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Land use Changes due to improper meddling with nature's resource and its influence on Biodiversity Conservation

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Abstract

Presently deprivation of environment is under the demands for economic resources due to growing human population paucity and average temperature change. The human Population is overusing usual resources and transforming inhabitant environments into human dominated landscapes. The environment impacts of human activities are willingly evident, causing remarkable changes are in patterns of variety work, great quantity and assortment in various ecosystems. All usual area, swampland and dissimilar forest areas are the main habitats of Biodiversity ecology and atmosphere situation of some area are copious reliant on the standing of Biodiversity. It was predictable that 20-30 million variety may be exists in the globe. According to specialist more than 16,000 plant and animal species are currently endangered with disappearance. However the populations of biodiversity are declining day by day and a number of species have already become extinct from the natural world. Climate change is one of the largest part vital factors of ecological changes which are causative to the massive global biodiversity loss by creating whirlwind, Drought, Heavy rainfall, Flood, ice melting sea level growing etc. Earth is warming at an abnormal rate and confirmation of warming is nearby in diverse forms, that is reflected by the temperature proceedings. Global warming is also well thought-out to be a main danger to global biodiversity. The majority of the ecological changes and environment destructions are creating by the ingenuous and unintended human interventions. Environmental changes are occurrence in diverse geographical areas suitable to landslides, trembling, erosion, siltation of riverbeds, salinity rising in soil and water. There is compromise among with the world researcher that the source for raise in full of atmosphere CO_2 and eventually for earthly warming is form creature behavior. In India, about 9.38 million ha area is unavailable by salt –pretentious soil out of which 5.50 million ha is saline soil and rest of 3.88 million ha is alkaline soil. Biodiversity loss has turn into a most important reason of apprehension as a outcome of large scale ecological poverty. This motive of trepidation is further forced by the environment loss, habitat destruction, over utilization, preface of exotic species, turbulence and diversity of factors. Even though Indian having 670 Protected area including 102 National park, 515 wildlife sanctuary, 49 Conservation Reserves and 4 Community Reserves, there has been a decline in diverse wildlife species. There have been radical changes in land use around protected areas. These are generally being used intensively for developmental purposes, thus upsetting biodiversity. The scope and category of land use straight affects flora and fauna habitat and thus impacts local and worldwide biodiversity. Land alteration is the on its own most source of disappearance of worldly species. We are at present bringing up the rear species at sandwiched between 100 and 1000 times the normal rate, and more or less all of this augment is caused by humans. Even as hunting and environment damage engage in recreation a most important element, climate change and the troubles it causes such as elevated temperature, varying precipitation and extreme weather, have the condition more grave. Almost 50% of the land is windswept and robbed of its fertility. The level

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of damage made to the world's biological diversity and eco-system cannot be assessed. Our renewable and non-renewable resources are being disturbingly worn out appropriate to growing population pressure affectation intricacy to deal with danger to upcoming generation. Therefore, there is a burly require to talk about corrective actions to keep our potential approach and ecological management.

Key words :- Threat to biodiversity, Land use, human activities, Climatic Change

Introduction :- The quick climate change more than the last 15 years and accelerating biodiversity loss risks human safety measures, impacting diverse species of plants, animals, environment a main vary in the food sequence in the lead which we depend water sources, may modify, retreat or evaporate, etc. Slaughter of bitter ocean ice threaten biodiversity athwart an whole biome and afar. The connected strain of sea acidification, ensuing from elevated concentration of carbon dioxide in the ambiance. He insist of food, force and additional human being necessities depends ahead the protection and development of the yield of earth. But soil possessions are inadequate. India has about 18% of world's population and 15% of livestock population to be supported from only 2% of geographical area and 1.5% of forest and paddock lands. The growing human and animal population has condensed the accessibility of soil cover up the decades. According to revise out of 328.7 million hectors of geographical area of India, about 141 million hectors is mesh cultivated areas. It is predictable the up to 40% of the world's rural ground is critically ruined. At present the world are beneath great difficulty to create further food for their upward populations, whereas conserving normal possessions and dipping scarcity. But these objectives repeatedly contend with one more, in front of countries to prefer between food for their people today and environmental defense for expectations. Of the numerous ecological challenges initiate about the world, two in scrupulous are determined by environmental connections between continents the loss of natural variety and the raise of worldwide distinctive greenhouse gasses, which is the end result of globalization. Biodiversity loss has become a major cause of apprehension as a corollary of great extent ecological deprivation. Extensive expression provisions yield is in danger by soil dreadful conditions, which is now stern adequate to diminish acquiesce on *(WMO, Climate and Land Degradation,2005)* about 16% of the undeveloped land, particularly cropland in Africa, Central America and grazing land in Africa. This cause of concern is additional provoked by the habitation loss, habitat disintegration, in excess of utilization, preamble of alien species, conflict and diversity of factors. In India population of crocodiles had been dwindled in danger category owed to dissimilar reasons as well as environment devastation, drowning deaths in fishing behavior, killing of animals for saleable purposes. Due to lack of constraint on the detain of turtles and little or on enforcement of obtainable legislation, populations of turtles in different water bodies are declining. On the basis of specialist group of people has stated a numeral of turtles as in danger the schedules of Indian Wildlife (protection) Act, 1972 and in the Red data List. Further 60% of coral reefs possibly will be lost by 2030 all the way through fishing damage, pollution, disease, invasive alien species and coral bleaching, which is fetching more widespread with climate change. India has in relation to 12% of the worldwide plant prosperity surrounded by which there are almost 3,000 trees species. India is recognized for its rich tradition of biological diversity, having by now renowned over 91,000 species of animals and 45,500 species of plants in its ten bio-geographic regions. Environment dreadful conditions has been escalating worldwide a serious threat to the whole ecosystem. Increasing people, cost-effective increase, urbanization, augmented worn of usual possessions and deforestation are the major drivers of these changes. In India land deprivation are prevalent in a lot of forms and in most cases, amalgamation of such quandary exists. According to National Bureau of soil survey and land use planning (*2005)* that 146.82 million hectare area is reported to be affliction from an

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assortment of kinds of soil deprivation. It includes water wearing away 93.68 million ha, storm erosion 9.48 million ha, water taking down/flooding 14.30 million ha, salinity/alkalinity 5.94million ha, top soil sourness 16.04 million ha and comprehensive problem 738 million ha. It is probable that additional 35% of the economy is based on natural possessions or processes and remuneration in a straight line from whole ecosystems. Just about every production is extremely dependent on biodiversity and other ecosystems services. Biodiversity provides a immense figure of goods and services that prolong global economy and basically, our lives as the services provided by strong ecosystems, in revolve are the groundwork for human well-being. people depends on vigorous ecosystems as they hold or get better our eminence of life, and exclusive of them, the soil would be dilapidated. Globally , mangroves span some 150,000 sqkm, half the area of the Philippines, and are disappearing faster than any otherkind of forest on earth. More than 250 million people are straight pretentious by desertification. In addition, a number of one billion people in over 100 countries are at danger. These community comprise numerous of the world's poorest, a good number marginalized and politically feeble people. Land dilapidation is also a solemn trouble in Australia with over 65% of the land probable to have been tainted. In India more than 60% of refined land suffers from soil erosion, water sorting, and salinity. It is also anticipated that between 4.7 and 12 billion tons of topsoil are mislaid annually from soil wearing away. The land use straight affects wildlife habitat and in that way impacts local and worldwide biodiversity. Land change is the single most cause of destruction of terrestrial species. Present situation is mainly stern in low deceitful thickly occupied areas of China, India, Pakistan, Bangladesh, Myanmar and other parks of southeast Asia. These are the areas also open to the elements to the nearly all extensive human and agricultural development.

India Landuse classification and Pattern :- Landuse represents the human exercise of Land i.e. small-scale agriculture, grazing, wildlife or Industrial Zones. India Land has a extensive variety of soils, all type being exacting of a specific locality. Landuse has been varying still as humans initial began to deal with their situation. On the other hand, the changes that have in use rest in excess of extra then 50 years have been particularly vital and intense as the social order is fetching gradually more *(Metzger et.al,2006)* developed, whereas ordinary ecosystems turn into deteriorated. Landuse changes may get rid of variety close by and beg off natural habitats and flora and fauna implementation upsetting therefore, biodiversity and condition of ecology services. In India elsewhere of the 40 million hectares of irrigated land, at least 13 million hectares had been gone to *(Chandran,2011)* irrigate cataloguing salinity and alkalinity. The risk of this type soil dilapidation is mainly grave in the black cotton soil of India. In the Deccan black soil part, the top soil loss in a solitary year is as high as 4-100 tonnes per hectare. In the Shivalik hills, 6cms of top soil on behalf of almost 2400 years of environmental times past might evaporate in one year. Alluvial and black fiber soils are the two mainly imperative soil groups for farming invention. Alluvial soils cover about 78 mha on the subject of 24% of the total earth and take place in the immense Indo-Gangetic plains**,** in the valleys of Narmada and Tapti in Madhya Pradesh and the Cauvery in Tamil Nadu. Black cotton soils wrap regarding 51.8mha and are originate in the state of Maharashtra, Gujrat, MP, Karnataka, Andhra Pradesh, Tamil Nadu Uttar Pradesh and Rajasthan, Red Soil have been predictable to take place in 51.8 mha and Lateritic soils conventional yearly in relation to 4000 cubic Kilometers of water all the way through precipitation. Water is not distributed evenly, Human settlement are usually create near water bodies. Worldwide the Problem of water availability is mainly solemn in Africa and west Asia, it is probable that more than *(The Friends of the Doon Society,2010)* one fifth of the world's population does not have adequate water. It is a inconsistency that in convinced parts of the world people are frantic for a drop water, even as millions of others endure from the anguish of floods**.** It is also supposed that if the there trend continues about 20% of the world's

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population will derivation have sufficient water for their essential needs in the next 20 years. Far above the ground elevation swampland comprise an massive probable, mainly on the Tibetan Plateau. The facade and latent of the wetlands on the Southern slopes of the Himalayan and extend accessible wetlands in the countenance of (*ICMOD,2009*) moves towards land use change and rising exploitation. In India expected that out of the total precipitation of around 400 million hectares meters in the country, the external water accessibility is about 187 million hectares. Presently utilizable water resources of about 1100 cubic kilometers, surface sources. The nation has been separated into 20 river basins – comprising of 12 major river basins, each having a catchment area beyond 20,000 sqkm and eight merged river basin. The ground water probable varies in dissimilar regions of the countryside. Due to grave removal of ground water and its imperfect renew , the ground water is receiving used up at a speedy rate, because forestry is an vital element of Landuse. As a result Land portion for forestry includes (a) areas place apart as forestland (b) non-forest land. India Landuse, geographic and weather factors, estranged into ten identifiable biogeography zones. The zones include a variety of ecosystem (i) Trans Himalayas region (ii) Himalayas (iii) India Desert zones (iv) Semi-Arid Region (v) Western Ghats (vi) Deccan Plateau (vii) Gangetic Plain (viii) North-East India (ix) Island (x) Coasts. Present study in India increase of 20% in tiger information but a turn down of 12.6% in tiger habitation from linking habitats. In India Tiger basis *(Status of Tigers, Co-predators and Prey in India, 2010* **)** populations were create to be “tiny”. In India Tiger habitation reduce owing to Tiger corridors are under major danger and possession area has shrunk by almost 22% due to *(WPSI,2012)* poaching and progress. According to survey by the Wildlife Protection Society of India tiger have been killed more than 950 in India since 1994 to till March,2012. Tigers take place mostly in the woodland areas of 17 states in India. Nagaland, Meghalaya, Tripura, and Haryana have information of infrequent tiger incidence. More than a few environmental and anthropogenic factors similar to wooded area wrap, landscape, usual prey accessibility, being there of uninterrupted surroundings and the eminence of executive efforts in use towards safety. While Reserve sites in a tightly inhabited nation like India are *moderately* minute owing to the lofty insist for land by populace. Owing to far above the ground thickness human territory and communications growth similar to power fencing, highways and Industry become insuperable barriers to the movement of tiger and confine genetic material flow sandwiched between wildlife populations creation the vulnerable to confined extinctions. India has been alienated into 15 agro type of weather Zones on the source of climate.The countryside has also been categorized into 20 Agro environmental Regions fall into Six main climate regions as follows (1) arid (2) Semi-Arid (3) Dry Sub-humid (4) Moist Sub-humid (5) Humid and (6) Per-humid. The prototype of Land use of a (*General Profile, Land use Classification and Land use Pattern*) country at some exacting time is strong-minded by the corporeal, fiscal and Institutional scaffold in use together**.** Himalaya Region are infertile and

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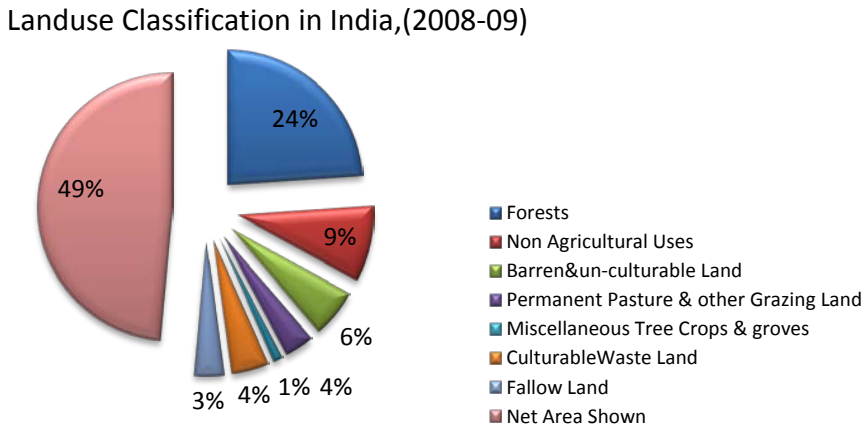

Fig :- 1.1 Source: Ministary of Agriculture

uncultivable land, permanent pasture, cultivable wastelands etc. According to fundamental demographic changes, the soil to man ratio and forest to man ratio has speedily declined. In India data on the extra main utilize of fuels, that is cooking, shows an still less current image, by means of more than 85% of rustic India *(TOI,2012)* immobile using firewood, yield residue or cow dung as its most important basis of fuel for food preparation. The lifestyles and the biomass resource requirements having remained unaffected, the remnant forests have move toward under inexorable pressure of infringement for farming, and untenable resource removal, depiction the very resource base barren and used up of its biodiversity. Joined with these incongruities and aberrations in land use, the unsound development strategies have led to rising threats to biodiversity resources by system of against the law infringement of 0.07 Mha. of forest, farming of 4.37 Mha. and distraction of forest for river gorge projects (0.52 Mha.), industries and townships (0.14 Mha.), show lines and roads (0.06 Mha.) and an added 1.5 Mha. for various purposes. According study a great proportion region of crop growing the coarse cereals 90%, pulses 81%, oil seeds 76%, cotton 65% and rice 50% are rainfed. Cultivation also is the solitary main starting place of service in India. A major threat to the biodiversity in Eastern Himalayas is at hand in immense risk of diminution. This decline in woodland affluence in progress with the increase of human population in this region. Main danger to the biological diversity are uneven farming or Jhuming, overexploitation of medicinal or decorative plants, developmental activities, township, road building and clearing of land for everlasting agriculture, equipped forces concern, forest fire, invasion of weed *Mikania micrantha*, over grazing and worldwide distinctive changes. At the same time recent evaluation by Forest Survey of India the total forest cover in India is 692,027 sqkm which mechanism elsewhere as 21.05% of the geographical area of the country. In terms of density classes, area roofed *(FSI,2012)* by as follows. Actual Change in wooded area wrap stuck between the two evaluation periods, reflects the definite vary on the land throughout the superseding stage**.** A better part beneath forests is an compulsion, to keep the environmental sense of balance and for incorporation of carbon dioxide, the throng of which is probable to intensify the green house effect**.** This is revolve would hoist distinctive warmth at the worldwide period**.** It might show the way to thawing of ice caps and equal go up in sea level, jeopardizing low-lying compactly inhabited parts of the world. Woodland supply home to wildlife and lend a hand their protection. They help in pretty the stage of rainfall, minimising cases of famine**.** wooded lands also assist in penetration of rainwater in

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the subsoil and modulating the run of waterway in both rainy and dry seasons. Forests protect not only water but soil as healthy. They thus, help in plummeting the quantity of floodwaters and their cruelty. This has been worked out subsequent to creation change for the interpretational

Forest & Tree Cover Statistics

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Table:-1.1 Source :- FSI

change in the preceding evaluation.The actual vary can be accredited to moreover running interventions such as harvesting of petite gyratory plantations, clearances in encroached areas, biotic pressures, changing farming practices etc.

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Biodiversity beg to be excused appropriate to Land use Changes:- The main source of biodiversity decline are land use changes, effluence, changes in impressive CO_2 concentration, changes in the Nitrogen cycle and acid rain weather change, and the preamble of exotic species, all concurrent to human population increase. The geometric rise in human population stage for the period of the 20th centaury is the primary source of the thrashing of biodiversity. It makes not as good as all more concern having an impact on rainforests. It has led to an interminable look for other arable land for food invention and livestock grazing, a and for timber for fuel, building, and energy. The human population was approx 600,000 million in 1700 and one billion in 1800 just now it exceeds six billion, and near to the ground estimates are that it possibly will achieve 10 billion by the mid 21st centaury and 12 billion by 2100. Seeing that a consequence, it might be great pressure of lots of environmental aspects of natural systems can be constant underneath the strain of such facts. Can birds maintain to migrate, can larger organisms have surroundings to scavenge, can ecosystems stay alive in no matter which akin to their at hand appearance or are they destined to hardship and dreadful conditions. Land dreadful conditions involve two interlocking, multifaceted systems: the usual ecology and the human common systems. Normal services, all the way through episodic stresses of great and unrelenting atmosphere measures, and human make use of and cruelty of receptive and vulnerable dry land ecosystems, often act in unison, creating feedback processes, which are not fully understood. Habitat destruction is the single most important cause of the loss of rain forest biodiversity and is directly related to human population expansion. As tropical forest land is rehabilitated to ranches, undeveloped land and then, habitually to tainted forest lands, brush land, or desert, urban areas and additional human usages, habitation is lost for jungle organisms. A lot of species are extensively dispersed and therefore, originally, environment damage could simply decrease local population records. Species which are restricted, extensive or which have focused habitats are greatly additional vulnerable to destruction**.** The majority of the habitats being damaged are those which have the main levels of biodiversity, such as lowland steamy wet forests. In this holder, environment loss is caused by defrayal, discriminating classification and burning. Land dilapidation is a worldwide crisis, mainly associated to farming use. The main causes such as (1) understandable cutting and deforestations (2) undeveloped reduction of soil nutrients all the way through poor agricultural practices (3) Domestic animals as well as overgrazing (4) Unsuitable irrigation. Urban spread out and saleable growth (5) Land contamination together with industrial waste (6) Quarrying of mineral, sand **.** Loss of biodiversity, as well as elevated charge of disappearance and a world wide diminution of biological diversity at heritable, species and ecology levels, can be connected to the devastation of natural habitats as a outcome of land use vary at diverse level, and is at the moment considered solitary of the majority imperative surroundings tribulations **(*shao et al 2005*).** Land ruin processes of meticulous apprehension in Asia and the appeasing include erosion, compaction, acidification, declining soil organic substance, wild plant invasion, soil lushness exhaustion and organic dreadful conditions.The worldwide evaluation of soil deprivation (GLASOD) predictable that concerning 13% or 850 million ha of the land in Asia and the soothing is tainted *(Oldeman, 1994)* the majority of this is in Asia, the conciliatory sub-region where large-scale consent of forest land has caused a beg to be excused in soil structure and fruitfulness and where insidious variety are the major land cover in many islands**.** The majority stern water erosion occurs in the Himalayans, central Asia, China, the south Pacific and Australia, though the GLASOD study indicated that in the South Asia sub-region Afghanistan, India, Iran and Pakistan are the most awful precious by wind erosion, chemical soil degradation in mostly caused by undeveloped mismanagement. In element of northern India and Bangladesh, soils have been acidified and salinized, and have been losing nutrients, Whereas a major quantity of land in Cambodia, Malaysia, Thailand and Vietnam has been tainted by acid

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Sulphate. The additional main reason of deforestation straight away subsequent to sovereignty was undeveloped development, frequently state-sponsored. A great deal of the wet deciduous forests of the moist Terai region northern Uttar Pradesh were empty to make available land to immigrants from the recently created Pakistan**.** The majority of the forest some time ago casing the Indo-Gangetic plains was too steadily converged to fields or grazing lands. Nearly all of limestone deposits in India are originate in the woodland regions. The force on obtainable forest possessions is enormous in India. Land and forest resources are not commensurate with the

proportionate burden of population and livestock on India's soil**.** According to Ministry of Environment of Forest *(MOEF February 2012)* India's forest cover has declined by way of the highest loss recorded in Andhra Pradesh. The decrease is to the tune of 367 sqkm in

Biggest Problem followed by grazing Land

Photo:- Overgrazing

Loss of Vegetation occurs due to deforestation

Photo :- Land degradation due to deforestation

comparison to the 2009 evaluation. Manipur woodland cover up also depleting rapidly, over the last two years Manipur has lost 190 sqkm of forest areas while Nagaland lost 146 sqkm and Assam forest cover loss has been recorded as 19 sqkm. The forest and trees cover of the country is 78.29 million (*http:www.e-pao.net/ GP.asp*) hectares which is 23.81% of the geographical area.

Climatic factors in soil dreadful conditions :- Soil Erosion by water consequences in the loss of top soil and terrain deforestation, being a function of *(India:SOE,2001)* geological formation, rainfall, vulnerability to erosion, length and gradient of slope, artistic practices, vegetative cover, and protection measures being follow. Soil erosion accounts for 87% of the total tainted land in

Land degradation in India

Sl.	Nature /Caus	Area (million

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No.	e	,hectares)
1.	Water erosion	100.0
2.	Wind erosion	50.0
3.	Total	150.0
4.	Water logging Salinity and alkalinity	13.0
5.	Shifting cultivation	3.0
6.	Other cultivate wastes	9.0
7.	Total	172.

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		0

Table :-1.2 Source :- Mathrubhumi

India, erosion owing to water is better in regions, which take delivery of grave rainfall over short periods than in spaces with low-intensity rainfall. Water erosion gone crosswise the nation is the most important reason of earth loss (in 132mha) and landscape bend (in 16.4 mha). Water erosion is overriding in the western part of the country causing a thrashing of top soil and territory buckle in 13 mha. Near to the ground organic substance leads to poor aggregation and low collective constancy most important to elevated probable for storm and water erosion. The thrashing of topsoil statement for 1.9% of the whole vicinity in soil dreadful conditions, landscape deformation for 1.2% and variable of rub down excise another 0.5% *(Sehgat and Abrol 1994).* According to study on environment and ecology erosion and diversion of Rushikwlya River mouth in Odisha's Ganjan district are posing a serious threat to the annual mass nesting of the endangered Olive Ridley Sea Turtles. Flood in the Kaziranga National Park (KNP) had deleterious effect on the park, such as huge scale death of mega herbivores vary in vegetation masterpiece and thrashing accessibility of scavenge throughout flooding. In view of the fact that last decade the rising height of multi gesture flood is actually threatening the prospect of the park and not only the Rhino but also Wild buffalo, elephant etc. Due to an assortment of reasons, largely deforestation in the higher catchment area of the Brahmaputra, the concentration of the flood is incessantly on the go up**.** Several animals particularly the deer and on the whole the young, old and inform lose their lives by drowning, poaching or scuttle in excess of by vehicular passage on the National Highway. Consequent to recurrent flood , shrunk in size appropriate to siltation. Moreover, deposition of sand in short grass areas have also sullied the appropriateness of such areas for the herbivores. According to survey the four most important faunal groups by way of proportion of endangered species are mammals (11.7%) , Aves (10.6%), Pisces (3.6%), and reptiles (3.5%). However evaluation it is pragmatic that a big number of insects (1083 spp.) are in danger, which represent less than 0.15% of the earth's total fauna. To a number of extent, the vertebrates might be additional susceptible to destruction than invertebrates, since they are naturally a great deal big and, therefore, necessitate extra possessions and great habitat ranges. The delicate Himalayan ecology is relatively a great deal higher with a breakup as mammals 38%, aves 21%, butterflies 13% and beetles 20%.The organic and chemical pollution of lakes, streams and wetlands are a tremendous threat to fresh water and soil fauna. The invasion of weeds similar to water hyacinth in water bodies, and mikenia, mimosa in main green areas is also a serious threat to the park and its denizens. While siltation of water bodies is one of most, important causative factors towards habitat degradation Kaziranga has 29% of the basin is used as cropland 3% as urban land 2% is measured as infertile 19% is roofed by forest, 16% by shrubs 29% by grassland 21% by wet land and 11% is considered as battered land. The flood plain has been lost due to (*Director, Kaziranga National Park, Assam)* land subsidence, regular floods, anthropogenic activities, human settlements, Tea estates, Deforestation**.** Enormous consent of habitat and hunting for trophy, meat and revenge for crop marauding led to its extinction in most of its assortment. Loss of plant life due to deforestation, in excess of cutting further than silviculturaly allowable edge, untenable fuel and fodder extraction, variable crop growing, infringement into wooded area, forest fire and more grazing are mostly accountable for the dreadful conditions forest lands**.** The durable population in Assam in Kaziranga, and to a little area Manas, is a victim of genetic Swamping. The Southern widen of the Western Ghats, an vicinity of approximately 40,000 sqkm has experienced noteworthy land use alter during the period 1973-95. The changes in the forest and land cover in the Southern region of the Western Ghats exhibit great spatial variation . The district of Coimbator and Palghat have practiced the

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uppermost yearly rates of Loss of thick forest, i.e. 2.4% and 2.9% in that order, wherever as districts of Ernakulum and Kazhikode have skilled the lowest annual rates, 0.1% and 0.6% respectively. The population of India has touched 1.20 billion an amplify of above 181 million in the last decade. Conservative estimates expect that our population will attain 9 billion people by 2050. The hourly devastation of an probable 240 acres of normal environment is unswervingly attributable to the expansion in human populations. More than 80% of the decline in biological diversity is caused by surroundings damage. The environmental changes undeniably are the key reason of the loss of biodiversity as it affects every part of the key parameters of the population, i.e. present population size, symmetry population size, populace solidity, the signify *(ICFRE,2005)* and discrepancy of the population increase charge, the hereditary structure of population and the size, stature and detachment among the environment patches and confined inhabitants in a metapopulation. According to specialist *(Dimond 1984)* biodiversity loss due to

High intensity of Erosion has Deleterious on the Ecosystem

Photo :- Kaziranga National Park recreational area

(a) damage and destruction of a number of environment, greenhouse gasses and dreadful conditions of others (b) In excess of killing of plants and animals by man (c) Preface of alien animals and plants (d) Resulting possessions of extinctions- disappearance of one species caused by the destruction of a different. Even as all these tribulations smack another way at the plane of biological group –ecology, area, or population, all can decrease the quantity of species variety. The environment loss is early on the nearly all vital affiliate of foursome. Yet when in fact large areas of land are confined , these areas may be spatially inaccessible from each other and all piece, or surroundings piece possibly will be too diminutive and to uphold feasible population, that is in miniature biological arrangement, usual environmental standard ecological performance might be unsuccessful and variety may be lost in (*Haywood,1995)* accord to their

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degree of difference natural. Mangroves are in the midst of the oldest and nearly all prolific swamp land forests of our earth. Originate in the intertidal Zones, they are inimitably tailored to survive very saline and anoxic environment. They are idyllic habitats for numerous worldly and aquatic classes, carbon sinks and usual barriers against storm and coastal corrosion. Mangroves give priceless armed forces but have been moribund widespread as a effect of anthropogenic and further threats. The Several Tiger reserves are under threat from coal Mining, Hydel ,Power Projects, Irrigation Projects. According to specialist Sea levels may perhaps vanishing of the Tigers habitat , threatening the endurance of the Species. Australia's Great Barrier Reef may possibly mislay up to 95% of its living wage *(UNEP,2007)* Coral by 2050 owed to changes in Ocean temperature in Chemistry. In spite of limitations in the acquaintance of what exists, its present situation and pressures, explanation of noteworthy beg off in a number of trivial species *(Marine Biodiversity,2008)* in some vicinity show the way to the conclusion that Australia's marine biodiversity and ecosystems are in a situation of continuing decline. Environmental experts analysis that in Rajasthan Sokhalia PAs area a grouping of prohibited mining of mica and additional raw materials have been attractive situate in the area, ensuing in loss of environment for the Great Indian Bustard over the years. The habitation loss is the mainly moving feature as the bird inhabits grasslands. The lowland is also imperative for shelter of chicks as they can put out of sight *(Jaipur,2012)* in the sevan grass to avoid predation. The land use pattern has misused in excess of the years. Grazing put into practice of domestic animals has also resulted in loss in habitation areas**.** During 1980s,The Great India Bustard number was 1200-1500 and there its number has dropped to 90 birds in the year 2012 at the Desert National Park 3612 sqkm in Jaisalmer and Barmer district of Rajasthan. Main created for protection of desert flora and fauna, the bird is losing its hold at this time. In the United Kingdom, sparrows are predictable to have declined from over 12 million to 6 million as the mid-1970s.Deforestation, the length of with drainage of Swamps and marshes for agricultural purposes, rising demands of grazing and reduce in grass lands have led to sharp beg off in the inhabitants of Swamp deer. According to study North eastern states struggle in excess of shrinking glaciers and mega-dams.

Conclusions :- Land use has been customary ever-increasing concentration in the life series evaluation. At the similar time, the ecological responses of land use modify have been paid rising attention. But the interface stuck between land use and biodiversity is inadequately unstated. The conservation value of biodiversity before we have already converted most of the remaining primary forest to other land uses. a alter in land use pattern implies disparity in the proportion of area underneath diverse land uses at appoint in two or more time periods. Habitat loss, fragmentation and degradation effect owing to farming activities, removal together with mining, fishing, logging and harvesting, progress human settlements, production and linked communications. Environment disintegration leads to the configuration of inaccessible, small, sprinkled populations. These diminutive populations are ever more in danger to inbreeding despair, high infant mortality and are vulnerable to stochastic ecological actions, and as a result, probable destruction. Changes of wooded area work of art and superiority, and the ensuing environment type guide to refuse in primary food. Wetlands and coastal mangroves is speedy declining in India. The thrashing of forest and connected biodiversity extends far further than the straightforward information of deforestation. The diminish in forest vicinity can be accredited to add to in plantations and farming areas. The most rapid vary has occurred, North East , Southern part. In India the capability for development of crop growing to added new areas is very retracted. At the present 49% of the complete coverage land is refined. Uncultivated and additional waste lands, counting grazing pastures, which are not at present cultivated, is reputed about 42 million hectares, and more growth of farming to such lands would be extension as improvements be supposed to be complete on irrigation and water and soil conservation. In the

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active circumstance, observance in outlook the normal endowments and the current advances in technology, the on the whole wellbeing of a country might say aloud a certain modification of or a alter in the obtainable land use model of a region. Land degradation crisis can be tackled to an extent by apposite policies that would internalize dreadful conditions into proper executive where on earth probable. In India, erosion charge variety from 5 to 20 tones per hectare, now and then departing up top 100 tones per hectare. It is essential to direct soil erosion in assemble to attain and sustain food security, sustainable forestry and agricultural and rural expansion. At the macro level, the existing database on land use statistics cannot passably smooth the progress of the scrutiny of and dilapidation and its collision. Modifications in the cataloging of earth make use of statistics are desired in arrange to study its ecological impacts. A proper revise of the in attendance land use patterns and the rising trends will assist to put forward the level for intended shifts in the pattern in India.

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