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INVOLVEMENT AND THE ROLE OF HUMAN IN BIODIVERSITY#

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Abstract

To proper management of our resources for the protection of food security, natural resources and energy security by the involvement of human beings. The effect of biodiversity in health area of human, their social interaction and the preference of their need. The involvement of human beings in the ecosystem it really creates a magic in their surroundings. It can easily understand that if we increase the food production automatically it reduced the water availability. There are numeral things such as fisheries, to supply the water and save the natural resources and indirectly save our ecosystem.

Keywords: Human need, tools, agriculture, earth etc.

#General Article

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Introduction

Most of the people who lives in the earth but they did not realize the application and importance of the biodiversity. There is a dependent relationship among the human and the nature so if we want to live long on the earth we must save our environment. There are most of the factors which is responsible for the nature balance such as land area and their applications. Now the query was raised that how can we improve the biodiversity on the earth. There are several tools such as education, awareness and preserving method of it safety.

Biodiversity defines the importance and role of their work in human life. The environment of the human makes our life simple, clean and maintain the balance of the human beings but if we aware the people about the environment and their close relationship with the nature on time we definitely safe it. The biodiversity defines the role and its value which is very much importance to human life.(Morton & Hill 2014)

On the basis of economics we defined that the production and consumption both are interrelated things. The farmer of our country, timber workers etc are depending upon the biodiversity.

In human life oxygen plays a very important role which supports their circle by cleaning the air, decrease the water pollution and recycle the water by treatment it.

There are following methods which are helpful for these aspects:

- Recreation
- Bird watching
- Cultural
- Scientific

There are loss or any decrease in the biodiversity level through which human effects. On the global basis there is display the relationship between the human and the biodiversity. There are several parameters such as material welfare, security of the communities, resilience of local economies and human health.(Morton & Hill 2014):

- Provisioning services— It relates to the production of food, fibre and water
- Regulating services— It helps to the control of climate and diseases
- Supporting services— There are plan to manage nutrient cycling and crop pollination
- Cultural services— To provide the knowledge as spiritual and recreational benefits.

Importance of Biodiversity

The variety of life which depends upon the earth and their method is called as biodiversity.On the evaluation by the natural process and its effect on the human.(Secretariat, 2000).In this involvement of species among the species and their ecosystem. (Frequently, 2005). There are numerous factor either spatially and temporally.(Climate, 2005). Due to dependence on the food,water resources, oxygen,detoxification of waste and recycled the substances, medicine, opportunities for recreation and tourism, and many more things (Secretariat, 2000).

Study about Extinct Species

The biodiversity explains about the species existence. At present 1.75 million species were indentified but among them 10 million are present on the earth. (Eldredge, 2000). If we study we are really feel that losses are more about the rate of extinction. There are mostly some features which are studied such as habitat loss, degradation and fragmentation. (Noss et al, 2005). These all are directly or indirectly related to the human.

Role of Human

It is not a direct impact that a human link to the biodiversity. There are many aspects which are very important such as to prepare a land which is productive and to supply the water which is a very essential to the nature. (Wackernagel et al., 2002). The role of human which involve in the biological diversity. The economical, sociopolitical, scientific and technological, and cultural and religious factors. The external inputs such as harvesting, air and water pollution, and climate change (Climate, 2005).

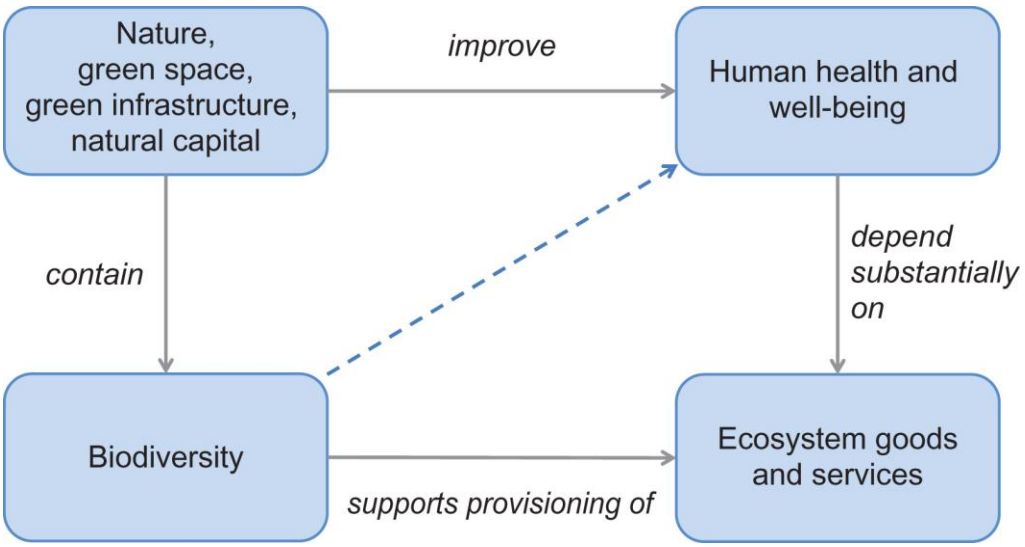

Fig.1. Linkages between Nature, Biodiversity, Ecosystem Services, and Human Health and Well-Being

The role of human which has substantially changed one-third to one-half of the world's surface (*Frequently*, 2005). Due to growth in population and in the consumption of natural resources . (Mapping, 2005). There are the methods which are required to measure the environmental exposure, temperature and air humidity have a power to the different dimensions of biodiversity.

The Impact of Human Health

More research is needed to assess the health impact of emerging nature-based solutions. Among others, the following interventions merit special attention:

Urban Blue Infrastructure- blue landscape elements in cities contribute to improved urban water cycles and generates a number of health benefits related to the regulation of the urban climate. More research is needed on the potential impacts of blue infrastructure on vector-borne diseases.

City Trees- city trees have potential impacts on air quality (both positive and negative) and temperature and may have implications for the prevalence and severity of respiratory and cardiovascular diseases. Urban trees can also be sources of allegenic pollen and the allergenicity of tree species must be considered in urban green planning.

Green School Playgrounds- school playgrounds equipped with green infrastructure may increase early life exposure to beneficial urban soil microbiota and reduce the incidence of NDD.

Wildlife Provisioning- increasing wildlife populations in the vicinity of people by providing resources for wildlife, such as bird feeding stations, may stimulate human-nature interactions and generate indirect health benefits.

Forest Bathing- 'Shinrin-yoku' (therapeutic forest walks) and other nature-based therapies are increasingly popular but lack scientific validation so far.

Finally, most studies on biodiversity and human health have focussed on the short-term effects of exposure to biodiversity and often lack proper experimental design. Further research on short-term exposure effects should preferentially adopt randomized controlled trial designs. In addition, few studies acknowledge that the effects of exposure do not necessarily overlap with the timing of exposure. Therefore, additional studies need to take into account the various time lags that could occur in nature dose–health response relationships. Longitudinal studies, such as birth cohort studies, rather than cross-sectional studies, seem to be most appropriate to validate the long-term benefits of biodiversity on human health.

One way that the humans have been able to sustain their growth is by converting natural habitats to fields where foods can be produced. At least 23 percent of the earth's land is being used for agriculture (31 percent of all land is unfarmable). In the United States there is a direct relationship between the losses of forests to the increase in cropland (Dobson, 1996). Internationally, there is half a hectare of tropical forest disappearing to farmland every second. One of the potential dangers of decreasing the amount of natural habitats remaining is that species will no longer be present on earth. This directly affects agriculture because many of the species that are being destroyed for croplands may have been used for genetically enhancing crop products (Frequently, 2005). In this manner, the increase in agricultural land actually harms our agricultural future.

Human actions have also played a role in climate change, which is also causing great danger for biodiversity. The change in climate is due to increased atmospheric concentrations of carbon dioxide, which causes increased land and ocean temperatures, and changes in precipitation and sea level rise. With the change in climate also comes a change in species. Climate affects the timing of reproduction and migration, the length of growing seasons, species distributions and population size, and the frequency of pest and disease outbreaks. It is also expected that the change in climate in the 21st century will have a much higher rate than the past 10,000 years and create an even bigger impact on biodiversity (Climate, 2005). It is expected that 80 percent of biologically rich regions will suffer great losses of plant and animal species because of global warming. The rate of

change of habitats is expected to increase up to ten times due to global warming (Sherbinin, 2002).

References

1. Mapping Human Impacts On the Biosphere. Retrieved October 25, 2005, from Global Methodology for Mapping Human Impacts on the Biosphere.
2. Wackernagel, M., N. B. Schulz, D. Deumling, A. C. Linares, M. Jenkins, V. Kapos, C. Monfreda, J. Loh, N. Myers, R. Norgaard, and J. Randers. (2002).Tracking the Ecological Overshoot of the Human Economy. *PNAS*, 99(14), 9266-9271
3. Lee ACK Mahaswaran R The health benefits of urban green spaces: a review of the evidence *Public Health* 2011.(33) 212 –22.
4. MacKerron G,Mourato S.Happiness is greater in natural environments.*Glob Environ Change* 2013;23:992–1000
5. HartigT,Mitchell R,de VriesS, et al. . Nature and health. *Ann Rev Public Health*2014;35:207–28
6. James P,BanayRF,HartJE, et al. A review of the health benefits of greenness.*Curr Epidemiol Rep*2015;2:131–42.
7. Mantler A,Logan AC.Natural environments and mental health .*Adv Integrat Med* 2015;2:5–12
8. Shanahan DF,Bush R,Gaston KJ , et al.Health benefits from nature experiences depend on dose. *Sci Rep* 2016 ;6 28551