

Deliverable 7

A TEEBAgriFood policy mainstreaming strategy for Uttarakhand and Uttar Pradesh

The consultant reviewed the policies of the state government of Uttar Pradesh and Uttarakhand for this deliverable. It is important to note that the medium of official communication in these states is mostly Hindi. While for some of these policies, an English version could be found, for several of these policies only Hindi version was available on the Government website. In such cases, Hindi version of the document was reviewed. Only those policies were reviewed which were available at relevant government websites of different ministries of the state government. In one or two cases, the policies were shared by the concerned nodal officer of the state.

The document identifies some key features of relevant policies for mainstreaming the work of TEEB AgriFood project for the state of Uttar Pradesh and Uttarakhand. The relevance of the policies from the pool of various policies was identified based on their connection to the scope of work of the TEEB AgriFood project implementation in India. The scope of work of the project is organic farming and agroforestry in the Ganga Basin region of the two states. Thus, any policy that had implications for this Ganga basin region was identified and its key aspects summarized such as the vision, objective and method of implementation. In particular, attention was given, to what these policies mention about the shortlisted districts from each of these two states. The shortlisted districts for TEEB AgriFood project in Uttarakhand are Tehri Garwal, Nainital and Udham Singh Nagar (also Almora). The shortlisted districts for Uttar Pradesh are Bulandshahr, Aligarh, Mirzapur, Kannauj and Bundelkhand (Jhansi).

This document begins with table of contents of all policies at the state level in the two states, relevant for the TEEB AgriFood Project implementation. It then gives the details of each policy and points important from the point of mainstreaming for each policy. In the end, key events from the two states are mentioned, which could be useful platforms for dissemination of information about the TEEB project. The Annex to this document gives a table where links are provided to each website along with the key medium of communication of the policy, i.e. Hindi or English.

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UTTAR PRADESH AND UTTARAKHAND

1. Integrated Action plan On Organic Farming under Namami Gange Flagship Scheme- 2021

Namami Gange is a flagship programme for rejuvenation of River Ganga. Under this plan, an Integrated Action Plan with outlay of Rs 42,837 Lakh (Rs. 4283 million Rs) for five years (from 2020-21 to 2024-25) .The plan has shortlisted 27 districts in Ganga Basin for implementation. The action plan involves creation of organic clusters in these districts, it involves adoption of sustainable agriculture practices based on an organic cluster approach, in the 5 km stretch on both sides of River Ganga. The proposed action plan was approved in June, 2020. The action plan is for five years commencing from 2020-21 to 2024-25.

In the first phase of this plan, total 1020 organic clusters (20400-hectare area) have been formed in 19 districts in the Uttar Pradesh State. A total of 700 organic clusters are being run by UPDASP (Uttar Pradesh Diversified Agriculture Support Project) as an implementing agency in 11 districts and 320 clusters are being run by Department of Agriculture, Uttar Pradesh in 8 districts.

The plan envisages incomes to the farmers through assured marketing, the concept of branding with "Ganga Products" is also visualized.

The key objectives of the plan are:

- To give legal entity to the groups, all the formers of the running and proposed clusters in the Ganga Basin and organize them in to Farmer Producer Organization in the initial stage of the implementation of the project.
- Assured to the farmers through the formation FPOs. The task of ensuring bio-inputs to the cluster, post-harvest management, value addition and marketing will be performed by the FPO at local level.
- In the formation of organic cluster, strategy for crop rotation and package of practices will be chalked out and same will be disseminated to the farmers timely. Copping pattern will be adopted as per the demands from the market and agroecological conditions in the Ganga Basin.
- A group of progressive and eminent farmers practicing organic farming in the state will be formed with aim to get inputs from them in the policy matters and utilize their experience for the benefits of the other farmers through training and exposure visit.
- On-farm development activities such as bunding and bio-fencing in the cluster will be promoted.
- At least fifty percent of targeted fruit bearing and agro forestry trees and Ganga nurseries will be earmarked for farmers of the organic clusters in the Ganga Basin.

- Department of Animal Husbandry will ensure provision of gender sorted semen of indigenous cows to the farmers of organic clusters.

Inter-ministerial method of implementation

1. Department of Agriculture has submitted an action Plan of 1,122 clusters (22,440 Ha Area)¹.
2. Department of Forest, Uttar Pradesh has proposed development of 76 ganga nurseries and plantation of 5569200 forestry plant² under Sub Mission on Agro Forestry Scheme in the proposed and running Organic clusters.
3. Forest department has proposed 36 ganga nurseries and plantation of 54000 bamboo trees³.
4. Department of Horticulture and Food Processing, Uttar Pradesh has proposed development of 78 ganga nurseries and plantation of fruit bearing trees in 12000 Ha Area in the Ganga Basin⁴ under Horticulture Development Scheme in the Ganga Basin.
5. Under Micro Irrigation scheme of PMKSY (Pradhan Mantri Krishi Sinchayee Yojana), a central scheme of Government of India, sprinkler and drip in 52,339 Ha Area of the Ganga Basin has been proposed.

Mainstreaming Strategy

- ⇒ The plan is extremely relevant for the implementation of the TEEB AgriFood project. The nodal officer incharge of TEEB AgriFood project in Uttar Pradesh shared details about this scheme. It will be good to communicate the deliverables and commination strategy of the project to the nodal officer and ensure his cooperation in using the results from the project for better implementation of the plan.
- ⇒ As shown in the Table below, several organic clusters have been identifies all across the Ganga basin. It can be seen from the plan that the three shortlisted districts for Uttar Pradesh also have organic clusters allocated under the scheme. *IIFSR-ICAR, the implementing agency should take note of these organic clusters for the analysis.*

¹ An outlay of Rs 11,444.4 lakh for three years commencing from 2020-21 to 2022-23

² An outlay of Rs 3878 32 lakh

³ An outlay of Rs 1122.0 lakh

⁴ An outlay of Rs 14430.0 lakh

Table 1: Details of Organic Clusters , Department of Agriculture, Uttar Pradesh

S.No.	Name of District	No of Clusters (20ha/ clusters)	Area (in Ha)
1	Kannauj	50	1000
2	Aligarh	20	400
3	Mirzapur	75	1500

2. Horticulture Program Under Namami Gange Project- 2021

The policy targets the horticulture sector of Uttar Pradesh. It promotes horticulture for integrated development of the region. Given the climate of Uttar Pradesh, fruits such as guava, mango, gooseberry, citrus fruit, plum, and pomegranate can be grown in the state. The scheme promotes the development of new fruit orchards on the basis of local suitability and adaptability, to increase in the income of the farmers. Cultivation of fruits for better for nutritional security and agroecological balance. As a part of the plan, the government aims to do the following:

1. Establish "Ganga Nurseries"
2. Plantation of gardens using latest technology for selected fruits.
3. Plantation of new orchards along with the cultivation of vegetables, spices and flowers in with intercropping.
4. Fencing by barbed wire for the purpose of planting new gardens.
5. For ensuring the survival of plants in planted orchards, grants to the beneficiary farmer.

Under this plan the target of new garden planting and nursery establishment in the financial year 2020-21 is as follows(only the districts relevant fro TEEB AgriFood project have been listed below)

Table : Target of new garden planting and nursery establishment

S.No.	Board/ Division	District	Block	Revenue village	New Park plantation	Nursery establishme nt
1	Meerut	Bulandshar	4	39	150	1
2	Aligarh	Aligarh	1	8	25	-
3	Kanpur	Kannauj	4	19	150	1
4	Mirzapur	Mirzapur	7	108	100	1

Mainstreaming Strategy

- ⇒ The scheme is very relevant for the agroforestry work of the project under TEEB India project. To the extent possible, the officials involved in implementing this horticulture policy should be kept in loop of the TEEB project progress and results.
- ⇒ 4 out of 6 districts selected for TEEB Project are in the shortlisted districts for new agroforestry nurseries, communication strategies should be made available in local language at the village level for encouraging good practises.

UTTAR PRADESH

3. Uttar Pradesh Agriculture Policy (Draft)- 2013

The Uttar Pradesh State Agriculture Policy was formulated to address the low growth rate of the agriculture sector for the state. The low growth rate could be attribute to several reasons, increase in population, indiscriminate use of natural resources, unplanned urbanization and industrialization and excessive use of agricultural chemicals which also lead to significant increase in air, water, soil and noise pollution in the state. This policy was therefore formulated in 2013 to address the 3- 4 % growth rate of the agriculture sector and with the expectation that the policy push given through this new policy could raise the growth rate to 5.1%.

The policy although mentioned on the website, is still in draft stage. The policy is to implemented in the following ways which can serve as useful entry points for the TEEB AgiFood project discussion with the state governemnt:

- An area-based strategy for harnessing the full development potential of each region, taking into account agroeconomic, agroecological environment and socio-economic conditions.
- Quality agricultural inputs such as seeds, fertilizers and other agricultural chemicals, agricultural machinery and to make available agricultural loans, planting materials etc. at reasonable rates.
- Dissemination of low-cost area specific technical and indigenous knowledge.
- Development of allied agriculture activities, such as animal husbandry, dairy development, poultry farming, fisheries, animal husbandry, horticulture, aquaculture, development of sericulture and mushroom cultivation will be the main pillars of agricultural diversification.
- High priority to regionalization of agricultural research on the basis of 20 newly identified agroecological areas.
- New sciences like biotechnology, genetic engineering and energy saving techniques, remote sensing techniques, crop management Use of technology and technology related to environmental protection will be promoted.

- Special emphasis will be laid on the establishment of food processing units and development of marketing facilities, especially in order to increase the prospects of perishable agricultural products and employment in rural areas.
- The State Government will endeavour to improve the functioning of cooperatives by providing live support to the autonomy and executive independence of the industries.
- Private investment in agriculture will be encouraged and to effectively and efficiently connect the farmers to the agricultural supply chain of the market, public-private partnership method will be adopted.

As performance indicators measure, the policy mentions that the progress and receipts of the policy will be reviewed at regular intervals based on the following key achievement indicators:

- Increase in agricultural production and productivity on a sustainable basis.
- Increase in qualitative productivity.
- Sustainable status or improvement of natural resources Reduction in the level of micronutrient deficiencies in the soil
- Increase in gross and net irrigated area.
- Increase in cropping intensity.
- Establishment of new agricultural industries and marketing centres in rural areas.
- Increase in per capita and family income.

It will be useful to incorporate these performance indicators into the TEEN project to make the results more understandable to the state government.

Mainstreaming Strategy

- ⇒ Connect with the nodal officers in Department of Agriculture of Uttar Pradesh who can identify the stage at which this draft policy is at present.
- ⇒ Area based strategy of this policy can benefit from the results of the TEEB study in 5 districts.
- ⇒ Low cost agriculture and low input advantages of organic farming scenarios can be shared.
- ⇒ Include the key performance indicators of the policy into the TEEB Project outputs.

4. Uttar Pradesh Agriexport Policy (Draft) -2019

This policy was drafted to facilitate stable agriculture export policy regime and enable farmers to fetch better prices for their produce. The share of Uttar Pradesh in National

Agricultural exports was 7.35% (2018-19). In terms of quantity exported, in 2018-19 Uttar Pradesh major produce are buffalo meat (50.34%), wheat (37.88%), natural honey (26.59%), fresh mangoes (4.12%), other fresh fruits(15.84%), dairy products (13.31 %), non- basmati rice (4.02 %), basmati rice (3.21%), floriculture (0.57%), processed fruits (0.51%)

At the central government level, the Ministry of Commerce and Industry, Government of India had formulated a National. Agriculture Export Policy in the year 2018 with a vision to double agricultural exports by 2022., to align with the national vision, Uttar Pradesh Agriculture export policy was formulated.

Under this policy, land of minimum 50 hectares for export clusters should be in continuity and it is necessary to be approved by the Cluster Facilitation Cell set up under the chairmanship of the District Collector. This policy will control the incentives already being given under various state policies including those listed below:

- Industrial Investment and Employment Promotion Policy of Uttar Pradesh 2017
- Uttar Pradesh Warehousing and Logistics Policy 2018
- Uttar Pradesh Food Processing Industry Policy 2017

The objectives of the policy are as follows:

- To double agricultural exports of Uttar Pradesh by 2024.
- To facilitate export of environmentally sustainable agricultural produce and also a shift from export of unprocessed agricultural produce to value added products.
- To identify and promote potential agricultural crops and products for export which are indigenous, organic and which can compete in the international markets.
- To create institutional mechanism for accessing international market and overcoming obstacles related to its management.
- To develop framework for reaching out to farmers with information related to exportable agricultural products and global opportunities.
- To look at synergistic opportunities among key departments in the State for expanding exports in agriculture sector.
- To enhance the income of farmers by expanding the market thereby ensuring better remunerative price.

Mainstreaming Strategy

- ⇒ There is a clear emphasis on promoting environmentally sustainable products, organic products as agri exports under this policy which can be exploited as an entry point of TEEB project in Uttar Pradesh.

- ⇒ Connection should be established with State level Agriculture Exports Facility Centre, as mentioned in the method of implementation above. By including officials from this centre in the dissemination process, their involvement can be ensured.
- ⇒ Certification of organic products to ensure their standard are met for exports should also be explored during the TEEB implementation process or in collaboration with Capital Coalition.
- ⇒ This policy is implemented by several departments, Agriculture Department, Agriculture Marketing & Agriculture Foreign Trade which also includes Rajya Krishi Utpadan Mandi Parishad (translated as Food Producer Organization), Animal Husbandry, Food and Drug Administration, Fisheries, Horticulture & Food Processing Department, Sugar Industry & Cane Development . These departments should be involved in dissemination of results from the study.
- ⇒ A State Level Export Monitoring Committee was suggested to be formed to review the status of agriculture export at state level and for export promotion measure under the policy. The progress in this respect can be found out from the state nodal official and results of the TEEB project can be informed to the committee. The policy also mentions creation of a State level Agricultural Export Facilitation Centre/ Agriculture Export Promotion Cell at the Directorate of Agriculture Marketing and Agriculture Foreign Trade, U.P., Lucknow, which will avail the services of the experts as and when required. It will act as central contact point for stakeholders to get information and assistance on various schemes and products. Members from this cell could be involved.
- ⇒ Th policy mentions developing promoting Good Agricultural practises, a handbook for trainers or a manual or communication material from TEEB should be made available for this purpose.
- ⇒ Encouraging research and development, as well as capacity building in collaboration with national and state level institutions is an integral component of the policy. The implementing partner can leverage this for connections in the state government.
- ⇒ Under the policy, several clusters have been identified for promotion of specific crops and vegetable. From the perspective of the shortlisted districts fro TEEB, the following is relevant:

Table 3: List of Identified Clusters in Uttar Pradesh

Product	District
Fresh fruits, vegetables, cereals, oilseeds	
Potato	Kannauj, Aligarh
Fresh vegetables (green pea, chilly, okra, bottle gourd,	Mirzapur, Aligarh, Jalaun, Bulandshar

pointed gourd, tomato etc.)	
Basmati Rice	Aligarh
Til (sesame)	Jalaun
Animal/ Dairy and their Products	
Fresh Milk, Paneer, Ghee, Meat etc.	Aligarh

5. Uttar Pradesh Food Processing Industry Policy - 2017

The main objective of the Uttar Pradesh Food Processing Industry Policy 2017 is to ensure fair and remunerative price for food products, to promote setting up of food processing industries, and to facilitate easy availability of processed food products to consumers at competitive prices. The policy also guides on generation of new employment opportunities to build capacities and increase the skill level of the manpower in this sector.

Mainstreaming strategy:

- ⇒ The policy is closely aligned with the Industrial Investment & Employment Promotion Policy-2017. It also states that efforts will be made to generate opportunities of employment under the food processing sector in the state by enhancing technical competency skill of unemployed persons, promoting capital investment and setting up of units. The food processing training programmes will be linked to the livelihood mission and the skill development programme. This will be important for TEEB for synergistic implementation and to promote the findings from the livelihood part of the TEEB project.
- ⇒ The policy mentions that food processing parks and food processing zones will be identified on the basis of availability and suitability of the local primary raw products for setting up food processing industries in various districts of the state. Food processing parks are to be facilities for packaging, export and research. Emphasis will be given on establishing infrastructural facilities like Mega Food Parks and cool chain in suitable areas of the state. The relevance of these areas for selected six districts of TEEB Uttar Pradesh can be explored
- ⇒ Seminars/Symposiums/buyer-seller conferences etc are to be organised at the state/division/district/block levels with a view to disseminate information about schemes/ facilities/ concessions and new technology related to the sector for entrepreneurs/horticulturists/youths. TEEB results can be mainstreamed through these channels.

⇒ Under the policy, for the purpose of standardization of products as per internationally accepted quality norms, environmental certification and accreditation such as ISO:14001, ISO:2200, HACCP, Phytosanitary certification etc., the state government will provide 50 percent as fee reimbursement subject to a maximum of Rs. 1.50 lakh. This is relevant from the view of certification of organic products.

UTTARAKHAND

6. Uttarakhand Agriculture Policy (Draft)- 2018

The policy was proposed by the State Government, with the goal of strengthening agricultural research, education and extension, as well as to ensure timely and adequate availability of basic inputs like quality seeds, fertilizers and chemicals. Steps were taken. The policy aims to motivate trends and actions not only to meet their consumption needs of the state but also to increase investment capacity in agriculture related activities, which has the potential to improve farmers income. The following are the key objectives of the policy:

- Double farmers income by the year 2022 under the central government scheme Sankalp Se Siddhi.
- Promote sustainable agriculture in the state.
- Encourage value addition and safe storage of traditional crops, fruits, vegetables, cereals, oilseeds and pulses.
- Proper management of fallow/barren land.
- Facilitate arrangements for marketing of coarse cereals and nutritious cereals by promoting production, processing and consumption.
- Link agriculture and horticulture department especially tea plantation, aromatic plants with eco-tourism.
- Promote of Precision Agriculture and Protective Agriculture.
- Promote of herb cultivation, mushroom production and animal husbandry.
- Ensure proper and easy marketing system for the products of agriculture and line departments.
- Link rural Haat/Collection Centers with e-NAM.
- Declare Minimum Assured Price for local crops.
- Increase the irrigation area through water conservation, moisture conservation, sprinkler and drip irrigation.

ⁱMainstreaming strategy

- ⇒ The policy specially mentions organic products and the role of Uttarakhand Council for Organic Products which was established in the year 2003. Its responsibilities include coordination between various agencies, capacity development planning, providing facilities for work and marketing on the basis of internal control system for organic certification, as well as designated as Regional Council for Participatory Security System (PGS). This organization should be involved in the dissemination process. For certification, Uttarakhand Biological Certification Agency was established in the year 2005.
- ⇒ Under the plan integrated farming system is promoted in which the line departments related to agriculture and agriculture will work in coordination with each other. This is relevant for TEEB result dissemination.
- ⇒ A soil health card is given to every farmer family, in which consolidated information regarding the soil of their fields along with technical advice is recorded. Results from the demonstration site analysis done by GB Pant University can be included for creating awareness about benefits of using organic.
- ⇒ Under policy, one of the target is to soil organic matter is to be increased by adding crop residues to the soil. Here again, results from demonstration plots will be useful.
- ⇒ Distribution of fertilizers is to be done under Direct Benefit Transfer (DBT) scheme through the POS machine. Links should be made with this department to convey the benefits of biocompost viz chemical fertilizers.
- ⇒ Under the implementation plan, according to the geographical location of the state, latest varieties and intensive methods of different crops will be developed by agricultural universities and research institutes. The agroforestry results from TEEB study will be beneficial for this.
- ⇒ The policy lays special importance as a priority are to the use of environmentally safe and effective insecticides as well as irrigation and water harvesting. It mentions that in water scarce areas, emphasis will be given on the methodology useful for the cultivation of high value and low water demanding crops/species such as pulses and oilseeds. The ecosystem benefits from the UP analysis will be useful for this.
- ⇒ Cultivation of traditional crops grown in mountainous areas like Manduva, Sanwa, Ramdana, Gath Ugal / Phafar etc. are to be encouraged in this policy through proper management of production, marketing, processing and value addition. These crops could be explored in some scenarios.
- ⇒ Under the plan, Herbal bio-valleys in the Himalayan region are to be encouraged for the conservation and sustainable use of medicinal and aromatic plants by providing free training and technical convergence with crop selected with TEEB product can be explored.

7. Uttaranchal Plantation Policy- 2005

The forests under the state come under the purview of the National Forest Policy 1988 which is applicable in all the states including Uttaranchal. However, Uttarakhand is unique in that the state has significant diversity due to areas ranging from plains to snow-capped peaks. To address the special needs of the state, the State Forest Policy of Uttaranchal was formulated in the year 2001, under the Forest Department. Even with that, it was felt that to address the plantation needs of the state, a comprehensive plantation policy was also required, as several organizations, government and private sector were carrying out different kinds of plantation activities across the state. To address this, a comprehensive tree plantation policy to bring order and uniformity in the plantation plans was considered important. The following are its key objectives:

- Bring harmony by coordinating all the schemes being run by various departments/institutions for plantation on existing forest land and non-forest land under the state.
- To increase the density of forests / total botanical fund by increasing vegetation in all types of degraded and vacant forest land.
- To meet the local domestic demand for fuel wood, fodder, minor forest produce and timber of the villagers, selecting and planting appropriate species.
- To encourage the natural reproduction of trees and other vegetation in natural forests and take special measures to develop them.
- To take measures to improve their economic condition by making tree plantation work employment-oriented for the poor weaker sections.
- To fulfill the above principles, with special attention to forest research, training and management, to implement them according to the actual conditions and requirements.

The aim of the policy is to balance the hydrology of the state and its rivers such that the erosion of the top fertile surface of soil can be prevented and availability of water in sufficient quantity and quality is maintained.

Projects under the policy are linked to prepared for obtaining Carbon Credits under the Clean Development Mechanism (C.D.M.) arrangement envisaged by the Kyoto Treaty.

Mainstreaming Strategy:

- ⇒ Under the policy, keeping in view the basic objectives of plantation and the existing vegetation, the entire land area of the state can be divided into three regions as follows:

- **Plains / Terai Bhabar Region:**
Mainly in this region Sal, Shisham, Eucalyptus, Poplar, Teak etc. are found. These areas will be managed for production forestry on priority.
- **Middle Himalayan Region:**
This is a species-rich region commonly having pine, oak etc. In this area, work will be arranged for various Multi-Purpose Plantation.
- **High Altitude Subalpine Region:** There are species of Junipers, Bhojpatra etc. in this region which will be taken to increase the forest cover

Convergence of this and the agroforestry trees proposed for the TEEB project can be explored.

- ⇒ Planting of various mixed species will be done as per the suitability of the site as following,
 - High Vitality (Tree Species) = 20 percent
 - Middle and low finance (income species fuel, fodder, Medicinal, Aromatic Fruits, Food Supplement Bamboo, Alternative Fuel etc.) = 80 percent

The TEEB demonstration sites can explore the feasibility and relevance of this and incorporate it in the results.
- ⇒ The policy states that extensive and intensive plantation will be done on the basis of eco-system suitability in the state. Emphasis will be given for cultivating non-woody forest produce, herbs in hilly area and industrial species and aromatic plants in plain area for cultivation in private land. This also provides convergence opportunities for TEEB.
- ⇒ Tree plantation along the roads will be done in plain areas like peepal, banyan etc. and in hilly areas, soil erosion resistant species like bamboo etc. will be planted above the roads and trees of high width will be planted at the bottom. Special efforts will be made to increase the productivity of plantations of Eucalyptus and Poplar for the supply of wood to various forest produce based industries. The impact of these on the ecosystem services can be assessed and the results included in the communication strategy.
- ⇒ Water harvesting, i.e rainwater harvesting is to be promoted to maintain proper moisture in each area. The policy states that the latest certified methods propounded by the state and central government institutions will be used. Results from controlling soil erosion in hilly area sites of Uttarakhand will be useful for this.
- ⇒ The Forest Department and Geological Survey of India, Wadia Institute etc. are key stakeholders of this plan. Meetings should be organized with so that the Forest Department is aware of the research being done and can give guidance on proper use of such research.

8. Uttarakhand Forest Policy- 2001

Given the importance of forests for the state of Uttarakhand, it was for the state imperative to formulate a state level policy for the rehabilitation, expansion and use of trees, forests, wildlife and the vast multitudes of vegetation including medicinal plants found in the forests of Uttarakhand. The following are the key objectives of the policy:

- To provide environmental stability and ecological balance. In comparison to the fulfilment of this main objective the derivation of economic benefit from forests is only a secondary objective.
- To prepare the strategy and work plan in regard to conserve and promote the existent biodiversity, and wild life and its implementation.
- Mainstreaming the conservation and sustainable use of medicinal plants and restoring the fragile ecosystem of Uttarakhand by checking the reckless exploitation of medicinal plants, unsustainable harvesting practices, lack of focus on cultivation, absence of robust market mechanism, illegal trade, loss of traditional knowledge, inadequate coordination at the administrative level and overlapping jurisdiction of various departments.
- Development of natural and planted forests in the State as well as all other different kinds of plants through conservation, promotion, prudent and scientific management.
- Afforestation in denuded and vacant forest land, rivers, lakes, ponds and catchment areas. efforts will be made to formulate and implement various water and land conservation schemes to necessitate prevention of floods and droughts and also bring about decrease in silting of riverbeds.
- Efforts to increase the existing forest area and productivity of trees.
- Efforts will be made to bridge the gap between demand and supply of fuel wood, fodder, minor forest produce including medicinal plants, and timber for the weaker sections and local domestic demands.
- Acknowledging the commercial potential of medicinal plants in national and international markets, and also, for meeting the livelihood needs of the local communities of Uttarakhand.

- Efficient management and prudent utilization of forest wood and other forest produce and their alternatives maybe developed so as to de-pressurize demands on bio-diversity.
- To make effort to provide opportunity for local self-employment and poverty alleviation in the State with the help of forestry programs and eco-tourism while keeping vegetation cover unimpaired. Re-establishing a viable association between the local communities and the forest area through Van Panchayat system and Joint Forest Management with importance given to participation of women.

Mainstreaming strategy

- ⇒ The policy promotes the spirit of plantation through use of catchy slogans such as slogan of '*apna gaon apna van, apna Shahar apna van*' (*my village my forest, my city my forest*) in order to encourage public co-operation of private and public sector institutions, NGOs, van panchayats, gram panchayats and Governmental departments. This can be useful for the communication strategy of TEEB AgriFood work. Similarly the policy plans that the best workers will be given awards of '*van mitr*' (friends of forests) and '*paryavaran mitr*' (friends of environment) every year. These people can be identified from the three districts and made champions for communicating results of organic farming and agroforestry from the project.
- ⇒ For agroforestry in the three districts selected under the TEEB Project, synergies can be established with forest parks to be established as well as ornamental and shady trees to be planted along travel routes with a view to increase the green cover.
- ⇒ The policy gives importance also to NTFP (*Non-timber forest produce*) to employment generation and poverty alleviation. Connections should be made to link TEEB analysis with NTFP, this will be helpful in mainstreaming.
- ⇒ As mandated under the National Working Plan Code, a NTFP working circle will be created for the growth and management of NTFP in which special emphasis will be given to medicinal plants and its threat assessment.
- ⇒ Forest research will be strengthened in the State and State Forest research institution should be established. The key forest institutions, such as Forest Research institute of Dehradun should be involved appropriately for discussion and technical advice regarding relevant matters.

- ⇒ Under the policy, organic cultivation of MPs (Medicinal Plants) on private lands is to be promoted through grower co-operatives, contract farming or other public private arrangements in a cost-effective manner. Other schemes such as home herbal gardens, nurseries for good quality planting materials and herbal gardens are also to be promoted with the help of the people as well as through innovative incentives. Synergies with this can be explored for the districts selected in Uttarakhand

9. Uttarakhand Organic Agriculture Act- 2019

This act was approved by the Uttarakhand State Legislative Assembly in to promote the organic farming and to regulate the sale of chemical and synthetic fertilizers, pesticides, herbicides, veterinary drugs, livestock feed etc The act includes all agricultural crops (food grains. millets, oilseeds, pulses etc), horticultural crops (fruits, vegetables etc), aromatic & medicinal plants, non-timber. forest produce, animal husbandry, fisheries, sericulture, apiculture etc. The following components of the act are relevant for TEEB Project:

1) Sale of Chemical and Synthetic Fertilizers, Pesticides, Herbicides are prohibited

- Regulatory authority shall not grant any new license for sale licence for sale of chemical and synthetic fertilizers, pesticides and herbicides of chemical 'and synthetic fertilizers, pesticides and herbicides etc: in the. notified area of the state which are prohibited in the list of products in Appendix 1 and 2 of Chapter 3 of National Standard of Organic Production (NSOP) notified by the Authority.
- The Regulatory authority shall cancel all such existing issued licenses in the notified area of the state with immediate effect.
- No person shall either himself sell chemical and synthetic fertilizers, pesticides and herbicides or cause such sale through any medium in the notified area of the state.

2) Licensing for sale of Veterinary Drug as well as livestock feed and drug are prohibited.

3) The act lays directives for policy on Research and Training Backup : It states that basic infrastructure for availability of input for organic production within fix period shall be established by the state. Agriculture/ Horticulture Universities, research centres, Krishi Vigyan Kendras are to be given the financial support of the state government. Regular training program are to be organized to promote organic farming, raising awareness, develop advance methods of organic production and providing skilled human power.

4) The act gives guidelines for Availability of Organic Inputs to:

- Ensure approved organic inputs to the farmers within a fix time period.

- Encourage the farmers to use on farm organic input.
- Provide training and basic infrastructure to the farmers for making on farm organic input.

Mainstreaming Strategy

- ⇒ The act directly links to organic farming and has several relevant elements from the purpose of the project in Uttarakhand including the prohibition of chemicals and fertilizers as well as provision of organic inputs to farmers and training to farmers in making organic input.
- ⇒ It will be reasonable to find which division of the Directorate of Agriculture has this under their ambit and connect with them to keep them

10. Uttarakhand Biological Diversity Rules- 2015

Under the Biological Diversity Act, 2002 (Central Act), the Governor has made Uttarakhand Biological Diversity Rules for the implementation of the act in the state.

Uttarakhand Biodiversity Board was established under sub section (1) of section 22 of the act and Biodiversity Management Committee was established by the local body under sub-section (1) of Section 41 of the act.

Key functions of the board relevant for the TEEB AgriFood project:

- To advise the state government on any matter concerning conservation of bio-diversity, sustainable use of its components and fair & equitable sharing of benefits arising out of the commercial utilization of biological resource and associated knowledge.
- To facilitate updating and implementation of State Biodiversity Strategy and action Plan.
- To sponsor studies, investigation and research and organize conferences/seminars/workshops/ meetings on various issues related to biodiversity.
- To engage on contract consultants/manager/ technical assistant/research assistant, as required, for a specific period not exceeding three years, for providing technical assistance in the effective discharge of the functions of the Board.
- To collect, compile and publish technical and statistical data, manuals, codes or guidelines relating to the conservation of biodiversity, sustainable use of its components and fair & equitable sharing of benefits arising out of the commercial utilization of biological resource and associated knowledge.

- To organise through mass media a comprehensive programme regarding conservation of biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the commercial utilization of biological resources and knowledge.
- To take necessary steps to build up data base and to create information and documentation system for biological resources and associated traditional knowledge through People's Biodiversity Registers and electronic data base, to ensure effective management, promotion and sustainable use.
- To ensure that bio-diversity dependant livelihood projects are integrated into all sectors of planning and management, and contribute effectively for conservation and sustainable use.
- Board shall endeavour to mainstream the issues concerned with conservation of biodiversity into the local level developmental schemes.

Mainstreaming strategy

- ⇒ It will be very important to connect with Uttarakhand Biodiversity Board and Biodiversity Management Committee right from the early stages of the project, stakeholder discussions as well as dissemination workshop. The head quarter of the board is at Dehradun.
- ⇒ The most important aspect of this act, which is relevant for TEEB Is that one of the functions of the Biodiversity Board is that it shall endeavour to mainstream the issues concerned with conservation of biodiversity into the local level developmental schemes.
- ⇒ The board is responsible for trainings as well publications both scientific as well as communication material, linking with them for the project therefore will be useful .
- ⇒ People's Biodiversity Registers and electronic data base included in this act will be useful for disseminating data collected at the dissemination sites.

EVENTS/ PLATFORMS FOR MAINSTREAMING

1. Kisan Kalyan Mission

Uttar Pradesh is planning to organize a farmer development mission event in 2021. The event will be used as a platform to share agriculture-related information to the farmers through block level fairs. Limited information about the fairs are available at the following sites:

For more information:

<https://www.policeresults.com/up-kisan-kalyan-mission/>

<https://pmmodiyojana.in/up-kisan-kalyan-mission/>

Official Tweet of Inauguration of Mission⁵



2. All India Farmers' Fair & Agro-Industrial Exhibition

The selected implementing partner for Uttarakhand, the Directorate of Extension Education (Govind Ballabh Pant University of Agriculture & Technology) organizes All India Farmers' Fair and Agro-industrial Exhibition twice in a year mainly to benefit farming community. These fairs could be a useful platform to disseminate information among farmers.

⁵https://twitter.com/CMOfficeUP/status/1346695186248732672?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1346695186248732672%7Ctwgr%5E%7Ctwcon%5Es1_c10&ref_url=https%3A%2F%2Fpmmodiyojana.in%2Fup-kisan-kalyan-mission%2F

For more information:

<https://www.gbpuat.ac.in/>

3. Farmer Mela of Chandra Shekhar Azad University

Chandra Shekhar Azad University organizes farmer fair every year in Kanpur, Uttar Pradesh. This is one of the organization we consulted for scoping of work in Uttar Pradesh. We are already in link with Dr. Naushan Khan⁶. The connection should be leveraged for mainstreaming results in the events of the university.

Official Website- <https://csauk.ac.in/farmers-fair/>

4. Krishi Vigyan Kendra

KVK, is an integral part of the National Agricultural Research System (NARS), aims at assessment of location specific technology modules in agriculture and allied enterprises, through technology assessment, refinement and demonstrations.

Education fairs are organized

Official Website - https://kvk.icar.gov.in/futureevent_farmer.aspx

The table below gives more details on some recent trainings. Link can be made with ICAR to understand the date and location of future trainings.

⁶ Naushad Khan <naushadkhan.0000@gmail.com>

S. No	Event Name	Event Date (mm/dd/yyyy)	Description	Contact Person	KVK Name	Target Group
1	Integrated nutrient management	August	Integrated nutrient management	Dr C P Gupta Training Asstt 9415482746 cpdepali@gmail.com	Krishi Vigyan Kendra, Niyamatpur, Distt. Sahajahanpur	Farmer s, farm women
2	Organic manure production technology	September	Organic manure production technology	Dr C P Gupta Training Asstt 9415482746 cpdepali@gmail.com	Krishi Vigyan Kendra, Niyamatpur, Distt. Sahajahanpur	Farmer s, farm women

5. Rajya Krishi Utpadan Mandi Parishad, Uttar Pradesh

Rajya Krishi Utpadan Mandi Parishad was established in 1973 for planning, control and guidance of various activities and welfare schemes of agriculture market committees. Mandi Parishad has played a very important role in effectively implementing various Acts to ensure that farmers get fair treatment and fair support price for their crops.

As a result, of their activities total inflows and income has increased. The production increased from 7.90 lakh MT in 1972-73 whereas it increased to 638.82 lakh MT in the agricultural year 2019-20. Similarly, in 1972-73 total income of all the mandis was Rs 1.92 crore and in 2019-20 it increased to Rs 1986.68 crore.

Mandi Description (for TEEB AgriFood Districts)

S. No	Area	Name of District	Name of Mandi	Grade of Mandi
1	Kanpur Nagar	Kannauj	Kannauj	A A
2	Jhansi	Jalaun	Urai	B C
3.	Mirzapur	Mirzapur	Mirzapur Ahiraura	B C

4.	Aligarh	Aligarh	Aligarh	A+
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Source Link- <http://upmandiparishad.upsdc.gov.in/>

ANNEX: Table of all policies and links to the source department

Name of Policy	State	Government Website (Reference)	Name of the implementing ministry	Available in English
1. Integrated Action plan On Organic Farming under Namami Gange Flagship Scheme (2021)	Ganga Basin	Received from the Nodal official of Government of Uttar Pradesh	Ministry of Jal Shakti	Yes
2. Horticulture Program Under Namami Gange Project (2021)	Ganga Basin	Received from the Nodal official of Government of Uttar Pradesh	Ministry of Jal Shakti	No
3. Uttar Pradesh Agriculture Policy (2013)	Uttar Pradesh	http://upagriparadarshi.gov.in/MediaGallery/agripolicyhindi.pdf	Department of Agriculture, Uttar Pradesh	No
4. Uttar Pradesh Agriexport Policy (2019) Draft	Uttar Pradesh	http://upkrishivipran.in/pdf/EnglishKrishiNiryatNeeti.pdf	Department of Agriculture Marketing & Agriculture Foreign Trade, Uttar Pradesh	Yes
5. Uttar Pradesh Food Processing Industry Policy (2017)	Uttar Pradesh	https://uphorticulture.in/pdf/GOenglish.pdf	Department of Horticulture & Food Processing, Uttar Pradesh	Yes

6. Uttarakhand Agriculture Policy-Draft- 2018	Uttarakhand	https://agriculture.uk.gov.in/pages/display/253-uttarakhand-agriculture-policy---2018-(proposed-draft)	Agriculture Department, Govt. of Uttarakhand	No
7. Uttaranchal Plantation Policy- 2005	Uttarakhand	https://forest.uk.gov.in/uploads/policy/1617094435.pdf	Uttarakhand Forest Department	No
8. Uttarakhand Forest Policy- 2001	Uttarakhand	http://www.smpbuk.org/document/uttarakhand_forest_policy_2001.pdf	Uttarakhand Forest Department	Yes
9. Uttarakhand Organic Agriculture Act, 2019	Uttarakhand	https://www.indianemployees.com/acts-rules/details/uttarakhand-organic-agriculture-act-2019	Agriculture Department, Govt. of Uttarakhand	Yes
10. Uttarakhand Biological Diversity Rules, 2015	Uttarakhand	https://sbb.uk.gov.in/files/act/Uttarakhand_State_Biodiversity_Rules_English_2015-Final.pdf	Uttarakhand Forest Department	Yes