

SC201: Remote MidSem Exam

Short Answers

1. Biological diversity or biodiversity is that part of nature which includes the difference in genes among the individuals of a species, the variety and richness of all the plant and animal species and various types of ecosystems, both terrestrial and aquatic, within a defined area.

Biological diversity deals with the degree of nature's variety in the atmosphere. This variety can be observed at three levels:

- (i) Genetic variability within a species: Genetic Diversity.
- (ii) Variety of species within a community: Species Diversity.
- (iii) Organisation of species in an area into distinctive plant and animal communities: Ecosystem Diversity.

Genetic Diversity: Each member of any plant or animal species differs widely from other individuals in its genetic makeup because of the large number of combinations possible in the genes that give every individual special characteristics. For example,

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every human differs from one another. This type of diversity plays a major role in evolution of new species from the existing ones. For example, the Homo Sapiens evolved from the Neanderthals gradually because of genetic changes.

Species Diversity:- The number of species of plants and animals that are present in a region constitutes its species diversity. For example, a large number of species of birds (around 1200) are found in India.

Ecosystem Diversity:- It can be described for a specific geographical region, or a political entity such as a country, a State or a taluka. Examples includes forests, grasslands, deserts, mountains, rivers, lakes, seas etc.

Long Answer

1. Kuno Wildlife Sanctuary is located in Sheopur district in the northwest part of the state of Madhya Pradesh. The Lion Reintroduction Project being implemented in Kuno Wildlife Sanctuary has resulted in relocation of 24 villages to the outskirts of the sanctuary. Over 5000 people resided in these 24 villages inside the sanctuary prior to the initiation of this project. A majority of these inhabitants comprised of Sahariya tribals, other caste groups including Yadav (SC), Brahmin, Gujjar, Kuchwaha, Yadav and so on.

Rehabilitation was carried out in accordance with the provisions of a Scheme of the Ministry of Environment and Forests called the Beneficiary ~~Development~~ Oriented Scheme for Tribal Development (BiTD). As part of this package, every male above 18 years of age is considered a separate family and is entitled to services worth Rs 1 lakh in different commodities necessary to sustain life.

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The amount of 1 lakh is an arbitrary figure and when it is applied at ground level under varying circumstances, this amount may or may not be sufficient for re-establishing access of each family to the various livelihood resources lost due to relocation.

Impact on Livelihood

Livelihood impacts have been assessed in terms of:

Land: Inside the sanctuary, the villages possessed title deeds or patta for a part of the land that they were cultivating. Most of the villages that have shifted out have already been allotted land, and in most cases, they have also started cultivating this land. An immediate consequence of relocation has been the emergence of complete equality of land-holdings, due to very nature of the rehabilitation package which provides 2 hectares of land per family.

Agriculture: The main source of livelihood inside the sanctuary was agriculture. Most farmers depended on rainfall, but a few had fields along rivers or

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streams also used pumps to meet irrigation. After relocation, the ~~in~~ crop-mix has not changed much in the displaced villages. Studies indicate, however, that the yield of most crops has gone down significantly after relocation.

Livestock: In addition to agriculture, people also kept livestock in order to meet their needs of milk, ghee etc. Milk yield was restricted to monsoon months, when fodder was abundant. Cattle were left to graze freely in the forest. The PRA studies reveals that after relocation, most families had to leave their cattle inside the sanctuary, because of lack of immediate sources of fodder at the relocation site.

Law and Order: Kuno Sanctuary is a part of the infamous Chambal Region and dacoity was a major problem faced by people inside the sanctuary. After relocation, the more compact nature of settlements and proximity to villages like Agra has resulted in improvement in law and order situation.

Health: Modern healthcare facilities were virtually non-existent in the villages inside the sanctuary. Relocation has made a positive impact on the community's access to formal health-care system.