

All the projects need to be community driven; and project submitted needs to specify the place of working, methodology, demand & inclination of the people toward the concept put up by the executer. Contribution by beneficiary whether human and financial should be ascertain by the district level committee either by physical monitoring or through meetings with people. The state level committee should appraise project approved by DLC along with above report. Certain broad ideas on which project are looked before are as follows but certainly they are not exhaustive one's.

CERTAIN INNOVATIVE IDEAS

1. Revolutionizing Public Sanitation in Uttarakhand: -

Uttarakhand is well known for its tourist destination. Every year lakhs of tourist used to arrive at Uttarakhand. The infrastructure build-out in Uttarakhand is about modernizing highways, education, health and power. But there is a very important and often overlooked element in the effort to create a better quality of life for citizens and tourists alike: The creation of an urban sanitation infrastructure. Project on addressing public sanitation by introducing product or mechanism that is portable, hygienically maintained, and eco-friendly. Key feature of such system should be as follows:

- Design to fit busy Uttarakhand towns and cities
- Compact and User-Friendly access and interfaces
- Hygienic and Easy to maintain components and accessories
- Easy to Install & Relocation, if required

2. Methods to ward of wild animals from crops: -

Farmers in India and abroad face serious threats from pests, natural calamities, thefts, damages by animals and other types of crop losses, resulting in lower yields. More pronounced wild animals in lands adjacent to forest areas cause damage during summer, due to food and water shortage in the forests. Farmers and officials plead helplessness in solving this perennial problem, and say they only try to drive the wild animals away manually. Though scientists constantly search for new methods of crop management, to reduce losses to farmers, the damage by wild animals such as deer, elephants, and wild boars continue. Though farmers tried several methods, the problem continued. With today's agriculture facing many problems, a good crop yield with minimal expenditure is the need of the hour. Because of these problems our hilly state is largely turning into money order economy as large number of families have left cultivation. Interestingly, some workers in chick hatcheries noticed that the deer herds do not come near the places where they dispose their hatchery waste; which contains a lot of unhatched eggs. By observing this, some hatchery workers started spraying the egg contents mixed with water, on their home gardens and noticed that the deer do not come near the plants (sprayed with egg contents), probably due to the pungent odour emitted by the raw egg contents when exposed to the air. After noticing these successful results,

agricultural scientists started refining this technique for larger application and succeeded in minimizing the attacks of the animals on field crops. Projects in the above direction will be appreciated & recommended for execution for better results. The proposer should have the experience in above direction.

3. Environment friendly cooking system: -

According to the World Health Organization, cooking over an open fire inside the home is the equivalent to the smoke exposure of inhaling two packs of cigarettes a day. Nearly half the world's population – 2.6 billion people -- cooks over inefficient wood- or dung-burning open fires inside their homes, which contributes to 4.3 million deaths a year; more than HIV, malaria, and tuberculosis combined. In addition, emissions from open fires contribute to as much as 2% of global warming.

In an attempt to tackle this global challenge, Envirofit India has developed an innovative solution, and distributes clean technology solutions that improve health, livelihoods, and the environment while enhancing energy efficiency across Asia. Throughout their lifespan, these stoves on a global scale have impacted more than 4 million people, created more than 2,000 jobs, and saved more than 13 million tons of CO₂. At the household level the stoves have reduced fuel costs by more than US\$110 million and saved consumers 7.2 million working weeks of firewood collection.

Using a market-based model, the team developed and commercialized high performing biomass cook stoves that are efficient, durable, affordable, and appeal to consumers. In addition to the aesthetic qualities, Envirofit's stoves are designed to offer economic, health and environmental benefits by retaining the heat and redirecting most the fuel's energy towards the pot. This design reduces smoke and toxic emissions by up to 80% and reduces fuel use, fuel cost, and cooking time by up to 60%. The stoves also reduce emissions of carbon dioxide by up to 60%, black carbon by up to 40%.

NGO's having inclination, workings & experience in above field will be given precedence.

4. Entrepreneurial Skills Development: -

It certainly helps to have strong technology skills or expertise in a key area, but these are not defining characteristics of entrepreneurship. Instead, the key qualities are traits such as creativity, the ability to keep going in the face of hardship, and the social skills needed to build great teams. It's also important to develop entrepreneurial skills if you're in a job role where you're expected to develop a business, or "take things forward" more generally. So the project aimed at developing Entrepreneurship skills should broadly design it in addition with on following heads.

- Personal characteristics.
- Interpersonal skills.
- Critical and creative thinking skills.
- Practical skills.

5. Himalayan Nettle Fiber: -

The Tree species defined as *Diploknema butyracea* in Botanical Science. It is commonly known Chyur in Northern parts of India. It is also known as 'Indian Butter Tree' as it produces oil seeds, which are rich in oil contents and at lower temperature it transforms into fat and looks like butter or ghee. This tree is also quoted as "Kalpbriksha" as apart from soil and WATER CONSERVATION, it is also a rich source of many useful substances like oil (edible and non-edible), gur (jaggery), honey, and fodder for animals, medicines and pesticides. For the past many years, Government of India has been formulating various plans for making the country self-sufficient in edible and non-edible oils. Whereas, the wasteland development has been one of the thrust areas in the Government plans, one hand, the self-sufficiency in edible and non-edible oils as bio-fuels has been identified as a timely demand on the other. Keeping in view, the above, the plantation of Chyur trees on wastelands throughout the Himalayan sub-tropical belt is need of the hour.

Himalayan nettle is a perennial plant found growing in temperate and sub-tropical Himalayas 1200 to 2900 meters above sea level. It is largely found growing wild in the broad leaf forests with high leaf litter and moisture as well as in the outskirts of villages of Uttarakhand. Clothing made from nettle is not a new idea, since the past thousands year people have worn fabrics made from the Himalayan nettle. But nettle lost their popularity when synthetic and other fibers arrived in the market. PROMOTING this eco-friendly natural fiber as livelihood option to the hill people of Uttarakhand will give new dimension to hill region.

Special inherent characteristics of nettle fiber make it very different from other fibers and have unique prosperities like:

- Hollow core useful in creating fabrics with thermal properties, both warm and cool
- Reputedly antimicrobial, antibacterial and FIRE RETARDANT
- Great resistance to wrinkling.

6. Energy Conservation Project based on LED & Solar Energy: -

Electrical energy plays a vital role in day today's life. A light-emitting diode (LED) is a two-lead semiconductor light source. It is a basic pn-junction diode, which emits light when activated. When a fitting voltage is applied to the leads, electrons are able to recombine with electron holes within the device, releasing energy in the form of photons. This effect is called electroluminescence, and the color of the light (corresponding to the energy of the photon) is determined by the energy band gap of the semiconductor.

An LED is often small in area and integrated optical components may be used to shape its radiation pattern. The first visible-light LEDs were also of low intensity, and limited to red. Modern LEDs are available across the visible, ultraviolet, and infrared wavelengths, with very high brightness. Development of LED through utilization of local resources, local skills will create job opportunities for the people. For energy conservation, promotion of solar energy with different makes like small lantern, mobile charger, local electricity generation etc. might be useful so such project can be initiated.

7. Project on Cultivation of Oyster & Ganoderma Lucidum Mushroom: -

Mushrooms have been valued throughout the world as both food and medicine for thousands of years. They are a rich source of nutrition and form a major chunk of health foods. Fats occur in mushrooms in minor amounts, especially compared with protein and carbohydrates, and the fatty fraction consists predominantly of unsaturated fatty acids such as linoleic acid, they may be the perfect food for maintaining a healthy heart and cardiovascular system. Earlier Mushroom eating was restricted to specific regions and areas of the world but due to globalization, interaction between different cultures, growing consumerism has ensured the accessibility of Mushrooms in all areas. Mushrooms are increasingly gaining acceptance in different Cosines and in everyday consumption. They have created a space in a common man's kitchen. Also, current trend of consumption conveys the opportunity that lies in the area of mushroom exports.

The two most commonly grown species of mushroom in India are white Button mushroom and Oyster mushroom. Pleurotus is the scientific name for Oyster mushroom. Ganoderma Lucidum is the most popular medicinal mushroom of the world. It has been used for a wide range of health benefits from preventive measures and maintenance of health to the management & treatment of chronic as well as acute human ailment. Mushroom growing is an occupation requiring perseverance, patience, intelligent observation and a skill that can be developed only through intelligent experience.

8. Project based on Natural Fiber: -

Natural fibers are greatly elongated substances produced by plants and animals that can be spun into filaments, thread or rope. Woven, knitted, matted or bonded, they form fabrics that are essential to society. Like agriculture, textiles have been a fundamental part of human life since the dawn of civilization. While the methods used to make fabrics have changed greatly since then, their functions have changed very little: today, most natural fibers are still used to make clothing and containers and to insulate, soften and decorate our living spaces. Plant fibres include seed hairs, such as cotton; stem (or bast) fibres, such as flax and hemp; leaf fibres, such as sisal; and husk fibres and many local plants founds in hills of Uttarakhand. Animal fibres include wool, hair and secretions. Such project will create earnings for villagers from the local resources.

9. Project based on Wooden Beads: -

The unique feel of real hill wood invites your creative muse to play. Wood beads have been used for many centuries in ritual and ceremonies as well as decoration especially the different Himalayan wood are very useful for rituals and aurvedic medicine. Wood beads are the product of high-quality craftsmanship. Can be made in many colors, sizes and shapes. Fashionable roundel shaped beads with sterling silver grommets are waiting for that special charm necklace. Large carved focal beads appeal to men as well as women. These beads look lovely by themselves or can be combined with stunning real pearls and shells. Evoke

ancestral memories with jewelry made from natural materials. Multi color wood beads glorify life with this cheerful design. Handcrafted design bracelet stretches over the wrist. Every design is unique and may have slight differences. You will find that these natural faults add a layer of beauty to every product and just contribute to the uniqueness. Project based on wooden beads will enhance the skills of villagers & gave them additional source of living.

10. Project based on Herbal Cultivation: -

Uttarakhand Government since its inception has projected itself as a herbal state as recognized for its inherited rich biodiversity and ethnic herbal traditions. In view of increasing global popularity of herbal medicinal, cultivation of herbal plants to ensure constant supply can be an important alternate source of economy in the state. Recently the state Government has introduced several incentives for the popularization of cultivation of herbs. However, the various efforts may go fruitless unless a scientific and systematic study is undertaken to support the Government efforts. The choice of right plant selected for cultivation would be a crucial step. Several botanists have already extensively explored the flora of Garhwal. It comprises about 18000 plants species. Further, the perusal of available herbal reports (CIMAP report) revealed that as many as 1784 species are having some medicinal uses. Recommending this seemingly large number of plants would be impracticable and considerable discretion would have to be applied for selecting a herb for cultivation. Therefore, it is essential to undertake a study to enlist of various herbal plants actually used in popular herbal medicines being presently marketed to ascertain the medicinal and economic value of individual plants. Project having full road map on cultivation to marketing and output of herbal cultivation will be taken into consideration.

11. Azolla- A sustainable feed Substitute for livestock: -

The demand for milk and meat has been increasing and animal husbandry as a profit occupation is expanding. However, there is a substantial decline in fodder production, owing to the decreasing area under forest and grasslands. The shortage of fodder is, therefore, being compensated with commercial feed, resulting in increased cost of production of meat and milk. Moreover, as commercial feed is mixed with urea and other artificial milk boosters, it has a deleterious effect on the quality of milk produced and the longevity of the livestock, which in turn leads to degenerative diseases like cancer and coronary ailments in human beings.

“Azolla”, a wonderful plant, which holds the promise as a sustainable feed substitute for livestock. Azolla is very rich in proteins, essential amino acids, vitamins (vitamin A, vitamin B12, Beta Carotene), growth promoter intermediaries and minerals like calcium, phosphorous, potassium, ferrous, copper, magnesium etc. Azolla, on a dry weight basis, is constituted of 25-35% protein content, 10-15% mineral content and 7-10%, a combination of amino acids, bioactive substances and

bio- polymers. Carbohydrate and oil content in Azolla is very low. Thus the bio-composition of Azolla, makes it one of the most economic and efficient feed substitutes for livestock. Moreover, livestock, owing to its high protein and low lignin content, can easily digest Azolla. So project-having competence of obtaining desired result through Azolla feeding would be appreciated.

12. Handmade Paper Making: -

The paper industry is a forest-based industry. Depleting forest cover is a major cause of concern. There lies the tremendous possibility of handmade paper making in India, which with its eco-friendly and environmentally cleaner production technology will be an appropriate sustainable production system. Handmade paper is defined as a sheet of paper or board produced by hand. The raw materials used in handmade papermaking are the waste products of the textile industries, different bast fibres that are locally available and recycled secondary fibres. Project based on making use of available local resources for handmade papermaking would be brought under consideration.

13. E-education at Primary Level: -

E learning is the use of electronic media, educational technology and information and communication technologies (ICT) in education. E-learning includes numerous types of media that deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local internet or web-based learning. E learning can occur in or out of the classroom. It can be self-paced, asynchronous learning or may be instructor-led, synchronous learning. Though E learning is currently going on in secondary section but still primary section is lacking in this front. Primary Stage is the starting stage of learning so at this early stage e learning will enhance the skills and grasping power of child. Project in above direction will be taken in consideration.

14. Eco and Rural Tourism: -

Rural areas having potential for tourism is being supported as destination development. The objective is to showcase rural life, art, culture and heritage at rural locations and in villages, which have core competence in art & craft, handloom, and textiles as also an asset base in the natural environment. The intention is to benefit the local community economically and socially as well as enable interaction between tourists and local population for a mutually enriching experience. The thrust is to promote village tourism as the primary tourism product to spread tourism and its socio-economic benefits to rural and its new geographic regions, thereby stopping the exodus from rural to urban areas. The Village Level Committee would decide the work plan for implementation in consultation with local community, further supported by other community level institutions. For the visitor, whose expenditure creates revenue for host community, service providers, rural tourism adds value through packaged programmes in art & craft imparted by skilled local artisans. Village entertainment groups unveil local history and culture, natural and oral treasures. The visitor thus comes face to face with India's rural traditions. Well carved out project in above direction will be highly appreciated.