

Biodiversity Congress 2018: Exploration of land-cover changes using GlobeLand30 (2000-2010) at the national level in Mexico

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Abstract

This study explored the Land Cover (LC) and LC transitions at national level in Mexico using the GlobeLand30 (GL30) land cover 30 meter resolution data sets for the years 2000 and 2010. This information was contrasted against the results of previous national level Land Cover (LC)/LC Change (LCC) studies and land cover/use digital data sets. consistent with GL30, wetlands and barelands have had the most important decreases in their areas during the 2000-2010 period (-13.33% and -9.26%, respectively), while artificial surface and grasslands have had the most important increases (7.38% and 4.00%, respectively). Cultivated (1.88%), forest (-0.47%), shrublands (-1.04%) and water bodies (-1.21%) show low changes during the 2000-2010 period. From the GL30 estimates of LC extent and percent change, those for the forest and cultivated classes were the foremost almost like those estimates reported in previous studies. The estimates for other LC classes show low agreement with previous studies and with a group of aggregated LC classes created from official

digital LC maps. Worth noticing is that the small decreased found for the GL30 Forest land cover class during the 2000-2010 period. this means a change in processes that in previous decades were reducing the extent of the forest cover in Mexico. the overall reduction in LC transitions observed within the 2000-2010 GL30 data supports reports that allocations for a few land covers/uses in Mexico have reached maturity and are tending to stabilize. The results of this study points to many needs for further research, like completing assessments of the locational and classification accuracy of the GL30 data sets for Mexico. More specifically, there's a requirement to closely analyze the extent and changes within the GL30 artificial surface and wetlands LC classes. Wildlife habitat and species round the world face a crisis. it's estimated that heating may cause the extinction of 15–37% of species by 2050. this is often another aspect which needs attention because we could lose about 1.25 million species. Unlike other environmental losses, this one can't be reversed because nature doesn't give second chances to biodiversity.

Wildlife resources constitute an important link within the survival of the human species and are a topic of much fascination, interest, and research everywhere the planet. Today, when wildlife habitats are under severe pressure and an outsized number of species of untamed fauna became endangered, the effective conservation of untamed animals is of great significance. Because all folks depends on plants and animals for all vital components of our welfare, it's quite a matter of convenience that they still exist; it's a matter of life and death. Being living units of the ecosystem, plants and animals contribute to human welfare by providing

- material benefit to human life;
- knowledge about genetic resources and their preservation; and
- significant contributions to the enjoyment of life (e.g., recreation).

Human society depends on genetic resources for virtually all of its food; nearly half its medicines; much of its clothing; in some regions, all of its fuel and building materials; and a part of its mental and spiritual welfare.

Considering the way we are galloping ahead, oblivious of what legacy we decide to leave for future generations, the longer term doesn't seem too bright. Statisticians have projected that by 2020, the human population will have increased by quite half, and therefore the arable fertile land and tropical forests are going to be but half

what they're today. Genetic resources are treated as inexhaustible natural resource, but we'd like to worry about them. It's here that the concept of management and conservation of wildlife comes into play, because anything that's not human or undomesticated is 'wildlife'. Presence or absence of an animal or plant during a region is decided by ecological and historical factors. Animals and plants live indicators of the characteristics of their environment; their ranges mark the places where environmental conditions are an equivalent or similar. To interpret the range of a species properly, it's necessary to understand, in detail, the conditions required for the species to measure and thrive. On this basis, the planet are often divided into six zoogeographical regions:

- 1) Nearctic North America and Greenland
- 2) Palearctic Eurasia, without India
- 3) Ethiopian Africa, south of the Sahara
- 4) Oriental India and Indochina
- 5) Australian Australia and New Zealand
- 6) Neotropical South and Central America, and therefore the Antilles

The high cost of captive breeding and therefore the paucity of additional release sites threaten gharial conservation efforts. Increasing interactions between riverside human populations and therefore the gharial, also because the negative effects of agriculture and fishing restrict successful gharial populations to a couple of stretches along isolated and guarded rivers. Gharial

migration out of protected areas has been identified as a big factor that's slowing population recovery.

If we take into consideration the traditional reasons why wildlife is disappearing in Asia, India is doing much better than other countries. India has launched an in depth protected area network of research institutions during which legislation, socio-economic factors, and wildlife research are playing an excellent role. The Central Zoo Authority plays a key role with zoos in programming research activities associated with the conservation and propagation of untamed animals. Planned research activities include studies on wildlife biology, genetic variability, species-specific nutritional requirements, animal behavior, epidemiological surveys, and disease diagnosis through autopsy. The longer term depends on interaction between captive and wild animals, preservation of biodiversity, and genetic and demographic variations of species. India still has 65% of Asia's tiger population, 85% of the Asian rhino population, 80% of the Asian elephant population, and 100% of the Asiatic lion population.

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