**Envrionmental issues:**

INDIAN HIMALAYAN REGION  (IHR) – ENVIRONMENTAL  CHALLENGES  
The Indian Himalayan Region (IHR), which occupies a strategic position along the entire northern and north-eastern boundary of the country and administratively covers 10 states in their entirety (Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Naga-land, Manipur, Mizoram, Tripura, Meghalaya) and two states partially (the hill districts of Assam and West Bengal), has wide ranging ecological and socio-economic significance.

The region, however, is facing environmental problems on account of various factors including the stress caused by anthropogenic activities. Even geologically, the Himalayan ecosystem falls under the most vulnerable category. There-fore the environmental issues being faced by the IHR are of critical importance. Managing the Himalayan ecosystem sustainably is critical not only for preserving its pristine beauty and spectacular landscapes, but also for ensuring the ecological security of the entire Indian sub-continent.

SAND MINING IN INDIA - ENVIRONMENTAL ISSUES  
Sand is an important mineral for our society in protecting the environment, buffer against strong tidal waves and storm, habitat for crustacean species and marine organisms, used for making concrete, filling roads, building sites, brick making, making glass, sandpapers, reclamations, and in our tourism industry in beach attractions.  
Sand mining is the process of removal of sand and gravel where this practice is becoming an environmental issue as the demand for sand increases in industry and construction.Despite a Supreme Court order that prohibits sand mining without the requisite clearance from the required author-ities and places limits on the quantities that can be mined, thousands of tonnes of sand is being illegally mined to meet the rising demand of construction industry and for extraction of minerals. Let’s discuss about the scenario of   
sand mining in IndiaThe environmental reasons for this ban and others across India are numerous. Sand acts as an aquifer, and as a nat-ural carpet on the bottom of the river. Stripping this layer leads to downstream erosion, causing changes in channel bed and habitat type, as well as the deepening of rivers and estuaries, and the enlargement of river mouths. As the river system lowers, local groundwater is affected, which leads to water scarcities aggravating agriculture and local livelihoods.   
In terms of legal measures, ground water shortages have been noted as the patent problem with river sand mining.   
Less considered in legal action, but centrally relevant, experts also note substantial habitat and ecological problems, which include “direct loss of stream reserve habitat, dis-turbances of species attached to streambed deposits, re-duced light penetration, reduced primary production, and   
reduced feeding opportunities”.

Economic consequences of sand mining  
1.   Revenue loss to the exchequer For e.g.: It is estimated that in Noida and Greater Noida alone the loss to the exchequer is about Rs.1,000 crore, but the impact that sand mining, which is simply put theft on environment and ecology, cannot even be cal -culated.   
Environmental consequences of sand mining

1.   Forcing the river to change its course Sand and boulders prevent the river from changing the course and act as a buffer for the riverbed.  
2.   Illegally dredged sand is equivalent to robbing water.  Sand holds a lot of water, and when it is mindlessly mined and laden on to trucks, large quantities of water is lost in transit.  
3.   Depletion of groundwater tables Sand, on a riverbed it acts as a link between the flowing river and the water table and is part of the aquifer. For e.g.: Illegal and excessive sand mining in the river -bed of the Papagani catchment area in Karnataka has led to the depletion ofgroundwater levels and environ -mental degradation in the villages on the banks of the river in both Andhra Pradesh and Karnataka.  
4.   Adversely impacting the habitat of micro-organisms. There are a lot of micro-organisms that are not visible and widely known, but are critical to soil structure and fertility. When sand is dredged, literally it takes away   
their habitat.   
5.   Increased river erosion

PALM OIL – ENVIRONMENTAL ISSUES AND INDIA’S ROLE IN IT  
When forest shrink, so does the home of endangered species. Palm oil has emerged as the main global source of vegeta-ble oil due to adequate availability, versatility in usage, higher yield and lower cost, as compared to other vegetable oils. Palm oil is generally sold in the name of vegetable oil.Palm oil forms 33% of the world vegetable oil production mix. Indonesia and Malaysia contribute almost 87% of production of palm oil, whereas China and India constitute 34% of imports.  
Global edible oil consumption has grown from 123 Million Metric tonnes in 2007 to 158 Mn MT in 2012. This growth has been fuelled by increased population, incomes and per capita consumption especially in developing countries like India, Indonesia and China, etc. Palm oil, at 48.7 Mn MT is the largest consumed edible oil in the world.  
As demand for palm oil increases, substantial tracts of tropical forests are often cleared to make room for large plantations. As per WWF’s estimates, the expansion of oil palm plantations is likely to cause four million hectares (more than twice the size of Kerala) of forest loss by 2020. Deforestation would most likely occur in high biodiversity areas, such as Borneo, Papua New Guinea, Sumatra and the   
Congo Basin in Africa. The felling and burning of forests impact populations of endangered wildlife such as Sumatran Tigers, Rhinos and Orangutans. It also has adverse impacts on people’s health and disrupts local livelihoods. At the global level, the impacts of forest loss are even more dramatic, including the release of greenhouse gases into the atmosphere that contribute to global warming.

IMPACT OF RADIATION FROM MOBILE PHONE TOWERS ON HUMAN BEINGS AND WILDLIFE  
The remarkable increase in mobile phones users in the country and mushrooming of mobile tower installations in every nook and corner of cities and towns have raised con-cerns on its probable impact on wildlife and human health.

Health Impacts  
Every antenna on cell phone tower radiates electro-magnetic power. One cell phone tower is being used by a number of operators, more the number of antennas more is the power intensity in the nearby area. The power level near towers is higher and reduces as we move away.

How the cell phone tower’s radiation affects the birds and bees?  
•  The surface area of bird is relatively larger than their body weight in comparison to human body so they absorb more radiation.   
•  Also the fluid content in the body of the bird is less due to small body weight so it gets heated up very fast.   
•   Magnetic field from the towers disturbs birds’ navigation skills hence when birds are exposed to EMR they disorient and begin to fly in all directions.   
•  A large number of birds die each year from collisions with telecommunication masts.

How the cell phone tower’s radiation affects human?  
•  EMR may cause cellular and psychological changes in human beings due to thermal effects that are generated   
due to absorption of microwave radiation.

•   The exposure can lead to genetic defects, effects on re-production and development, Central Nervous System   
behaviour etc.   
•  EMR can also cause non thermal effects which are caused by radio frequency fields at levels too low to produce significant heating and are due to movement of calcium and other ions across cell membranes.