

# **Bhakanje Tea Development Center (BTDC)**

## **Preliminary Project Description**

### **September 2024**

#### **by Papa Kurt Lomborg**

#### **Himalayan Project Danmark**

**Bhakanje Tea Development Center (BTDC)** is a new commitment under the management of Himalayan Project Nepal (HIPRON) and Himalayan Project Danmark (HP-DK). The purpose of the BTDC shall be to give learning and training about tea as well as giving facility for science, analyzing, investigating, experimenting about tea. At this preliminary stage it is still not finally decided what and how, but the project is anyhow outlined as a sketch of ideas.

It will be established in Bhakanje, Likhupikey Rural Municipality ward 5, Solukhumbu District, Eastern Development Region of Nepal.

In May 2024 land was acquired by HIPRON in the name of Janaki Khadka: land code no. 1581516 Bhakanje 4, plot no. 278, with area 3 ropani (1622 m<sup>2</sup>, 17459,2 f<sup>2</sup>. Co-ordinates 27.5937° 86.4335°. The land is situated between Bhakanje Tea Factory and Shree Chandra Jyoti Secondary School in Bhakanje Village; by trail 115 m or by altitude 22 m above Bhakanje Tea Factory and by trail 75 m or by altitude 13 m below the school.

The future ownership of BTDC is not decided at this preliminary stage, but it could be an Independent Institution, or it can be a part of Bhakanje Tea Factory, or it can be included in Bhakanje School.

Here follow definitions on units involved in the BTDC:

**Himalayan Project Nepal (HIPRON)** was established in 2007 in the name of “Himalayan Pariyojana Sanstha Nepal 2007” located at Kathmandu District, Kathmandu Metropolitan, Ward No.02, Lazimpat, with PAN: 302503218, and affiliated to Social Welfare Council. HIPRON is under the instructions and approval of the Executive Committee consisting of 7 members and administered by Managing Director Janaki Khadka.

**Himalayan Project Danmark (HP-DK)** was established in 1998 in the name of “Himalayan Project” located in Viborg Kommune, Danmark with CVR: 32486193, managed by a board of 5 members and administered by Administrator Kurt Lomborg.

HIPRON and HP-DK is working closely together with the same objectives and activities, which is concentrated about development work in Bhakanje, mainly with education, health, human rights and employment.

**Bhakanje Tea Estate Pvt. Ltd. (BTE)** was established in 2019 with address Ward No. 5, Likhupikey Rural Municipality, Solukhumbu with PAN/VAT: 606773599 under Inland Revenue Office, Lahan. BTE is governed by an Executive Committee of 7 members and shareholders. By March 2024 there are 73 shareholders with a share capital 17.60.000 NRS, where dividend was given in 2024 for the first time. BTE is responsible for the running of Bhakanje Tea Factory (BTF) and for distributing the economic surplus among the farmers delivering the green leaves. Their accounting and marketing is supported by HIPRON.

**Bhakanje Tea Cooperative (BTC)** was established in 2014 with the name “Sagarmatha Organic Tea Producers & Filtration Co-operative Limited” with address in Bhakanje and PAN: 609022351. The purpose of BTC was to support the establishment of tea farming in Bhakanje by opening for share, saving and loans. It has now almost played out its role and most shareholders have converted their shares to BTE. Still BTC is receiving support for new tea saplings and machines, but is hampered by a inactive committee.

**Bhakanje Tea Factory (BTF)** was constructed in autumn 2019 in cooperation between BTE, HIPRON, HP-DK, Perchs Thehandel, Zen Capital, Human Practice Foundation and PONA-Foundation. BTF is owned by BTE shareholders and is governed by BTE Board. The factory is managed by Dorjee Tamang (Diploma in Agriculture/Plant Science) who is responsible for the quality of the produced tea, and two assistants, Bishnu Thami and Kailash Basnet, are responsible for the production.

BTF is with 2.350 m (7.710 feet) the highest altitude tea factory on Earth. It is a small but well-built and hygienic factory, with only electric machinery which by end of 2024 will be supplied with unlimited hydropower electricity from national grid. The production is mainly orthodox black tea, but also green tea is produced. The size of the factory will probably give restraint on the production not to exceed 5 tons of tea per year. By now the production is reaching 1 ton.

**Tea farmers of Bhakanje** include 58% Sherpa, 19% Chhetri, 9% Tamang, 8% Thami, and 6% Kami and consist now of 78 more or less active farmers. 20 farmers are delivering 90% of the green leaves. 135 farmers have received saplings. Many failed in growing due to the altitude, climate, soil, humidity and lack of care, but still, some are on the way in the with very slow growth due to the altitude and climate. The tea gardens of Bhakanje are among the highest altitude on Earth and some are really the highest up to 2.675 m (8.786 feet). Most gardens are concentrated around 2.300-2.450 m (7.500-8.050 feet). Lowest altitude is 2.040 m which is also the most productive farmer with 20% of the delivery. The age of the farmers is generally in the high end. Few are young and almost no very young pay attention towards tea farming, which is one of your deep concerns in this project.

The tea farming was initiated before the use of artificial chemicals came in common use, so we have succeeded to keep Bhakanje free of artificial fertilizer and pesticides. The tea bushes are basically healthy due to the altitude where less pests thrive.

All tea gardens are owned on private basis and under the responsibility of the owner, who employ day laborers for picking and maintaining. They are paid for the delivery of green leaves according to the quality of the tip and pekoe leaves. Only leaves picked shortly before delivery is received. Leaves are carried in clean baskets, mainly by walking. Few are delivered by motorbike protected against exhaust. No farmers are smoking.



**Tea leaves of Bhakanje** are unique due to the special situation. The slow growth due to the altitude and climate and the absence of pests gives less tannins and bitter substances and a gentle, nutty, and flowery aroma. The many small gardens mostly at the upper limit for growth of tea gives prolonged flushing periods which almost flow together.

As a specialty, the **Pakchung** variety, are very old bushes imported from Tibet as seeds many generations ago. Many farmers are taking saplings from those bushes and even seeds are grown, but they might be polluted by pollen from other varieties.

The tea leaves of Bhakanje are producing **Bhakanje Highland Tea** in various brands.

**Population of Bhakanje** include 50% Sherpa, 16% Chhetri, 14% Thami, 10% Tamang, 4% Magar, 2% Kami, 2% Newar, 1% Rai and 1% Brahman. The population was 1.321 in 258 households in 1997, but in recent census reduced to 1.188 in 226 households mainly due to lower birthrate. Today a further decrease is ongoing due to migration of youth to Kathmandu and abroad. Until now only few have returned. Even parents push their children to migrate in the hope of economic opportunities. In some cases, even children of tea farmers don't know that the family is growing tea. No youth are visiting the tea factory. No teachers at the school are informing about aspects of tea, even some of them are growing tea.

**Neighbors** in same rural municipality with few tea farmers in ward 1 (Goli) and 3 (Chhaulakharka). We have rejected receiving their tea leaves of two reasons: too long distance, so the tea will arrive late and being less fresh, and the fact that chemical fertilizer and pesticides are widely in use in those wards. We have invited them to contact us if they need advice on growth and production, which they are doing.

In Ramechhap District there are scattered tea farms. In Bamti Bhandar and Gumdel there are several quite old tea gardens, from which we imported the first saplings to Bhakanje. They also have a simpler factory. They have contacted us for support in marketing, which we for the time being are not able to do.

A little further away in Those and in Manthali of Ramechhap there are newly established active tea gardens. In Solududhkunda there is a growing interest inspired by our success. Further south in Solukhumbu there are scattered tea gardens. Nearest real tea area is Dhankuta (400 km) and further east Ilam (500 km) and southeast is Jhapa (425 km).

We are working on gathering a collaborative community and are already in contact with Gyan Bdr. Khatri with Bhandar Tea Garden, Lhakpa Sherpa with Those Tea Garden, Manthali Tea Garden and Yognath Gautam with Khiji Demba Tea Garden. And have received approaches from Sidhauli Tea Garden, Chaulakharka, Goli, Necha Salyan and Tingla. Our Tea Estate will be the natural focus point as we have created the most well-established factory and cooperation between individual farmers with a social commitment.

**Shree Chandra Jyoti Secondary School (Bhakanje School)** was established as a primary school up to class 5 in 1967 by the villagers themselves with some support from Sir Edmund Hillary. In 1980 it was upgraded to class 7 and 175 students were enrolled. In 2002 HP-Dk upgraded on own means to class 8; at that time only 113 students, due to establishing of primary schools in Sagardanda, Chhimbu, Chhiringkharka and Orale. In 2011 the school was upgraded to class 10 and 134 students enrolled. The 2015 earthquake ruined most of the school and HP-Dk was reconstructed with earthquake resistant buildings, so the school today stands as a very beautiful and functional compound. In 2019 before the corona-period the number was 125. After corona it came down to 111, but today in 2024 it is 152.

Before the corona lockdown the school was, with the support of HP-Dk, a model school for the whole area with perfect infrastructure and engaged teachers. But the lockdown has taken the

energy out of the school. Few decisions are taken, and they are not progressive, and HP is not involved or informed. This is not convenient taken in consideration, that the new school structure of Nepal takes class 10 out as a school leaving examination, so the school will have to downgrade to class 8 or upgrade to class 12.

In Himalayan Project we are now waiting for the decision of the school and the local authorities which option they will and can take. For the sake of Bhakanje and for the tea production, we wish to support the upgrade. A way to support that could be constructing the infrastructure for the upper levels, and to open for facilities which can support the learning about tea and agriculture. Even if the school is downgrading, we shall offer the learning about tea to the upper classes.

**Bhakanje Hostel** was established in 2019 by British NGO “Stay at School” giving accommodation for 48 students studying in Bhakanje School. Mostly students from the outskirts of Bhakanje who have hours to walk for school, but also some from more far away who seek the school due to its good reputation. Many students also stay there during the class 10 of Bhakanje School due to the extracurricular education they can receive at the hostel.

The hostel has been run by the NGO but is gradually taken over by Bhakanje School which has given some difficulties financially as the hostel fee can’t cover the expenses. If the school is upgrading, and if it can succeed in giving special tea education, and of course can sustain a high educational level, then more students from outside could be willing to pay a higher fee for staying there. Even there might be a chance that Stay at School could extend the capacity.

**Basic schools** in Bhakanje ward are five. Shree Mahadev Basic School in **Chhirringkharka** built in 1978 as a preprimary school and rebuild by HP-Dk up to class 5 with around 35 students. Shree Sagarmatha Basic School in **Sagardanda** from 1992 and rebuild after earthquake 2015 by HP-Dk and educating 45 students up to class 5. **Chhimbu** Basic School was built in 2000 by HP-Dk; in the beginning educating 50 students up to class 5, but today around 25. Shree Gaurishankar Preprimary School in **Orale** build in 2006 and refurnished in 2010 by HP-Dk. Still this school is functioning with 2 teachers and one student. Buddha **Kenja** Lower Secondary School is from 1964 but is referring to Chaulakharka High School. It has around 130 students.

**Shree Himganga Secondary School** in **Chaulakharka** is the only high school in the rural municipality educating up to class 12. The school was established in 1950 as a primary school and gradually upgraded. The number of students is varying from 350 and upwards. Once they were 600 students. The distance from Kenja is 1½-2 hours walk – from Bhakanje and Sagardanda 1-1½ hours more – and Chhirringkharka further 1 hour.

The school has recently introduced a line of agricultural education for class 9-12. BTDC shall offer facilities for training about tea for this educational level.

**Council for Technical Education and Vocational Training (CTEVT)** is establishing colleges and centers at district level giving practical education in various fields, and among these very few places about tea. They are providing **Short Term** curriculum, **Pre-Diploma** curriculum with 12 month theoretical plus 6 month practical (Technical School Leaving Certificate (TSLC)) and **Diploma** curriculum with 33 month theoretical and 3-month practical education.

**Sakhejung CTEVT College** in **Ilam** gave in 2023 the first specific tea pre-diploma training in Nepal for 40 students with 6 month theoretical and 18-month practical in tea gardens and factory. In 2024 we are providing scholarship for up to 10 SEE students from Likhupike RM who will be admitted at this training.

**Nechasalyan CTEVT Center** in **Nechasalyan Rural Municipality** in lower **Solukhumbu** is the process of establishing a CTEVT College which also is expected to include a similar training as in Sakhejung,

where BTDC and BTF can be the theoretical and practical center of the education. It is expected that the college will open after 2-3 years. We are in contact with the people involved in the process.

**Jana Jagriti Secondary School** in **Salleri, Dudhkunda Municipality** is giving **Pre-diploma** education together with class 11-12 and one of these special trainings is **Junior Technical Assistant of Agriculture (JTA)** with 6-month practical period in **Jhapa**, but not about tea. BTDC could alternatively provide a practical period specifically about tea.

**Likhupike Rural Municipality (RM)** is the local government with center in Chaulakharka, being part of **Solukhumbu District** with 7 rural municipalities and 1 Municipality (**Solududhkunda Municipality**). It consists of 5 Wards of which Bhakanje is Ward 5. In 2011 the total population was 5.534, and in 2021 decreased to 5.334, a decline on 3,6% in 10 years, where whole Nepal increased with 10%. The age group 0-14 years is 24% where it is 28% in Nepal.

The RM is headed by chairperson Mina Kumari Karki with whom we have a good cooperation, as well as with both agricultural and educational department. The project of BTDC needs to be collaborated and approved by this local authority, which also can provide subsidies for the purpose.

We shall offer training about tea to the schools of the RM, especially to the High School in Chaulakharka, as well as we shall offer cooperation to the Agricultural Department.

**National Agriculture Knowledge Center** in **Salleri** is a district level unit distributing subsidies for agricultural purposes and has been providing subsidy to BTC for distributing saplings. It does not support private companies, but we might be able to apply for support to BTDC.

**Ministry of Industry, Agriculture and Cooperatives** in **Koshi Province** is a province level unit supporting agricultural purposes also for companies. It has supported our import of machineries to BTF. Here we can apply for support to BTDC.

**Ministry of Agriculture and Livestock Development** in **Kathmandu** will be able to support the BTDC in different levels with the right approach and political connections.

**National Tea and Coffee Development Board** in **Kirtipur** is supporting in the marketing of tea and can be helpful in promoting Bhakanje Highland Tea.

**Nepal Tea Association (NTA)** is an organization directly connecting Nepali shopkeepers and producers, among which BTE is one.

**Himalayan Orthodox Tea Producers Association (HOTPA)** is an organization of tea producing factories with special focus on trade and mutual development. We are member of this organization and specially connected to Surya Sunuwar, Dewachen and Sonam Paljor Lama. In August 2024 they organized the first Tea Challenge between factories producing orthodox tea, where tea is evaluated as blind tests by professional tea-sommeliers.

**The Spirit of Tea Session** is a private enterprise by Sonam Paljor Lama giving training in buddhist meditation connecting to nature represented by tea. He wishes to organize interest groups to Bhakanje where we have Gompa, Factory and BTDC.

**Sanga Chholing Gompa** is the Buddhist shrine of Bhakanje. It is very old. Some records say 350 years from the first settlements of sherpas in Solu, but rather around 150 years ago. The learnings

of the gumpa relates to Guru Rinpoche (Padmasambhava). The gumpa was severely damaged in the earthquake in 2015 but is today rebuild and extremely impressively and beautiful decorated.

**Gelmu Kunsel Homestay** is for the time being the only comfortable guesthouse in Bhakanje, which can meet the expectations from the more demanding customers. The proprietors Ang Rinji Sherpa and Pasi Sherpa provide clean and comfortable rooms with common toilet. The food is delicious traditional sherpa and Nepali dishes.

There are other more simple accommodations in Bhakanje, which also provide local dishes.

**Nepal Tea Collective** is a tea trading business based in New York importing our tea with success. It is owned by Nishchal Banskota, Pratik Rijal and Amigo Khadka. They are offering 1% of their revenue for the development of BTDC. They are connected to **Shangrila Agro World Pvt. Ltd** with base in Kathmandu. They are doing huge efforts to promote Nepal Tea.

**High Mountain Tea** is a tea trading business owned by Prakash Tamang, based in Kathmandu with four shops, buying our tea and especially exporting to China. They are focusing on tea produced in high altitude in Nepal.

**Perch's Thehandel** is a tea trading business since 1751 and since 1835 based in København, Danmark originally supporting the establishing of BTF and now importing our tea with success, especially in the name of **Human Empowerment Tea**. It is owned by Christian Hincheldey and Stine Hincheldey Alwen. As a very special CSR contribution they are transferring their surplus on selling the Bhakanje Highland Tea back to Bhakanje in cooperation with HP and Human Practice Foundation with the purpose of promoting the tea in Bhakanje, and here the BTDC should be a logical target.

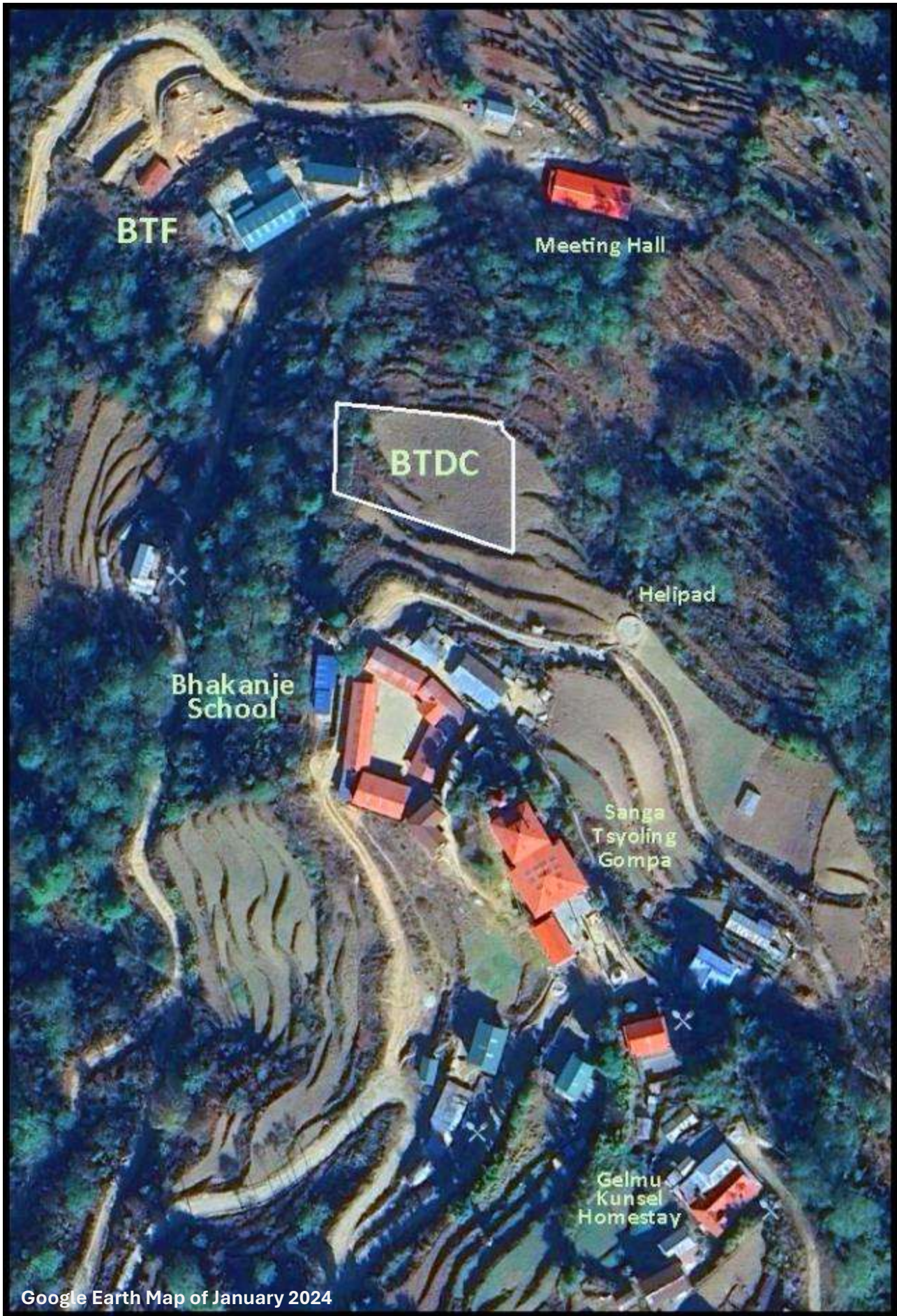
**Human Practice Foundation (HPF)** established 2014 as an INGO based in København, Danmark dealing with development work in Nepal and other countries. Founder and CEO is Pernille Kruse Madsen who have supported and cooperated with HP from the very beginning of HPF and the establishing of BTF. HPF will evaluate this BTDC project and give advice and adjustments for hopefully at the end to support the project by searching support in the extensive network.

## Possible beneficiaries

- Students of Bhakanje School
  - Class 4-6 basics about tea
  - Class 7-8 basics about the tea bush
  - Class 9-10<sup>(first semester)</sup> producing tea and scientific approach
  - Class 11-12<sup>(first semester)</sup> (if upgraded) agricultural science with focus on tea
- Students at basic schools in Bhakanje
  - School excursion to tea gardens, BTF and BTDC
- Students at Chaulakharka Secondary School
  - Class 11-12 in agricultural line weekly course at BTDF several times
  - Class 9-12 class wise on day excursion to BTF and BTDC
- Other schools of Likhupike RM, Ramechap and Dudhkunda on request
  - 1-3 days excursion to tea garden, BTF and BTDF
- JTA agri-students at any school
  - 3-6 days excursion to tea garden, BTF and BTDF
  - Longer training periods at BTDC
- Nechasalyan CTEVT Center
  - 3 month theoretical at BTDC (up to 40 students)
  - a period of practical in tea gardens and BTF (limited groups)
- Tea farmer of Bhakanje
  - Regular day courses
    - Agricultural science and handling of tea bushes
    - Organizational work, democracy, participation and rules
    - Accounting
- Tea farmers of Likhupike RM and any other place
  - 2-3-day course
    - How to organize individual farmers
    - How to build a tea factory – what is needed
    - Fundraising
    - Marketing
  - 3-5-day course
    - Agricultural science and handling of tea bushes
    - Organizational work, democracy, participation and rules
    - Accounting
- Nepali agriculturists
  - Achieve specific knowledge about tea
  - Wish to do experiments with bushes and production
- Nepali and foreign tea specialists
  - Gain knowledge about farmer owns Cooperative or Company
  - Learn about the Bhakanje Highland Tea
- Tourists from abroad and from Nepal
  - Learn about tea in general and in details
  - Become a tea lover if they are not already



The central part of Bhakanje Village





## Facilities available in Bhakanje for Tea Development

**Bhakanje Tea Factory** itself can in some cases invite students and visitors to enter to observe the daily production and even take active part of the work. But this can only be granted to special cases, where the participant has a profound understanding about hygiene and proper care. This because the factory is a production unit producing an alimentary product which shall meet a specified quality for export.

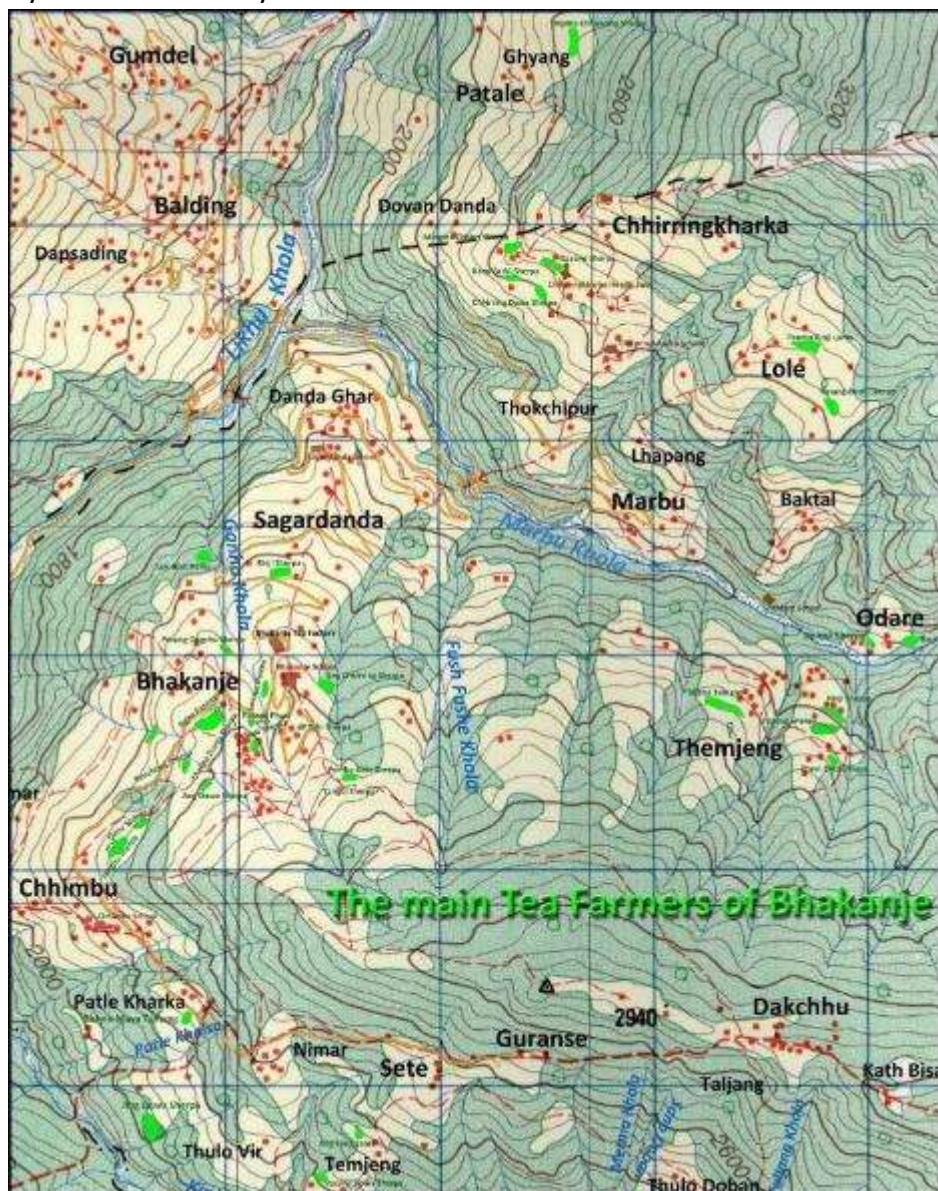
There will be build a fence around the factory area to secure that permission to enter the factory will only be given to identified visitors.

**Bhakanje Tea Factory Visitor Center** is a very fine room at the entrance of the factory, where visitors can taste the different teas produced at the factory or development center as well as they can have information and stories about the commercial production of the Bhakanje Highland Tea.

**Bhakanje Meeting Hall** is a hall only 100 meter away from the factory where easily up to 350 people can be seated. It is equipped with audio-visual accessories, and toilet facilities. Here seminars, conferences and mass meetings can be held for the local farmers or from other groups of beneficiaries.

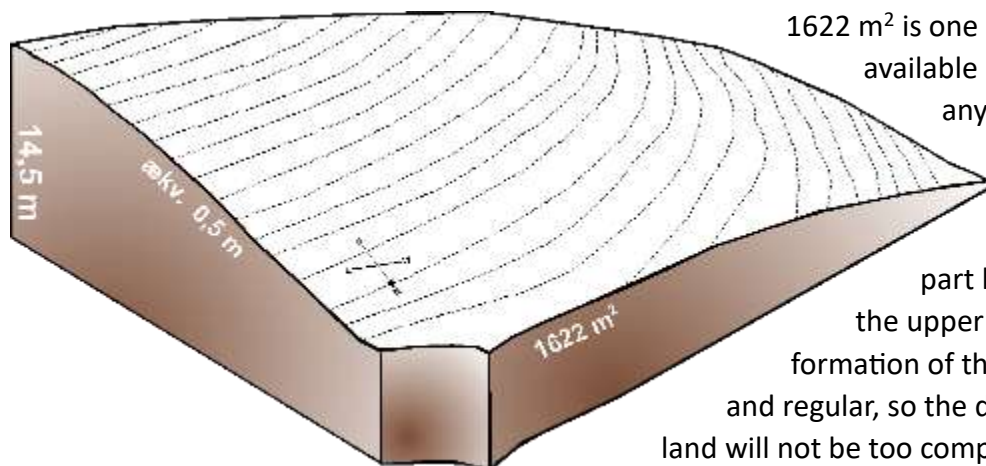
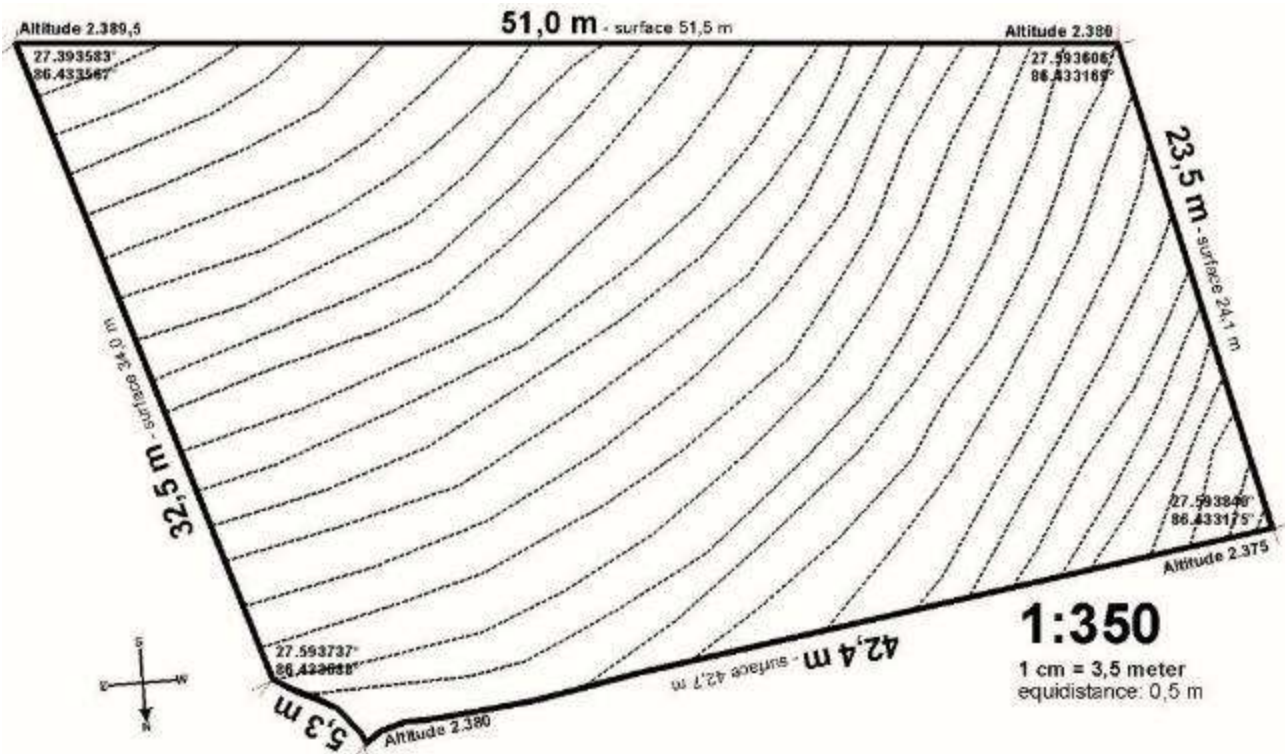
The Meeting Hall is owned by Shree Chandra Jyoti School so utilization of the facilities shall be cleared with the school.

**Local Tea Gardens** are private owned, and most farmers are very proud of what they have formed. Many will gladly show their garden and explain all the details involved in their progress. Some will even be ready to let students and visitors take part of the daily work in the garden. But this will of course be limited to regular activities without harming the garden, the bushes and the production.

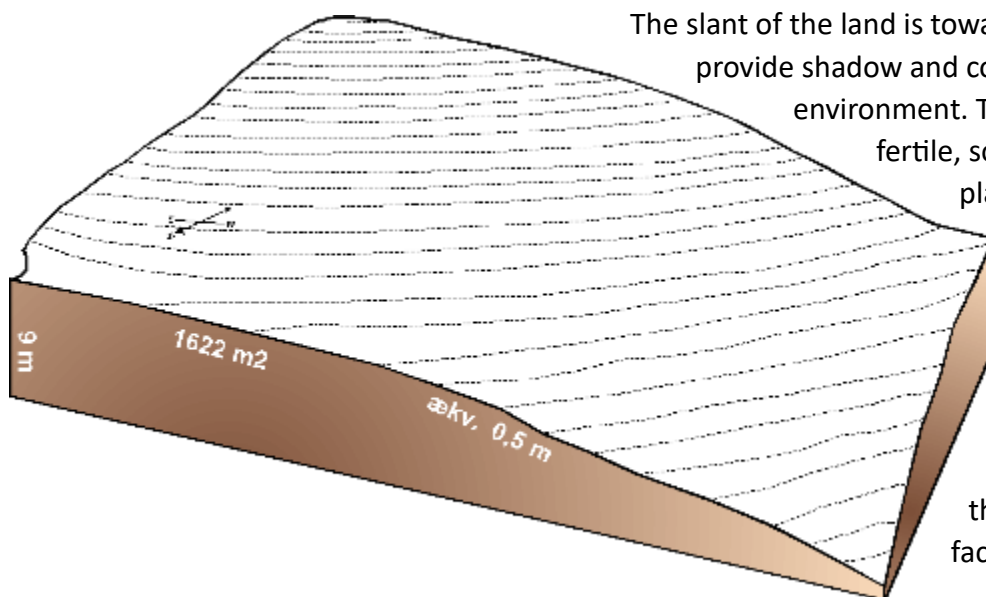




## The Land available for establishing BTDC



The BTDC land with area 3 ropani equal to 1622 m<sup>2</sup> is one of the most level lands available in Bhakanje but is anyhow a slope with an inclination from top to bottom on 14,5 meter, where the lower part has more slope than the upper part with 25%. The formation of the slope is quite even and regular, so the development of the land will not be too complicated.



The slant of the land is towards northwest will provide shadow and coolness for the environment. The soil is relatively fertile, so decoration with plants and tea bushes between buildings will be feasible.

There will be access to the plot directly from above or from the small trail between the school and the factory.

## Facilities to be established for Tea Development

**Laboratory Building** shall be focused on performing experiments, analysis, and documentation. There shall be a *Mini Factory* with all the machines and equipment involved in producing orthodox tea, but all in a small scale. Tables for sorting, withering trough with fan and heater, roller, hot pot, dehydrator, sealer, label writer, etc.

**Chemical Laboratory** where chemical analysis can be performed, like soil test, compost evaluation, extraction of natural pesticides, testing natural fertilizers, etc. established with solid and stable tables with cleanable surfaces, work cabinet with ventilation, and easy access to water and washing facility.

**Measuring Laboratory** with measuring instruments of all relevant kinds, like weights (micro and macro, balance and electronic), rulers, timers, thermometers, hygrometers, electricity multimeter, acidometer, weather station, etc. for all kinds of control of stages in production and of machinery as well as the local weather.

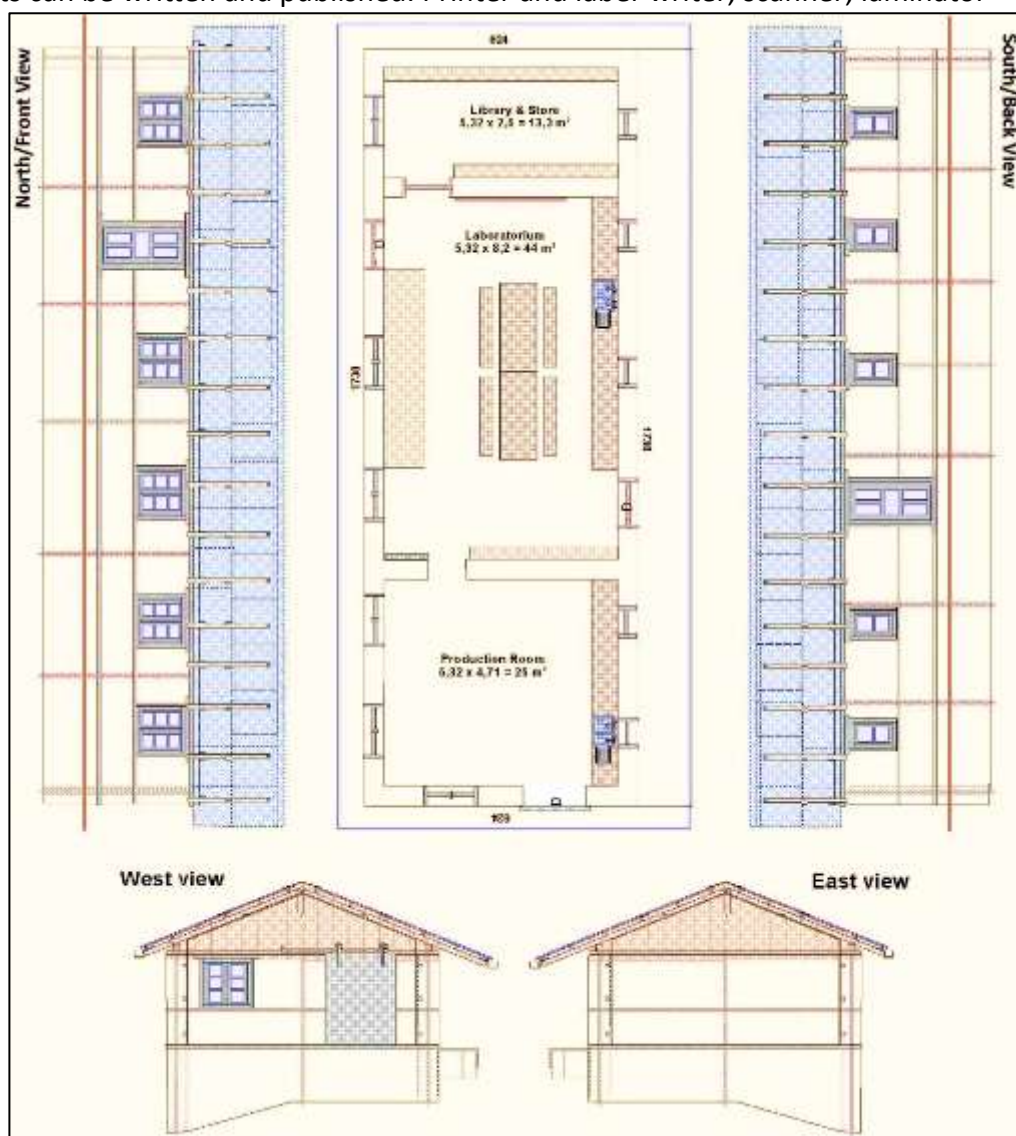
**Optical Laboratory** with mono- and bi-ocular microscope, digital microscope, slicer, light sources, digital camera, projector and screen.

**Computer Laboratory** where all data of above experiments can be entered and evaluated, as well as reports and results can be written and published. Printer and label-writer, scanner, laminator

etc. Access to same projector and screen as above.

**Library** with relevant literature about tea and agriculture both Nepali and international with special focus on reference books and encyclopedias. There shall be established internet access.

**Store** for instruments and chemicals which is not in regular use as well as educational specimens.



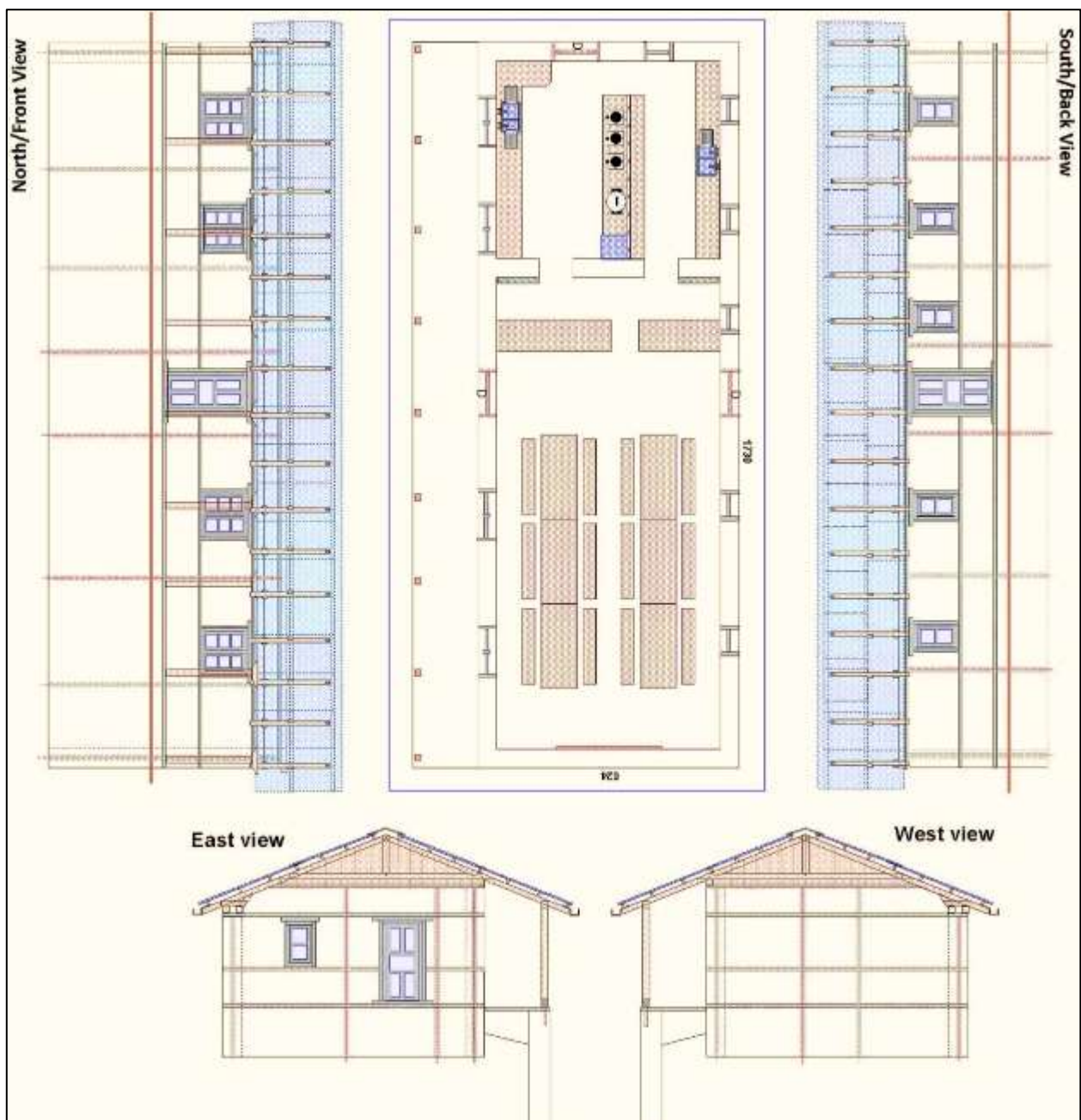
**Service building** shall contain kitchen and combined dining hall and lecture hall.

*Kitchen* for preparation of food for up to 50 people. Traditional Nepali dal bhat only demand an electric rice cooker and two electric cooking plates. And of course, electric water boiler for tea brewing. More equipment for a traditional local cuisine shall be implemented as well. A refrigerator and freezer shall be installed. Water and sink shall be available.

There shall be a semi-separation between the cooking kitchen, scullery and dishwashing area, which shall have water supply and sink.

In the dining hall close to the kitchen and scullery doors there shall be two desks from where the food can be served in buffet style, and close to the dishwashing door, the tableware can be handed in. They will also serve as separation between kitchen and public.

*Dining hall* with space for up to 50 people, who can pick up their food at a desk near kitchen and sit comfortably on benches at tables wide enough to give access to computer and paperwork as well. There shall also be audio-visual equipment installed at the end wall close to a speaker's corner, so the hall can serve as conference and lecture hall.





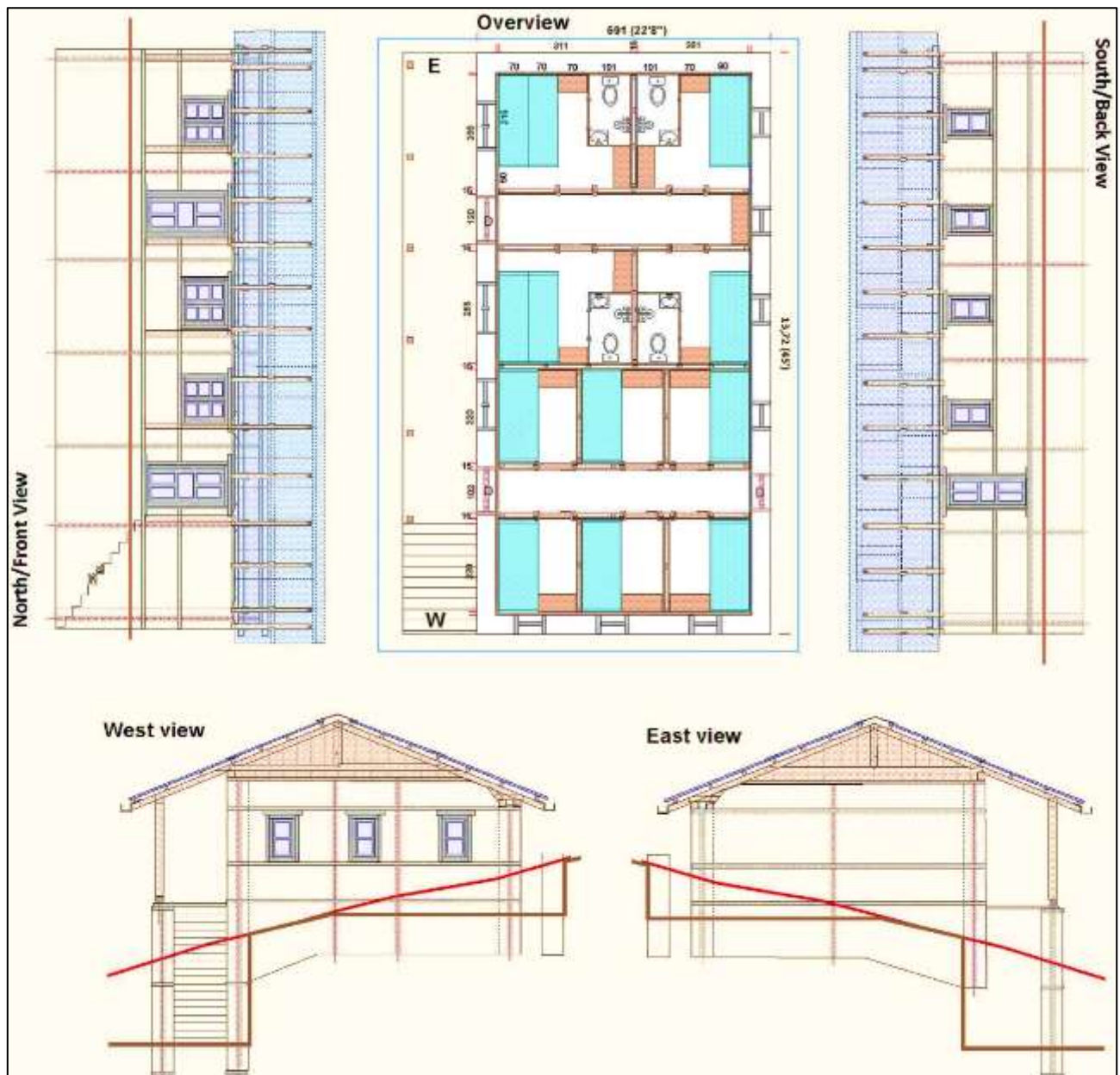
**Accommodation Building** with rooms for teachers, trainers and special guests who are invited for shorter periods. Four rooms with attached toilet-bath room. Two with double bed and two with single bed. Both with racks and cupboard.

Six rooms with single bed and access to shared adjacent toilet. With only beds and racks.

The rooms shall be temporary rooms, and they shall not invite visitors for long time stay. Those who wishes to stay for months, whole season or permanently shall be referred to other local facilities or renting of room in the village.

The building shall be situated on the upper part and kept high above the premises to give the dwellers a proper view towards the Numbur mountains when they stay in the veranda. From the veranda stairs will lead down to the Kitchen-Dining-Lecture Hall and the Toilet-Bath compound.

The stairs shall at the same time form a distance between the common areas and the more private rooms.

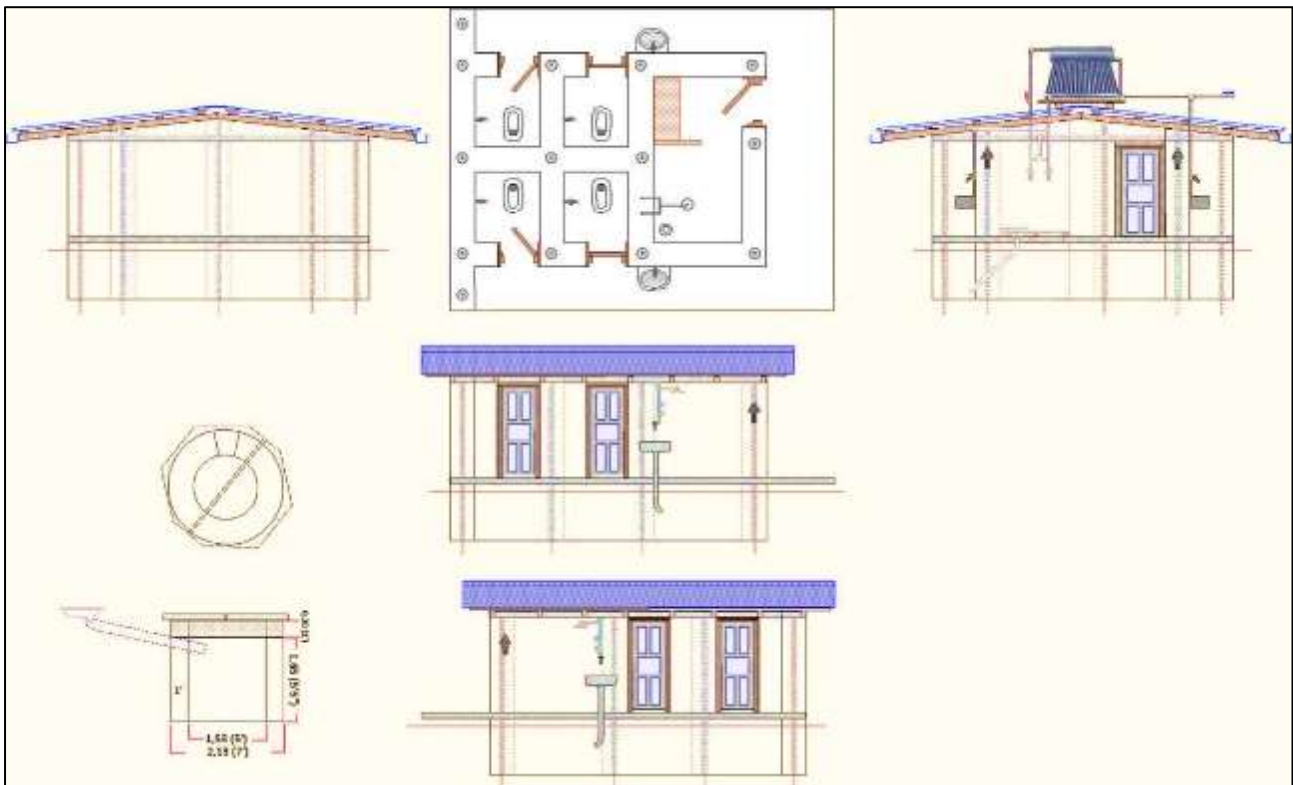




**Toilet and bathing facilities** shall be built near the Service Building; one side for girls and one for boys and one common bathroom. Toilet rooms with squat toilet and water tap. Outside the toilet rooms on both sides a sink with water taps for hand washing. Bathroom with cold shower and water taps. It can be considered to supply the bathrooms with solar heater, but this will demand a higher degree of protection and maintenance.

This toilet building shall serve the Service Building, with both kitchen staff and visitors, as well as the Laboratory Building. The Accommodation Building will have own facility to some extend but will need to share bathroom.

The flush shall be collected in septic tank for percolation into the soil by the liquids and degradation of the solids. It will be wise to build two septic tanks from the very beginning to let them function alternately to secure a proper decomposition.



**Water Tower** must be set up to secure stable water supply. A 2.500-liter water tank shall be placed 3-4 meter above Service Building. Probably another tank needs to be set up above Laboratory building to reduce the pressure, as there will be an altitude difference between upper and lower building on 5 to 6 meter.

**Electricity supply** shall be connected to the village transformer and not from the factory transformer to maintain at least initial independence from factory and BTE.

**Water drainage** of rain water shall be secured by well dimensioned gutters, downpipes, ground pipes, mangal and outlet.

**Dormitory buildings / Classroom Buildings** will not be built here in the initial stage. The upgrading of Bhakanje School will only be implemented after some years, probably several years. It can be evaluated after a while how far there is an interest from larger groups to attend the tea lectures and trainings.

It will be quite simple in the available space to construct two buildings which only contain a classroom and/or a dormitory. Two buildings of limited size with space for class 11 and 12 with up to 20 students in each, or dormitory for boys and for girls with up to 15 beds with cupboard. How far students themselves shall bring bed gear or it shall be provided shall be considered, as it will demand washing facilities if provided.

**Educational and experimental tea garden** can be established in the two terraces below the factory. They have mostly been empty but have been used for construction workers space, parking area and helicopter landing. It shall be considered how far the terraces shall be used solely for experimental garden, or how far there still shall be access for vehicles (work path) and even space for other purposes or buildings (work path & Upper South area).

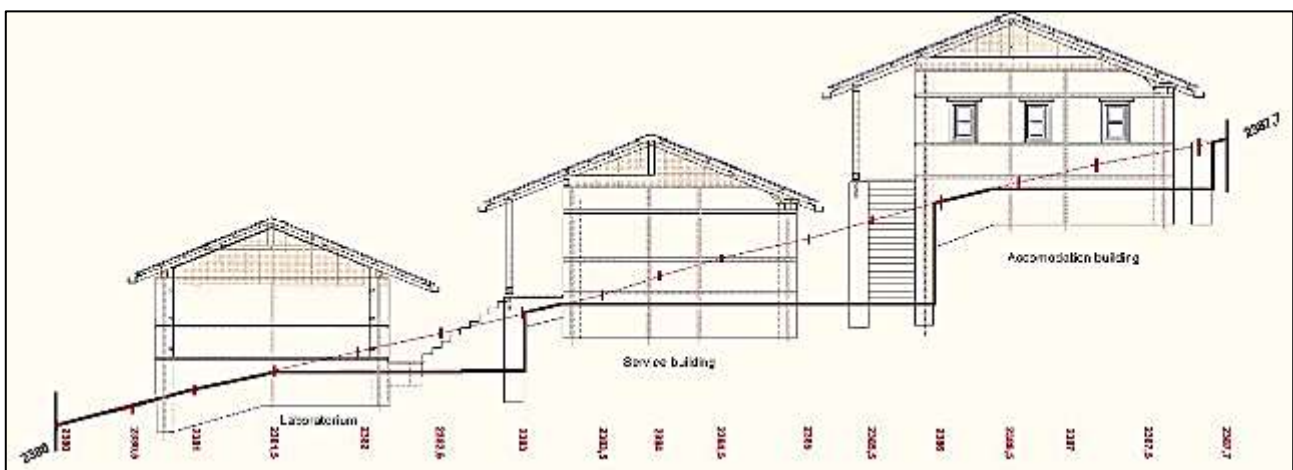
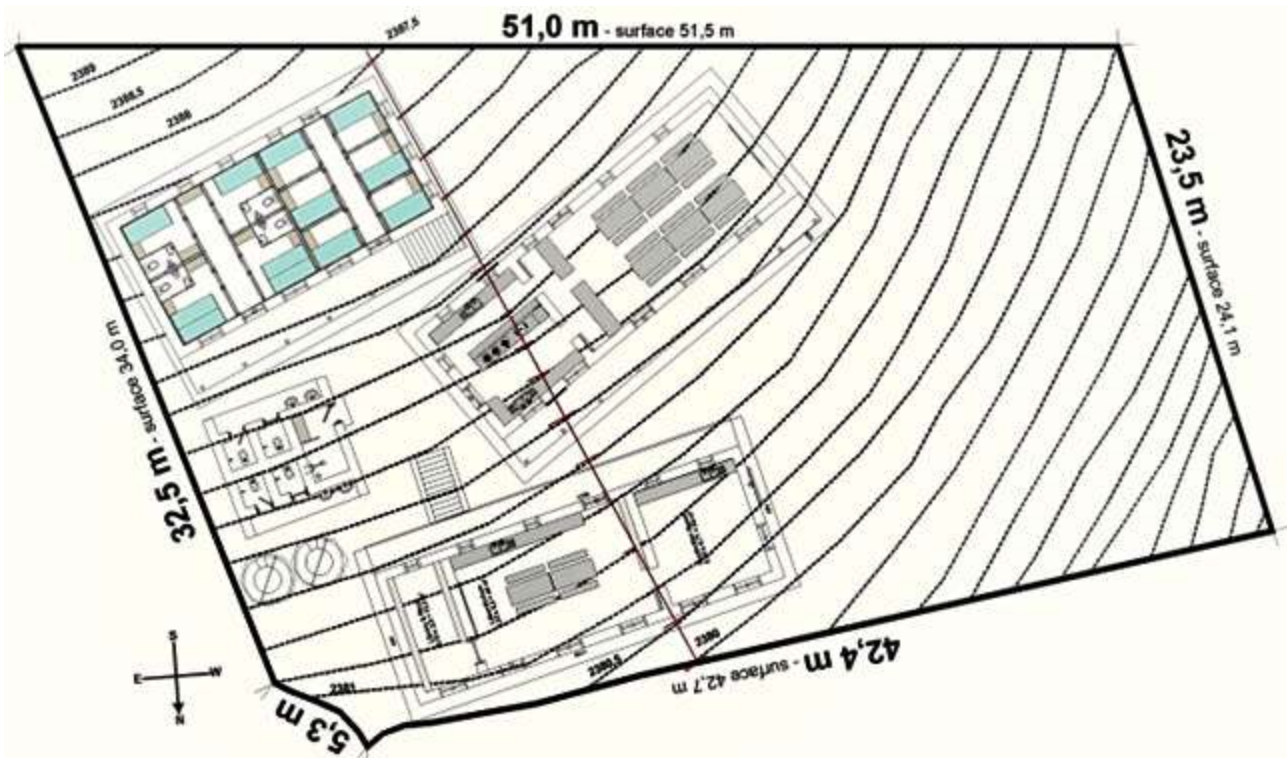
The soil is excavated and without topsoil, so it needs addition of compost and organic material and time to settle.

The plantation of tea bushes shall be systematic and well organized with all available different varieties and bushes from seeds as well as cuttings.

There shall be established a nursery, compost area, facility for preparing natural medicines, tool shed, and of course water facilities.

		SQ.M.	SQ.F.	Ropani	Aana	Paisa
UPPER	North area	560	6.025	1	1	2
	South area	260	2.800		8	1
	Work path	60	645		2	
	<b>Total</b>	<b>880</b>	<b>9.470</b>	<b>1</b>	<b>11</b>	<b>3</b>
LOWER	Free area	530	5.700	1		3
	Work path	105	1.130		3	1
	<b>Total</b>	<b>635</b>	<b>6.830</b>	<b>1</b>	<b>4</b>	
TOTAL	Free area	1.350	14.525	2	10	2
	Work path	165	1.775		5	1
	<b>Total</b>	<b>1.515</b>	<b>16.300</b>	<b>2</b>	<b>15</b>	<b>3</b>

## Positioning of the buildings



The site shall be dug out by excavator in three terraces. This shall be very precise and neither overdone or underdone. More guidelines shall be drawn like the one in the two sketches above and the scaling and setting of poles shall be done by myself and immediately after the excavator shall work under my supervision. Probably best option to do that work will be autumn 2025 so the work on constructions can proceed in the dry season. Digging in spring will result in sliding of soil and ruining the terraces during monsoon. The surplus of soil can be deposited in the lower northwest area.

For 25 years Himalayan Project has been working with construction projects in Bhakanje, and we have been dealing with the same constructors during all the years. We are therefore very confident that our main contractor can manage constructing quality buildings at a quite high speed.

## Ownership of Bhakanje Tea Development Center

According to Nepali rules it is very difficult, complicated and in some cases not possible to sell or transfer ownership of land from a public institution to another. It is also associated with difficulties to ensure the operation of an institution established on land that does not belong to it. In the future there will be four possible scenarios on the ownership.

**Himalayan Project Nepal (HIPRON)** is a non-profit non-government organization and can therefore not own land and institutions. But HIPRON can control and direct the operation of BTDC if the owner accepts. The initial solution therefore has been that Managing Director Janaki Khadka, as a trusted employee, has bought the land in her own name, financed by Himalayan Project Denmark. This initial phase will last some time and will include the establishment of the infrastructure, the initiation of operations and securing the first operating period.

At a time when the community and BTDC have developed to a satisfactory level, the owner Janaki Khadka will transfer her ownership to a new suitable owner, which could be one of below possible options.

**The independent self-governing institution Bhakanje Tea Development Center** could be one obvious option as it still could have a connection to HIPRON and HP-Dk receiving support from those both in economy and in direction. But the first obstacle will be finding the right person to manage BTDC and to have alternative options for replacement if the manager wishes to give leave or proves unsuitable. Locally no such persons are available for the time being, and it will certainly be an advantage for a leader of BTDC to be locally rooted, as he or she must enjoy local trust and feel at home in the local community. Of course, a person from outside could be found suitable, but could easily be isolated and paralyzed by action.

The basic finances must be supplied by HIPRON and HP-Dk over a longer period and presumably for a several years, until the independent institution can achieve recognition which will mean that one or more new stakeholders can enter and take over or supply. It could be a government institution or an association of tea farmers. It could be BTE as well as Bhakanje School, and even both of them.

Anyhow HIPRON must observe keeping the good connections to all the above-mentioned stakeholders locally as well as national and even international, to ensure a progressive and developing operation

**BTDC under Bhakanje Tea Estate** could become a natural development for BTE and for BTF to secure the production, quality and export of the tea. But there are for the time being none among the farmers who are strong enough even to lead the local organization. They depend on and give the tasks on for BTF Manager Dorjee Tamang, who in this respect is developing his capacities and could become a future leader. Also, the measures that we in HIPRON and HP-Dk are taking to increase the level of education and training around tea will be able to develop new capacities, but this will have longer prospects. A strong manager of BTF could be the good guide for a principal of BTDC and anyhow it could be a massive strength for the development of a new tea producing zone of Nepal in Solukhumbu-Ramechhap. If we could make central development agencies realizing that this could be a massive development locally as well as nationally.

As long as Perch's Tea Trade is returning their CSR to BTE, and also other importers are doing the same, then some part of that return could be served for BTDC. The unique highland tea of Bhakanje is securing a very high price of the tea. If this price can prevail even with increased production, then a percentage of profit could be reserved for BTDC without disadvantages for the

farmers. Again, this will take years to develop and secure. An obstacle would be, making the local farmers understand that this can be an investment in the future of the tea business.

**Bhakanje Agricultural High School** could be a possibility. There is a risk that Shree Chandra Jyoti Lower Secondary School will be downgraded to a class 8 school, which really would be a downgrading of the whole Bhakanje, leaving the students from a very young age to walk very far or to leave their home for further education. Therefore, the school must do extraordinary efforts to prove its value and necessity. But this is not inside the capacity of the school for the time being. Neither the villagers, parents committee, school committee, teachers, school or ward leadership are paying special interest on that development. As the birth rate is decreasing and migration increasing the number of local students can be expected to go down. One way of making it increase is to secure a higher quality of education, which can attract students from a wider range, and especially a supplementation with agricultural education with special emphasis on tea production really could create a focus on the school. The presence of the Bhakanje Hostel is a big factor in attracting financially stronger students from outside.

If the BTDC cannot sustain in its own quality, then the building could be involved in the High School with the dormitory as two classrooms, the laboratory for science education, and the service building for teachers' quarter and dining for the upper classes and for teachers who deserve it. But there will be a risk that Bhakanje School will never reach the capacity of being able to convince the local and central authorities about the necessity of the local upgrade.

## Sustainability

Bhakanje ward is a remote place, last inhabited place before the Himal, and in many respects a less developed farm and rural area, where illiteracy and lack of knowledge are still prevalent. The school in Bhakanje village is functioning quite well for students who continue there from the basic schools, but most students continue their further education after class 10 out of the ward and only a minority return. The tea business is giving a higher level of understanding to the people involved, but only less youth pay interest. With decreasing family size and youth migrating, the economy of the aging population is increasing, leading to decreasing agricultural involvement. There are few employment opportunities and few alternative production units. So, all in all Bhakanje can be assessed as a weak society, with employment in tea as the major strength.

Therefore, the sustainability of Bhakanje is linked very much up to the tea business and to the upgrading of the central school. But for the time being not even one local person can be pointed out to have the strength and ability to take responsibility for the operation of BTDC.

Nepal Tea has been experiencing a stable but slow increase in production, quality and economy, which in the recent years has seen at more rapid growth. The BTDC can give confidence to farmers in Solukhumbu and Ramechhap to invest in tea production, as it shows a huge potential due to the high-altitude situation, which gives tea grown in the area especially attractive properties. A knowledge center in Bhakanje will secure a safer investment of the farmers.