Eco-village: A model for mainstreaming climate and disaster at local level planning in Himachal Pradesh, India

An analysis of 63 years (1951-2013) of data from the Indian Meteorology Department shows that the annual maximum and minimum temperatures have been increasing in Himachal Pradesh. The increase in temperature will result in more evaporation and require more irrigation for crops. The analysis also predicts a definite decrease in annual rainfall for the state. More importantly, there is a strong trend towards a decrease in the number of rainy days, resulting in the annual rainfall for the state falling on fewer days. This implies more intense rainfall, increasing the possibility of flash floods, soil erosion, and landslides. This forbodes increased vulnerability to natural disasters for the state. Nearly 90% of the state population and their livelihood is dependent on natural resources for agriculture since the region is predominantly mountainous. Himalayan ecosystems are highly vulnerable due to multiple reasons; stress caused by forest land conversion, forest degradation, habitat fragmentation, overgrazing, fuel wood collection, forest fires, infrastructure development, mining, and other related challenges. With global environmental shifts these local resources are constantly threatened, and the situation is likely to get exacerbated under mid-century climatic projections. To tackle this the Department of Environment, Science and Technology, Govt. of Himachal Pradesh, created a scheme to implement the concept of an environmentally sustainable Eco-Village. The project aims to create a self-sustainable village through the adoption of low impact practices that create water security, food security and livelihood security for the village. These kinds of eco-friendly villages were developed with the aim to reduce their ecological footprints by as much as 50%. The goal is to create climate resilient village communities focussed on the adapting development plans with environmentally responsible practices. These practices include management of water, waste, natural resources, and energy conservation The project supported to create a model for climate and disaster resilient village communities focussed on the adapting development plans with environmentally responsible practices while contributing to state climate and SDG goals. The process included a baseline study of existing environmental and climate change impacts in the proposed villages. The impacts were analysed through a combination of community level participatory tools and top-down expert/model-based review. Strategies to address those impacts were developed through stakeholder consultation involving communities, government authorities and experts. The key outputs were preparation of Eco-village Development Plan for 3 villages, convergence of fund and resources through ongoing schemes, capacity building for implementation/replication and demonstrating concrete linkages to state climate and SDG goals.