



# REVIEW

2013 - 2014



Pan Himalayan Grassroots Development Foundation

[www.grassrootsindia.com](http://www.grassrootsindia.com)

## About Us

The Pan Himalayan **Grassroots** Development Foundation is established as a non-profit voluntary organization under the Societies Registration Act (1860) at the office of the Registrar of Societies, Delhi since November 1992.

The primary aim of Grassroots is to initiate peoples action at the grassroots for restoration of ecological security in languishing river basins through holistic mountain development programs, in order to improve the quality of life.

Over the past twenty two years, Grassroots has been able to evolve a holistic intervention strategy which channels resources - managerial, technical and financial - directly to people and associations of the communities, working at the village/river basin level.

The emphasis is on self-help participation and the belief that average villagers have the desire, the right and the capability to promote their own welfare and prosperity and to participate in decisions that affect their lives.

Grassroots continues to be a lean and independent organization, which reaches out to far-flung micro watersheds in the central and western Himalaya through Outreach Program Offices located in the states of Uttarakhand and Himachal Pradesh. The composite spearhead team comprises of fifteen professionals-in-development, almost all of whom are from the rural areas of the Himalaya.

Over the years, Grassroots has been able to initiate programs on improving the quality of life of mountain communities through sustainable community development strategies, training and technology transfer, micro enterprises and marketing by strengthening the capacity of Community Based Organizations and creation of new forms of organizations such as *Barefoot Engineers Guild* and *Mahila Umang Producers Company*.

Through forging such partnerships, Grassroots has been able to spread the benefits of holistic mountain development strategies to communities in more than 700

villages, spread over 27 Blocks in 12 Districts in the states of Uttarakhand and Himachal Pradesh.

During the period under review, workshops with stakeholders in other parts of the Indian Himalayan Region has led to initiation of a dialogue with Meghalaya Basin Development Authority with the idea of spearheading sustainable development processes to benefit small farmers in the Garo and Khasi Hills.

During the period under review, Grassroots continued to consolidate outreach programs in the following cross-cutting sectors in order to accelerate some critical **Millennium Development Goals** based on the principles of ecology, economics and equity:

- Ecological Security
- Drinking Water
- Renewable Energy
- Livelihoods Improvement



Outreach Districts in Himachal & Uttarakhand

# Ecological Security

*The Gagas river originates in the sacred forests of Pandokholi in Almora district, of the Kumaon Himalaya in the state of Uttarakhand. The river is largely defined through the flow of over fourteen major streams or gadheras on both banks, and flows for about 50 kms prior to merging with Ramganga (West) river. Gagas river basin is spread over 500 square kms with a population of over 120,000 in 370 villages.*

The loss or lack of title to environmental assets in this river basin is viewed as an essential component of poverty, leading to the conclusion that environmental conservation is actually a necessary fundamental to poverty alleviation.

This approach has forged a coalition of interest between communities in selected *gadheras* of the river basin to share lessons regarding ecological restoration which leads to fulfilling the millennium development goals in the following manner:

- Providing a fresh vegetal cover on degraded commons and renewal of traditional methods for soil and moisture conservation
- Swift spread of appropriate technologies in cross cutting sectors like drinking water, environmental sanitation, renewable energy and rainwater harvesting
- Improving food security and livelihoods through land-use optimization and establishment of market linkages directly between producer-farmers and consumers

During the year, ten village nurseries located across the river basin raised close to 200,000 mature saplings of over twenty species of native trees and shrubs. Communities organized as *Gadhera Bachao Samities* (CBOs) were motivated to plant-out over 180,000 saplings of forest species on degraded village commons across four *gadheras* and other parts of the basin.

Alongside, farmers were also motivated to plant and protect around 3,000 fruit tree saplings which would provide nutrition as well incomes in the near future.

These community based organizations have been encouraged to create *gram kosh* of more than Rs. 15.00 lakhs and even more significantly share the cost of infrastructure development to the tune of Rs. 20.00 lakhs. Steps have also been taken to consolidate micro enterprises which provided sustainable incomes to over

1,000 households in 70 villages across the river basin to the tune of Rs. 35.00 lakhs during the year under review, details of which are in latter sections of the document.

The challenge ahead is for communities to comprehensively understand and find an equitable balance between economics and ecology.

### Trees Planted-Out in various Gadheras

Sr	Region	Villages	Forest	Fruits	Total	
1.	Dusad (282 hec)	16	80,638	459	81,097	
2.	Malyagad (283 hec)	18	56,346	1,528	57,874	
3.	Kanari (87 hec)	12	30,662	50	30,712	
4.	Riskan (55 hec)	1	5,135		5,135	
5.	Valley (10 hec)	11	6,619	801	7,420	
6.	Schools (3 hec)	3	640		640	
<b>Total</b>		<b>720 hectares</b>	<b>61</b>	<b>180,040</b>	<b>2,838</b>	<b>182,878</b>

The tradition of locating and maintaining *khals* is being revived for the past few years in the river basin and during the year, the following villages participated in promoting soil and moisture conservation through *khals*.

<u>Gadhera</u>	<u>Villages</u>	<u>Khals</u>
Dusad	7	492
Kanari	2	119
Malyagad	7	175
3 Gadheras	16	786

Alongside, 24 check walls were also constructed in strategic locations in 5 villages to prevent soil erosion as well as lead to conservation of water resources.

Planting-out saplings and protection of commons through ‘social fencing’ has also evolved as a feasible way-forward for conservation of biodiversity in the various *gadheras*. This is notwithstanding the annual hazard of fire on the commons due to the menace of dry pine needles. To minimize the annual loss in village commons

due to such forest-fires, especially to the young broad leaved saplings, Grassroots assisted communities to forge a partnership with a private sector firm for removal of dry pine needles during the previous year. (This partnership was brought together by the Forest Department, Government of Uttarakhand.)

Unfortunately, the experience of the communities has been very poor with this private sector operator as the contract has been breached regarding payments to women for head loading pine needles from distant common lands up to the road head. With the result that communities are once more left in the lurch, to protect new forests from the ravages of pine forest fires, as in the past.

At the end of the year, 5500 households are engaged in the above mentioned *gadheras* within the river basin and 124 SHGs and 42 *Gadhera Bachao Samities* form the bedrock for sustainable change and development.



Just as previous years, participatory exercises were conducted in several villages to monitor the growth of community-managed forests. It is certainly satisfying to find shade under 'new' trees in such recently created forests; and, also to witness the revival of several springs and small streams within a span of seven to eight years of community-led protection and conservation of natural resources.



The pictures are in villages of *Dusad gahdhera* wherein efforts of the community have led to growth of fresh vegetal cover on degraded commons. The idea is to enable and sustain the momentum amongst communities in *Gagas* river basin to plant-out close to one million saplings of native species by

the Monsoon of 2016 in order to accelerate as well as consolidate the process of renewing the hydrology within the various *gadheras* and thereby the river basin.

## Community-Managed Drinking Water

*At the World Summit on Sustainable Development held in 2002, India along with 147 heads of state, pledged to adopt 8 goals to be achieved by 2015 that respond to the world's main development challenges. It is realized that human development is about much more than rise and fall of national incomes. It is about quality of life, the level of human well-being and access to basic social services. The pressures on natural resources and the repercussions of their degradation on low income livelihoods have become a source of increasing concern.*

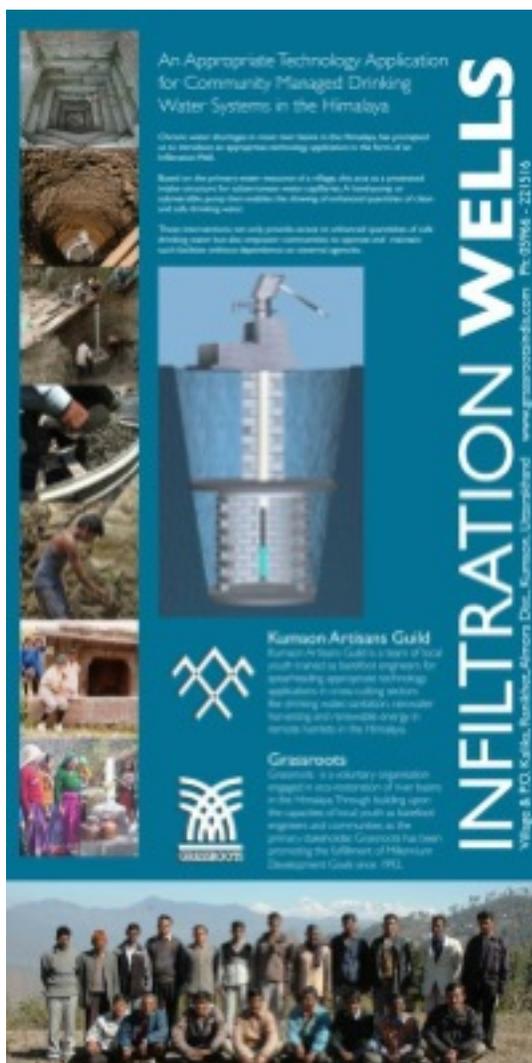
During the period under review, Grassroots continued to spearhead this action item in order to provide easier access to enhanced quantities of safe drinking water, through cost as well as responsibility sharing mechanisms between communities and barefoot engineers of the Guild.



All together 10 more Infiltration Wells were installed in Sirmaur district, Himachal Pradesh to continue with the efforts initiated in the previous year. Based on the response of communities, it is envisaged that similar benefits of community-managed drinking water programs would be extended to other selected villages in the next year.

Towards the end of the year under review, funds have been secured to extend similar benefits to 20 more villages in Almora district, Uttarakhand in the next dry season.

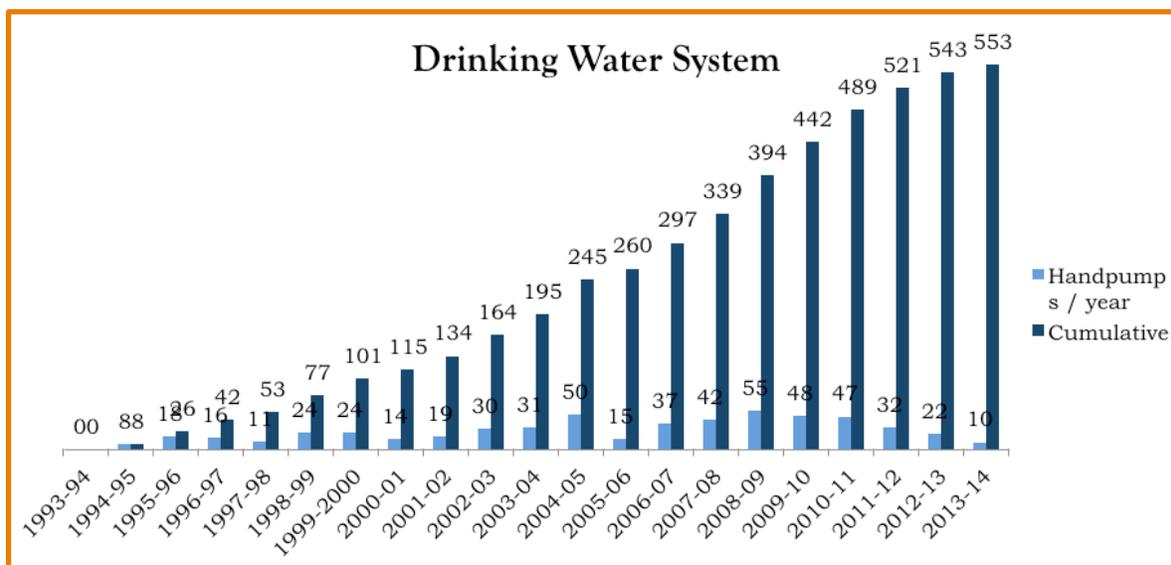
The picture (top) shows supply of drinking water through government sponsored tankers for communities which suffer chronic water shortages - the installation of Infiltration Wells is indeed a great benefit for such communities who could then access safe drinking water within a short walk from their homesteads.



For example, the Infiltration Wells installed during the period under review have been able to increase availability of water from 213 liters to 686 liters per household per day at a meagre cost of Rs, 1,462 per capita.

Over the last two decades Grassroots has been able to reach this benefit to almost 550 hamlets/villages in the states of Uttarakhand and Himachal Pradesh as shown in the Table below.

Just as other years, Grassroots continued with capacity building exercises in *gram panchayats* regarding the need to be careful about adopting appropriate measures to safeguard drinking water sources. For this purpose, Water Quality workshops were organized in 39 *panchayats* benefiting 452 villages during the period under review.



# Renewable Energy

Grassroots has been involved with promoting biogas technology as a green cooking energy option for rural communities for over two decades in the Indian Himalayan Region. During the year, Grassroots continued to monitor the performance of the new model of biogas digesters installed in the previous year along installation of the conventional model.

It is clear that the new pre-fabricated FRP model is the preferred option not just at the level of the *barefoot engineers* but more importantly in the perception of the farmers - the demand for the conventional model has slipped down remarkably after the demonstration of the newer and more robust model. It would certainly appear that a revision of the Biogas Program ought to be undertaken so that the old masonry model is replaced with this more efficient pre-fabricated FRP model.

During the period under review, the spread of this appropriate technology application has been as follows:

**Uttarakhand 50 biogas units in 31 villages distributed over 8 blocks in 4 Districts  
Himachal Pradesh 102 ” ” in 19 ” ” ” 4 ” ” 1 District**

Besides these 152 biogas units, another 4 units were installed in Uttar Pradesh on behalf of a request from a partner organization. The cumulative total adds up to 2,823 biogas units over the past two decades. This has certainly arrested the pace of environmental degradation by reducing the biotic pressure on scarce forest resources in a significant manner.

At least 5,000 metric tonnes (which is about 500 truckloads) of firewood consumption has been reduced per year, at an average of 5 kilograms per household per day. Additionally, not only have mountain homes become smoke-free but more than 6,000 metric tonnes of carbon dioxide emissions/annum have been reduced in the atmosphere @ 2.5 metric tonnes per biogas unit.

## Livelihoods, Food Security & Micro Enterprises

In fragile ecosystems in the Himalaya, forests play a pivotal role in supporting mountain farming systems. The degradation of such essential support systems has affected traditional food security and enhanced risk to human health.

To find a fresh balance in the quality of lives for such marginalized farming communities, Grassroots has been involved with creating a platform for establishment of pro-poor business ventures, with women as the primary stakeholder.



Along with spearheading eco-restoration efforts in Gagas river basin, Grassroots has been involved in consolidating a network of over 2,000 women who are involved with various viable livelihoods improvement activities, which provide small yet significant incomes on a sustainable basis through establishment of micro enterprises. This operation is managed by a nascent community-owned organization promoted by Grassroots called Mahila Umang Producers Company.

All products of the network are marketed under the brand name *Kumaoni* and *HimKhadya* and it is Umang's belief that those who purchase these products are directly assisting resource poor households through 'trade and not aid'. The turnover during the year under review has been over Rs. 148.00 lakhs and a total of 1,327 women shareholders benefited from this venture.



However, the most significant aspect of these local efforts in promoting the spirit of enterprise is a concern of the *institutional framework at the grassroots: each and every business activity be directly controlled by the producer-group, all assets be owned by them and all are equal shareholders of the business.*

This arrangement ought to be also operated in a manner whereby the greatest portion of the consumer's rupee reaches the producer-groups. In view of this, as well as future plans for further growth, Grassroots facilitated the process of obtaining registration of Umang as a Fair Trade organization.

The challenge for Grassroots is to build upon the capacity of shareholders at all levels, from that of the producer-members in the various verticals of the business - hand-knits, fruit processing, bee-keepers and farmers - as well as the producer-members selected as the Board of Governors and the Team Members of the organization.

An immediate task is to scale-up the business of Umang to a level which provides sustainable incomes to 2,000 producer-member families to the extent of Rs. 15,000 per annum, which would be an increase of fifty percent of current levels of income in the region. For this to be a reality, it is essential to forge forward linkages with markets in the metros as well as consolidate sales within the region.

### **Diversified Upland Irrigation Systems & Optimization of Farming Systems**

During the year, the idea of increasing on-farm incomes through diversified micro irrigation systems was further extended to two more villages, benefiting 216 small farmers in six villages with 8.50 hectares. The idea is to enable these farmers to protect the entire area (six plots as detailed below) with appropriate fencing material and thereafter evolve a cropping pattern which would fetch greater returns, ecologically as well as economically. Alongside, an element of agroforestry in terms of planting both timber as well as fruit trees in appropriate areas within the plots, has also been adopted by the farmer-groups.

Though it is too early to conclude lessons through these trials, it seems the potential to scale-up this action item is immense. In mountain ecosystems, consolidating 400 plus *nalis* of farm land is quite significant and there are requests from several villages to adopt similar practices.

<u>Village</u>	<u>Area (hec)</u>	<u>Farmers</u>
1. Mujholi I	1.00	55
2. Mujholi II	1.00	12
3. MallaNagaon	1.50	66
4. Pagsa	1.00	36
5. Bagthal	2.00	25
6. Chamni	2.00	32
<b>Total</b>	<b>8.50</b>	<b>165</b>

Grassroots would work closely with these 165 farmers and document the process of change in land use as well as earnings. The program would be extended to other communities in the future.

### Seed Multiplication

Good quality seeds play an important role in improving crop yields and thereby farm incomes. Considering the shortage of seeds in the river basin, 12 different kinds of seeds were distributed amongst 571 selected farmers in 49 villages, with the idea of multiplication and further distribution to larger number of farmers in following seasons. Some of the main varieties are as shown

<u>Seeds</u>	<u>Quantity (Kgs)</u>
1. Barley	260
2. Paddy	100
3. Wheat	230
4. Bakula	104
5. Masoor	42
6. Potato	1,900
7. Madua	95
8. Jhingora	72
9. Ginger	200

Of the above, perhaps the most significant seed multiplication effort is to do with *Bakula*, the traditional Himalayan Bean, which is almost extinct from the region due to the propagation of French Beans by government agencies. The idea is to revive the cultivation of *bakula* amongst farmers in larger numbers as it is not only leguminous and good for the soil but also extremely good for health and nutrition.

### Value Added Crops

While traditional crops are being promoted, especially for marketing as Safe Foods to urban clientele and thereby earn enhance farm incomes, it has been found to be

essential to introduce new value added crops which fit into the traditional cropping cycle.

Trials over the last four years, have increasingly led to more and more farmers to adopt Chamomile Tea as one such value added crop.

During the period under review, the details of crop production (Kgs) and earnings of famers has been as shown:

<u>Gadhera</u>	<u>Farmers</u>	<u>Kgs</u>	<u>Rupees</u>
Dusad	174	478	238,810
Malyagad	145	235	117,743
Kanari	47	17	8,463
Riskan	3	86	42,955
Others	8	26	13,047
<b>Total</b>	<b>377</b>	<b>842</b>	<b>421,018</b>

The challenge in the year ahead is to locate and secure markets for the chamomile crop which seems to have stabilized in this river basin.



Alongside, strawberry trials were also introduced with 13 selected farmers in 5 villages in the river basin with distribution of 27,000 root slips. it is encouraging to note that farmers earned Rs. 33,000 through sale of 500 kgs of fresh strawberries. Further value addition has also been done through production of strawberry jam, which has been accepted very well by

urban consumers. It is envisaged that next year, larger number of farmers would be encouraged to adopt strawberry cultivation as yet another value added crop in the Gagas river basin.

### **Participatory Guarantee System Organic Council**

Grassroots, along with five other voluntary organizations, had decided to put together a new agency which would enable small farmers to participate in the organic farming movement without dependency on external third party certification - an alien and frightfully expensive mechanism. This agency has now been registered as an independent organization, Participatory Guarantee System Organic Council at Goa.



Over 40 self help groups in Gagas river basin, comprising of almost 500 small and marginal women-farmers, have pledged to continue with traditional organic farming practices.

A system has been put in place for optimization of farming systems with a mix of traditional as well as cash crops along with upland irrigation facilities wherever feasible.

These groups (pic below during a regular workshop) have been empowered to aggregate and transport farm produce to Umang for further cleaning, sorting, value addition, packaging and marketing as a branded PGS certified product for urban consumers. This supply chain is leading to enhancing farm incomes in a sustainable manner and it is envisaged that over the next year, Grassroots would support the formation of another 40 PGS groups in the Gagas river basin.



## Conservation & Promotion of Bamboo Species

While bamboo seedlings are being raised across the river basin in almost all the nurseries there are two nurseries which are specializing in raising bamboo saplings. The idea is to harness suitable experience in raising bamboo seedlings specifically with the idea of assisting traditional bamboo-growers/craftspersons to have greater access to bamboo groves as well as markets for bamboo products, so that livelihoods of these marginalized households could be improved in a sustainable fashion.

During the period under review, almost 100 families in 9 villages have participated in this initiative of improving livelihoods options through planting-out 12,000 saplings of bamboo spp. over 16 hectares of common/private lands. Dialogue with these communities is leading to formation of CBOs which would plant-out bamboo saplings on both private as well as common lands, with the idea of increasing the total number of bamboo clumps which would be available for utilizing in livelihoods improvement efforts in the future.

Consolidation of activities with the above mentioned households reveals that of the nine participating villages, three villages - Dhamoi, Talli Mirai and Chamini - are emerging as focal points for this activity. The community at Dhamoi is emerging as a very keen group, interested in engaging in a holistic manner with a basket of livelihood opportunities centered around bamboo products and livestock rearing.

Dialogue is ongoing for installation of biogas units as these families are involved with production of cottage cheese, whose quality could be improved through smoke-free cooking. Side by side, the youth of the village are interested in learning new skills for production of value added bamboo products.



The idea is to assist such communities with modern training to fabricate utilitarian products based on the fresh stock of bamboo plants. This way the tradition of fabricating baskets for local consumption by farmers would continue and simultaneously a new range of products could also be brought

into the market, especially through sale-counters of Umang as well as other appropriate outlets.



Towards this end, two sessions of bamboo handcraft training was conducted for a small group who are keen to explore this avenue as a sustainable income generating activity. These pictures show some of the items fabricated during the first training session.

### Walnut Growers Coops

Five groups of walnut growers have formed CBOs in order to aggregate and market walnuts in a more equitable manner as compared to the traditional method of depending upon middlemen.



The walnuts are being shelled by hand and immediately vacuum packed to retain quality and prevent degeneration in taste. The vacuum packed walnuts are then being marketed as small gift boxes as shown in the picture (left) - this item has gained immense popularity amongst consumers across the country.

	Name of Group	Growers	Weight in Kgs	Amount (Rs.)
1	Saindhar Walnut Growers	41	2,697	311,452
2	Khalogeshwar Walnut Growers	25	1,280	149,042
3	Chudeshwar Walnut Growers	20	1,885	225,599
4	Shirgul Umang Walnut Growers	9	513	61,663
5	Tharimata Umang Walnut Growers	6	629	78,525
	Total	101	7,004	8,26,281

It is significant to mention that walnut growers in collaboration with Umang not only managed to add value to walnuts through shelling and packing but also received a bonus, besides the initial payment as detailed above.

Based on this experience it is now envisaged that the network of walnut growers would be further enlarged so as to benefit about 1,000 growers over the next few years.

**In conclusion** it may be within the limits of prudence to mention that various action items in this sectoral intervention regarding livelihoods improvement have led farmers to not only increase incomes, but more importantly consolidate a position in the growing market for safe foods from the Himalaya.

During the year under review, the status of revenue generation by the nascent producers company amounted to Rs. 148.00 lakhs, details of which are as follows:



- **Hand-Knitted Products** Rs. 67.00 lakhs
- **Fruit Preserves & Pickles** Rs. 18.00 lakhs
- **Natural Honey** Rs. 9.00 lakhs
- **Country Hens** Rs. 15.00 lakhs
- **HimKhadya Safe Foods** Rs. 39.00 lakhs

The Umang flagship showroom in Naini Village outside Ranikhet town, was responsible for 21 percent of the total sales - Rs.30.00 lakhs.

Along with the second showroom - Harela - in the Corbett Park Region, (which was started last year) a third showroom was established in New Delhi, within the campus of DASTKAR, an agency which pioneered marketing of rural products to urban consumers over the past thirty years.

The idea is to increase Umang's share of such direct-marketing to at least 50 percent of the total annual sales. At the end of the year, Grassroots has almost completed the negotiation for establishing yet another showroom within the mountains - so that between four showrooms, Umang would be able to fetch the maximum share of the consumers money back to the homes of the women members of the self help groups.



## Monsoon Relief in Gori Valley



The Gori valley experienced intense rainfall in mid June, right at the onset of monsoons in this north eastern corner of Kumaon, Uttarakhand. The snow melt in the upper reaches of the valley, along with incessant rain, took the shape of floods in the lower half of the valley. Added to the surging waters of the Gori was tonnes of excavated debris from several tunnels and roads currently under construction of hydro power projects in the valley, turning the river into a destructive passage of surging and erosive flood waters. The flood losses experienced in the Gori valley and adjoining high altitude hamlets in the region were of washed-out homes and roads, fertile fields and ultimately, livelihoods of hundreds of families in almost 70 villages.



Bajaj Electricals from Mumbai was quick off the mark to provide relief to the affected families and Grassroots initiated a dialogue with a retired Chief Secretary of the state who is a resident of this remote region. Alongside, other voluntary organizations in the region - Maati and Himal Prakriti - were also contacted. Based on these dialogues, Bajaj Electricals were requested to provide good quality tents and solar lanterns.



Besides providing immediate relief, Grassroots decided to network with these communities for long term marketing access for traditional weaves, food and spices of the region. A pilot effort was initiated in elaboration with Umang and Maati and based on the experience/lessons a more comprehensive action plan would be developed for the future.



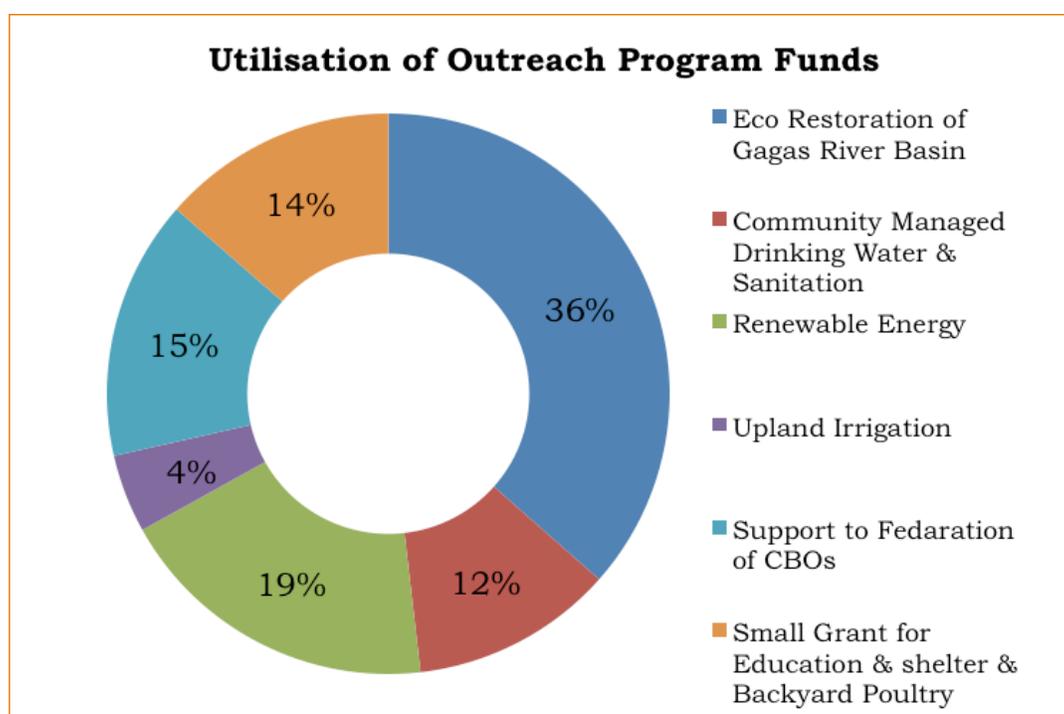
## Grassroots Leadership Initiative

As always, Grassroots encouraged visits of student-groups, farmers, policy makers and development-professionals to experience and understand issues related to sustainable development of mountain ecosystems, based on outreach programs in Gagas river basin. Most of these guests have been subscribers to the concept of HomeStays - which basically means that board/lodge is organized in the homes of local farmers and payments are shared with the community.

During the year under review, interns/volunteers from the following institutions visited Grassroots:

• Don Bosco School of Social Work, Assam	9
• Tata Institute of Social Work, Assam	2
• IGNOU, New Delhi	3
• Xavier Institute of Management, Orissa	3
• Fair Trade, Nepal	2
• Twente University, Netherlands	1
• Various Universities, France	11

Besides the above, there were few other students and volunteers from Armenia, India and Germany.



## Council of Governors

Mrs H Bedi : Chairperson  
Mr Deep Joshi      Mrs Sumita Ghosh  
Mrs Annie Sinha   Mr Joydeep Gupta   Dr Amitava Mitra

The Council of Governors and the Executive Officers of Grassroots would like to acknowledge the assistance received from the following organizations during the year under review:

Trilegal, New Delhi  
Tata Motors, Pantnagar  
Bajaj Electricals, Mumbai  
Government of Uttarakhand  
Jamsetji Tata Trust, Mumbai  
Lakeside School, Seattle, USA  
Government of Himachal Pradesh  
Khadi & Village Industries Commission  
World Wide Fund for Nature, New Delhi  
Sumant Moolgaokar Development Foundation, Pune  
International Union for Conservation of Nature, New Delhi  
&  
Friends of Grassroots!

**The financial records of Grassroots are a matter of public record  
and as such are available**

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**Ecology**  
**Economics**  
**Equity**



## HOLISTIC MOUNTAIN DEVELOPMENT



Grassroots aims to initiate peoples action at the grassroots for restoration of ecological security in languishing river basins through holistic mountain development programmes in order to improve the quality of life.

The emphasis is on self-help participation and the belief that communities have the desire, the right and the capability to promote their own welfare and prosperity and to participate in decisions that affect their lives.

### PROGRAMMES

- Renewable Energy
- Water and Sanitation
- Community Forestry
- Farming Systems
- Livelihoods
- Research and Documentation
- Climate change adaptation
- Rainwater Harvesting

### STRATEGY

- Capacity building
- Empowerment
- Cost sharing
- Self help groups
- Partnerships
- Leadership
- Formation of local organisations



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