practice widely acceptable and sustainable. These interventions have contributed and contributing a lot for health awareness, care & services to the marginalized communities.

6 Conclusions and Recommendations

This MISEREOR-KZE supported project implemented by GPSVS aimed to build women led sustainable community development. It has created innovative actions to evolve environment and practices those can help in achieving resilience to CCI-DRR, and practices related to traditional health system within the community specially those who are women, and children in rural and urban regions. It has also tried to pilot planning and implementation of programs critical for community in the area. **In our view, it is time for GPSVS to evolve a detailed road map on multiple hazards, traditional approaches, for further replication and sustainability, and the following are** our suggestions for developing a comprehensive next phase.

- In the project area, of North Bihar, frequency of occurrence of climate change induced disasters like floods, heatwaves, cold-waves, thunderstorms, and droughts are becoming high. This results in negative effects on production and economic situation of small and marginal families. Therefore, we suggest GPSVS to initiate program on climate smart livelihood options for women. GPSVS may also focus on creating an active network of Traditional Health Practitioners (Gunis), AYUSH Vaidya, PSPs, CSOs, PSS both young and elderly, as change agents.
- Establishing the process of community preparedness for effective sustainable development is an immense task; therefore, it is essential to increase the number of individuals and groups towards these critical themes important for the life and livelihood of small and marginal families. Thus, GPSVS can plan to use social media tools like WhatsApp, Twitter.
- Consultation with two schools namely The young students may act as an ambassador about behaviour changes on climate change and traditional health practices.

² Self-help groups, women farmer's group, women health groups, and mother's groups etc.

Exclusive drive for awareness building through school children and establishing a network of school students might be an effective strategy.

- GPSVS should also plan to take learning from North-Bihar to other regions through outreach actions like using social media, community dialogue, print-media, and network actions.
- Among the women of small and marginal family's ailments like Anaemia and Leucorrhoea are frequently occurring diseases among women of reproductive age and adolescent girls. The concept of revival of traditional food and health culture is essential to work; therefore, GPSVS needs to take-up a separate program. Therefore, it would be more appropriate to design a new strategy for adapting KMM and KMS as a vehicle of change or focus for behaviour change into a broader community.
- As shown in Photo-20 there are elderly women full of knowledge and practices which are critical and important for rural health system. GPSVS need to tap such resources and bring that to benefit whole Bihar and wider community.



Photo 22 Traditional Health Practitioner Ms. Kesari Devi, full of knowledge and enthusiast

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