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REVIEW ARTICLE

Forest and Sustainable Livelihood systems

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ABSTRACT

A livelihood system encompasses the capabilities, material and social resources, and activities required for a particular means of making a living. A livelihood is sustainable when it can cope with and recover from the stresses and shocks and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource base (Chambers & Conway, 1998). Arnold (1998), in examining the contribution of forests to sustainable livelihoods, defines forests "to include all resources that can produce forest products. Forests cover 31 percent of the world's land surface, just over 4 billion hectares. As forest expansion remained stable, the global net forest loss between 2000 and 2010 was 5.2 million hectares per year. India has 7,08,273 sq. km. of forest that is 24.39% of India is Forested. Between 1990-2000 (10 years) India gained an average of 361500 hectare/ year of forest area and the annual reforestation rate is 0.57%. Ministry of Environment, Forest & Climate Change (MoEFCC) has released India State of Forest Report (ISFR), 2017. According to the report the total forest cover in India has increased by 8021 sq. km. The report also revealed state wise status of India. There are 15 States/UT of India which has above 33 % of geographical area under forest cover and 5 north eastern states where the forest cover has been decreased. If countries are able to pursue inclusive areen growth strategies that overcome some of the more severe trade-offs between growth and forest protection, the deforestation that has historically accompanied development in many countries could be slowed, making an important contribution to climate change mitigation. If the world is to confront the challenges of mitigating and adapting to climate change while meeting the demands of a rapidly-growing global population, it is vital that we find the balance between conserving and regenerating forest areas with economic growth for poverty reduction.

Keywords: sustainable livelihood systems, Conservation, Regeneration

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NTRODUCTION

A livelihood is sustainable when it can cope with and recover from the stresses and shocks and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource base [1]. When we talk about the sustainability, number of challenges comes to our mind like meeting out the current needs, saving for the future generation as well as conserving the environment. To overcome these challenges the concept of sustainable livelihood systems comes into mind.

A livelihood system encompasses the capabilities, material and social resources, and activities required for a particular means of making a living. Livelihood systems can be described by a main source of livelihood that is quite broad. They have been used as part of poverty assessments, food security assessments, and vulnerability assessments. (Pittaluga, Salvati and Seghieri)

Arnold [1], in examining the contribution of forests to sustainable livelihoods, defines forests "to include all resources that can produce forest products. These can comprise woodland, scrubland, bush fallow and farm bush, and trees on farm, as well as forests". Arnold's definition focuses not on tenure or tree cover as the basis for defining a forest, but

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on the potential for producing products. Moreover, the contribution of forests is measured not only by the products they provide, but also by the non-tangible services they offer.

Forest – World Status

Forests cover 31 percent of the world's land surface, just over 4 billion hectares. This is down from the pre-industrial area of 5.9 billion hectares. According to data from the United Nations Food and Agriculture Organization, deforestation was at its highest rate in the 1990s, when each year the world lost on average 16 million hectares of forest—roughly the size of the state of Michigan. At the same time, forest area expanded in some places, either through planting or natural processes, bringing the global net loss of forest to 8.3 million hectares per year.

In the first decade of this century, the rate of deforestation was slightly lower, but still, a disturbingly high 13 million hectares were destroyed annually. As forest expansion remained stable, the global net forest loss between 2000 and 2010 was 5.2 million hectares per year.

FOREST COVER - INDIA

India has 7, 08,273 sq. km. of forest that is 24.39% of India is Forested.Between 1990-2000 (10 years) India gained an average of 361500 hectare/year of forest area and the annual reforestation rate is 0.57%.

Ministry of Environment, Forest & Climate Change (MoEFCC) has released India State of Forest Report (ISFR), 2017.According to the report the total forest cover in India has increased by 8021 sq. km.This increase is one percent from 2015-2017. Report discloses that India ranks 10th in world for 24.39% land area under forest cover.India ranks 8th in the list of top ten nations reporting the greatest annual net gain in forest area.Indian forest cover accounts for only 2.4 of world's surface area.

The report also revealed state wise status of India. There are 15 States/UT of India which has above 33 % of geographical area under forest cover. Under which there are 7 States/UT have more than 75% forest cover these are Mizoram, Lakshdweep, Andaman and Nicobar, Arunanchal Pradesh, Nagaland, Meghalaya & Manipur. Other 8 States that have forest cover between 33%-75% are Tripura, Goa Sikkim, Kerala, Uttarakhand, Dadra &Nagar haveli, Assam &Chattisgarh. So these collectively are 15 states having above 33 per cent forest cover.

Report stated that3 States with maximum forest cover (in terms of area)are Madhya Pradesh (77414 sq km.), Arunanchal Pradesh (66964 sq km) and Chattisgarh (55547 sq km. Some of the states were recorded to have increased in forest cover which are Andhra Pradesh (2141 sq. km.), Karnataka (1101 sq.km.), Kerala (1043 sq. km.), Odisha (885 sq. k.m) and Telangana (565 sq km.).Some of the states were also there in which the forest cover has been decreased and those are Mizoram (531 sq km), Nagaland (450 sq. km.), Arunachal Pradesh (190 sq.km.), Tripura (164 sq km.) andMeghalaya (116 sq.km.).

The reason for such a decrease in north eastern states might be the increasing development status of these states and the other practices likeShifting Cultivation, Rotational Felling, and diversion of forest land for development activities, Submergence of forest cover, Agriculture Expansion and Natural disasters [4].

CONSERVATION AND REGENERATION

Forests are important natural capital. Past development efforts have primarily focused on building natural capital, without paying equal attention to how these assets, such as forests, combine with other assets to sustain livelihoods, especially among the poor. This oversight has resulted in gaps in understanding the contribution of forest products to sustainable livelihoods [2].

A little over 10 years ago, the World Bank shifted course on its forest strategy to better reflect the reality that a forest is not simply a physical asset that can be cleared, logged or protected. In fact, a forest influences – and is impacted by – linkages to an array of other activities and sectors, particularly agriculture and water, but also energy, mining and transportation at the local, national and even global level. In its 2002 Forest Strategy, the World Bank spelled out this understanding and pledged to support countries in their efforts to harness the potential of forests to reduce poverty, better integrate forestry into their

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economies, and protect and strengthen the environmental role forests play, locally and globally [3].

At the same time, many of the world's remaining forests are under increasing threat because of human activities and climate change. Although the pace of deforestation has slowed in some regions, the world still loses about 14.5 million hectares of forests each year. In parts of the Amazon rainforest, rising temperatures and changing rainfall patterns are connected with the increased risk of catastrophic dieback with dangerous local, regional and global consequences. In the Congo Basin, a recent analysis of deforestation trends published by the World Bank highlights the intense pressure that agricultural expansion, mineral exploitation, growing energy needs, and an improved transportation network will pose to the integrity of this vast rainforest area.

CONCLUSION

If countries are able to pursue inclusive green growth strategies that overcome some of the more severe trade-offs between growth and forest protection, the deforestation that has historically accompanied development in many countries could be slowed, making an important contribution to climate change mitigation.

As discussed earlier forest is the source of livelihood for a huge sum of population and its conservation an essential aspect if we talk about incorporating it in the sustainable livelihood systems. If the world is to confront the challenges of mitigating and adapting to climate change while meeting the demands of a rapidly-growing global population, it is vital that we find the balance between conserving and regenerating forest areas with economic growth for poverty reduction.

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