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Government of Himachal Pradesh
Department of Env., Sc. & Technology

No. STE-A(3)-4/2016-L Dated : Shimla-2, 26 October 2017

NOTIFICATION

The Governor, Himachal Pradesh is pleased to formulate the Model Eco Village Scheme Guidelines -2017 in the following manner:-

1. Introduction

"Future of India lies in its villages- Mahatma Gandhi"

Eco village is an emerging concept still in the process of being developed. Through the Eco-village Concept, Department of Environment, Science & Technology, Government of Himachal Pradesh intends to demonstrate a model of environmentally sustainable development in active collaboration with village people that reflect their concern and respect for the environment. Environmentally sustainable and ecologically oriented eco villages shall be focused towards developing low impact lifestyles that reduce the "ecological footprint" by as much as 50% of the base assessment from launch of the scheme.

Himachal Pradesh is a small Himalayan state having a population of 67 lakhs (Census 2011). Nearly 90% of the population of Himachal Pradesh lives in rural areas and the agrarian economy is largely sustained by the Himalayan ecosystem and its natural resources. Various socio-economic and environmental changes are threatening these resources and posing new challenges for the people of the state. The Eco-Village Scheme aims to devise ways to build a resilient village community and developing their skills and competencies to deal with resource depletion, changing climate and related environment challenges. Village communities need to be made aware of the pressures on their available resources, the impact of their decisions on the environment as well as choices available to them for following a sustainable development pathway.

The endeavour will be to promote transformative action and achieve sustainable development through environmentally responsible and responsive practices in the area of water management, waste management, energy conservation, management of natural resources, climate change action and sustainable livelihoods. This approach will not only help those stakeholders who are working to implement sustainable community development programmes but also will set benchmarks for others to adopt and bring a radical change in thinking process of the communities at large in the State, especially in inculcating environmentally responsible behaviour.

2. Key Environment Issues in Rural areas of Himachal Pradesh

a) Natural Water Sources/ Springs: Himachal Pradesh is predominantly an agrarian state with about 2/3rd of its population depending on agriculture for their livelihoods. As part of the Himalayan mountain ecosystem, the State is home to a wide range of natural water resources. 60% of the villages depend on rain and springs as main source of water for household and irrigation purposes. A sample survey of springs has revealed that over 50% of the springs have either dried or water discharge from them has significantly reduced (<50%). Impaired springs have caused widespread water stress in the rural landscape, adversely affecting agriculture, livestock and other allied livelihood activities of the people and causing hardship and drudgery. Despite heavy rainfall, many areas are water-stressed due to increase in demand-supply gap leading to a surge in the use of ground water. Further, ground

water data shows that the depletion rate between pre and post monsoon period is about 40 to 80% depending on the landscape.

Changing land use, deforestation, quarrying, mining and climate change are perceived to be the main causes for deterioration of springs and ground water regime. The major environmental concerns are water scarcity, deforestation, depletion of biodiversity and soil erosion, drought and flood etc.

b) Climate Change: The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) has indicated that "the negative impacts of climate change on freshwater systems outweigh its benefits", with runoff declining in most streams and rivers. Impacts of climate change on the hydrology of an area depend on physiographical and hydro geological characteristics of its catchment area and amount of lake or groundwater storage in the catchment.

- Loss of vegetation and decrease in ground water recharge even during monsoons.
- Decrease in ground water recharge during winters and more frequent terminal draught with complete drying of the springs.
- Fewer but highly intense rainy days with a long mid-season dry spell.
- High evapo-transpiration rate and water stress in forests and agricultural crops with increased dependence of springs.
- Pollution of water streams and springs from liquid and solid waste from villages
- Drying of small streams and springs and other water sources has adversely affected livelihood options such as animal husbandry, horticulture, agriculture fisheries etc.
- Scarcity of feed, fodder and water for animals during draught with drying of springs.
- Difficulty in crop management (mainly vegetable) due to variation in rainfall and temperatures.
- Drought-like situations affecting production of maize, pulses and oilseeds.
- Higher investments in chemical fertilizers and in-situ moisture conservation, construction of new rainwater harvesting ponds, reservoirs, check dams and water lifting from streams which are already drying out.
- Absence of sufficient quantity of grass in pasture lands has increased anthropogenic and biotic pressure on forests. Non availability of sufficient nutrition for cattle leads to malnutrition and vitamin deficiency related diseases in cattle;
- Forest fires have become more frequent due to climate change and other anthropogenic pressures. Forest fires most certainly destroy the understory vegetation and in many cases also standing large trees. They destroy food of wildlife and nesting sites with possible killing of birds and other wild animals trapped in the fire.

c) Loss of Forest Cover and forest fragmentation: 67% of the total geographical area is under forests most of which are highly degraded w.r.t density and quality of forests. The degradation and loss of natural forests is a serious concern in Himachal Pradesh. In addition to providing an economic and cultural backdrop for the lives of people, forests in Himachal Pradesh deliver an array of essential environmental services, including water storage and filtration, soil stabilisation, prevention and reduction of floods, food, fodder, fuel, medicines, etc. Since the state is predominantly mountainous, exploitation beyond carrying capacity, depletion of forest

cover and the resultant loss of soil especially in the hill areas are leading to increased siltation of rivers and streams. Loss of forest cover in the catchment area of the springs has resulted into drying of springs and reduction in the quality of water in the springs.

d) Unsustainable agriculture including Crop Diversification: Paddy, Wheat, Maize, pulses etc. were prominent traditional agricultural practices. The farmers for early gain are diversifying towards cash crops and other means of technology. The decline in the area under natural forests, the fragmentation of habitat, local disappearance of native species and invasion by exotic weeds are some of the ecological consequences of this shift in agriculture preferences. With crop diversification, there has been a considerable increase in the use of fertilisers and chemicals and the demand for water has also increased significantly.

Households often tend to ignore the adverse effects of their decisions on the environment, and rural households are also no exception, especially in decisions concerning consumption patterns- those related to water, energy and production/ management of waste.

e) Solid Waste Management: With the change in life style of the local villages, the issue of management of solid waste has also become critical. Excessive use of plastics right from the milk packets to anything which we bring from the market is wrapped in plastic and leads to environmental pollution due to non biodegradable nature of the plastics. Effective practices for collection, treatment and disposal of such waste is required.

f) Water & Water Pollution: The water sources are under stress in current scenario. The water both in terms of quality and quantity requires attention from planners prospective. Infrastructure for safe drinking water has been provided to rural areas, though significant challenges remain in providing sustainable services, an area which also calls for judicious and optimal use by the communities. Contamination of water sources and waste water management are critical issues. There is need of introducing treatment systems which are not very expensive at community level and provide solutions for the moisture management, besides practices of water harvesting and efficiency in water use.

g) Energy consumption: The proliferation of urban culture and consumerism has led to an increased reliance on electricity, which in turn has resulted in consumption patterns that are far from sustainable. There is potential available to harness and maximize the use of renewable energy in day to day activities, adopt improved technologies that are fuel efficient, as well as reduce the consumption of energy by using gravity potential.

3. Vision

To demonstrate villages as models of sustainable development based on environmentally responsible individual and collective action for reducing human ecological foot-print and through judicious use of natural resources.

4. Objective of Scheme

This scheme is developed with an aim to ensure sustainable development in an organized and integrated manner. The programme endeavours to sustain prosperity in villages, that is built around sustainable use of the key natural resources of a village, through the adoption of low-impact practices that result in water security, food security and livelihood security for the village communities.

5. Key Elements of a Model Village

- Environment sustainability through responsible Natural Resource Management practices
- Community participation
- Use of Modern and Clean technology & practices
- Convergence of resources available for development

6. Functional Components of Eco village

Major components* of proposed Model Eco Village-an Environmentally Sound Sustainable Community Development will be as under:

- Protection and conservation of Natural Water Sources/ springs:
  a. Prioritize critical springs based on their vulnerability to carry out rejuvenation though a landscape approach.
  b. Develop a detailed climate resilient spring shed development plan for the vulnerable springs.
  c. Develop village water security plan in the identified spring-sheds.

- Adoption of Sustainable Agriculture Horticulture Practices.
  a. Crop diversification and Traditional Crops.
  b. Organic Farming
  c. Farm Produce Management Practices.

- Water management and irrigation.
  a. Rain water harvesting from roof tops.
  b. Revival and Creation of water ponds./ maintenance of water bodies
  c. Collection of treated waste water for farming.
  d. Minimize water use through strict conservation practices- supply in sustainable manner.
- Adoption of Renewable Sources of Energy.
  a. Biogas
  b. Solar lights and heaters.
  c. Solar fencing.
- Solid Waste Management- Cleanliness
  a. Collection and disposal of non biodegradable wastes,
  b. Disposal of biodegradable wastes through vermi composting.
  c. Source segregation, composting.
  d. Reuse of unwanted goods and materials.
- Forest Management and assured Eco Services.
  a. Community afforestation programmes, adoption of forest areas,
  b. Plantation of fruit trees in forest areas.
  c. Reduction in forest fires
- Undertake capacity building interventions.
  a. Training on environment becomes a regular activity.
  b. Awareness materials & Training modules for villagers.
  c. Identify and set up groups to contribute to diversity.

(the sub-components are indicative only and will vary with site requirements and as per prioritization by the village communities)*

7. Eligibility Criteria for selection of Village

- Villages to be developed as Model Eco Village should fulfil the following general criteria:
- Minimum population of 250 individuals / 50-75 households
- Good connectivity; i.e. not remote and inaccessible
- Sufficient scope for demonstrating environment responsive action in all/ any of the components of the scheme; i.e. forests, pastures, natural water sources and springs, agriculture- horticulture practices, adoption of non-conventional energy sources, waste management

Additionally, proactive willingness of the people/ panchayat to participate in the scheme, including any self-initiated action on environment issues, presence of functional community-level organisations (Self help groups, Common interest groups, forest committees etc.) would be desirable.

8. Procedure for Selection of Villages

The Department of Environment, Sci. & Tech. will shortlist/ select/ adopt the villages/ Panchayats that fulfil the criteria listed above subject to the availability of resources/ funds, only one village/ panchayat from a district would be selected for implementation under the scheme, on the recommendation of the concerned Deputy Commissioner to the nodal Department i.e. Department of Environment, Science & Technology.

8.1. Constitution of State Level Steering Committee

For the purpose approval of village plan, ensure convergence of government schemes/ funding and overseeing the implementation of the Scheme a committee will be constituted as follows:

- Addl. Chief Secretary (Env., S&T)	Chairman
- Director(Rural Development)	Member
- Director (Agriculture)	Member
- Director (Horticulture)	Member
- Deputy Commissioner District Concerned	Member
- BDO Panchayat Concerned	Member
- Director DEST	Member Secretary

A State Level Steering Committee comprising representatives of all concerned line departments shall be constituted by the nodal department for approval of village plan, ensure convergence of government schemes/ funding and overseeing the implementation of the Scheme.

- The BDO concerned shall also indicate availability of budget under various schemes that could be linked with the present scheme.
- The DEST will prepare the Action Plan based on gap analysis before the State Level Selection Committee for approval of village plan, convergence of government scheme/ funding and framework for the implementation of the Scheme.

9. Preparation of Eco Village Development Plan (EVDP) and Implementation

For each selected village an Eco-Village Development Plan (EVDP) will be prepared by DEST, through an Expert Agency, integrating all the components and existing programs/schemes in operation in the block*. The Plan shall initially be drawn up for implementation in five years. The village level plan shall include a Situational analysis, Baselines, Resource Mapping. All prescriptions shall be based on gap assessment & analysis taking into account the base line status of various environmental aspects pertaining to the actionable components as listed at S.No.6 above and shall have a Annual component wise break-up of the activities. The development of the EVDP would be a consultative and participative process, this would be different from conventional planning.

*(*The BDO concerned , at the time of forwarding the application of a village under this scheme, shall indicate budget provisions under various Central Govt./ State Govt. Programs/ schemes such as MGNREGA, Swachh Bharat Mission, Himachal Pradesh State Rural Livelihoods Mission, JNSSM, MNRE schemes etc. that are ongoing or likely to come up in the selected village; for convergence and synergy with the current Eco-Village Scheme.)*

9.1 Formation of Village Level Management Committee

Department of Environment science and Technology (DEST), GoHP shall be the Nodal Department and will be over-all responsible for the implementation of the Plan. For each village, selected for development as an Eco-village under this Scheme, DEST will notify a **Village Level Management Committee (VMC)** to coordinate and guide the implementation of the plan at the village level. The constitution of this committee shall be as under:

President of Panchayat concerned
Representative of DEST, Shimla
Elected member of village/ concerned ward
Forest Beat Guard
Panchayat Secretary

The BDO concerned shall provide all necessary facilitation, support and coordination for smooth execution of works and programs under the scheme.

10. Budget/ Grant Allotment and Release of Funds

Each EVDP shall have an approximate outlay of Rs.50 lakhs to be utilised over a period of 5 years as per the annual plan of action. Of this total outlay DEST shall provide a grant of Rs. 20.00 Lakhs per selected village to meet expenditure on execution of the recommended preparatory actions and funding of critical gaps. The balance funds as may be required over Rs. 20 Lakhs for activities shall be garnered through convergence and utilising budgets from concerned line departments, district administration, etc. under various relevant ongoing Government schemes.

The DEST will provide grant of Rs.20 lakhs per village in four instalments and administered as under:

- 20% amount of the total grant shall be allocated as the first instalment and next instalment shall be allocated after expenditure and furnishing of utilization certificate of first instalment by the concerned BDO with physical achievements as per approved frame work.
- This grant shall be used for sanctioned works, actions and programmes of the scheme and for funding of critical gaps in accordance of the approved plan. The actions, programmes, works shall be sanctioned by the Department of Environment, Science & Technology.
- The implementation plan with budget shall be finalized by the Department of Environment, Science & Technology, Shimla, Himachal Pradesh.

- The budget shall be routed through concerned Block Development Officers of the selected village.
- The budget shall be spent in accordance with approved outlay, implementation framework, with specified timelines duly approved by the State Level Steering Committee.

DEST will earmark separate budget for the purpose of Gap analysis/ Assessment of ongoing activities, preparation of GIS base maps, preparation of base line data, reporting etc. as well as preparation of the Eco-village Plan.

The expenses as may be required towards institutional charges for evaluation, monitoring and reporting etc. shall also be borne by the DEST.

11. Involvement of Private – Non Governmental Organizations in implementation of scheme

Under this scheme the role of private/ nongovernmental organization is very important, especially for creating awareness, IEC and trainings. Collaboration with NGOs and Private sector would be encouraged in implementation of the scheme and the Nodal department (Department of Environment, Science & Technology) shall examine and process such requests for dove-tailing them with the EVDP.

12. Monitoring and Impact assessment- Reporting

Each Eco-village under the scheme shall be monitored by the DEST periodically. Monitoring and evaluation of impacts over baseline status shall be carried out for each component under the implementation plan. The monitoring can be community led, departmental or through an independent agency.

The Director, Department of Environment, Science & Technology will be responsible for implementation of the guidelines and is authorized to add/ delete any of above terms & conditions in the guidelines in future, if deemed necessary.

By order

Tarun Kapoor
Addl. Chief Secretary (Env., Sc.& Tech.) to the
Government of Himachal Pradesh.

Endsts. No. STE-A(3)-4/2016-L Dated : Shimla-2, 26-9-2017

Copy forwarded for information and necessary action to:
1. The Secretary to the Governor, Himachal Pradesh, Shimla-2.
2. The SPS/PS to the Chief Minister/Ministers/CPSs, H.P. Shimla-2.
3. The Private Secretary to the Chief Secretary to the Govt. of H.P.
4. The Secretary (GAD) to the Government of Himachal Pradesh w.r.t. his advice dated 19.09.2017 on item No. 67.

V.E. DIRECTOR, DEST, SHIMLA-1.

25/9/2017

(Hans Raj Sharma)
Spl. Secy. (Env., Sc. & Tech.) to the
Government of Himachal Pradesh
Ph. No.0177-2880623