

Unnat Bharat Abhiyan Beladi-Salhapur Indian Institute of Technology Roorkee

Tentative Action Plan for Autumn 2023

About the Village

Beladi-Salhapur was adopted under UBA IIT Roorkee on February 07, 2015. Following are the demographic details & condition of the village, along with the involvement of UBA IIT Roorkee for the past few years;

Location	Roorkee Block of Haridwar District (about 7km away from Roorkee & 25km from Haridwar)
Route Map	https://goo.gl/maps/7tT4zND6NodPFJGP8
Connectivity with Highway	About 350 m away from NH-58 (main highway) connecting Roorkee & Haridwar
Location/Village Code	056436
Total Geographic Area	248.77 hectares
Nearest Major Railway Stations	Haridwar & Roorkee Junction
Governance	Governed by Beladi-Salhapur Gram Panchayat
Population Details	Total Population: 3000 (Census 2011) <ul style="list-style-type: none"> • Working Population: 504 • 520 households (450 in Old Beladi-Salhapur; RHS of Main Road from Roorkee to Haridwar & 70 in LHS of the Main Road) • 99% population Hindu • Average Monthly Income about Rs. 12,000/family (INR) • Lack of education among older population • Low women employment
Caste Distribution	Majority of the population are SCs (99%). The caste distribution of the village has mainly two castes " <i>Rhods</i> " and " <i>Saini's</i> ".
Literacy Rate	60.16% (According to Census 2011)
Occupation	<ul style="list-style-type: none"> • Nearly 70% of the villagers are engaged in agriculture/related work, though the number of big farmers is very less majority of the farmers are low scale farmers • 20-25% people work as construction workers and the rest are engaged in either dairy and other animal products' selling • Very few are employed in the service sector (private companies etc.).
Schools	02 Government Schools: <ul style="list-style-type: none"> • Beladi Primary School - I to V standard • Secondary School - VI to X standard

Cooperative Groups & SHGs	<ul style="list-style-type: none"> • One SHG named 'Yamuna' was formed in 2021 with the help of UBA and is currently the only active SHG in Beladi consisting of 11 members. • One of the ladies of SHG was involved in Bioenzyme, but the SHG is not currently involved in any initiative.
Condition of Water	<ul style="list-style-type: none"> • The main source of drinking water is the hand pumps (groundwater) installed near every house. • Public water taps are also installed by the Government. The number of such taps are around 20-30. But the taps remain waterless most of the time as testified by the villagers. • The home cleanliness level is decent.
Condition of Houses	<ul style="list-style-type: none"> • If a few houses of the upper caste are kept aside most of the houses are made with bricks and have 1-2 rooms (most of them <i>pakka</i>). • Around 92/150 households surveyed don't have toilets • Electricity available 24x7 • Internet facilities available
Services	<ul style="list-style-type: none"> • Nearest Petrol/Diesel Pump, Bank, Cooperative Store, Cold Storage, Mandi, Community Center, Police Station, Healthcare Center present in Roorkee • 01 Temple, but no Gurudwara, Mosque & Church • 05 Provisional Stores • No industrial setup • Art & Handicraft Sector not well developed & the sources (if any) depend upon the local market only • No pharmacies, small scale industries, sweet shops & tea stalls • No renewable energy setup
Hygiene	The village-level sanitation, cleanliness of ponds and water bodies, the public drains and the scattered waste around the village presents a governance issue in the village.
Survey Reports	<ul style="list-style-type: none"> • Household: http://bit.ly/Household_Survey (Done in 2015) • Village: http://bit.ly/Village_Survey (Done in 2015)
Initiatives conducted by UBA IIT Roorkee	Soil Testing & Awareness Camp for farmers, iNSPIRE (Fun & Learn Activities for Students), LED Distribution, Taekwondo Camp, Financial & Digital Literacy Camp, Dental Check-up Camp, Cycle Donation, JNVST Preparation for School Students, Book Distribution, Right to Education (RTE), Bioenzyme, Incense Stick.
Ongoing Initiatives by UBA IIT Roorkee	Vermicompost, Computer Installation, JNVST, RTE.

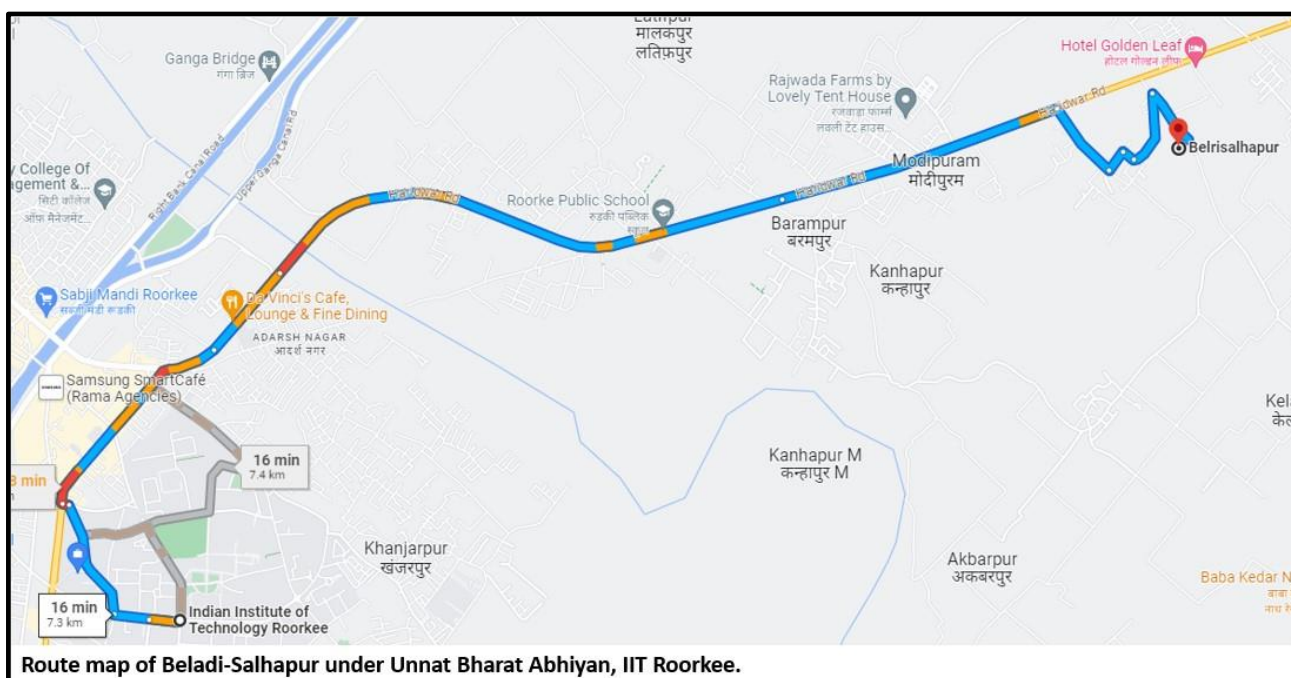
Glimpses



Satellite image of Beladi-Salhapur under Unnat Bharat Abhiyan, IIT Roorkee



Map of Beladi-Salhapur under Unnat Bharat Abhiyan, IIT Roorkee



Date-wise Tentative Action Plan

Date wise action plan for Autumn 2023 semester is as follows. The work will be done on the following initiatives:

1. Vermicomposting

The Vermicomposting initiative aims to expand the number of vermicompost beds and aims to set up new 05 beds by the end of semester. The manure produced will be used in the fields by the farmers and can be sold as organic manure in the Roorkee market. Since 02 beds had been set up successfully, the team aims to expand the initiative for which the team had contacted 02 farmers who were interested in setting up. In next visit the team would try to explain them the process in detail.

New contacts are:

Name: Ramdheer

Contact: 9719171252

Name: Milan

Contact: 9760296186

2. JNVST Exam Support

Through exam Jawahar Navodaya Vidyalaya Selection Test (JNVST), students get admission in Navodaya Vidyalaya, which is the best education place where students are provided with good quality modern education-including a strong component of culture, inculcation of values, awareness of the environment, adventure activities and physical education - to the talented children predominantly from the rural areas without regard to their family's socio-economic condition. Last year the team selected some students and provided them with study material. This year the team would try to find a tutor having required qualifications to teach students for JNVST exam and all material would be redistributed like previous year question paper, books. A timely session would also be conducted to check the progress of the students and to assess their weakness.

3. Self Help Groups

Self Help Group initiative aims to empower women of Beladi to earn money on their own. In Beladi, there had been many attempts in the last few months to engage the SHG in some

initiatives. Currently, eleven members are already part of SHG. Last year an incense stick machine was installed, but due to some mechanical problems, production had not started yet. So, the team would try to look for mechanics or specialists, till now, the team had contacted two firms regarding it. Currently, the team is working with the Department of Design, IIT Roorkee to get the issue fixed.

4. Mushroom cultivation

The team first observed in the village that most of the people of the village were having small patches of land. The crops they grew were mostly paddy, sugarcane, wheat, and grasses. But due to extreme weather conditions, the crops don't turn out good. At the same time, they are not ready to shift the type of crops they are growing now due to the risk of having nothing in their hand if it does not turn out good.

So, the team suggested mushroom cultivation as it doesn't require the field and can be grown anywhere with favorable conditions. Moreover, mushroom has been the district one product of Haridwar in 2021 also. And its daily consumption is also high.

This work can be collectively done by the SHG women and farmers as it doesn't require much labor except in initial days of compost setting and harvesting. Raw materials such as compost (consisting of mixture of paddy straw, sugarcane, bagasse, hardwood dust etc.), mushroom spawn, polybags, rope, exhaust motor fan (to maintain humidity) would be required. Any room that has good ventilation, proper sunlight, and clean and hygienic surroundings would be suitable to grow this. Different varieties require different temperature and humidity conditions, so exhaust motor fan and led lightings can be used accordingly. Another set up can be made up of full usage of bamboo and placing compost on it. It is more favorable as it doesn't involve plastic polybags, nuts whose construction is costly. Favorable months for growing mushrooms are the months of November to March (mostly).

Training and raw material contact

Name -Jitendra

Contact no. -8077894108

Farm at: Ulhedi, Uttarakhand (35 km from Roorkee)

He can provide the substrate, spawn etc. at a reasonable rate.

Name: Deepti Chaudhary

Contact No. 99273 96070

Training center: Krishi Vigyan Kendra, Dhanauri

Training period of 05 days at Dhanauri and training is free of cost.

Name -Mrs Hiresha Verma

Contact no. -82185 57449

Farm at: upper Chharba, Dehradun, Uttarakhand

She can provide training in the village only.

Can provide compost and seeds and interested in buying the bulk production.

Mrs Hiresha Verma farm (she has a very big farm and turnover of around 01 Cr from that only) could be a prospective host to market. Local Roorkee *mandi* would also be a good market. Oyster mushroom price is Rs 120-150/kg (depending on size) while paddy straw mushroom price is Rs 80-110 /kg (depends on season). The mushroom pricing depends highly on the season, like in winter its around 100-120/kg but in summers it rises to 200-250/kg as at that time the requirements can be met only by big farms being air conditioned. Mushrooms can also be sold as dry mushroom by letting them dry in intense sunlight for 2-4 hrs.

5. Organic Dhoop Batti

There is an existing SHG in the village for which an incense stick machine had been set up for providing employment to the women of the village. Unfortunately, due to the shortcoming of the machine not working properly this work was put on hold.

Cow dung *dhoop batti* can be made manually by the women along with being ecofriendly. This will be an efficient way to replace the incense stick made from chemicals which add up pollution to the environment as well to better utilize cow dung to prevent pollution.

Raw materials for manufacturing process would include dry cow dung, benzoin, camphor, sandalwood powder, neem leaf powder, coconut oil, water, small amount of cow ghee, *Dhoop cone*, *Guggal*. As it is a simple process training can be done through online video and providing them ingredients templates and written procedure of how to make the *dhoop batti* at home. Shreyan Industries, Roorkee (Contact No. 9205955075) was contacted to ask for marketplace, and they showed interest in our *dhoop batti*.

6. Candle making (short term till Diwali)

As Diwali is approaching, there will be huge demand for candles, *diyas* and related products. So, the team was thinking of involving SHG in candle making, as candle making involves only melting of wax, and some oil addition, so it would not require much rigorous training. Online training is enough for it. Potential markets would be IIT Roorkee campus, and we can also collaborate with the ENACTUS in their ongoing project of candle making as their marketing would be on a large scale.

7. Bioenzyme

Last semester one bioenzyme was set up, but as it is in dilapidated condition, raising a new bioenzyme set up would be our focus. Our main aim would be to explain the benefits of it in a meeting as the personal approach in the survey was not effective. Its benefits would be discussed in the meeting to be conducted by the Pradhan at their house in the upcoming visit. The team plans to set-up a new bio enzyme sample by the beginning of September. However, until then, the team is dedicated to spreading the word regarding the efficacy of bio-enzyme sample with special focus on those families whose students got enrolled in schools under RTE and others who are in contact.

Marketing of Bio-enzyme as floor cleaner in *bhawans* and LHCs.

Furthermore, the team has planned to collaborate with the Farmer's Son FPO to increase the commercial sale and market viability of bio-enzyme.

8. Computer Installation

In primary school 04 out of 07 computers are working well and in secondary school 03 computers are working. Our focus would be on replacing the non-working computer parts, cables etc. and to install 05 more computers in both schools.

9. Farmer Producer Organization (FPO)

FPO initiative is a quest towards the aggregation of marginal and small farmers of the village Beladi. It offers various benefits to the marginalized class of farmers.

Following are some of the reasons that demonstrate the necessity of setting up FPOs: -

1. To salvage farmers from exploitation by the middleman
2. Bridging the socio-economic divide.
3. To ensure that the government schemes and benefits reach every person irrespective of their class or economic status.
4. To enhance the profit margin for farmers.

The concept of FPOs flourishes smoothly when applied to a small chunk of farmers and the village of Beladi Salhapur offers the right opportunities in this direction.

Considering this knowledge, the team sincerely feels that setting up FPOs for the farmers of village Beladi will significantly aid in augmenting their incomes.

The team believes to undertake the following course of action: -

1. First to convince farmers to join the existing nearby FPO's like Farmer's Son and for this the team would organize a meeting between farmers and FPO with assistance of Pradhan of the village.

2. Secondly, to ensure that more and more farmers join FPO the team would make farmer's register for the *Pradhan Mantri Kisan Samman Nidhi Yojana* (PMKSNY) in which farmers having land holding less than 02 hectares get 6000 rupees per year in three installments. This would provide farmers assistance and along with it help us to gain trust between farmers so that the team can convince more and more farmers to join FPO.

3. The team is going to organize a meeting between farmers and FPO members in August and depending upon its response the team will be setting up a small meeting between farmers and FPO members to make it more effective. Collecting details for PMKSNY will start in August and will register them for the same.

If our above-stated actions result in success, the team will look forward to creating one depending upon the number of people interested.

10. Science Kit Experiment

The team has decided to conduct a series of experiments related to scientific principles used in day-to-day life to spark an interest in students for further studies in science domain. A series of experiments has been selected by the team and will be performed for primary and secondary school students.

Tentative Schedule

S. No.	Date of visit	Purpose
1	13/08/23	Meeting with SHG regarding candle making process and distribution of books if possible. Also explaining about mushroom cultivation training.
2	26/08/23	Vermibed set up at 02 houses. Full explanation about how to start training online of <i>dhoop batti</i> and science experiment demonstration at primary school by team.
3	03/09/23	For bioenzyme set-up and checking vermibed and to install 02 computers. Checking the candle making process and production. Meeting with farmers for FPO.
4	24/09/23	Conducting session in school for JNV students and candles production and <i>dhoop batti</i> .
5	30/09/23	Setup of 01 mushroom room and science experiment demonstration in secondary school.
6	08/10/23	Setting up of 01 bioenzyme
7	21/10/23	Checking mushroom room and vermibed. FPO meeting.
8	29/10/23	Bioenzyme checking and a meet with JNVST students
9	05/11/23	Checking harvest of mushroom and assessing overall performance of vermibed, bioenzyme, dhoop batti etc.

Tentative Budget

Initiatives	No. of visits	Members Required	Estimated Budget			
			Log.	D.A.	T.A.	Total
Vermi Compost	3	2	7500	1080	360	8940
JNVST Exam Support	4	1	4000	720	240	4960
Organic Dhoop Batti	4	2	-	1440	480	1920
Bio-enzyme	3	2	-	1080	360	1440
Computer Installation	1	1	-	180	60	240
Mushroom Cultivation	4	2	5000	1440	480	6920
FPO	3	2	-	1080	360	1440
Science kit experiment	1	2		360	120	480

Total Budget: - 26,340