

# ACTIVITY REPORT

## Spring of Life Project

Rain Drop



Photo : Nâïade Plante - [www.naiadeplante.com](http://www.naiadeplante.com)

### SUMMARY

We aim to improve living conditions through the sustainable management of natural resources.

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## Introducing Rain Drop





## Legal Information

**Name:** Rain Drop

**Title:** Association loi 1901  
(Registered in France)



**Objective:** To improve living conditions and the sustainable management of natural resources

### **Registration**

Registered on the 2<sup>nd</sup> March 2010 in Paris

Changed headquarters on the 23<sup>rd</sup> December 2010 to Grasse

### **Board :**

President : Benjamin Gratton

Secretary : Cyrielle Diaz

Treasurer: Malek Ouahes

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## Message from the Director

The Spring of Life Project is the biggest and most complete project Rain Drop has implemented since its creation. This project started in September 2013 and concluded in December 2015.

Spring of Life has been a wonderful human adventure. I want to thank all those who trusted, supported and who helped materialize this project.

Through this project, we helped 263 families in 10 villages to improve their living conditions and give them the tools to better manage their natural resources.



This project was crucial for Rain Drop. It helped reinforce our determination and our will to implement more projects in close collaboration with people in need of water and livelihood alternatives. We defined our values and priorities: to have a participative approach, from the project's conception to its implementation, while engaging actively in environmental conservation, social empowerment and economic sustainability. Our participative approach helped create strong bonds with the beneficiaries. Their gratitude and engagement are a source of great satisfaction for us.

Having determined and tested our strategy, we now wish to duplicate our actions to other regions. As always, we take the local population's needs as a starting point. We take the necessary time to know and understand the priorities of various local actors (village chiefs, villager groups, local leaders, government authorities etc...) to establish a rapport of mutual trust. It's the only way we can ensure the appropriation of the activities by the communities and their sustainability.

Another important achievements of the last years is team building. Ashok Sarwade, Bablu Prasad et Ramesh Chandra- have strengthened their knowledge and developed their skills. We wish to continue working together to benefit more people in India.

We have also increased our awareness building activities in France with the creation of *The Adventures of Droplette*, a new documentary that we show during our interventions in schools.

### **Some number for 2015**

5 years existence  
58 members  
5 employees

8 active volunteers  
21 partner villages in India

## Partners, sponsors and supporters

### Public



### Private



## OUR PROJECTS





## INDIA

### Regional Context

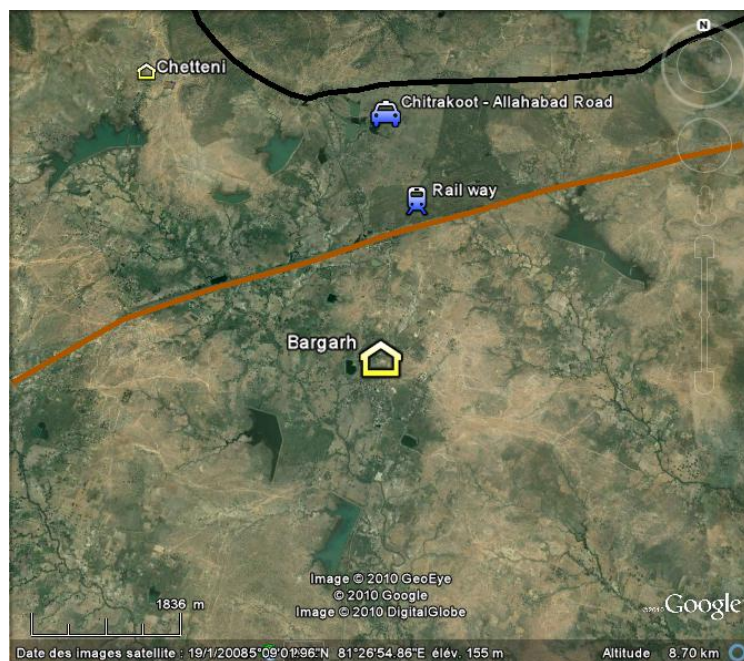
#### Location

Mau is located in the Bundelkhand region of India (in red on the map). The town straddles two states: Madhya Pradesh and Uttar Pradesh. The Bundelkhand is known for its lack of infrastructure in education, sanitation, health and transport. Practices of good governance are rare and economic development remains extremely low, making this region one of the poorest in India.



Région du Bundelkhand, Inde

Source : Wikipedia



Positioned southeast of Uttar Pradesh, between the cities Chitrakoot (50 km) and Allahabad (60 km), Mau (Bargarh on the map) is surrounded by 42 small villages. It is with these small communities that we work.

*As shown in this satellite picture, the vegetation cover has entirely disappeared. Our work focuses on areas where deforestation has led to soil degradation, leaving an arid and barren environment.*

#### Environment

Forty years ago, Mau was a lush forest rich in biodiversity. Unfortunately, high population growth and inadequate government policies have accelerated deforestation, transforming the region into a barren landscape.

Mau now suffers from desertification. Soil erosion has left the land dry and rocky, making farming increasingly difficult. Trees have disappeared, while the levels of organic matter and soil porosity have decreased. It is difficult for rainwater to seep into the ground, resulting in soil erosion and large amounts of runoff during heavy rains.



Rain Drop's projects were initiated at the request of villagers who have suffered regular droughts in the last 10 years. Mau has entered a vicious cycle of environmental degradation, exacerbated by the only alternative form of income in the region: mining.

### Economy

The main activity in the region of Mau is agriculture, as 92% of the villagers depend solely on subsistence farming. However, soil erosion and the lack of water resources are major obstacles in the lives of farmers. Those who cannot survive off their land are forced towards other forms of labor such as breaking stones for up to 8 hours per day. Others work in silica mines, which cause both joint and respiratory problems. Many local youths leave their families to find work in the city. The lack of diversification of economic activities leaves few alternatives for development.

### Social

Eighty six percent of the population of Mau consists of indigenous populations and farmers from the lower castes. Most of these people previously worked in debt bondage on upper castes' land. After the declaration of independence and following the Gandhian movements of the 50's and 60's, these people were given land to settle down. Although they have obtained physical freedom, the condition of servitude still remains deeply rooted in attitudes and in daily life. They have no exposure to entrepreneurship, nor the means to ensure the effectiveness of their rights.



*Last testimony of the dense forest of Mau which is now a semi-arid landscape*



*Landless villagers or those who cannot use their land are forced to work in open mines.*

*A woman and her daughter break stones by hand to make silica sand.*

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## **ACTIONS IN INDIA**

### **Summary of the Project**

The Spring of Life Project began in 2013 and ended in December 2015. The follow-up phase began in January 2016. We are working with 10 villages, helping 263 families manage their natural resources (mainly water), strengthen their skills and diversify their source of income. This project has been very beneficial to the families in Mau despite this year's weak monsoon that caused revenue losses for farmers.

We work mostly with lower castes and tribal people, the Kol. As with all our projects, our aim is to involve the participants at every stage, from the conception of the project, to its development, implementation and its follow-up. Through this approach, the participants develop awareness on the issues and integrate new methods and technologies. It requires from the Rain Drop team to be attentive to each village's and each family's specific needs. Each project is adapted to the family's unique situation.

Our team in India dedicates a lot of time to community meetings. We discuss, exchange and understand the needs and best solutions to the issues identified. Then, regular visits to the farms provide support to the families and ensure the good development of the project.

**The Spring of Life Project has 4 main objectives:**

- 1. Improve water management**
- 2. Build local capacities**
- 3. Diversify sources of income**
- 4. Promote international solidarity and exchange**

## Improve water management

### 1. Install innovative irrigation systems

In 2015, 50 innovative irrigation systems were installed to replace the traditional method: flooding irrigation. In a drought prone region like Mau, this method is inappropriate and wasteful. Throughout the Spring of Life Project, we implemented a total of 80 irrigation systems: 6 drip systems and 74 sprinklers. The pilot phase revealed that farmers preferred sprinklers. They are easier to use and handle than drip systems that require burying the pipes in the ground. The poor lower caste and tribal farmers' own small plots of land and need flexible irrigation systems to cultivate consecutively rice, lentils, wheat and vegetables.



*Bajrangi from Panihāi tries his sprinklers for the first time*



*Distribution of sprinklers*

The utilization of these irrigation systems helps to spare groundwater for drinking and household use. Furthermore, the farmers were able to diversify and even increase their production.



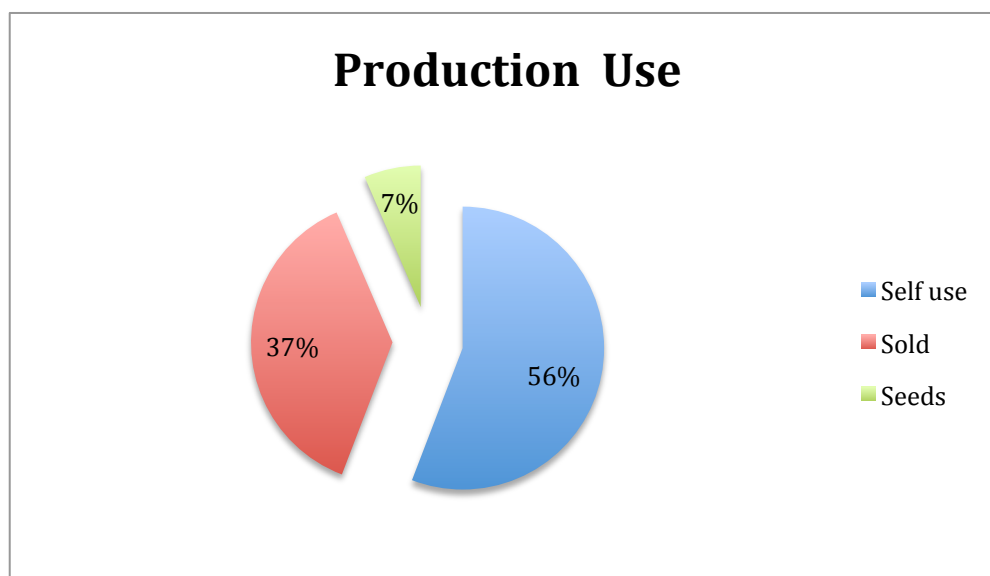
*Audesh Patak of Panihāi grows peas thanks to his sprinklers*

In addition to cultivating rice, wheat and lentils, they planted potatoes (*Solanum tuberosum*), peas (*Pisum sativum* L.), onions (*Allium cepa*), tomatoes (*Solanum lycopersicum*), peppers (*Capsicum annuum*), eggplant (*Solanum melongena* L), various types of pulses, mustard, chickpeas (*Cicer arietinum*), cauliflower (*Brassica oleracea*), sweet potatoes (*Ipomoea batatas*), carrots (*Daucus carota*), garlic (*Allium sativum*) and barley (*Hordeum vulgare* L.).



**On average, each family of the 80 landowners received an additional 1047 euro profit from the new irrigation methods. This is twice the yearly Indian minimum wage.**

It is an important sum considering that the majority of the production is for personal consumption. Despite the drought, thanks to efficient watering methods, the families were provided with a varied diet and a sellable surplus.



Budh Ram grows a large variety of vegetables on his 21 000 m<sup>2</sup> plot. His eggplants, tomatoes, pumpkins and radishes are irrigated with the sprinkler he acquired. The 880 m<sup>2</sup> he dedicated to growing eggplants yielded a high return. He sold his production for 35 000 Rs, or 500€. A good profit considering the meager rainfalls of 2014.



*Bhud Ram in his eggplant field*

## 2. Construction of water harvesting ponds

We had planned to build 5 new water harvesting ponds, adding to the 5 already constructed in 2014. However, demand for the ponds was such that we ultimately dug 7 new ponds in 2015 !

In total **12 ponds over the project's 28 months period were constructed**. With a surface of 20X18 meters and a depth of 3 to 4 meters, **a pond can retain up to 1.4 million liters of water !**



*Brijesh (bajrangi's son) in front of his pond in Panihai*

A water harvesting ponds also called a percolation tank stores rain water that infiltrates the earth and replenishes aquifers. Wells and water pumps are filled, supplying water for drinking and household use. It is also used for irrigation in case of drought.



*In the village of Guruha, after observing the efficiency of the bunds, other farmers started making them around their land.*

This past year, the water harvesting ponds helped save many farmers' crops, ensuring a year's subsistence for whole families !

Small embankments were constructed with the extracted soil around nearby agricultural lands. This allows each plot to better retain rainwater, reducing the need for irrigation and reducing soil erosion.



The 12 families with an irrigation pond on their land signed an agreement allowing their neighbors to use the stored water, giving a total of 34 families access to water.

In addition, 41 families erected bunds around their fields with the extracted soil.

*Ponds also benefit animals!  
It's a source of water to drink and bath*

***Summary table of the water retention ponds:***

	Land owner	Village	Pond size (m)	Total pond size (m <sup>3</sup> )	Nb of families benefiting from water ponds	Nb of families benefiting from bunds
1	Ram Baran	Kechuat	20,1x18x3,8	1374,84	3	3
2	Lalman	Kechuat	21x18x3,5	1323	5	5
3	Phulchand	Panihaï	16x19,5x3,8	1185,6	3	3
4	Sambhunath	Panihaï	17,6x17,6x3,5	1084,16	3	4
5	Bajrangi	Panihaï	17,6x18,2x3,8	1217,22	4	4
6	Ayodhya	Lasahi	18,2x20,1x3,6	1316,95	3	3
7	Rakesh	Ghurwa	18,2x19,8x3	1081,08	2	3
8	Rambalak	Ajadpurva	15x14x3,6	756	1	4
9	Ramesh	Lasahi	19x13x3,3	815,1	4	2
10	Babbu	Lasahi	20x14x3,6	1008	2	4
11	Shivnaresh	Kechuat	20x18x3,6	1296	3	4
12	Indrapal	Kechuat	18x18x3,5	1134	3	2
<b>Total</b>				<b>13591,95</b>	<b>34</b>	<b>41</b>

The farmers were encouraged to try fish farming in their ponds, to provide an additional source of income. 6 farmers filled their ponds with fishes.

Shankar Lal was the first candidate. He bought 21 kg of baby fishes, at a cost of 425 Rs (6 euros) per kilo, thus a total cost of 10 000 Rs (143 euros), including necessary apparatus. After 6 months of growth, each of Shankar Lal's 10000 fishes can be sold for 60 to 80 Rs (1 euro). In spite of a high mortality rate, fisheries generated an important profit (1 142 euros) for Shankar Lal and his family.



*Shankarlal of Lasahi introduces fishes in his pond*





*Surajpal with his sons*

Surajpal and his brother Indrapal received a pond (Indrapal) and a sprinkler (Surajpal) ; they decided to join forces to benefit fully from their assets. They optimized their irrigation efforts as shown on the diagram. The sprinkler is connected to the pond by an independent pump. Previously, the brothers cultivated 10560 m<sup>2</sup> of their land. Now 44000 m<sup>2</sup> are cultivated and productivity has greatly increased: from 1.4 tons/km<sup>2</sup> to 2.4 tons/km<sup>2</sup>. They are now able to harvest in the winter, from December to June when before, they could only do so during the monsoon due to the lack of water.

Their successful installation has been very beneficial to their families. They advised other farmers to try similar methods of irrigation.



*Moonilal (Rakesh's father)  
points to the fishes in his well*

Sadly, this year, the weak monsoon has had disastrous economic effects. Intensive 3 day precipitations in august filled the ponds but by November, most of them had dried up. Although the conditions were also bad the previous year, the ponds retained water until February, allowing both the monsoon harvest (rice) and the winter harvest (wheat). This year, neither rice nor wheat could be grown.

To give them a chance of survival to his fishes, Moonilal from Guruha transferred them to his well.

### 3. Training in water management techniques, hygiene and sanitation

The technical activities of water management, irrigation and the construction of water harvesting ponds are accompanied by capacity building trainings. Introducing new techniques is capital but participants have to be aware of the importance of better managing their resources and how to use those techniques.

On October 28 and 29, Mr Praveen from the Indian NGO AFPRO, *Action for Food Production*, was invited for the second year to share his expertise in natural resources management. In 2014, the farmers had been taught water saving techniques. The 2015 teachings served as a review, a follow up and as an in-depth teaching of the lessons seen last year. Mr Praveen explained crop selection based on climate change to the 45 participating farmers. In periods of great drought, as endured these past three years, alternative crops should be planted. Millet and corn should be grown rather than high water consuming rice. They require less water and are more cost-effective. Planting



*Explanation on less water intensive crops*

fruit trees in or around the parcels is also advised in order to facilitate water infiltration and provide extra revenue.



*Cows roam freely in the fields ravaging any crops they can find*



*Plantation of guava on the bunds surrounding eggplant and coriander.*

Another recommendation is a better exploitation of livestock. Cows are free to roam (free grazing) during drought periods. Yet, cow manure and urine is used for compost in ayurvedic centers, and could yield extra income. Lastly, the teachings dealt with the different dispute resolution techniques to settle quarrels among farmer groups and the creation of a business plan.

Water management trainings had a strong impact. Some farmers, like Brijesh from the village of Panihaï, constructed embankments around their fields, to accumulate rainwater. On top of these bunds, they planted fruit trees.



*Mulching prevents water evaporation and creates compost*

They also favored vegetables to rice production. These farmers are part of the few in the area who could cultivate their plots from September to December 2015. The drought was too severe for those who didn't follow these techniques.

Water management is closely linked to hygiene and sanitation issues. 98 % of the project's beneficiaries have no latrines and defecate in the open. It's a vector of disease and a source of surface and ground water pollution. Dr. Baliga, a specialist on questions of hygiene in rural environments, was welcomed from the 7th to 9th of September 2015 for a follow up to 2 series of teachings that took place in July and October 2014. 54 women reviewed and deepened their understanding of the previous presentations.



*Slide on the importance of hand washing before cooking and eating*

The first day covered prevention of diseases from water-born, vector-born (mosquitoes and other animals) and air-born sources. Issues of reproductive health were then tackled, including menstrual cycles, pregnancy and prenatal exams, followed by hygienic questions related to defecation. For optimum assimilation, the courses were combined with games, documentaries, videos and miniature models.

Trainings on hygiene and sanitation were appreciated. Many like Sulki from the village of Chuhuda Colony, expressed their gratitude. They applied as best they could recommendations learnt. They cleaned their homes and made sure to wash their hands regularly, but due to a lack of financial resources and community support, they couldn't purchase mosquito nets or construct latrines.



During his visit, Dr. Baliga informed women of various government programs created to deal with hygiene and sanitation problems. He gave the phone numbers of local offices.

In the village of Chuhuda, the well was so foul that a woman died of diarrhea. The women, led by Raj Kumari, called the local division of the Department of Health to demand that the well be purified! It is very unusual for the women of the villages to stand up for their rights. The women insisted by citing the government programs and the responsibilities of the local government until they came to clean the well. Since then, there has been no more cases of diarrhea !



*Sulki proudly shows us her clean and tidy house*



*Raj Kumari and another woman from the group in front of her house*

In addition to outside trainings, the Rain Drop team follows up on each participant year round. We guide villager's efforts in applying lessons learnt and encourage them through films, group discussions and awareness campaigns.

#### 4. Tree planting

In order to tackle the drought problem at its root, deforestation, we planted **2507 trees in 2014 and 3303 in 2015, a total of 5810 trees planted during the project.**

We had hoped to plant more. The farmers had already dug the holes to plant the sprouts, but unfortunately, the lack of rain prevented it. Many farmers preferred to plant less trees and ensure their survival.

During the Spring of Life project, tree survival is of 79%. A good rate considering the harsh weather conditions we faced in Mau.

Under the guidance of Christophe Joveneaux and Marc Delrue, both from « Espaces Naturelles Lille Métropole », Suresh Chandra improved his nursery. He learned to graft new species and to better care for his plants. Initiated by Rain Drop, Suresh's nursery has turned into a viable and sustainable business in just a few years. As the only nursery in the area, it attracts an increasing number of villagers looking to acquire trees.



*Trees planted in 2014 around a potato and pumpkin field following permaculture and agroforestry principles*



*Taking advantage of a close-by and affordable tree nursery, all the ways are good to bring trees back home !*

Realizing that an orchard is more profitable, some have converted their agricultural lands.

Applying the techniques of agro-forestry taught during the trainings, others prefer planting trees around their plots. This action renders the soil more fertile, prevents erosion and generates extra revenue within 3 years. We encourage farmers to have multi-purpose trees, favoring the environment, and bearing fruits and berries.

*Faced with recurring drought, Bajrangi from Panihaï decided to transform his rice fields into a tree orchard*



We have planted the following species:

Common name	Scientific name	Number planted
Mango tree	Mangifera indica	218
Guava tree	Psidium guajava	1269
Amla tree	Phyllanthus emblica	165
Jackfruit tree	Artocarpus heterophyllus	89
Lemon tree	Citrus limon	220
Carissa tree	Carissa carandas	1127
Promogranate tree	Punica granatum	92
Bullocks heart tree	Annona reticulata	74
Bael tree	Aegle marmelos	46
Jamun tree	Syzygium cumini	3
<b>Total</b>		<b>3303</b>



*Other techniques to save trees from their enemies : drought and cows*



## Community Mobilisation

### **1. Support to women's SHGs (Self Help Groups)**

In our project, we give women a special attention. They are often marginalized in this region. They are subordinate to their husbands and face important social pressures. To help them reinforce their skills and achieve some autonomy, we organized various activities, mainly income generating activities and awareness building.

In India, SHGs' (self-help groups) are an effective way to provide independence for women and help village development. These groups are very fragile in our project area. Women seldom contribute their monthly savings to their common account. And too often, SHGs exist only in name. Unfulfilled government promises and pressures from local actors have created a mistrust amongst the women.



*Meeting in Chuhuda village*



*In Kitahāi, women discuss on issues arising in their SHG*

Nevertheless, we consolidated some of the groups by explaining the social and economic potential of uniting their strength.

We wanted to create micro-enterprises with them but the groups weren't solid enough for such projects.

For the moment, our goal is that the groups listed below, meet regularly and contribute their monthly saving:

Name of the villages	Name of the groups	Number of members	Total saved (Rs)
Panihaï	Jai Santoshi Mata Self Help Group	11	5500
Panihaï	Jai Ma Saraswati Sefl Help Group	11	14 300
Dorya Purwa	Kavita Self Help Group	10	6000
Ghuruha	Bajrang Bali Self Help Group	10	1000
Ghuruha	Rakhi Self Help Group	12	1200

With the groups, we opened bank accounts and established basic rules for an effective functioning.

The women have started to collect their savings on a monthly basis.

With a regular follow up, we hope the groups will consolidate and will soon become autonomous.



*1<sup>st</sup> follow-up meeting of 2016 with the women from the Bajrang Bali group from Ghuruha.village.*

## 2. Awareness building campaigns in the villages

Throughout the year, awareness campaigns on the project's various themes were organized. Below are the main ones:

### 13 February 2015 – Young people's rights and local decision making

This meeting's aim was to familiarize the young generation with the local administrative system, with entrepreneurship and the levers of decision-making.

Dr. Pran (Director of Nehru Yuva Kendra – National Youth Center) spoke to the 104 young people in Bargarh about their rights and obligations in the coming elections. He explained the importance of the village meetings, the Gram Sabha. All decisions taken during Gram Sabha must be applied. Currently, the only people participating are the village chiefs and governmental officials. They therefore choose programs that are profitable to them sometimes to the detriment of others. Dr. Pran urged the young people to participate to those meetings, which are open to all.

### 8 March 2015 – Womens' rights and hygiene practices



*Game during which women are encouraged to free themselves from social pressures and speak up*

For International Women's Day in Kechuat, we organized games with 56 women to draw their attention on disparities between sexes and to encourage them to stand up for their rights. Of course, it's not easy for most of them to claim equal rights. We recommended that even if they couldn't apply it to their situation, at least, they should not replicate old schemes for their daughter (early marriage, not enough schooling... ) We also reviewed the important topics of hygiene and sanitation discussed with Dr. Baliga: washing of hands before cooking and eating, keeping

the kitchen and drinking water clean...

### 28 June 2015 – Water management

216 people were presents in the village of Lasahi for the inauguration of the water harvesting ponds. Among them were M. Bhairav Prasad Mishra, member of the Indian Parliament, M.Bahia Lal Yadev, President of the district Samaj Wadi Party (Uttar Pradesh government political party) and M. Arvind –President of Jal Biradri group(« water



protection » of Uttar Pradesh). We explained the importance of long-term water management and went over simple techniques available to farmers.

Operating principles of *talabs* (water harvesting ponds) were explained and their effectiveness was demonstrated. To encourage the Indian government to promote this technique, our guests of honor resolved to introduce our suggestions to their respective authorities.



*Distribution of « good water management » certificates to farmers and other local actors*

## 27 August 2015 – Hygiene and sanitation

The CDO and BDO (Chief Development Officer and Block Development Officer –In charge of the district and block development) called on us to organize an awareness campaign in Nevada to share our knowledge on hygiene and sanitation with the village's government officials. 120 people listened to the presentation about precautionary measures for children and women's health.

## November 2014 to March 2015 and December – Natural resource management



Biology teacher at the French International School in Delhi, Vincent Abalain arrived in Mau in November 2014. During 6 months (November to March 2015 and in December 2015), he shared the life of the villagers.

From his 1.90 m high, Vincent is spotted in the distance followed by a horde of kids.... A born pedagogue, his objective was to awaken the students' interest in the environment, to expose them to other cultures and teach them english.



Equipped with cards, puzzles, telescopes and other fascinating material for the children, he attended school everyday in Kechuat, Kitahaï, Lasahi, Chetteni, and in Bargarh's middle school !



## Diversify income sources

### 1. Agriculture and training

The families we work with live off subsistence farming. Challenges like climate change, drought and soil erosion make it difficult to produce enough food for a year.

A transition to more adapted agricultural techniques is necessary. To help villagers to tackle these new issues, we organized **4 trainings in 2015** totaling **7 during the Spring of Life Project**.

In 2015, the following topics were discussed during these 3 day sessions:

Training	Beginning date	Number of participants	Topics covered
1	7 April 2015	33	Counter-season harvesting
2	5 June 2015	20	SRI & tree planting
3	7 July 2015	25	SRI & tree planting
4	25 September 2015	58	SWI & crop planning

The 1st session was a review of the counter-season agricultural techniques that consisted in cultivating crops during the dryer months using irrigation systems and mulching.

At this time of year, the high price of vegetables adds to the revenue of the families, which usually has little or no income at all during the summer months.



We had already organized such trainings in 2014. This training reviewed the concepts and built upon farmer's experiences to answer key concern.

*Chandsekher separates good and bad rice seeds through a process learnt during the training*

The 2nd and 3rd sessions dealt with SRI. At the start of the project, we had solicited Pradhan for their expertise in SRI and SWI (system of rice intensification & system of wheat intensification). The Rain Drop team, having learnt the technique is now able to teach it to the farmers.

SRI and SWI are techniques developed to enable an increased production of rice or wheat with less water and less fertilizer. These techniques have been tested throughout the project's length. At first, we tested them on small parcels of land. Once their effectiveness was observed, the farmers decided to extend the technique to larger portions of their fields.

Many farmers were interested by these methods but the weak monsoon prevented its implementation. Just 6 people managed to produce rice sprouts. Among them, just, Mankamna from Guruha, Chandra and Bajrangi from Panihaï could plant the sprouts on their plots. But, they eventually dried up as well waiting for the monsoon to arrive. Ramnaresh was the only one to succeed, through intensive irrigation.



*Mankamana and his family did the nursery and started planting rice. But the sprouts finally fried up due to the lack of rain.*

Observing the drought situation, an emergency training session was held in September (4) to discuss climatic problems and crop planning in times of drought. It was decided that rice and wheat had to be abandoned for less the water consuming and more profitable vegetables.



*Recurring scene in the fields around the villages: in November, when the rice was supposed to be harvested and the wheat planted, all the plots were prepared and ready. Farmers only waited for the rain. Alas, it never came. Many people had to leave their village to find work in cities and factories*

Despite our advices, many farmers were scared to plant new crops, viewing them as riskier. They knew rice was impossible but hoped rain would arrive in time for wheat. They prepared their fields and waited, but the rain never came.



*Pepper plantations with guava trees during the drought*

A few made the transition. They planted peppers, squash and potatoes. With good water management, they successfully harvested and sold their products at a good price.

In 2015, 18 farmers joined the 86 families we advise on permaculture techniques. In total we worked with 104 families.



*Ramnaresh watches over his land 24h/7 to protect it from roaming goats and cows*

Ramnaresh has benefitted from the trainings. In 2014, he harvested 1800 kg of wheat as compared to the 1500 kg he got the previous years. His production increased despite the weak rains. He hopes to do better in more favorable conditions. The 300kg surplus generated 51€ (3600Rs) more than other years.

He plans to use the SWI method each year for its simplicity, to increase his productivity and save water. Ramnaresh is the only one who succeeded in growing rice this year. His water reserves were totally consumed.



*Rakesh from Panihaï takes care of his vegetables and trees.*

Rakesh from Panihaï village also made the switch. He came to all the trainings on water and planting techniques. With his new knowledge and his new sprinkler, he cultivated 3520 m<sup>2</sup> of land. He grew eggplant, hot peppers, coriander, potatoes, peas and guavas for a total income of 21 500 Rs (300€). Foreseeing that the past 2 years' drought might last, he planted fruit trees in his fields to guarantee profitability in the future.



## 2. Breeding and training

The 30 families that house chicken coops have greatly increased their income. Priority was given to families without land. Without even a small plot of land to cultivate, the hen houses are their first independent source of income.

We organized 2 sets of trainings in 2015 to teach the families to secure the chicken's survival. The first took place on the 3rd April 2015. Dr. Govind Verma from Krishi Vigyan Kandra (Governmental Center for Agricultural Sciences) was invited to give recommendations to the chicken owners. The 25 aviculturists present studied chicken care in periods of extreme heat (45 à 50 C°). With the advent of the dry season, it was very useful to learn about common illnesses and problems, prescriptions and solutions. He explained the importance of draping the hen house to avoid direct sunlight and insisted that the chicken have water at all times.



*Kamta Prasad from Ajadpurva makes sure his chickens have enough water !*



*A chicken coop owner practices making food for his chickens with local ingredients*

After some rainfall, the humidity triggered an epidemic. On 26 September 2015, Bablu Prasad held a meeting to go over hygiene practices.

He advised the disinfection of the hen houses with limestone and avoid bacterial growth by maintaining them dry.

Remembering Dr. Govind Verma's recommendations, some farmers had given their chickens a mixture of jaggery (unrefined sugar) and water. As their chickens healed, they passed on the information to others. The treatment eradicated the epidemic.

Bablu also went over fundamentals of aviculture: care of the chickens and chicks, reproduction and sales strategy (selling hens during elections, a time when their consumption is at its peak).



*Lalu from Kitahai proudly tells us how he remembered Dr. Govind's advice : mix jaggery and water to cure the chickens !*

Meetings are held monthly with the 30 breeders. They share their experiences and learn from each other. During one gathering, a few aviculturists made the following observation: the chickens didn't incubate their eggs. So, they called Dr. Govind Verma who confirmed that this species (Rhode Island) lays a large amount of eggs but doesn't incubate them! Then, Ramsiam from the village of Guruha Colony recounted his story:



*Ramsiam next to his chicken coop. Realising it was better to separate chicks from the adults, he built an extension.*

*« My chicken laid eggs but didn't sit on them. It annoyed me not to have chicks. I gave the eggs to my uncle who also has chickens. A few weeks later, he gave me little chicks! He told me he had put the eggs under the incubating chickens and the eggs hatched ! »*

Ever since, 3 types of chicken run around in the villages. The chickens provided by Rain Drop that lay a lot of eggs, the « local » chickens who sit on the eggs, and the Broiler chickens, bought by the farmers and bred for their meat.



*3 types of chickens. A rooster (left) and a chicken (back) given by Rain Drop. A local chicken on the right and in front a chicken for consumption.*

The chicken coops are one of the most successful activities. They have provided good revenue and contributed to a more diversified diet.

On average, the sale of eggs and chickens has generated 1960 Rs (28 €) in 4 months, for each family. Sawar from the village of Ajadpurva made 5600 Rs (73€) additional revenue in only 5 months. As caring for chickens requires only a few hours in the day, the profits add to the family's main income. In addition, the families consume most of the eggs and the chickens, leading to a better diet and a better health.

Village	Number of families	Number of chickens acquired	Generated Revenue (Rs)
Chuhuda Colony	6	215	9030
Ajadpurva	8	333	27045
Kitahaï	4	117	2700
Chetteni	4	150	8653
Lasahi	8	273	11410
<b>Total</b>	<b>30</b>	<b>1088</b>	<b>58838</b>

Our visits to the breeders are always met with enthusiasm. They vividly recount their experiences and their future projects. Some want to enlarge their chicken coops, others intend to buy more chicks, still others plan to buy new species to diversify their breeding.

We will continue to support the group of aviculturists so that they become completely independent. They must be able to build or fix their hen houses, buy chicks, supply themselves with medication and settle sales transactions of chickens and eggs.



As a group, farmers will also be able to fund trainings and counseling to solve shared problems ( epidemics...).

*Chicken coop owner meeting in Bargarh*

### 3. Fruit processing

From the 12th to the 20th January 2015, we organized an accredited training from the Horticulture Department of Chitrakoot. 54 women were present to learn the manufacturing of acchar, vegetable preserves in a mixture of spices.

The women, natives of the project's 10 villages learnt to make fruit acchars (mango, amla, karonda ) and vegetable acchars (carrots, garlic radish, peppers).



*Amla acchar preparation*



*Diploma distribution*

They also learnt to make apple and guava jelly, tomato sauce and other local condiments. The organizers also pointed out methods of conservation so as to lengthen the life of the products.

The end of the program was celebrated with the distribution of diplomas. With these diplomas accredited by the government of India, they can ask for government loans to start a business. The diploma entitles them to teach others to make acchar.

On the 13th and 14th June 2015, M. Harishankar Arya, from the Horticulture Department was scheduled for a review training. He spent time on details of product conservation and selling strategies.

The women were shown how to package their merchandise to be sold.



*Review training on acchar processing and packing*



Many women began producing acchars in their respective village and at home.



*Women from the Guruha cut vegetables and crush the spices*

They are boiled and stirred regularly

Finally, they are cooked in a cauldron over a wood fire.



*Women from Lasahi cook acchar on wood fire, the only source of energy available to cook*



And now, the eagerly awaited moment  
... tasting !

« Hmmm ! Delicious ! »

Other women such as Gita (right) from the village of Kechuat made acchars at home for her family.

Sulki from Chuhuda Colony told us that the class had been very useful. Instead of buying acchars for her son's wedding, she made them herself !

Her guests loved them !





## Activities in France

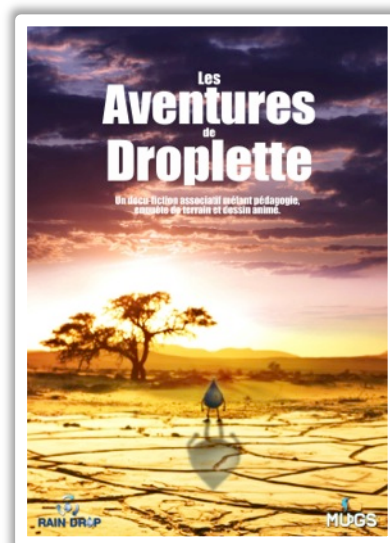
### 1. Making of a documentary

Our documentary: *The Adventures of Droplet* was finalized in May 2015. With the precious help of Danda Production for animation, Manuel Roman for editing, Michel Tyabji for the sound and Sabine Faraut, Damien Despinasse, Damien Bourges and Matt Cowlrick for the voices, we made a 16 minute educational documentary.

Droplet, a French rain drop lands in India, where the Rain Drop project is implemented. Droplet meets Twiggy and Kechuat Jim and explores the reason for the deforestation, the drought and the solutions undertaken by Rain Drop. The documentary is divided in 5 parts:

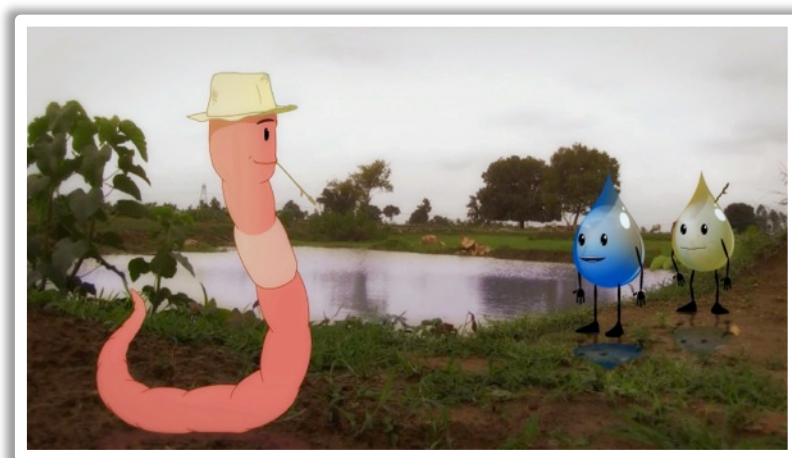
- Part 1 – Introduction – the water cycle
- Part 2 – Deforestation & desertification
- Part 3 – drought
- Part 4 – solutions
- Part 5 – Conclusion

The short film is shown in elementary, middle and high schools in France. You can see it on Youtube : *Les Aventures de Droplette* (only in French for the moment).



Poster of *Aventures de Droplette*

Our movie was also selected for the Festival de Nature et d'Environnement organised by Cistudes&Cie.



The three main characters (left to right) : Kechuat Jim, Droplette (in bleu) and Twiggy

## 2. Photo exhibition

Since its inception in 2014, Rain Drop's itinerant photo exhibition has been on the move. Jérémie Lusseau, Naiade Plante and the Rain Drop photos have been travelling around Lyon in 2014, then in Paris in the « Tour Suez Environnement » and at CIRSEE.

In June 2015, they were exposed in Grasse in the « Palais des Congrès » and then at the Crédit Agricole in Geneva Switzerland in October/November 2015.

**3500 visitors in 4 cities viewed the exhibition during the 28 months of the project .**



*Exposition in Switzerland*

## 3. Presentations & conferences

In 2015, we gave **14 lectures in elementary, middle and high schools and 4 presentations open to the public. We reached 1854 people.**



*Rain Drop intervention in a class of 4th graders*

The presentation's focus is on environmental issues and cultural diversity. In the films « *Si tu étais né dans un village en Inde...* » and « *Les Aventures de Droplette* » the students share the daily lives of 2 Indian children and learn about the functioning of an ecosystem. These films help enhance the understanding of water management, international solidarity and respect for others.

*Intervention chart of 2015:*

Date	Number of beneficiaries	elementary/middle /high schools	Name of the institution	Place
11/3/15	120	High school	Fénelon	Grasse
12/3/15	150	IUFM	IUFM	Nice
20/3/15	25	school	Ecole élémentaire St Jacques	St Jacques
20/3/15	50	school	Ecole St Exupéry	Grasse
25/3/15	150	Théâtre de Grasse	Théâtre de Grasse	Grasse
26/3/15	40	school	Roland Vernaudo	Paris
26/3/15	30	school	Paul Bert	Paris
24/4/15	40	High school	Fénelon	Grasse
23/5/15	215	jardins du MIP	Pôle Azur Provence	Mouans sartoux
6/9/15	200	Parc alphonse daudet	Pôle Azur Provence	Peymeinade
22/9/15	30	school	Ecole International d'Haut-Lac	Haut-Lac (Switzerland)
17/11/15	100	High school	Fénelon	Grasse
19/11/15	120	High school	Fénelon	Grasse
19/11/15	500	High school	Fénelon	Grasse
2/12/15	48	school	Victor lasso	La Trinité
4/12/15	12	school	Association parents d'élèves	Pégomas
15/12/15	24	school	Ecole publique	St cézaire sur siagne
<b>Total</b>	<b>1854</b>			

## Other project benefits

Another important benefit of the project is the development of the Rain Drop team in India. Ashok Sarwade, the project manager, created his own organization, Rain Drop India. Together, we have initiated a new project, Project Ayur.

Bablu Prasad, coordinator of the project has been admitted to a masters degree in Rural Development in the prestigious social science school, TATA School of Social Science. Originating from Kol tribes, he is the only one in his village to acquire such a high level of education. After he earns his degree, he wants to return to Mau to pursue his actions with the poor villagers, continuing the Rain Drop projects.

Lastly, Ramesh Chandra created and manages the first environmental business in Bargarh – the tree nursery. It's coherent with Rain Drop's actions, provides good quality trees at affordable prices for the area's farmers and also generating income for Ramesh's family. Sales of trees increase each year, despite the drought.



*The Rain Drop Team – Ramesh, Bablu  
and Ashok (left from right)*

## Conclusion

After the 28 months implementation of the Spring of Life Project, during the next 2 years, we will follow up on the various activities. Our main objective is to accompany farmers and women groups towards complete autonomy.

We will also spread our actions with Project Ayur in central India, in the state of Maharashtra. This project takes a more holistic and integrated approach, combining water management and support to the local population but also emphasizes local entrepreneurship. One plan is to produce and market ayurvedic products (traditional Indian medicine) with women groups.

Last but not least, we wish to thank you for your support without which these projects wouldn't be possible.

We hope you will continue the adventure with us!

The Rain Drop Team