

Annual Report (2013 - 2014)



**People's
Science
Institute**

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Uttarakhand**

About Peoples' Science Institute (PSI)

Peoples' Science Institute (PSI) is registered as a society in New Delhi under the Societies Act (1860) and the Foreign Contributions Regulations Act (FCRA). Its stated mission is, "To help eradicate poverty through the empowerment of the poor and the productive, sustainable and equitable use of available human and natural resources." Operationally it provides technical and managerial support to communities and organizations that work with them, implements development programs and undertakes public interest research. The Institute is known in India's voluntary sector for its pioneering work in the fields of community-based natural resources and watershed management for improved livelihoods, environmental quality monitoring, river conservation and dissemination of appropriate technologies.

PSI has active units for natural resources management, disaster mitigation and response, environmental quality monitoring and innovative projects. Each unit implements development projects, undertakes research and provides training as well as professional support. The Institute has a competent staff of socially conscious engineers, scientists and social workers to carry out these tasks. This annual report outlines the major activities of each group in 2013-14.

I. Natural Resources Management

The Natural Resources Management (NRM) Group conducts the Institute's natural resource management activities. It is involved in community-led micro-planning for food and livelihoods security and participatory watershed development projects. It undertakes research in hydrology and improved agricultural practices, NRM traditions, water technologies and NRM policies.

In 2013-14 the NRM team was largely involved in restoring shattered lives and livelihoods after the June 2013 floods disaster in Uttarakhand. During the year it wound up the Sustaining Mountain Livelihoods (SML) program in Uttarakhand and Himachal Pradesh, besides preparing detailed project reports (DPRs) under IWMP for Hamirpur and Kangra districts in Himachal Pradesh (H.P.), undertaking a research project on the System of Crop Intensification (SCI) in Tehri Garhwal and Rudrapur districts (Uttarakhand) and conducting IWMP training workshops. The details are discussed in this section.

I.1 Response to Uttarakhand Flood Disaster (UFD)

Extremely intense rainfall for 48 hours on June 15-17, 2013 led to perhaps the worst climate disaster in the recorded history of Uttarakhand. The devastation was state-wide though the main impact was felt between Kedarnath and Gaurikund in the uppermost reach of the Mandakini valley in Rudrapur district. Floods and landslides in the catchments of many rivers swept away thousands of pilgrims, homes, farms and livestock in Uttarkashi, Chamoli, Bageshwar and Pithoragarh districts. According to information provided by the state's Disaster Mitigation and Management Centre, about 4200 villages were affected throughout the state. The infrastructural damage included destruction of more than 3,000 houses, 145 bridges and damage to 1418 drinking water schemes. About 1335 villages were left without road connectivity.

After a rapid assessment PSI announced a three phase response program spread over 3.5 years focusing on immediate relief, construction of temporary shelters and livelihoods rehabilitation. People and companies from all parts of India and Indians residing abroad responded very generously to PSI's appeal.

Phase I - Providing Immediate Relief: PSI provided immediate relief materials like food grain, utensils, blankets, solar lights and water kits to about 300 families in severely affected villages of Tehri Garhwal, Pithoragarh, Almora and Rudraprayag districts.

Phase II - Construction of Temporary Shelters: In this phase 206 shelter units were constructed including class rooms for damaged schools in six districts. In 166 shelters attached toilets were also constructed.

Prior verification was done to ensure that the beneficiaries were homeless families and those who were owners of the land used for constructing the new shelters. All the units were built by trained local masons with the beneficiary families providing unskilled labour. Two five-day training courses were organised for local masons, the staff of partner organisations and the beneficiaries. Based on their suggestions several new features in the designs of the shelters were introduced. Smokeless *chulhas* were provided in **28 units**. The toilets construction was generously supported by a donor i.e. Give India Foundation.



Table 1: District wise number of Temporary Shelters

S. No	District	Block	No of villages covered	Shelter Units Constructed	Toilets Constructed
1	Rudraprayag	Agastyamuni	3	18	04
2	Tehri Garhwal.	Thatyur	1	14	12
3	Chamoli	Joshimath	12	49	41
4	Chamoli	Joshimath	3	17	-
5	Chamoli	Tharali	2	22	19
6	Bageshwar	Kapkot	5	39	35
7	Almora	Almora	4	7	07
8	Pithora garh	Munsiyari	8	40	40
Total			38	206	158

Disabled Dhanoli Devi Gets Priority: Dhanoli Devi, 65, is a Scheduled Caste woman from Devrada village near Tharali market in Chamoli district. In the last 4 to 5 years she has steadily lost most of her eyesight and is barely able to see.

The June 2013 floods in the Pindar river washed away a large portion of Tharali town. Several houses and shops were destroyed or severely damaged. Dhanoli Devi's house was completely destroyed. Her family was shifted to a relief camp. Due to her weak eyesight it was not possible for Dhanoli Devi to live in the relief camp. Her husband Gopal Ram repaired his cattle shed and shifted the family to the cattle shed.

PSI's partner organisation, Jago Himalaya, recommended the family for a temporary shelter. After verification a temporary shelter with an attached toilet was built for them.



"This shelter has solved the problem of roof and kitchen. Now we feel secure," said Gopal Ram. Dhanoli Devi is very happy with the toilet. She says, "Due to my weak eyesight it is very difficult for me to go out in the dark and cold mornings. Now we have a toilet in our house. I feel very comfortable. I want to thank all those who helped my family."

Phase III - Livelihood Rehabilitation: In late November 2013 PSI and its partners began the third phase of its response program. It focussed on restoring and enhancing disaster-affected livelihoods. PSI and its partners are facilitating communities in 25 selected villages of Madhu Ganga valley in Ukhimath block of Rudraprayag district, and Rewati and Saryu valleys of Kapkot block in Bageshwar district to prepare livelihood development plans (LDPs) that integrate land based and off-farm activities. The program is financially supported by Star India (Madhu Ganga and Rewati valleys), Axis Bank Foundation (Saryu valley) and donations received from hundreds of generous individuals and enterprises.

At the start of this phase a field-based Livelihood Development Team (LDT) was formed for each cluster. These teams were given 15 days' intensive training to develop their understanding of rural developmental concepts and processes, participatory approaches, PRA tools, etc.

To begin with the LDT in each cluster reached out to the selected communities through *sandesh yatras*. These included puppet shows, *nukkad nataks*, poster displays



Puppet show

and songs. Besides identifying livelihoods problems, issues like *gram swaraj*, importance of unity, village level institutions and conservation of forests and natural resources and micro-planning were highlighted during the *yatra* meetings.

Special events were organised to build rapport with the selected communities, specially the women. For example, on 8th March, International Women's Day, cultural programs were organised. Several issues related to women like conservation and management of natural resources (*Jal, Jamin, Jangal*), violence against women, health and rights of women, strengthening of *Mahila Mangal Dals*, and Savings and Credit Groups were discussed.

Micro-planning activities including village meetings, PRA exercises and household surveys began after a good rapport had been built with the local communities. Data generated by these activities is being compiled and analysed. Draft plans will be prepared and presented to the communities. They will be amended based on discussions at village workshops. The final document will be approved at an *aam sabha* meeting and ratified by the Gram Panchayat.

Implementation of the plans will be done by Village Level Institutions (VLI) and SHGs, facilitated by the LDTs.



Women's day celebrations



Livelihood planning meeting in Saryu valley, district Bageshwar

I.2 Sustaining Mountain Livelihood (SML)

Rural communities in Uttarakhand and Himachal Pradesh traditionally practice subsistence agriculture for their sustenance. Inadequate livelihood assets due to low farm productivities and scarcity of fodder and fuel wood lead to large-scale out-migration. The NRM Group at PSI began a pilot "Sustainable Mountain Livelihoods (SML)" program in 2011 with assistance from the Navajbai Ratan Tata Trust (NRTT) to demonstrate replicable interventions that could enhance food security and increase the primary income from local natural resources.

The project was implemented in 21 villages of four clusters by PSI (Hamirpur district, H.P.) and three other project partners: ERA (Kangra), Jan Vikas Sansthan (Tehri Garhwal) and Mount Valley Development Association (Tehri Garhwal). Out of a total 802 households in four clusters 32% were

SC/ST, 15% OBC and 53% General categories. A baseline survey conducted earlier in the 21 villages showed that an estimated 59 per cent of the 802 households lived below a perceived poverty line (BPPL) of Rs. 8,000/person/yr (2009 data). Around 770 households benefited from the different livelihoods interventions. A post facto impact assessment done in 2013 valued the benefits of the main income generation interventions tried in the different clusters. These ranged from a low of about Rs. 1438/capita in the Nakehad Khad cluster to a high of Rs. 4550/capita in the Jolagad cluster.

The program work began in January 2011 with the capacity building of its own field staff and program teams. Twelve LDT staff persons were trained to promote the specific livelihoods development activities. A Program Advisory Committee (PAC) was set up to guide and monitor the program.

The trained program teams first focused on building or strengthening local village level institutions (VLIs). Village Development Committees (VDCs)/Gram Swaraj Samitis, Mahila Mandals, Saving and Credit groups, SHGs and User groups (UGs) were established in all the villages. An impact assessment study conducted by PSI in 2013 showed that VLIs were established in all the program villages. About 60 percent of the VDC members were women. Regular monthly meetings of VDCs were held and all the planning and decisions regarding implementation of project activities were taken during these monthly meetings. The impact assessment revealed that 540 women had joined 40 Savings & Credit Groups in the different villages. During the project period they had saved about Rs. 906,000 and the loans turnover amounted to Rs. 966,000.



Savings & Credit Group Meeting

Livelihood Development Interventions

The interventions were (i) at the community level, e.g., soil and water conservation works, irrigation structures, etc. (ii) at the household level. The latter included mainly introduction of the System of Crop Intensification (SCI), vegetables cultivation, vermi-composting, fodder grass development and poultry rearing. Some pilots were also attempted with introducing poly-tunnels for vegetable/spice cultivation, and goat rearing.

Agronomic (SCI) and Horticultural Activities:

Promotion of SCI brought new hope for 638 households who practiced it over a gross cropped area of 216 ha. The SCI method was applied to four cereal crops – rice, wheat, maize, finger millet (*mandua*) and one pulse, red kidney bean (*rajma*). High productivity gains for the SCI method over the conventional cultivation methods were measured for



SCI maize cultivation in the Middle Beas cluster

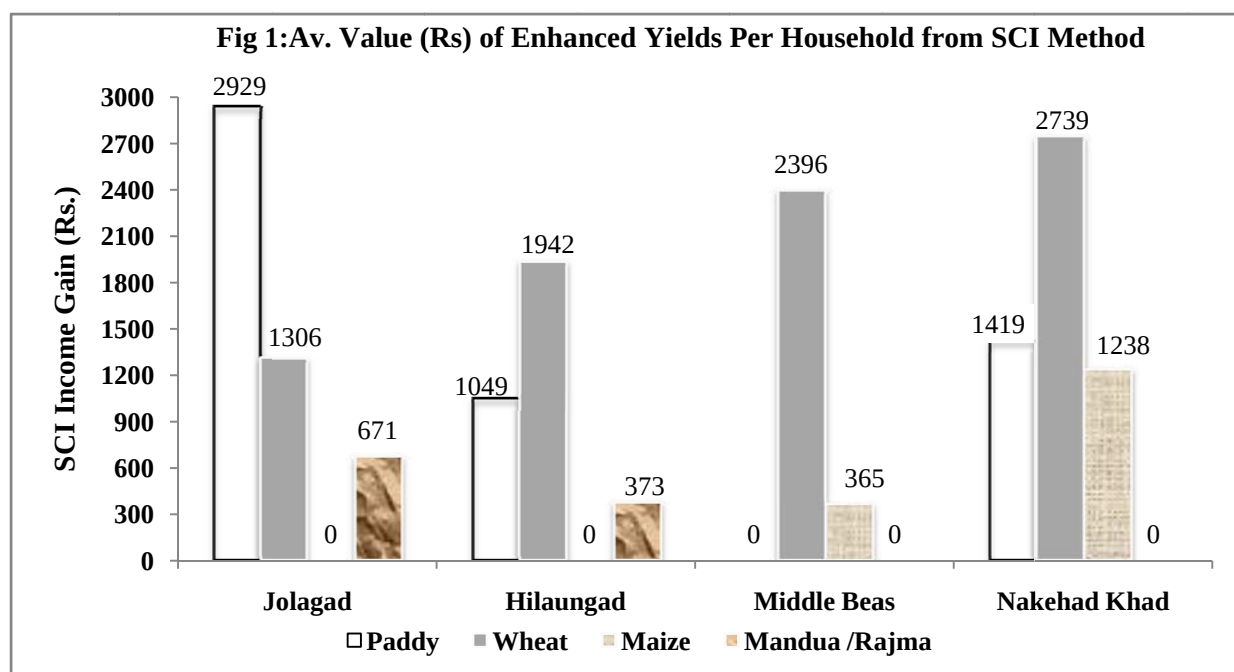
wheat in the different clusters. These ranged from 35 to 158 per cent. For the other crops the productivity gains ranged from about 20 per cent to 35 per cent (see Table 2).

Table 2: % Productivity Gains for SCI Method over Conventional Cultivation Methods

S. No.	Crop	Gross Area (ha)	Jolagad cluster		Hilaungad cluster		Middle Beas cluster		Nakehad Khad cluster	
			Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw
1.	Paddy	43.4	31	30	18	21	-	-	35	36
2.	Wheat	96.5	35	75	91	68	77	75	158	101
3.	Maize	38.1	-	-	-	-	17	15	38	32
4.	Mandua	48.5	33	-	22	-	-	-	-	-
5.	Rajma		18	-	37	-	-	-	-	-

Note: Impact assessment survey, PSI, 2013

The average value of the enhanced yield ranged from a few hundred rupees to over Rs. 2700 per household for the different crops (see Figure 1 below).



Note: Impact assessment survey, PSI, 2013

Horticultural activities included vegetable cultivation, high value fruit plantations and vermi-compost preparation. Vegetable cultivation is emerging as a new source of income for rural families. Most farmers planted five to six rows of turmeric along the peripheries of their fields to prevent entry of wild animals inside the fields. The main vegetables/spices planted were garlic, potato, sweet potato (*arbi*) with *rajma* often as an intercrop. Some farmers used poly-tunnels to grow off-season vegetables. It brought remarkable changes in vegetable cultivation demanding less seeds and water. Vermi-compost was used instead of chemical fertilizers by about 450 farmers. The average per household value of produce obtained from vegetable cultivation in the kharif and rabi seasons is detailed in Table 3 below.

Table 3: Average per Household Value of Vegetables Produced

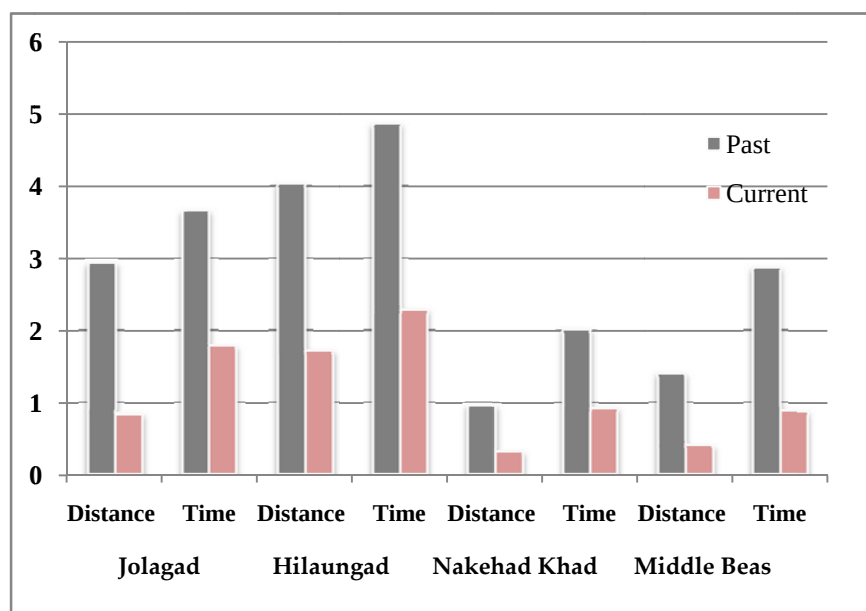
S.No.	Cluster	Rabi (2011-12)			Kharif (2012)		
		No. of Farmers (BPPL)	Total Area (ha)	Produce/Hhold (Rs)	No. of Farmers (BPPL)	Total Area (ha)	Produce/Hhold (Rs)
1.	Jolagad	153 (97)	11.4	1881	173 (107)	6.03	2227
2.	Hilaungad	179 (134)	6.29	626	145 (105)	5.01	2358
3.	Middle Beas	130 (17)	3.93	770	132 (36)	4.12	1781
4.	Nakehad Khad	184 (118)	8.50	334	187 (130)	5.80	2043
	Total	646 (366)	30.13	869 (avg)	637 (378)	20.96	2110 (avg)

Note: Impact assessment survey, PSI, 2013

Fodder Development: Livestock and fodder are important components of the integrated farming systems practised by mountain farmers. High quality fodder grasses were planted in community pasture lands and farmers' fields to enhance fodder availability and improve nutrition of cattle. It increased dung and milk yields. Nearby fodder availability also reduced the work load of women in these villages. To some extent it also reduced the soil and water runoff.

A total area of 120 ha was brought under high yielding fodder grasses like Napier and Sateria, benefiting 540 households in all the four clusters. The average fodder productivity was just over 13 T/ha. Households reported more than 20% increase in milk production. Similarly, dung collection increased by 12%. The potential annual gain in income from increased milk productivity is estimated at Rs. 5,991/milch animal. The drudgery reduction for women is shown in Figure 2.

Figure 2: Fodder Development Impact on Women's Drudgery



Note: Distance in kilometre and time in hours

Poultry Rearing: Non-farm income generation activities like small backyard poultry rearing can generate a good income for BPPL families

who have very little or no land. Poultry promotion was successfully introduced in this program. A total of 102 beneficiaries (98 BPPL) were covered in poultry rearing in 2 clusters. The income generated per household in Jolagad and Hilaungad through poultry farming was reported to be Rs. 5,245 annually.

It Is Not Just Chicken Feed!

Kuroiler based backyard poultry was promoted under the SML program to enhance the incomes of the poorest mountain households. Such families have little land to cultivate.

Ghanshyam, a 52 year old resident of Silatok (Hilaungad), was the first person in his village to construct a poultry shed. His initiative encouraged other farmers to opt for poultry rearing. Ghanshyam started to locally sell his mature birds at about Rs. 500/bird and eggs in the nearest market at Rs.7/egg. In the first year he earned around Rs.10,000. He also has a small manual mill, and grinds home-grown coarse grains like *mandua* and *jhangora* to feed the birds. He asserts that the only major constraint is the high requirement of feed.



Ghanshyam and his wife are very happy from earning of additional income from poultry. He says, "Now that we have our own poultry shed, we plan to increase the number of birds next year and wish to develop poultry rearing as the main source of income."

Other Activities: PSI's experience in watershed development has shown that irrigation doubles crop yields on mountain farms. Therefore irrigation is a critical intervention for enhancing livelihoods in mountain villages. A variety of irrigation facilities, e.g., dams, small cement concrete dams, *guhls/kuhls*, PVC or GI pipelines and irrigation wells were proposed. Though some activities could not be implemented due to non release of sanctioned funds from government schemes, an irrigation potential of about 20ha was created in 10 villages benefiting 221 families.

Several soil and water conservation works like retaining walls, gabion structures, diversion drains and brushwood check dams were proposed and most of them were approved under the MGNREG Scheme. There were, however, major delays in the completion of some of these works. The actual achievement in each cluster is shown in Table 4 below.

Table 4: Proposed and Completed Soil and Water Conservation Works

S. No.	Activities	Jolagad		Hilaungad		Middle Beas		Nakehad Khad		Total	
		Pro.	Com.	Pro.	Com.	Pro.	Com.	Pro.	Com.	Pro.	Com.
1	Retaining Walls (m)	404	96	48	70	69	29	80	20	601	215
2	Gabions (nos.)	19	27	18	10	34	-	41	10	112	47
3	Diversion Drains (m)	-	-	-	-	150	-			150	0
4	Brush Wood Check Dams (nos.)	-	-	-	-	4	4	10	10	14	14

Note: Impact Assessment Survey, PSI, 2013

Animal husbandry: To improve feeding practices for milch cattle, 236 cattle troughs were constructed in all the clusters. Besides improving dung and milk yields this intervention also helped reduce the drudgery of women in the program area. In addition 36 chaff cutters were supplied in the selected clusters.

Poly-tunnels: Poly-tunnels were proposed in order to prepare healthy and disease free seedlings for off-season vegetable cultivation in all the clusters. They are ideal for raising vegetable saplings in the harsh winters. A total of 96 poly-tunnels were installed in the four clusters. Some progressive farmers started selling saplings to other farmers. (See box: Tunnelling to Prosperity)

Goat rearing: Goat rearing can also be an important source of income for poor landless families. In this program 50 goatery units were established for BPPL families in the Jolagad, Hilaungad and Nakehad Khad clusters.

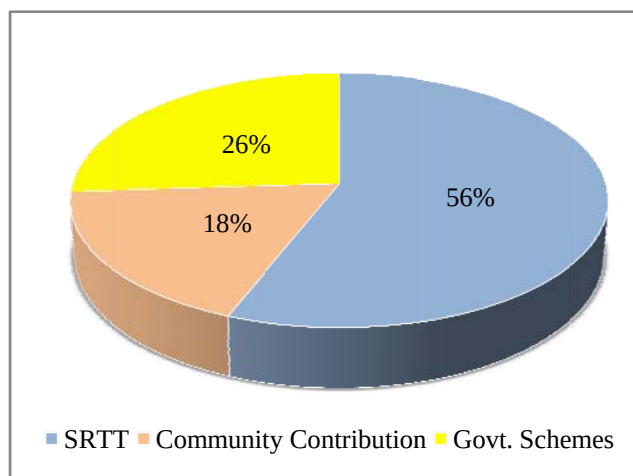
Finances

The total project investment was Rs. 2.87 crore. Out of this Rs. 1.6 cr (55.75 %) were received from SRTT while the remaining Rs. 1.27 cr (44.25%) was raised from other sources. The latter included Rs. 75.7 lakhs sanctioned under various government schemes like MGNREGS, RKVY, MHWDP, etc. Another 51 lakhs were raised from community contribution. Additional support in kind like seeds for planting gram, oat and mustard were also given by government agencies. CSK Agricultural University at Palampur provided some fodder grass saplings. The Agriculture Department of Himachal Pradesh gave 14 chaff cutters on a subsidy basis, four green houses and a grant of Rs. 158,000 under RKVY for extension of SCI activities in the Middle Beas and Nakehad Khad clusters.

Tunneling To Prosperity

Small Poly-tunnels were proposed to increase the income of BPPL families.

Hoshiyar Singh, a farmer in Sour Kalan village (Nakehad Khad cluster) established a small 10sqms. Poly-tunnel. He was trained to raise seedlings in the Poly-tunnel and use them for vegetable cultivation on his own land. In spring 2013 he raised around 2000 seedlings of cauliflower and transplanted them in his fields. Irrigation, and weeding led to a yield of 1300 kg., of which he sold 1150 in the local market at Rs. 15/kg. The total value of his produce was Rs. 19,500, while he had cash revenues of Rs. 17,250. Hoshiyar Singh estimated his total input costs at Rs. 3700, thus generating a net income of Rs. 15800.



I.3 SRI Research

SRI is a major success story today.¹ In India PSI has been at the forefront of extending the practice to several other crops (See previous section) and tens of thousands of farmers.

For some years now PSI has been extremely fortunate to have its SRI work studied and analyzed by Dr. W.A. Stoop, an eminent Dutch soil scientist and agronomist who has worked with CIMMYT, ICRISAT and the Africa Rice Centre.

¹W.A. STOOP & E. VAN WALSUM (2013): "SRI – A Grass-roots revolution", *Farming Matters*, March 2013.

In spring 2013 Dr. Stoop shared his insights after visiting the Institute's SRI projects in Uttarakhand. He observed that while the effects of major variables like spacing of plants, age of seedlings or soil moisture were well-known, there were other less understood factors whose effects were not so obvious. These are 'confounding factors', e.g., time of seeding (early or late in the season), type of soil, farmers' psychology, local cultural practices, etc. Based on Dr. Stoops's analysis and with a generous grant from him, PSI undertook a field research project to study two confounding factors:



- (i) The effect of plant density on rice yields (Experiment 1)
- (ii) The interaction of plant density and seeding time on rice yields (Experiment 2)

Experiment 1 was conducted with 85 farmers in 11 villages of Rudraprayag and Tehri districts. Experiment 2 was conducted in 25 experimental blocks in the 11 villages.

Planting Method in Experiment 1:

Conventional Method SC, NC	12 inch (1 or 2 seedling/Hill) SO, N1	10 inch (1 or 2 seedling/Hill) S1, N1	8 inch (1 or 2 seedling/Hill) S2, N1
	12 inch (3 or 4 seedlings/Hill) SO, N2	10 inch (3 or 4 seedlings/ Hill) S1, N2	8 inch (3 or 4 seedlings/Hill) S2, N2

SC: Random Spacing; SO: Wide spacing (12"); S1: Ideal Spacing (10"); S2: Closer Spacing (8"); NC: >4-6 Seedlings/Hill; N1: 1-2 Seedlings/Hill; N2: 3-4 Seedling/Hill; Average Age of Seedlings – 16, 27 & 58 days

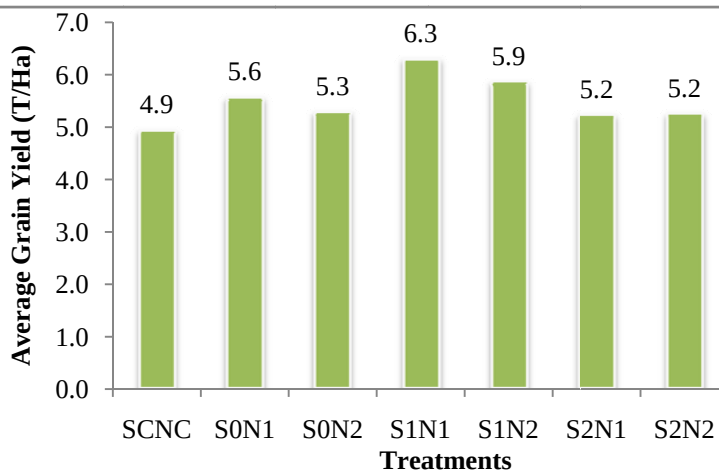
Planting Method in Experiment 2:

T-1 First Transplanting		
Nursery 1 (12 Days)	10 Inch (2 seedlings/Hill) T1S1A1	8 Inch (2 seedlings/Hill) T1S2A1
Nursery 2 (27 Days)	10 Inch (2 seedlings/Hill) T1S1A2	8 Inch (2 seedlings/Hill) T1S2A2
T-2 Second Transplanting (15-20 Days after T-1)		
Nursery 3 (12 Days)	10 Inch (2 seedlings/Hill) T2S1A1	8 Inch (2 seedlings/Hill) T2S2A1
Nursery 4 (27 Days)	10 Inch (2 seedlings/Hill) T2S1A2	8 Inch (2 seedlings/Hill) T2S2A2

T1: Early Transplanting; T2: Late Transplanting; A1: Young Seedlings (7 to 12 days); A2: Old Seedlings (22 to 27 days); S1: Wide Spacing (10"); S2: Close Spacing (8 ")

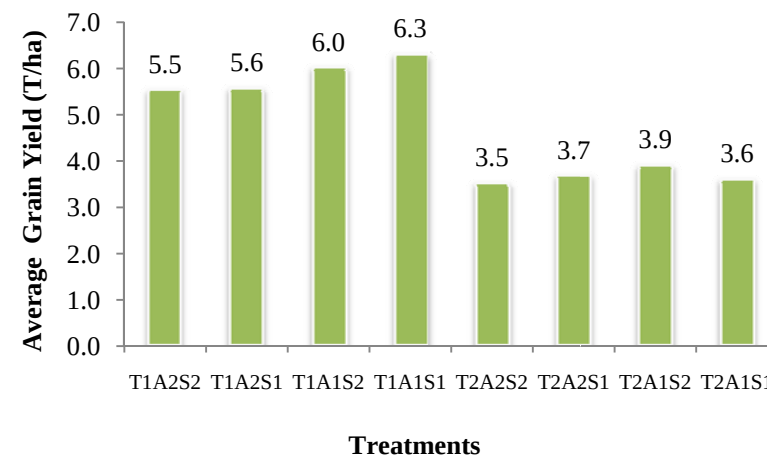
Results:

In experiment 1 it was observed that increase in plant density reduces grain yields. For young seedling, 2 seedlings per hill at 10" spacing gives highest grain and straw yields.



SC: Random Spacing; SO: Wider Spacing (12"); S1: Ideal Spacing (10"); S2: Closer Spacing (8") NC: 4-6 Seedlings/Hill N1: 2 Seedlings/Hill N2: 4 Seedlings/Hill. Age of Seedlings: 12 to 21 Days (Average: 16 Days)

In experiment 2 it was observed that early transplanting with younger seedlings at wider spacing results in highest grain and straw yields. For late transplanting, planting 2 seedlings per hill at closer spacing (8 inches) results in higher yield.



T1: Early Transplanting
A1: Younger Seedling (8 to 16 days)
S1: Wider Spacing (10 inch)
T2: Late Transplanting (14 to 20 days later)
A2: Older Seedling (23 to 30 days)
S2: Closer Spacing (8 inch)

I.4 IWMP Training Courses

The National Rainfed Areas Authority (GoI) has identified PSI as a training centre for the Integrated Watershed Management Program (IWMP) for the states of Uttarakhand and Himachal Pradesh. Consequently PSI organizes 3-5 days' orientation or training workshops for stakeholders of micro-watershed projects including Watershed Development Teams (WDTs), PRIs, user groups, SHG members and junior engineers. The participants are trained in vegetative and engineering measures for



IWMP Training in session

watershed management, institution building, benefit sharing of benefits from common property resources development, convergence with ongoing government schemes, participatory ground water management, etc. In 2013-14 PSI organized 33 training workshops in Dehradun for 1102 participants from seven districts (Sirmour, Una, Shimla, Chamba, Lahul and Spiti, Solan, and Hamirpur) of Himachal Pradesh.

I.5 DPRs Preparation

PSI was entrusted with the responsibility of preparing Detailed Project Reports (DPRs) for watershed development projects in 12 panchayats of Bijhari block (Hamirpur district) and in 19 panchayats of Nagrota Surian block (Kangra district). After completion draft DPRs were presented at Department of Land Resources meetings in Hamirpur and Kangra districts. The required modifications were done and the final DPRs were approved by the State Level Nodal Agency for watershed development in Shimla.



Meeting for DPR preparation in Bijhari block Hamirpur

I.6 Remarks

Dealing with the June 2013 Uttarakhand floods disaster was a major challenge due to its scale. PSI's entire team rose to it with tremendous dedication and innovative thinking. Instead of writing proposals and seeking funds from donor agencies, PSI chose to make a brief announcement of a 3.5 year response program and seek funds from well wishers and concerned people. The appeal was circulated to Institute's mailing list. The response was phenomenal, with contributions totalling over Rs. 3.25 crores. Later Star TV organised a televised fund raiser and selected PSI and Himmotthan Society to carry out the response work.

By December 2013 the disaster response team completed the construction of 206 temporary shelter units, each large enough (170 sq.ft.) to accommodate a rural family. Each unit can easily last for more than five years. Several new features were introduced in the design compared to earlier years. These included a mesh window, toilets and in 28 cases smokeless *chulhas*. No other organisation, government or non-government, constructed as many units. It is noteworthy that most of these shelters were built in extremely remote regions. No other agency worked in most of these locations.

Our response in Phase III, i.e., in facilitating the selected village communities to prepare livelihoods development plans faced initial difficulties due to largely inexperienced field teams. It took us time to overcome this problem. An important outcome of the entire disaster response effort has been the rebuilding of a stronger Disaster Mitigation and Response Group at PSI.

The Sustaining Mountain Livelihoods program has shown that it is possible to bring rural mountain families out of poverty by improving the productivities of their local natural resources. At the same time some activities like the development of fodder grasses and tree plantations within the village boundaries have helped reduce women's drudgery. In order to ensure the sustainability of the

interventions made, strong village level institutions are essential. The experience gained from the SML program is being gainfully used in the Uttarakhand floods disaster response Phase III.

In the last decade PSI displayed its innovative and leadership abilities by extending the concepts of SRI to other crops. The presence of Mr. Debashish Sen (who led the SCI effort at PSI) at Wageningen University as a Ph.D. candidate, helped focus international attention on PSI's work in this field. His return in FY 2015 and the Institute's association with Dr. Stoop will help expand PSI's research capabilities in SCI.

PSI's designation by the National Rainfed Areas Agency as a support organisation for the IWMP projects in Uttarakhand and Himachal Pradesh is a recognition of its work in the field of watershed development over the last two decades.

Financial Statement

NRM Groups Financial Statement (2013-2014)

S. No.	Project	Funding Partner	Opening Bal.	Income	Utilization	Balance
1	Sustaining Mountain Livelihood	NRTT, Mumbai	(288,309)	5,061,311	3,590,601	1,182,401
2	Upscaling SCI for food security in UKD & BKD	SDTT, Mumbai	873,230	500,705	248,584	1,125,351
3	Promoting SCI in mountain Farms of H.P.	Dept of Agr (GoHP)	(324,466)	543,185	510,743	(292,024)
4	Detail Project Report (DPR)	DRDA, Hamirpur	Nil	75,000	659,387	(584,387)
5	Detail Project Report (DPR)	DWDA, Kangra	Nil	-	926,983	(926,983)
6	Uttarakhand Flood Disaster	Individual Donations	Nil	32,920,184	9,557,136	23,363,048
7	Uttarakhand Flood Disaster	Star-TV	Nil	37,899,484	768,563	37,130,921
8	Training & Development Support	DoRD, various dist. HP	Nil	9,099,423	9,099,423	Nil
	Total		260,455	86,099,291	25,361,419	60,998,327

II. Environmental Quality Monitoring

PSI's Environmental Quality Monitoring Group (EQMG) monitors environmental quality, pollution levels and their impacts. It builds the capacities of VOs and communities to gather and interpret pollution data and plan for mitigating pollution-related problems. It also assesses the environmental impact of developmental projects. It operates a well-equipped laboratory in Dehradun. In 2013-14 the EQM Group completed a 3-year phase-I of a major program on participatory ground water management with financial support from Arghyam. It began new project on fluorosis mitigation and provision of safe drinking water in Dhar district (M.P) with the financial support of Frank Water, U.K. WWF-India selected the EQMG at PSI as a partner for its research on environmental flows in Uttarkhand's Western Ramganga river.

II.1 Participatory Ground Water Management (PGWM)

Springs, underground seepages and base flows of mountain streams provide most of the household and livelihood water needs of mountain communities in the Indian Himalaya. Thus groundwater is the life line of mountain communities in the Himalayan states. Many natural and anthropogenic activities are negatively impacting traditional water harvesting structures, natural springs, mountain streams and local agriculture. Hence, in all the mountain states there is an urgent need to focus on regenerating springs and underground flows based on knowledge of the local hydro-geology. This helps to identify recharge and discharge zones and undertake measures to recharge and manage ground water with the help of the local community.

To develop an understanding of mountain aquifers and to implement springshed management based on hydrogeology, PSI obtained a grant from Arghyam in 2011 under its three years' Participatory Groundwater Management (PGWM) program. Three other organizations were part of the collaborative program on Participatory Groundwater Management supported by Arghyam. The project was carried out using a three pronged approach – Training, Action Research & Advocacy. The details of these activities are elaborated below.

Training (Capacity Building)

The purpose of this component was primarily to create a regional talent pool of persons trained in hydrogeology to work on groundwater resources in the Himalayan region. PSI trained 156 people through seven training workshops organized during the three years' project duration. The participants belonged to NGOs, Watershed Development Team (WDTs), community representatives, government officers and staff, SLNAs, CGWB and state government program officials from nine different states. Different types of training programs were designed for different target groups and regions.

The training course design was crafted for better understanding of the fundamental concepts of the Himalayan hydrogeology and focused on groundwater management, geological and hydro-geological mapping, designing watershed development plans, and monitoring groundwater quality with the help of rigorous theoretical and practical sessions. Practical sessions included reading topographical maps, mapping, drainage analysis, measuring and understanding spring discharge, water quality analysis, field

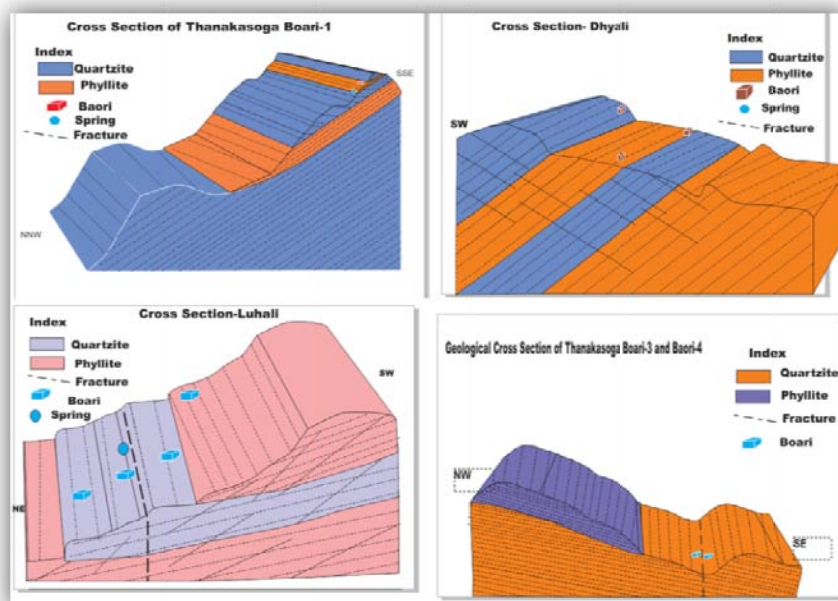
visits etc. The training helped the participants realize that groundwater is a community resource that requires planning, development and management.

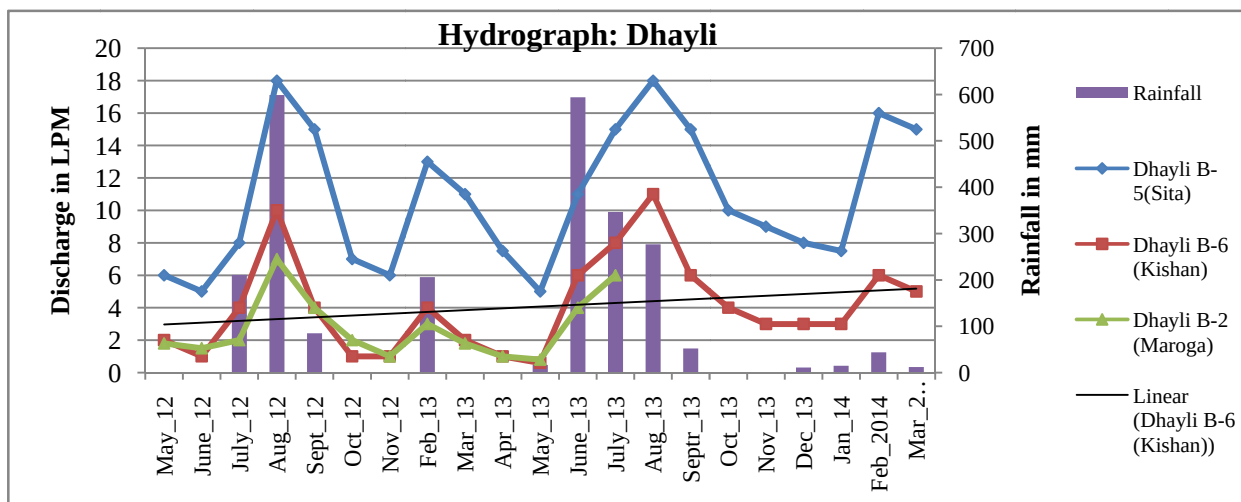
Action research

The purpose of action research was for PSI's team to develop an understanding of mountain aquifers through survey, assessment, mapping and monitoring of groundwater resources and to develop a model of groundwater management using physical, social and vegetative measures. Our action research site included the five villages - Luhali, Sattar-Bhadon, Dhyali, Dandor and Thanakasoga in Thanakasoga Panchayat in Sirmour district, H.P.

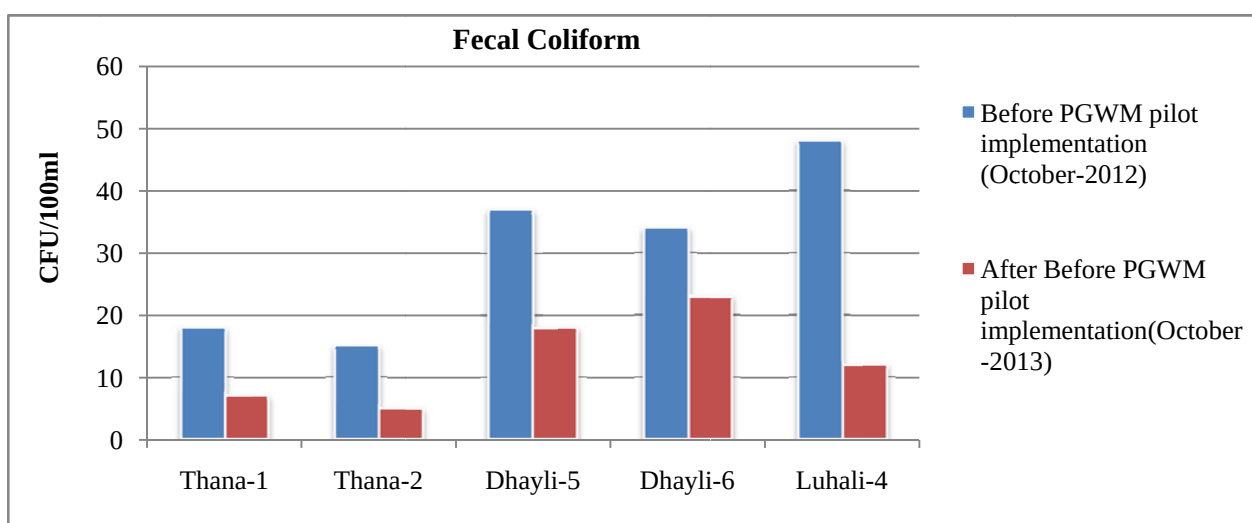
In order to understand the aquifers here and to mobilize the local communities for participatory groundwater management, PSI's project team carried out a number of activities in the five selected villages:

- Social mapping of the five villages
- Identification of specific water related problems
- Estimation of water availability in the area and water demand during the summer, monsoon and winter seasons
- Hydrogeological mapping of the five villages of Thana Kasoga springsheds
- Identification of the recharge areas of the various *baoris* in the area
- Installation of a rain-gauge in Dhyali village and collection of rainfall data (being done by a volunteer in the village)
- Designs and estimates of engineering structures and plans for vegetative measures for groundwater recharge of four *baoris* in the panchayat
- Periodic water discharge measurements in the selected *baoris*





- Monitoring of water quality of the *baoris* selected for regeneration
- Household socio-economic surveys



- Exposure visit to Thakurdwara village in Pachhad block of Sirmour district where PSI had earlier implemented a springshed development project
- Nursery development
- Awareness campaign in schools on water & sanitation
- Formation of a Water Management Committee at the Panchayat level and water user groups for the selected *baoris*
- Earth works: Four sources were selected for



artificial recharge activities. After the hydro geological survey, detailed engineering estimates were prepared for earth works. Staggered contour trenches were the main recharge structures for pasture lands where the surface slope was less than 40% and continuous contour trenches were the main structures for agricultural land.

Advocacy

The objective of advocacy was to mainstream the principles and practices of Participatory Groundwater Management into state supported development initiatives, programs and academic systems. To achieve this objective, PSI lobbied with the Planning Commission for inclusion of springshed development in the list of permissible works under MGNREGA. This was done in the MGNREGA Guidelines 2013. A workshop organized with Arghyam and the other PGWM partners helped obtain the inclusion of PGWM concepts in the national IWMD program.



In order to popularize PGWM concept a situation analysis report on Himalayan ground water resources and a groundwater quality manual was prepared and disseminated during meetings and workshops. PSI organized a special workshop on 6th & 7th February 2014 in Shimla to advocate the principles of PGWM, its importance and achievements. It was attended by state government officials, civil society organizations and researchers.

II.2 Providing Safe Drinking Water To Communities in Dhar, M.P.

The EQM group of PSI began work on fluorosis mitigation in Dhar district (Madhya Pradesh) with the financial support of Frank Water, UK. It is a three years program which started in October 2013. Dhar is a drought prone area and has a high geogenic concentration of fluoride in its groundwater which causes fluorosis disease.

The goal of the project is to demonstrate a successful method of providing fluoride-affected communities with safe drinking water in three villages of Dhar and to increase awareness about water and sanitation related issues. The project began by gathering base line information through village and household surveys, RRA exercises and water testing. A health survey including primarily dental and skeletal survey among children was conducted in 20 schools falling under Dharampuri and Manawar blocks of Dhar.

The schools survey enabled the listing of more than 40 villages affected by dental & skeletal fluorosis. Out of these, 29 villages having the most number of dental fluorosis cases were selected for village



surveys to collect information regarding number of households, population details, sources of drinking water, sanitary conditions, etc. Based on an analysis of the data gathered a short list of seven villages – Maalpura, Kachhwanya, Bankpura, Daheria and Sankota from Dharampuri block and Kaalapani and Badichitri from Umarbann block was prepared for detailed household surveys, RRA, and further water testing.

The household surveys revealed that most families are dependent on open wells and handpumps for their domestic water requirements. Handpump water has higher fluoride concentration. Malaria and typhoid are the most prevalent waterborne diseases in these villages. Dental and skeletal fluorosis are common in the villages.

During the RRA exercises it emerged that water sources in the villages are not well-maintained and water scarcity in the summer season is a major problem. Open defecation is a common practice but the people are unaware that poor sanitary practices contaminate water sources and cause water borne diseases or that fluoride in the water is causing dental and skeletal problems.

Within six months the team did notable work in the seven villages. It built up a good rapport with the communities. Detailed water testing, urine analysis, awareness campaigns and geological studies are being carried out presently.



II.3 Water Quality Monitoring

EQMG operates a state-of-the-art laboratory in Dehradun, equipped with sophisticated instruments like an atomic absorption spectrophotometer (AAS), a gas chromatograph, flame photometer, spectrophotometer, etc. In 2013-14, around 130 drinking water samples were tested at the lab. Most of them came from local institutions like Lal Bahadur Shastri National Academy of Administration, Doon School, Himmothan, Himalayn Jankalyan Samiti etc. The group also produces low cost water testing kits using standard APHA methods. The kit tests have been verified by Shriram Laboratories. In 2013-14, it sold 68 kits and supplied 43 refill orders.



II.4 Other Activities

Review of Jawaharlal Nehru Urban Renewal Mission: JNNURM-1 was launched by the Government of India in 2005 across 65 cities to give a facelift to the cities by improving the urban infrastructure and to

provide basic services to the urban poor. Since Dehradun is emerging as a new commercial centre and is the provisional state capital, it is under extreme expansion pressure. It is also covered under JNNURM. Since Phase-II of the Mission is due to be launched in 2014, some organizations like The Hazard Centre, New Delhi thought of doing a review of the activities carried out under Phase-1. The EQM Group carried out a review of the status of the water supply system, sewerage system, solid waste management and improvement of roads in Dehradun. The study revealed that though crores of rupees had been spent during the last nine years by the Mission, there was hardly any visible impact. There are acute water shortages during summers for which the approved JNNURM cost for improvement was 70.02 crore. A total of 62.6 mld of wastewater is generated from the city of which only 32.1 mld is collected. The six STPs are still in the proposed state. Out of the proposed improvement of 30 intersections of the city, work has been completed for only 8 intersections. This hitherto beautiful city has 79 registered slums along the banks of Bindal & Rispana rivers. The report was submitted to the Hazard Centre and published in the local news papers for raising local awareness.



Bindal river carrying raw sewage

II.5 Remarks

This year the Group was basically engaged in working on major projects related to drinking water. The Group worked on achieving the targets and objectives of Participatory Ground Water Management (PGWM) with great zeal and also received due acknowledgement for its work from the other PGWM partners. It's most important achievements in PGWM were getting springshed development included in MGNREGA guidelines, convincing the regional CGWB office about the PGWM concept and inclusion of a special session on PGWM in IWMP training workshops. All these efforts have increased knowledge about the need for a participatory approach to groundwater management. Many non-government organizations belonging to different Himalayan regions are now showing a keen interest in springshed management in their regions. After successfully completing the first phase the program is now moving into a second three-year phase which would be engaged in deepening the principles of PGWM at our present action research site (Thanakasoga) and expanding it in other Himalayan regions with four new regional partners. An attempt will also be made to explore the introduction of PGWM practice in industrial areas of Himachal Pradesh and North Eastern states.

In Dhar, the EQM Group identified the rural communities with lack of access to safe drinking water in a very methodical manner by conducting dental, skeletal, village, household surveys, RRA and water testing. This year, for the first time the Group's water quality testing kits were supplied overseas to Aga Khan Foundation, Tajikistan. The Group has acquired a good degree of stability with long-term projects.

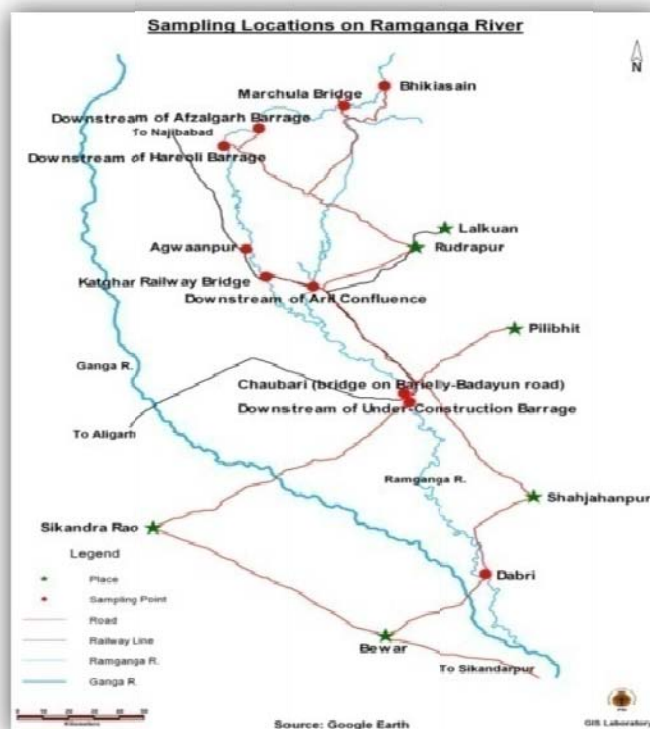
II.6 Ramganga Study

After successfully completing the previous studies on assessment of environmental flows requirements of rivers, a small team from PSI got engaged in a study sponsored and coordinated by WWF-India on the Western Ramganga. It emerges from the eastern slopes of the Doodhatoli mountain range. It flows for about 596 Km before it joins River Ganga in Uttar Pradesh.

The Ramganga (W) valley is rich in biodiversity. It is famous for many fish varieties and migratory birds. But construction of barrages, mining, heavy abstraction of water for several towns in U.P and high levels of pollution from industries have reduced the river into a polluted stream. The ecological and community water needs are inherently linked with rivers like Ramganga which supports many livelihoods but its condition is gradually deteriorating.

To improve the condition of this river WWF India has initiated Rivers for Life Program. The vision of this program is to facilitate the adoption of sustainable water abstraction policies and practices leading to adequate Environmental Flows in the Ganga and its key tributaries including Ramganga. PSI is one of the working partners of WWF and is looking at the socio-cultural and livelihoods aspect for the required EFlows.

The study will be carried out through surveys and PRA exercises at eight cross-sections – Bhikiyasain, Marchula Bridge, Downstream of Afzalgarh barrage, Downstream of Hareoli barrage, Agwaanpur, Katghar Railway Bridge, Chaubari and Dabri from May 2014-2017.



Financial Statement

EQMG Group's Financial Statement (2013-2014)

S. No.	Project	Funding Partner	Opening Bal.	Income	Utilization	Balance
1	PGWM	Arghyam	1,945,197	1,253,882	2,696,374	502,705
2	Frank Water	Frank Water	Nil	2,307,425	768,626	1,538,799
3	River Water Quality Monitoring	GGET	(62,471)	-	692	(63,163)
4	Water Sampling & Kits Sale		Nil	695,621	393,338	Nil
	Total		1,882,726	4,256,928	3,859,030	1,978,341

III. Innovative Projects

III.1 Gram Swaraj Abhiyan

The Innovative Projects Group (IPG) at PSI evolves technologies and social processes to address anticipated problems of development. From 2011 till 2013 the Group focused on the Gram Swaraj Abhiyan (GSA) program in Bundelkhand.

Bundelkhand has witnessed repeated droughts in the last decade. There have been reports of mass migrations, starvation deaths, farmers' suicides and the "mortgaging" of women over these years. A major objective of the GSA program in Bundelkhand was to initiate self reliant development in a sustainable and socially just manner.

After successfully completing the program in 15 panchayats (40 villages) of five districts in Bundelkhand, the Group launched another program this year in 20 villages in Chhatarpur and Panna districts with the financial support of SDTT. The expected outcomes of this program are natural resources management through community participation, food security, and improved availability of water for irrigation with at least 25% households in the village having access to irrigation and increase in the average annual income by Rs. 17000 per household.

In the first four months (Dec. 2013-March 2014) the project team selected 20 villages (six panchayats) in Chhatarpur and Panna districts using vulnerability criteria. The average vulnerability score of the selected villages is 33 against a maximum score of 40. Field teams were formed and trained in Micro Level Planning (MLP), resource mapping and soil and water conservation techniques. After their training they initiated MLP processes in their respective areas. In three villages the major issues identified by the villagers during the MLP process were social inequality, lack of unity in villages, lack of employment opportunities, health, education, forest, drinking and irrigation water.



After completion of the MLPs, *aam sabhas* are to be organized in each village. Efforts will be made to hold regular *aam sabhas* in the future. Several social issues like education, health, forests etc. emerged during the MLP process. In some villages where PRA has been completed, the villagers felt there should be separate institutions to deal with these issues. The rules for each such required institution will be formulated soon.

For GIS based Decision Support System (DSS) revenue records were collected for 10 villages (Chhatarpur – 9 and Panna - 1) and cadastral maps were collected and digitized. The plot surveys are in progress.



Financial Statement

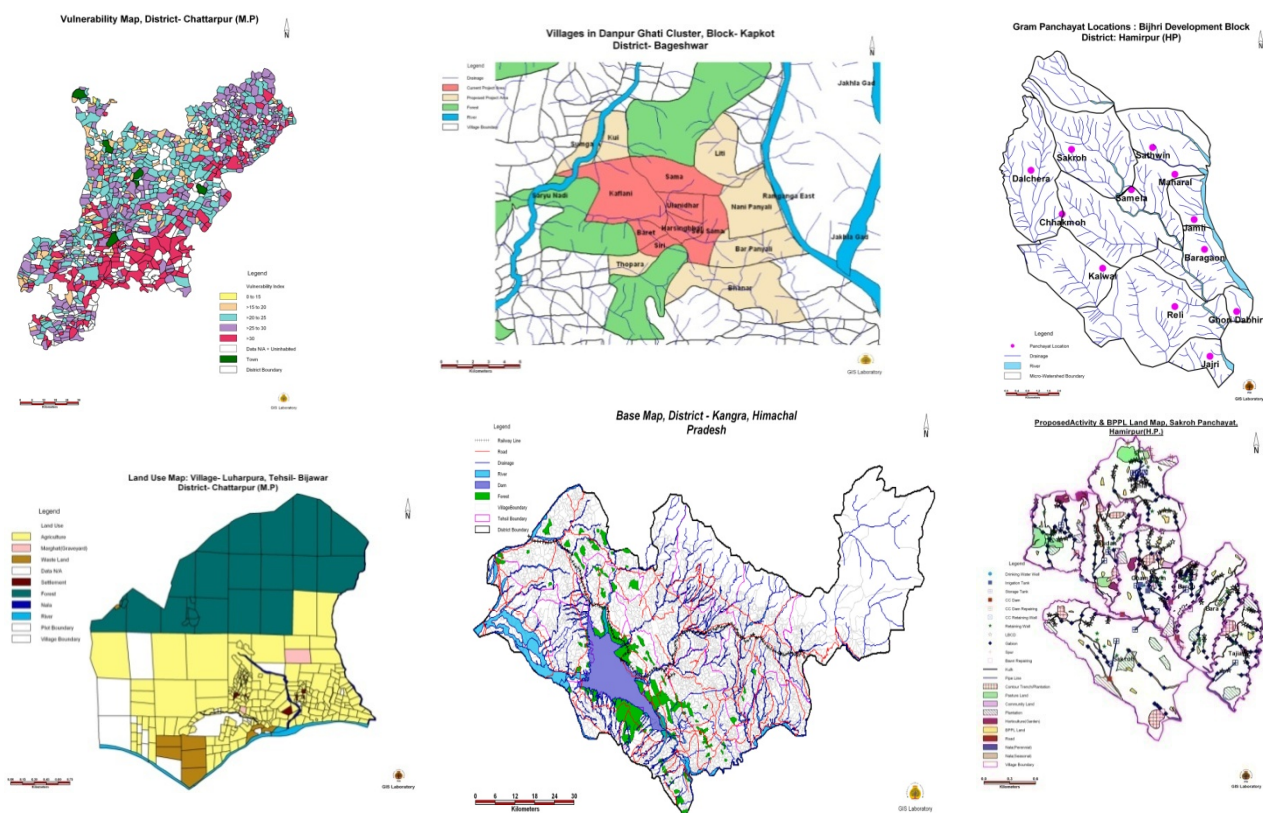
Innovative Project Group's Financial Statement (2013-2014)

S. No.	Project	Funding Partner	Opening Bal.	Income	Utilization	Balance
1	Gram Swaraj Abhiyan	NIRD	(1,870,746)	-	1,228,460	(3,099,206)
2	Natural resource management through Community mobilization in Bundelkhand region of M.P.	Tata Education Trust	Nil	6,572,191	744,579	5,827,612
	Total		(1,870,746)	6,572,191	1,973,039	2,728,406

III.2 GIS

PSI has a GIS lab where it has developed its Village Information System (VIS) software for knowledge-based decision-making. It can provide detailed data for Indian villages, district and state. It is a user-friendly geo-referenced Geographical Information System (GIS) application that can display census data covering about 200 parameters related to demography, social welfare, infrastructure and natural resources in the form of maps, tables and graphs to present information thematically for the use of planners, policy-makers, administrators and researchers. Other databases like the National Education Survey, National Health Survey, National Agriculture Survey, National Handloom Survey, etc. have also been linked to the system. The Group had earlier developed a demonstration model of VIS for the states of Uttarakhand and Himachal Pradesh. This year it updated the VIS with 2011 demographic data and additional database on roads, railway lines, drainage, dams, forest etc. Work on VIS of Haryana is going on.

During the year the Group also facilitated the work related to the ongoing projects of PSI by preparing maps, tracking the vulnerable areas/villages, visual representation of the focused area, etc. Given below are some of the maps prepared by PSI's GIS team.



IV. Other Projects & Activities

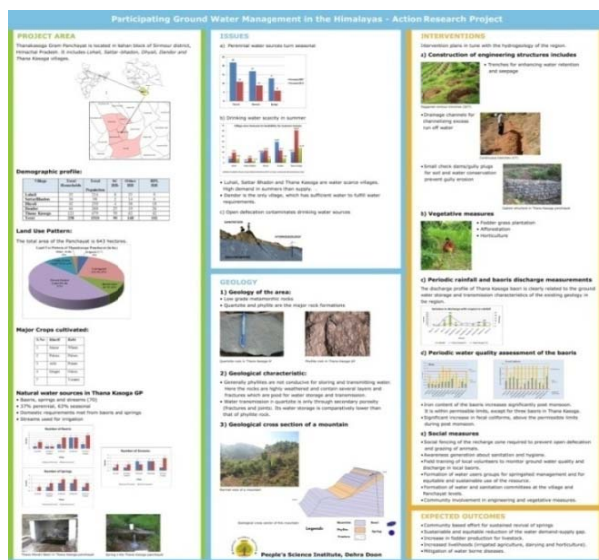
IV.1 Manthan Shivir

A silver jubilee has a special significance in the life of any institution as it signifies maturity. PSI completed its 25 years of journey in June 2013 and decided to celebrate the event by organizing a three day Manthan Shivir at the Christian Retreat Centre, Rajpur. There were presentations and discussions on the journey of PSI, group discussion on PSI's goals and principles, a walk to Mussoorie and a talk by Ms. Jo Chopra on "How to improve working relations". This shivir gave all the members of PSI an opportunity to interact with each other and to plan for the future. It also reposed a lot of confidence in all of them.

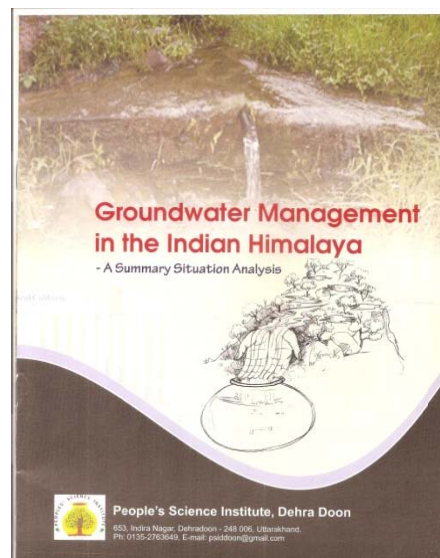


IV.2 PSI's Publications

Research at PSI is undertaken to improve the implementation of field projects, identify new areas of work and to bring about social changes. The following research publications and reports were prepared in 2013-14:



A poster on PSI's PGWM program in Himachal Pradesh



A situation analysis document on groundwater management in the Himalayan region

1. **A report on Uttarakhand Development and Ecological Sustainability was submitted to Oxfam India**
<http://peoplescienceinstitute.org/PDF's/WP8UttarakhandDevpEcoSustainability3.pdf>
2. **An examination of basic services in Doon under the Jawaharlal Nehru Urban Renewal Mission**
 The Times of India, Edition, Dehra Doon, 9 April, 2014
3. **What has Dehradun achieved through JNNURM-1?**
 Garhwal Post, Dehra Doon, 13 April, 2014
4. **How Safe Is Your Drinking Water?**
 URL:http://www.indiawaterportal.org/sites/indiawaterportal.org/files/how_safe_is_your_drinking_water_3.pdf
5. **Springshed Management- A hydrogeological Approach: A case study of Sirmour District of Himachal Pradesh, India**
<http://www.slideshare.net/indiawaterportal/participatory-groundwater-management-in-himachal-pradesh>

IV.3 Internship at PSI

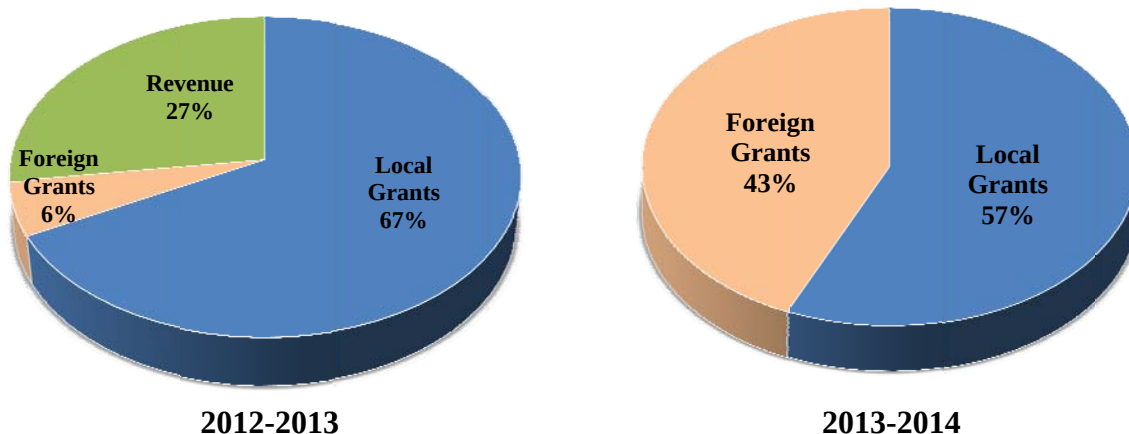
Each year, PSI hosts a large number of interns. Our internship program, while continuously improving, generates valuable benefits for both the interns and us. It not only provides the interns an opportunity to develop new skills and gain exposure to field work but also provides us short-term assistance and their fresh viewpoint about our ongoing projects leading to new ideas and creative solutions. Being an Institute which also works for social upliftment, we consider hosting interns as a good way to give back to the next generation of socially concerned people. This year PSI hosted 23 interns from reputed institutes like Dhirubhai Ambani Institute of Information And Communication Technology, Gandhinagar; Tata Institute of Social Sciences; S.P Jain Institute of Management & Research Mumbai; G.B. Pant Institute of Social Sciences, Allahabad and Sambhaavana Institute, Palampur. The interns basically worked in Uttarakhand's disaster hit areas to prepare livelihood development plans.

V. Financial Report

PSI's balance sheet and consolidated income and expenditure account for 2013-2014, ending March 31, 2014 are attached as Annexures 1a and 1b.

During the year the Institute generated grants worth Rs.1,77,19,880 and donations worth Rs. 7,00,41,119. Other receipts from consultancies, sale of products and publications amounted to Rs. 98,76,614. Adding the opening balance and other incomes the total income for 2013-2014 amounted to Rs.10,27,92,578. The Institute spent Rs. 3,53,84,556 leaving a balance of Rs.6,74,08,022. It is proposed that Rs.20,00,000 be transferred to the campus fund. With unutilized grants carried forward amounting to Rs. 6,84,27,043, the deficit transferred to the capital fund is Rs.30,19,021. The deficit is basically due to non-receipt of a grant installment (Rs.29,71,388) from NIRD.

The pie-charts below show the sourcing of income from local grants and foreign grants for 2013-2014 & the previous year.



The main donors for local and foreign grants are listed below. PSI is thankful to all of them for their support.

Indian: Sir Dorabji Tata Trust, Navajbai Ratan Tata Trust, Government of HP, Star-TV (India), Arghyam & Tata Education Trust.

Foreign: Star-TV, Frank Water, Vishal Himalaya Foundation, Indians for Collective Action and Stoop Consult.

VI. Executive Board 2013-14

Dr. K.S. Chawla	Chairperson	Geotechnical Engineer
Mr. A.K. Roy	Treasurer	Chemical Engineer
Dr. B.K. Joshi	Hony. Dean of Research	Political Scientist
Ms. Madhu Sarin	Member	Architect
Dr. Leela Visaria	Member	Sociologist
Dr. Kshama Metre	Member	Medical Practitioner
Dr. Ravi Chopra	Director (Ex-Officio)	Scientist

VII. PSI Staff 2013-14

S.No.	Name	Date of Joining	Date of Leaving
1	Shubhoshree Banerjee	15.07.10	08.03.14
2	Bhupendra Bartwal	01.11.13	
3	Puran Bartwal	03.01.11	
4	Siddharth Bhatia	04.06.13	
5	Ravi Chopra	27.06.88	
6	Abhinandan Dhakal	02.07.12	31.05.13
7	D.N. Dwivedy	17.08.98	
8	Anil Kumar Gautam	01.03.02	
9	Vishal Gupta	16.12.11	
10	Ajay Jairwan	01.05.08	06.07.13
11	Pushpa Juyal	21.12.92	
12	Surendra Kaintura	01.10.12	
13	Dinesh Kaundal	01.02.14	15.03.14
14	Neha Khandekar	01.03.14	
15	Ranjana Khare	01.12.11	
16	Arvind Kumar	02.08.10	
17	Harendra Kumar	02.08.10	



18	Manoj Kumar	10.07.06	
19	Ravinder Kumar	01.02.14	
20	Heera Lal	01.04.02	
21	Mitthan Lal	26.07.10	07.07.13
22	Darshan Lal	01.06.13	
23	Amrita Mishra	01.11.13	
24	Vinod Niranjana	15.01.14	
25	Raj Deo Ojha	16.07.12	31.03.13
26	Krishna Mohan Poddar	02.07.12	
27	Anchal Prajapati	18.04.13	
28	R.S. Prasad	01.11.94	
29	Puja S. Raghuvanshi	01.11.13	
30	Mahendra Singh Rajwar	01.01.08	
31	Surendra Singh Rana	01.06.12	
32	Harshmani Raturi	01.07.12	30.04.13
33	Seema Ravendale	05.03.12	
34	Ramesh Singh Rawat	16.09.04	
35	Subhash S. Rawat	01.06.02	
36	Anita Sharma	02.07.12	
37	Dinesh Sharma	02.10.97	
38	Rajesh K. Sharma	20.08.98	
39	Sunesh Kumar Sharma	01.04.11	
40	Pavitra Singh	01.11.06	13.07.13
41	Ropesh Kumar Singh	21.08.12	04.01.14
42	Vikram Singh	01.02.00	
43	Yashpaul Singh	03.01.11	
44	Shiv Kumar Soni	01.10.11	31.01.14
45	C. Tripathi	15.06.88	
46	Meena Yadav	07.11.08	31.10.13

PEOPLES' SCIENCE INSTITUTE
E-57, PANCHSHEEL PARK NEW DELHI-110 016

BALANCE SHEET AS AT 31st MARCH, 2014

S.NO.	PARTICULARS	Notes	FOREIGN FUND	LOCAL FUND	TOTAL AS AT 31.03.2014	TOTAL AS AT 31.03.2013
I	CAPITAL AND LIABILITIES					
	CAPITAL FUND					
	ENDOWMENT FUND		597,837.00	-	597,837.00	597,837.00
	Add: During the year					
	Closing Balance		597,837.00	-	597,837.00	597,837.00
	CAMPUS FUND					
	Opening Balance		6,635,133.00	5,022,000.00	11,657,133.00	9,157,133.00
	Add: Transfer from General Fund		600,000.00	1,400,000.00	2,000,000.00	2,500,000.00
	Add: During the year					
	Closing Balance		7,235,133.00	6,422,000.00	13,657,133.00	11,657,133.00
	GENERAL FUND					
	Opening Balance		1,081,546.84	2,842,986.81	3,924,533.65	3,639,640.48
	Add: Excess of Income over expenditure		29,315.05	(3,048,335.71)	(3,019,020.66)	284,893.17
	Closing Balance		1,110,861.89	(205,348.90)	905,512.99	3,924,533.65
	GRANTS (to the extent unutilised)		37,642,084.67	30,784,958.04	68,427,042.71	1,686,486.37
	Receivable / Unutilised (Net)					
	Farmer's Fund					107,880.00
	CURRENT LIABILITIES					
	OTHER CURRENT LIABILITIES	1	75,234.00	725,059.00	800,293.00	242,650.00
	TOTAL		46,661,150.56	37,726,668.14	84,387,818.70	18,216,520.02
II	ASSETS					
	Non-Current Assets					
	FIXED ASSETS					
	TANGIBLE ASSETS					
	less Depreciation	2	3,601,608.95	910,073.85	4,511,682.80	4,653,809.80
	NON CURRENT INVESTMENTS	3	41,118,886.00	23,210,876.00	64,329,762.00	6,949,560.00
	LONG TERM LOANS AND ADVANCES	4	-	170,804.00	170,804.00	187,758.00
	Current Assets					
	TRADE RECEIVABLES	5	-	33,640.00	33,640.00	88,882.00
	CASH AND CASH EQUIVALENTS	6	764,669.61	12,733,630.29	13,498,299.90	5,681,523.23
	OTHER CURRENT ASSETS	7	1,175,986.00	667,644.00	1,843,630.00	654,986.99
	NOTES TO THE ACCOUNTS	8				
	TOTAL		46,661,150.56	37,726,668.14	84,387,818.70	18,216,520.02

"As per our separate report of even date attached herewith"

For S.M. VARMA & CO.
Chartered Accountants

SUDHIR VARMA
FCA (IN USA)

Date: 20th September, 2014
Place: New Delhi

For PEOPLES' SCIENCE INSTITUTE

RAVI CHOPRA
Director

KANWARJIT S. CHAWLA
President

A.K. Roy
Board Member

PEOPLES' SCIENCE INSTITUTE
E-57, PANCHSHEEL PARK, NEW DELHI- 110016

CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD ENDED 31st MARCH, 2014

PARTICULARS	Local Fund AS AT 31-3-2014	Foreign Fund AS AT 31-3-2014	Total Amount AS AT 31-3-2014	Total Amount AS AT 31-3-2013
INCOME				
Grant Unutilized	272,435.41	1,414,080.96	1,686,486.37	8,062,548.46
Grants received	13,742,263.00	3,977,617.16	17,719,880.16	20,810,401.72
Donations	31,839,972.34	38,201,146.39	70,041,118.73	116,971.00
Environmental Education Programme	8,718,979.00	-	8,718,979.00	6,508,647.00
Environmental Services	455,443.50	-	455,443.50	324,997.50
Water Sampling & Kits	695,621.00	-	695,621.00	769,957.00
Publications, Posters & Maps Receipts	6,570.00	-	6,570.00	218,437.00
Interest on Income Tax Refund	7,319.00	-	7,319.00	1,869.00
Interest from Bank	884,535.00	1,522,445.00	2,406,980.00	866,479.47
Hostel Receipts	40,545.00	-	40,545.00	11,700.00
Misc. Receipt	60,574.00	16.01	60,590.01	111,975.00
Project Closed	399,904.00	100,821.04	500,725.04	47,212.80
Overhead Transferred to General Fund	171,414.00	280,906.00	452,320.00	1,714,659.00
TOTAL (A)	57,295,575.25	45,497,002.56	1,02,792,577.81	39,565,854.95
EXPENSES				
Books & Periodicals	37,291.00	12,158.00	49,449.00	35,964.00
Travel Cost	2,125,989.00	554,410.00	2,680,399.00	2,294,637.21
Grant to Other Organization	3,065,489.00	208,000.00	3,273,489.00	11,727,058.00
Honoraria/Consultancy	1,053,790.00	676,750.00	1,730,540.00	939,584.00
Lab Expenses	5,496.00	26,273.00	31,769.00	25,218.00
Meeting/conference/ Workshop	569,269.00	10,286.00	579,555.00	876,548.00
Relief & Community Development Work	5,684,892.00	3,218,047.00	8,902,939.00	2,711,937.06
Training Expenses	4,315,131.00	-	4,315,131.00	2,696,028.00
Salaries	6,871,712.00	1,574,676.00	8,446,388.00	7,989,871.00
PF Employer's Contribution	292,936.00	69,040.00	361,976.00	364,298.00



Ravi Chopra

PARTICULARS	Local Fund	Foreign Fund	Total Amount	Total Amount
	AS AT 31-3-2014	AS AT 31-3-2014	AS AT 31-3-2014	AS AT 31-3-2013
Staff Welfare	89,604.00	5,782.00	95,386.00	61,831.00
Audit Expenses	6,169.00	-	6,169.00	15,581.00
Audit Fees	50,187.00	25,094.00	75,281.00	75,281.00
Annual Maintenance Charges	76,729.00	-	76,729.00	3,371.00
Bad Debt	64,350.00	-	64,350.00	-
Bank Charges	6,962.92	6,303.80	13,266.72	5,416.40
Brokerage	25,556.00	-	25,556.00	-
Computer Maintenance	64,152.00	9,073.00	73,225.00	45,282.00
Gratuity	85,673.00	-	85,673.00	-
Hospitality Expenses	35,910.00	-	35,910.00	34,658.00
Internet & Data Usage	12,804.00	704.00	13,568.00	2,034.00
Insurance	4,701.00	-	4,701.00	4,757.00
Local Conveyance	26,110.00	19,363.00	45,473.00	31,395.00
Misc Expenses	32,412.00	12,518.00	44,930.00	17,896.74
Office Maintenance	133,608.00	4,930.00	138,538.00	177,590.00
Postage & Courier	20,592.00	145.00	20,737.00	53,636.00
Printing & Stationery	371,589.00	13,199.00	384,788.00	495,070.00
Professional Charges	285,325.00	64,666.00	349,991.00	25,093.00
Rent	969,468.00	228,384.00	1,197,852.00	1,076,458.00
Repair & Maintenance	89,606.00	7,602.00	97,268.00	97,257.00
Server & Website Expenses	43,926.00	-	43,926.00	309,317.00
Staff Recruitment	6,750.00	-	6,750.00	16,678.00
Telephone & Fax	189,308.00	2,614.00	191,922.00	187,945.00
Vehicle Running & Maintenance	234,722.00	10,990.00	245,712.00	182,200.00
Water & Electricity Charges	106,917.80	970.00	107,887.00	89,311.00
Water Kit Cost	393,338.00	-	393,338.00	304,989.00
Overhead Transferred to General Fund	171,414.00	280,906.00	452,320.00	1,714,659.00
Project Closed	292,024.00	100,821.04	392,845.04	47,212.80
Depreciation	247,051.00	81,778.00	328,829.00	383,446.20
TOTAL (B)	28,158,952.92	7,225,602.84	35,384,555.76	35,119,568.41
Balance (A-B)	29,136,622.33	38,271,399.72	67,408,022.05	4,446,286.54
Less : Grant Refunded	-	-	-	-
Transferred to Campus Fund	1,400,000.00	600,000.00	2,000,000.00	2,500,000.00
Unutilised Grants Carried Forward to Balance Sheet	30,784,958.04	37,642,084.67	68,427,042.71	1,686,486.37
Surplus/Deficit transferred to Capital Fund	(3,048,335.71)	29,315.05	(3,019,020.66)	259,800.17

For PEOPLES' SCIENCE INSTITUTE

Ravi Chopra
RAVI CHOPRA
Director

Kanwarjit S. Chawla
KANWARJIT S. CHAWLA
President

For S.M. VARMA & CO.
Chartered Accountants
SUDHAR VARMA & CO.
FCA, CIA (USA)
Date: 20th September, 2014
Place: New Delhi

A.K. Roy
A.K. Roy
Board Member