

**GOVERNMENT OF INDIA  
ENVIRONMENT, FORESTS AND CLIMATE CHANGE  
LOK SABHA**

UNSTARRED QUESTION NO:3878  
ANSWERED ON:16.12.2014  
IMPACT OF CLIMATE CHANGE  
Ering Shri Ninong;Rai Shri Prem Das

**Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state:**

- (a) whether Government has conducted/ proposes to conduct any study to assess the impact of climate change on the natural ecosystems and biodiversity of the Himalayas and the North-East region, including Sikkim;
- (b) if so, the details thereof;
- (c) whether the Government intends to build a database to document the changes in natural ecosystems and biodiversity due to climate change in the said regions and if so, the details thereof; and
- (d) the details of other steps taken by the Government to safeguard the biodiversity and help local communities adapt to climate change along with the funds provided in this regard?

**Answer**

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FORESTS AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR)

(a) & (b) A study to assess the impact of climate change on four key sectors of the Indian economy, namely agriculture, water, natural ecosystems & biodiversity and health for four climate sensitive regions of India, including Himalayan and the North-Eastern regions has been conducted and a report titled "Climate Change and India: A 4X4 Assessment - A Sectoral and Regional Analysis for 2030s" was published in November, 2010. As per the report, the Net Primary Productivity (NPP) is projected to increase in the Himalayan region by about 57% on an average by the 2030s, and in the North-Eastern region by 23%.

(c) & (d) Government has released the National Action Plan on Climate Change (NAPCC) on June 30, 2008, which includes eight national missions. National Mission for Sustaining the Himalayan Ecosystem (NMSHE) and Green India Mission (GIM) are two amongst the eight national missions, which include measures to conserve natural ecosystems and biodiversity. NMSHE has a total approved cost of Rs. 550 crores and includes creation of cohesive and inter-operable spatial database on fauna and their habitats and ecosystems. GIM focuses on enhancing ecosystem services and carbon sinks through afforestation on degraded forest land in line with the national policy of increasing the forest and tree cover to 33% of the total land area of the country. Total approved cost of GIM is Rs.2000 crores for the 12th Plan. Under Climate Change Action Programme (CCAP), Long Term Ecological Observatories (LTEO) programme aims at creating a network in various biogeographical locations of the country to understand the biophysical and anthropogenic drivers of ecosystem change and their effects on social- ecological responses. Coordinated Studies on Climate Change for North East Region (CSCCNER) is another component under CCAP, which aims to undertake studies to assess the impact of climate change on various sectors like forests, biodiversity, water, health etc. in the North Eastern Region of the country. Total budget allocation for LTEO and CSCCNER is Rs. 40 crores and Rs.5 crores respectively for the 12th Five Year Plan Period.