

Annual Report of PRAN (2013-14)

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"Preservation and Proliferation of Rural Resources and Nature", an NGO registered under the *Indian Trusts Act, 1882* (Registration no.22544/2012, dated 30-Nov-2012) and having its office at Road No.6, Mohalla- Shatri Nagar (East), P.S. Rampur, District Gaya, Bihar (hereinafter referred to as "PRAN")

Director's Note

Dear Readers,

It is a pleasant moment for me to present the First Annual Report of our organization Preservation and Proliferation of Rural Resources and Nature (PRAN) for 2013-2014. On behalf of the Board of Trustees, I take the opportunity to convey our sincere gratitude to the rural community with whom we work, all our donors, supporters and well wishers, for their continuous support and trust in our endeavour.

Introduction:

Preservation and Proliferation of Rural Resources and Nature (PRAN) is a grass root organization working with poor and marginal communities to enhance their food security and cash income through innovative and sustainable agriculture. The core is the System of Root Intensification (SRI) method of crop cultivation. It also builds capacity of grass root organizations and other stake holders of rural development.

Preservation and Proliferation of Rural Resources and Nature (PRAN) was established in 2012 with a view to address food security of small and marginal farmers. It is registered in the holy city of Gaya under Public Charitable Trust under *The Indian Trusts Act, 1882*

The inspiration to set up PRAN was the view that local, capable and caring people through SRI knowledge for life and livelihood rather than material resources are most critical for socio-economic development. PRAN believes that well and even less educated and socially concerned people must work with village small and marginal communities in the spirit of fraternity to hasten socioeconomic development. PRAN recruits such people from villages, campuses, provides them yearlong SRI and other social training in its village projects along-with the work in villages with lead farmers to strengthen socioeconomic strengths of small and marginal farmers. PRAN personnel work in small, decentralized locations to promote or enhance livelihoods based on natural resources applying SRI principles in life and livelihoods. Enhancing people's food security along with surplus cash to meet household needs to lead a life of dignity is basic to PRAN's approach. This will remain PRAN's guiding philosophy through its inception.

Location, Content and Approach to Work:

Presently PRAN works in Gaya, Nalanda and Munger Districts of Bihar. PRAN works with socio-economically disadvantaged communities, such as Schedule castes, women, landless, backward communities and marginal and small cultivators. A brief outline of PRAN's projects in Gaya and Nalanda are as follows.

- In Bihar PRAN team (in name of PRADAN) is working on System of Root Intensification method of crop cultivation. So far it has successfully demonstrated SRI methods in Paddy, Wheat, Oilseeds and vegetables, Sugarcane, Elephant Foot Yam, Pigeon Pea and Bakla. In Gaya We are also working on land and water based activities based on Watersheds approach. Agriculture intervention through women SHGs or other women collectives. Norman Uphoff and Brion Love along with various international and national scientists and media visited in PRAN's women collectives involved in livelihoods. PRAN is also involved in promotion of SRI method of fertilizer and pesticides preparation to assist the SRI movement. PRAN is an offshoot organization of PRADAN.

PRAN projects presently benefits some 25000 families.

Grassroots action involving innovative and sustainable agriculture to enhance livelihoods is PRAN's primary focus. Improving the husbandry of natural resources are the broad avenues PRAN follows to enhance livelihoods.

PRAN's work includes:

- motivating and mobilizing community members to adopt SRI in life and livelihoods;
- identifying, adapting and promoting technology;
- mobilizing resources;

- fostering functional mechanisms, including women collectives and linkages;
- developing skills and capability of members of the community;
- experimentation; and innovations to address poverty
- Fostering mechanisms for sustained impact, growth and spread.

PRAN works in a spirit of enabling communities in SRI way of life and livelihoods rather delivering services or solutions to them. Developing people's stakes, identifying, reorienting and nurturing functional leaders in the community, fostering and strengthening women collectives through SRI, helping communities learn to effectively deal with government and other resource institutions, simplifying and demystifying technology are some of the basic elements of PRAN's approach to grassroots work. As catalysts and enablers, PRAN collaborates widely with other actors in development.

Knowledge, including the traditional knowledge of the communities PRAN works with, is an important input in PRAN's work and reflection on experience an important way of learning. Excellence, significance and cost effectiveness in a spirit of Trusteeship are important evaluation parameters.

Development of new personnel is primarily through guided practice. Staff typically work in teams where the more experienced provide support and mentorship to the relatively inexperienced. This is further reinforced through general meeting for reflection once a year where inter-locations interaction takes place, visits to other locations and organizations and sharing of their experiences. Members are also sent to carefully selected short training programmes, workshops and seminars.

Organization:

The governance of PRAN is entrusted with its 4 members of which 2 form the Governing Board. The chairman of the public charitable trust act as Executive Director of the Board. The 4 members presently in the trust include persons who formed the Trust and others inducted by them, all distinguished individuals from the field of social development and government.

An Executive Director appointed by the Governing Board is the chief executive officer of PRAN and is also a voting member of its Board as the ex-officio Managing Trustee of PRAN, the Public Charitable Trust. The work is organized in locations based in specific geographical area. Each unit is headed by SMS and has several members. The SMS are experienced persons rooted to the location. Presently there are 2 trustees including Managing trustee constitute the management Committee

(MC). The MC is responsible for strategic planning, programme development, coordination and monitoring. The SMS, selected senior members of locations and Executive Director constitute the consultative forum which sits monthly.

Our Works:-

- Implementing various livelihood enhancing agricultural projects for poor and marginal communities .
- Providing training to grassroot organisation/Extension workers on innovative and sustanible agriculture.

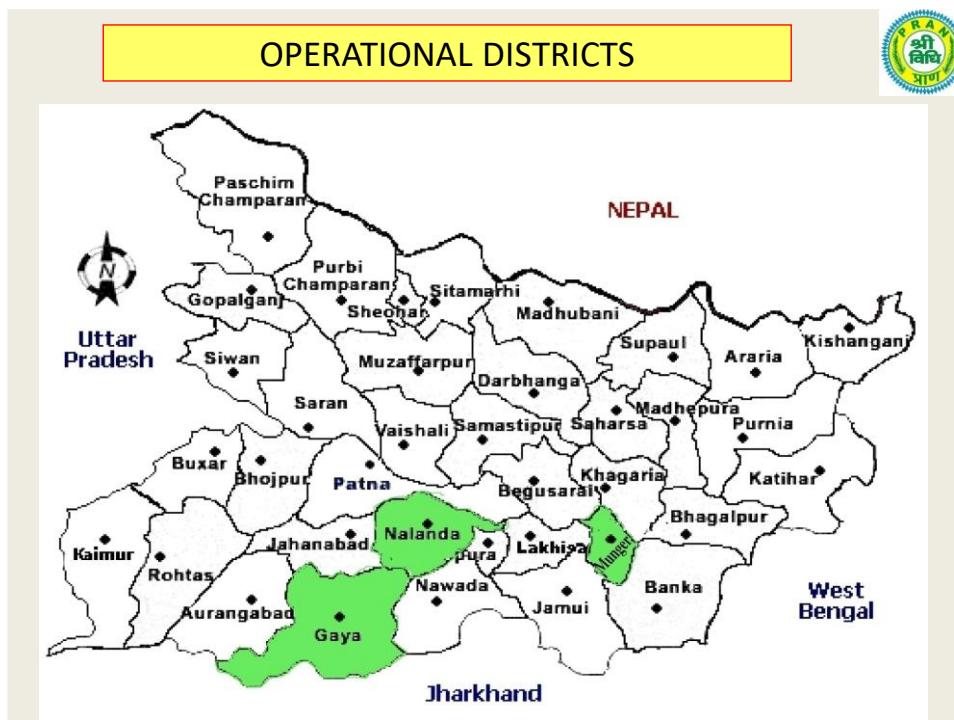
Capacity building:-

TRAINING OF FARMER/GRASSROOT WORKERS

- **Motivate to farmers:-** The farmers undergo training related to self bring soul and aim of lifr along with **panch S**(satya, samaya, seva, sanskar and samanta) **panch J**(jal, jungal, jameen, janwar and jan).
- **Technical training:-**
 - 1 - Principles of SRI:-
 - 2 - Package of practices of different crops.
 - 3 - Practical skills in field.
- **Stakeholders:-**
 - 1 - Distric level workshop.
 - 2 - State level workshop.

Our Vision and Mission

Area Profile



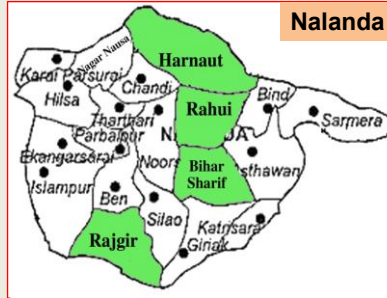
PROJECT BLOCKS IN DIFFERENT DISTRICTS



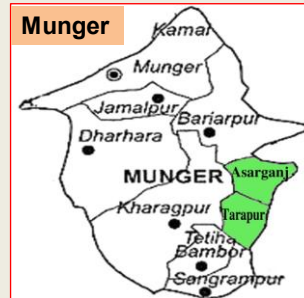
Gaya



Nalanda



Munger



11 Blocks in Gaya, 4 Blocks in Nalanda and 2 Blocks in Munger District

Principles of SRI method of crop cultivation

Preservation and Proliferation of Rural Resources and Nature

Root means centre of core of life (as crop has life) / also the common meaning of root which is the mouth of the plant. The entire method is based on providing conducive environment to all parts of plant in special attention to its roots to grow to its full potential. All agronomic principles and practices are integrated with the specific crop at its critical stages (provided by nature and not by educated mass only) are the primary considerations towards promotion of seeds/planting material should be considered while taking up System of Root Intensification method of crop cultivation.

- Since root is the main mouth of the plant the seed or planting material should get proper space, aeration, nutrition, moisture, microbial population, etc to grow close to its potential. The more the growth of roots and its consortium more nutrition and other items / factors it can take up and transfer to the plant for robust production. The size of the pit varies from crop to crop and plant to plant depending upon its nature and physiology.
- The package of practices should be integrated with phyllocron of all possible crops. Young age seedlings / Sprouted seeds
- The plant in the field right it from its planting material procurement, nursery raising and till harvesting should be in organic / emotional relationship with its promoters / practicers. It happens when the promoters / farmers / scientists / others regularly visit and take care for whole life period of the plant.
- The enhancement of microbial population should be maintained to help every part of plant (stem, leaves, branches also) for its genetic expression.
- The plant should be transplanted / sown at shallow depth. This facilitates roots for proper uptake of nutrient and moisture which guides roots for early expansion of its rhizosphere in the soil.

- In tuber crops eyes/nodes should be extracted and used for direct sowing after initial treatments. The seedlings may also be used as per nature and type of crops.
- Without compromising with food security and cash surplus to small and marginal communities in initial period integrated doses of natural/organic manures, pesticides, Plant Growth regulators and fertilisers should be used.
- The soul in the heart of these planting material needs to be honoured and owned by practicers/promoters/farmers also scientists the same way the human beings treat and conduct with animal kingdom and themselves.
- The sharp grading of seeds should be done after its procurement from the source. It means that only bold and healthy should be used. Priming of seeds/Beej Sodhan alongwith treatment should be integral part of Package of practices.
- The land is the mother of most of living beings including plants. These need to be healthy and sustainable source of nutrient hence natural and organic nutrient management should be essentially integrated in the package of System of Root intensification method of crop cultivation. Like the nursery beds may be treated with Beejamrit and Neemastra.
- Horizontal growth spaces should be appropriated with seeing its potential in local agroclimatic, genotypic characters, and soil and water conditions.
- The intercultivation cum weeding should be done at critical periods to ensure aeration, availability of nutrients in natural forms such as Jeevamrit, Ghanjeevamrit and tonics made from natural extracts, moisture as this activity enhances tillering /branching ability of the main crops. Depending upon the crop/plant type the earthening up should be done to provide support and better environment around roots and shoots.
- The pruning of leaves and early branches should also be integrated as per type of crops. For example in Sugarcane the dry leaves should be discarded as it restricts thickening of canesett.

The entire method of SRI consists of following considerations as experienced by farmers/practicers. Every seed/planting material/rhizomes/tubers/leaves are source of living creature that is plant.

Notes

1. This package of practice of SRI method of rapeseed cultivation is based on R-P-09 variety of rapeseed
2. Only those varieties should be taken through nursery rising which are tolerant to transplanting e.g- RP-09
3. In Villages the poor community consume roti, namak and tel (Bread, Salt and rapeseed mustard oil) as major food after manr bhat (Boiled Rice with juice)

SUCCESS STORY; Few Cases

Anu Devi: A Live Example of Meeting Hunger through SRI



Personal Details:

Name	Anu Devi
Husband's Name	Satyawan Manjhi
Caste	Maha Dalit
Family Size	7
Village	Rajapur
Panchayat	Sekhwara
Block	Bodhgaya
District	Gaya
State	Bihar

Resources:

Land	1 Acre (got from Bhoodaan)
Irrigation Facility	Yes (recently in 2013)
Livestock	Ox-2, Goat-4
Bicycle	1
Vermi- composting shed	1
Agricultural Equipment	Weeder, sraayer, wheat seed drill for SWI
Type of House	Pucca through support from IAY

Anu Devi, a Maha Dalit women, was living in extreme poverty situation before she invited a PRAN (Preservation and Proliferation of Rural Resources and Nature), the then PRADAN staff to support her for SRI cultivation in the year 2008. She had seen SRI crops in neighboring villages Sekhwara, Ghantadih and Satgharwa in 2007 and was determined to learn the package of practice.

She was the first and only one woman to transplant paddy through SRI method in her 5 kattha (roughly 20 decimal) land in 2008. The details of inputs are as follows:

Sl. No.	Items	Quantity	Amount (Rs)
1	Seed	½ kg	20
2	DAP	5 kg	45
3	Potash	5 kg	25
4	Urea	10 kg	50
Total			140

This was all she invested in cash. But the real investment was her more than 100% effort, conviction and confidence. That year she harvested 5.6 quintal paddy. Her experimentation and high yield strengthened not only her own conviction but also brought 2 other farmers in the fold of SRI (wheat) in the coming rabi season. All of them harvested a yield around 1.6 times higher than the traditional practices. These live experiences filled villagers with excitement and confidence and they started building close relation with the PRAN staffs. PRAN with support from Sir Dorabji Tata Trust (SDDT), invested in the potentials of these dalit farmers to come out of extreme poverty situation. As a result, next year 22 families cultivated SRI paddy in a total 7 acre land. Out of this the share of Anu Devi was her entire 1 acre land. This proved a turning point in her life. Before introduction of SRI, she could feed her family only for 6-7 months from her own land. For rest of the months she and her husband had to work as wage laborers in the nearby bone factory and brick kiln. But this year she harvested a total 22.4 quintal paddy despite irregular rainfall which was sufficient for more than one year. This year she also cultivated creepers on machan (raised bed) in the banks of Jamunai rivulet (Government land used by villagers) and earned cash profit of Rs. 12,000. Gradually she increased crop intensity and area through share cultivation (a widespread system in the area through which marginal and small farmers cultivate big farmers' land and the produce is equally shared). At present she cultivates 3 acre SRI paddy, 40 decimal SRI wheat and 1.3 acres of SRI vegetables cumulatively. This year, she is cultivating 50 decimal of vegetables through drip irrigation (a solar drip irrigation system set up in the village with support from Jain Irrigation and PRAN). Last year she sold rice of around Rs.20,000 and vegetables of Rs.25,000-30,000. All these have changed her life tremendously. She has constructed a pucca building with contribution of Rs.48,000 from Indira Awas Yojana. She is sending her two youngest children to a Missionary school while her elder two children never went school. Now she and her husband are engaged in their field round the year and never go for wage labor. At present she is a much confident and satisfied woman for her own success through SRI. She is also proud of being the first person to invite PRAN in her village which resulted into adopting practice of SRI by all the 37 families who have land.





SRI Impacting Lives: Madhuri Devi's Experience

Dekhiye bhaiya, hamare gaon ki kheti dekhne America se log aye... aur yeh sambhaw hua kewal SRI bidhi se kheti karne ke karan.... (see, people from America came to visit our plots and that happened only by adoption of SRI method of cultivation). Madhuri Devi of Barsona village of Gaya District in Bihar shares with excitement and confidence about her experience of SRI farming. 2010 is a memorable year for her and other farmers of the village. In winters they went for an exposure to see SWI (System of Wheat Intensification) in Bodh Gaya (The Birthplace of Buddhism), with support of PRAN (Preservation and Proliferation of Rural Resources and Nature), the then PRADAN. Madhuri Devi was very much excited with the plant growth, size of panicle and confidence of the farmers. She took few panicles along with her as a proof and convinced her husband to do SRI paddy in coming rainy season. After a few days of initial confrontation and disbelief, finally her husband Ishwar Kumar Verma agreed to provide her a piece of 10 decimal land for SRI trial. Since then she has never looked back; and from a starving family now she sells paddy.

Madhuri Devi has gone through many miseries in her life. Only at the age of 5 years, her father passed away. Though the uncles and grandfather looked after the family, but Madhuri could not complete her schooling. At the age of 15 when she was studying in 10th and dreaming for a bright performance in exams, she was married and dropped out of school. Her ill fate continued and two consecutive years saw a severe drought. The family was in a great stress and somehow managed through PDS and debt/loan from others.

Madhuri Devi has 1.2 acres of total land out of which only 55 decimals are cultivable. In 2011 she started with SRI paddy in 10 decimal of land. She harvested 6.25 quintal that year whereas earlier the production was meagrely 1.8 quintal. With this exciting experience, her husband was also convinced and they decided to adopt this method in other crops too. Her husband Ishwar Kumar Verma agreed to extend support to other farmers in the village and started working as Village Resource Person (VRP). Gradually the family has started cultivating rapeseed (mustard), brinjal, tomato and elephant foot yam (ol) through SRI method*[we call SRI as System of ROOT Intensification] in more than 50 decimal cumulative

area. She is also growing wheat through SRI method.



SRI Rapeseed with tremendous vegetative growth in early stage



SRI Rapeseed with huge number of branching in flowering stage



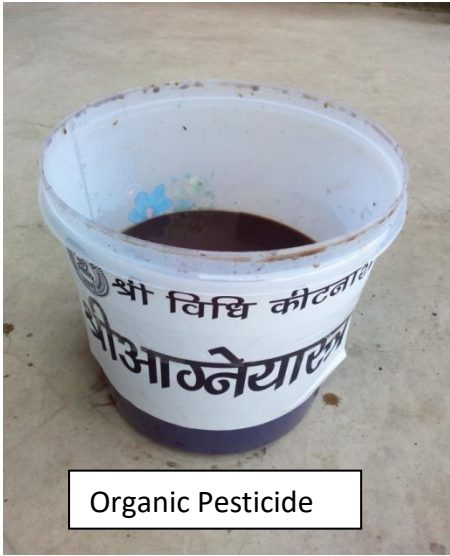
Madhuri Devi in her SRI wheat field



Madhuri Devi in her brinjal farm grown organically

Adoption of SRI method of farming has changed the fate of Madhuri's family. In 2012, they sold surplus paddy of Rs.23000 and vegetables in the range of Rs.30000-35000. Next year, they took 35 decimal land on lease to expand their farming. Similarly, despite of irregular rain in 2013, she earned around Rs. 60000 from agriculture.

The family has gradually reduced the consumption of chemical fertilizers and pesticides in their farm nearly by 50%. This year they have brought a plot of brinjal (shown in the picture) into complete organic farming. They have applied vermi compost, SRI Pranamrit (fertilizer made by poultry litter, ash and oil cake) and pesticides and fungicides made from local materials. She is very much excited by the result as the plant growth is very good, greener shoots and less attack of diseases.





Beside the economic benefits through SRI which have helped Madhuri Devi to come out of misery and lead a respectful life, she has gained high level of self confidence. As a result villagers have identified her as Community Mobilizer for the State Government's BRLPS

project (Bihar Rural Livelihood Promotion Society). She acknowledges that her knowledge about modern and sustainable farming system, social relationship and recognition in society has increased. Now after 17 years of marriage she is planning to complete her unfulfilled dream of passing the matriculation exam.

However, transformation from traditional way of farming to SRI was not easy for her. In the first year the villagers ridiculed. Later on lack of tools for sowing wheat hampered the expansion. Similarly, labourers were uncomfortable to deal with delicate saplings of paddy and other vegetables. She had to give dedicated effort for timeliness of field preparation, transplantation, hoeing, weeding, etc which was very much crucial in SRI.

Despite these difficulties, based on her own experiences and the adoption by neighbours, Madhuri Devi convincingly concludes that System of Root Intensification in agriculture is the fate for poor and marginalised farmers to attain food sufficiency and economic well being.