

Challenges of Global Warming and Bio-diversity Syndrome of Nepal for Sustainable Livelihood and Environment Management



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Abstract

Human being in the new millennium performing different program through the ways of conducting millennium goal from 2001 to 2015 that announced and implemented by the United Nations Organization (UNO). After the completion of the targeted timeframe of MDG, the UNO, implementing the Sustainable Development Program announcing on 25 Sept 2015, for the achievement of various development goal within 2030. Consequently, the concept development designing for implementation also becoming an astounding matter to be achieved. It's because to be dreaming about the happiness through the ways of implementation of the program seems normal, but bringing the program into practice becomes hard to achieve. Concerning to manage the environment all the big and super powered nations must come to be leading the entire human world for maintenance of peace and prosperity in the globe. Ambition should be kept to produce every humanitarian product instead producing gun, missile, rocket and other equipment's for boosting war and fighting threatening the human world. Concerning to this big power comes with big responsibilities. Therefore, every one in this globe to come with working together for the protection of the globe, reducing global warming, through the way to be stopping the melting of glaciers from the Himalayas. Subsequently the species in the earth would be going on the verge of collapsing soon. So, the need of the time is to be working together for the maintenance of peace in the human world reducing global warming and environment hazards what becoming the urgent need of the time to be realized.

Keywords: Millennium and Sustainable development goal, global warming, Eight Ja Campaign

Introduction

Humanism underworld dwindling in interrogation even for the maintenance of community living village everywhere in the world. The modern world faces a crisis of environmental degradation intensified by geopolitical conflicts, economic ambitions, and power struggles. While community-focused, model villages can provide comfortable, sustainable environments, these efforts are often undermined by global tensions and conflicts. For instance, the ongoing wars in Ukraine and the Middle East, along with superpower rivalries

involving countries like the U.S., Russia, and China, have led to widespread devastation of natural habitats, exacerbating climate change. Additionally, increased weapon production by superpowers fuels environmental harm and economic distress, with communities worldwide bearing the brunt of these actions. Historical lessons from World Wars I and II highlight the destruction that comes from unchecked aggression, yet recent actions suggest that these lessons have not been fully internalized. The potential for further conflicts raises fears of a devastating global war, as in-

dedicated by public figures warning of a possible World War III. Ultimately, addressing these issues demands global cooperation, particularly from intellectual institutions that can offer diplomatic solutions. Fostering peace, reducing weapons production, and building unified, sustainable settlements are vital to preserving the environment and promoting a stable global society. Regarding the description of the environment, concerning matters might be raising all about how the environment has been affecting by the forces to be acknowledges here as:

A. Factors of environmental hazards

By Nature: Natural effect on the nature becomes so terrible, couldn't be imagined it's simple one. Because the sudden hit of earthquake destroys the habitats of the people killing many burying under the land and residential house. The terrible incidents that happened in 2015 April 25 in Nepal killing about 9000 people, collapsing many of the building including the historic monument Dharahara the tower historically renowned as it's Bhimsen Stambha because this tower was built by the first prime minister of Nepal, Bhimsen Thapa. Some of the parts of the globe tsunami resulted in the lost of the habitats and residence of the people generally in Japan other countries on the bank of the sea areas. '**Tsunamis** are giant waves caused by earthquakes or volcanic eruptions under the sea. They speed along as fast as jet planes' (page, 16, 2024)

In the same way volcanic eruption also produces vents where lava, tephra (small rocks) and steam erupt onto the Earth's surface. This incident might destroys the land covering the lavas transforming ashes on the land lasts for days, months, and sometimes somewhere all over the years. So, as the other reasons volcano becomes one of the causes to make environment polluted unfriendly to the species in the areas of eruption.

Naturally various devastating incidents sudden happens to make the environment affected that makes the warming rate increasing in the earth. Such means might be noticed the floodings,

landslides, thunderstorm, hurricanes and others many due to happening by natural disorder polluting the environment.

By Human Behavior: While society remaining in the environment under disorganized circumstances where generally fearing from the natural calamities what might become deadly to be faced by the community people. Behavioral nature of the people sometimes create dispute among and between the people that may sometimes become terrible to the livelihood of the community. With all these since the inception of the society ownership becoming the reason why the dispute generally used to be raising in the society. So, as the notable dismays happen in the World War-I stated from the 28, July 1914 to 11, Nov. 1918 killing many of the people, destroying the properties and polluting the year hampering the habitats of the species also one devastating example generating by human behavior. In the same way the World War II, was the great conflict that involved virtually every part of the world during the years 1939-45 ended with notable disaster in the Hiroshima and Nagasaki in Japan, killing millions of people and destroying properties of the nation. Historical notes could be read on the collapse of the lives of the millions of people. It is the bloodiest conflict, as well as the largest war, in history. The result of two great war destroyed various natural heritage and spread gun powder in the air making polluted what becoming difficult to breath.

Another war due to the reason of blaming Saddam Husain, producing nuclear weapon and pilling up many antihuman devices in Iraq. Forming a great coalition forces lead by the US and the UK destroyed Iraq pretending in search of deadly nuclear weapon in Iraq. The war ended by hanging Saddam Husain an showing ugly picture of the leader of the collation forces because destroying Iraq and killing, Saddam was the great crime but none came out to blame them at the time due to the hegemonic strength of the leader including coalition forces of different countries. Then coalition forces didn't take rest till the time of destroying the natural beauties of Afghanistan,

there went and smashed various monuments and the natural beauties killing millions of people also was worthless effort of the US, the UK, and coalition forces.

Now the same happening in the Ukraine and Russia since the last couple of year destroying various natural beauties killing millions of people due to the reason of extending the network of NATO by awarding membership to Ukraine, that is the right door of Russia. Then again, the devastating war broken in Israel due to the terrorist invasion of Hamas on 7 Oct 2023 that still going on.

These all now happening are the matter of environment pollution spreading the smokes of gun powder in the air and the peaceful nation Israel showing a model development activities now becoming the ground of playing the fighters. Israeli people and the government struggled hard for the transformation of desert into greeneries producing various kind of vegetable and fruits that used to be send in the European and the US market. In the same way the land of Ukraine also is very fertile, producing foodgrains, vegetables and fruits used to be send in the international market also destroying gradually becoming the curse of the human world.

Regarding to discuss on the environmental effect various ways could be ascertained to prove the result that may affecting the living beings in the globe becomes the significant matter to be considered. Therefore, all the human being must be aware about to know how to protect the environment, stopping melting the glacier of the Himalayas, protect the greeneries of the surroundings planting and caring all the trees and the green bushes. Use of the water flowing in the stream, fountains, lake, river and the oceans, that's all are the habitat of the species in the globe. Importantly protection of the greeneries for the management of environment every effort must be done to reduce the global warming that has been threatening to the species even directly feeling worst in the human world. In this respect every academic institution and the universities and intellectuals around the world must be sensitive to manage the environment reducing global warming, one of the prime responsibilities to be discharged.

B. Objectives and Methodology Highlighted

Bio-diversity Syndromes in the Environment:

Bio-diversity word itself clarifies the differentiation of the natural setting as per the availability of climatic changing in terms of geography of particular parts of the earth where specific types of species could be existed making their habitats for all the times, mentioned by Shiva Adhikari in the book of Shyam Sunder Kinchi published in Jaipur (Kinch, 2015). Consciousness brings to the point of thinking how, where and what to be done for whom that comes to the responsibilities of human beings. It is because man itself a conscious part of the species that are to be discussed in this study. Among the species in the globe human being deserves the capacity to lead the universe that has now been apparently floating in the globe. Regarding the issues whatever the changes have been bringing to this globe, prominent humanist from Nepal colonel Raja Jaya Prithvi Bahadur Singh gives the importance of human race as: 'practically the entire human race is subject to this mode of viewing life and the consequent evaluation as much of the entities of the so-called inanimate Nature as of the animate members of its own order' (Sing, 1928). With this statement he highlighted the value of human race governing the universe, if they become careful this globe will be a place of comfort to the species indeed. Therefore, the objective of the study is to make aware the entire human race to be working together for the maintenance of the environment reducing global warming that has been a matter of challenging to the survival of entire species in this globe, With the objectives methodology also referring simply in descriptive presentation consulting the web pages articles and some books relating to the environmental issues as in the following discussion.

Objective of the Study

Study on environmental issues becoming greatly needed to this time because of gradual global warming challenging the species in this globe Thus, the overall objective of the study is to identify the bio-diversity, and identification and

the use of the resources by conserving it for the future generation indeed, what has now been elaborated the objectives in the following points:

- a. Make aware the social being to come out for thinking about bio-diversity and its importance for the protection of environment reducing global warming.
- b. Think make safe even to the particular region by keeping beauties of the nature that could be noticed evidently for the maintenance of the greeneries and snow peaked mountain in Nepal and conserving the similar natural settings in others parts of the globe.
- c. Present the bio-diversity situation of Nepal and its conservation practice.
- d. Put the strategy of Asta Ja and its importance for the management of environment for reducing global warming.
- e. Conserve the bio-diversity of the nature by utilizing it for income generation and poverty reduction purpose that may keep and maintain global economic harmony.

Methodology

Methodology of the study is based on the secondary sources of information. Reviewing the matters that are on the website, publication of Nepal Government, books and periodicals, including the annual reports of ICIMOD, and Asta Ja, human resource management policy based on Buddhist Economics.

Limitation

Study limits within the surroundings how to present it in brief on the environmental issues highlighting the short description to make known about the issue for attracting the attention of the people around the globe so that they would come to work together carefully on conserving the nature. Conserving the bio-diversity is indeed to make a safe and secure livelihood not only for human beings but also for all creatures living on earth and beyond. Concerning environmental issue beyond the box has now been the matter of study in the university and colleges because the

students could broaden the knowledge on the course and beyond to contribute in the society competitively. Thus, the limitation of the study based on the following points:

1. The study is simply based on the descriptive way to make it useful for all.
2. Uses of secondary information and the data to present some instances to make clear the subject matter.
3. Concentration will be made on the presentation of Nepalese bio-diversity and conservation of the natural beauties mobilizing the community people.

In this brief study attempting to make aware of the people to stop the war and terror in the human society maintaining peace in the human world. So, it goes on brief presentation with significant issues in this study that will make aware the people on the issue of environment management.

Initial Pathways of the Intellectuals

Environment considered significantly since the time of social consciousness for its protection and management as to make all assertive for their survival. Plantation of trees that identifying at large, long-lived fig trees (*Ficus Religiosa*) with widely spreading branches that's holy tree of Hindus used to be worshipped in the Hindu traditional customs. Significance of this tree is increasing since after it is said its here under a *peepal* tree that Prince Siddhartha meditated until he attained enlightenment more than 2,500 years ago and became known as the Buddha called also *the same tree called Bodhi Tree, sacred fig*—the awakened one. —Kencho Wangdi: (Web). Thus, the Peepal specifies the entire greeneries must be protect and conserve jointly working together for its protection.

As with the acknowledgement of Peepal tree, the same kind of religious tree is the Bar Tree (*Ficus benghalensis*) is the national tree of India and also it's regarded as a holly tree in Nepal and other parts wherever Hindus use to be living. This *Ficus benghalensis*, or *Ficus indica* commonly known as the banyan fig and Indian

banyan' (Web). This tree is native to India and Nepal and other parts of South Asia. Specimens in India are among the largest trees in the world by canopy coverage, (Web). It is also known as a 'strangler fig' because like many other trees in the genus *Ficus* it starts out as epiphyte, that is, leaning on another trees that it ends up suffocating' (Web). In Theravada Buddhism, this tree is said to have been used as the tree for achieved enlightenment, or Bodhi by the twenty fourth buddha called "Kassapa' (Web). With all these this sacred plant is known as 'Nuga' or Maha Nuga in Sri Lanka (Web) Regarding the message what was given by the ancestors with their wits and luminosity demonstrating to manage protecting the greeneries around the residence to be maintained around the globe.

Regarding the issues on the management of environment various ancient Rishis (saints) the prominent writers and the leaders' worked hard to manage every livelihood with their spiritual beliefs. In the Veda the holy script of Hindus giving the major importance to protect the greeneries just in rain, cultivating the field and so in mentioning in different parts. The initial shock, which movement initiated by the Nepalese expert Jaya Prithvi Bahadur sing even he was from the royal family highlighted various dimension of livelihood, how to manage every community village managing comfortable settlement of the people wherever they should be living with pleasure. In course of creating the environment for peaceful living natural surrounding must come to be perfectly managed so that the global warming would not so becomes challenging to the people abroad.

Since the evolution of the human being's environment threatened due to the deforestation and constructing the human settlement buildings in this globe. At the very beginning it was not so great problem but the population growth, new innovation of the scientific devices including production of arm and amenities becoming the cause of environmental degradation gradually forwarding to reach to the time of global warming today.

Regarding to such worsening situation responsibilities that rest upon the characteristics of human race in this globe. It's because they go on producing food in the nature, live in the nature constructing buildings, they start innovative performance in the nature and so on everything if they need going to find all things in the nature. Livelihood of the human race would be possible with the production of food items in the soil. So, that they go on producing every possible food item in soil. In this regard 'soil is the basis of crop production, and maintaining desired soil conditions and productivity, leading to degraded agricultural soils, is regarded as one of the major challenges for agricultural production in Nepal' (Kalidas Subedi, 2015). If they become so perfect in management of the resources, they definitely producing quality products conserving the environment. Concerning to this concept, Humanist Jaya Prithvi Bahadur Singh says, 'moralists and preachers of truth have condemned the things of the present, only for their potentiality to narrow man's vision and convert him inhuman' (Sing, 1928) not so become the matter of terrible threats like to this time. Ultimately major thrust of the society for perfectly managed every resource that may keep sound environment around the globe. Environment denotes the natural surroundings that keeps all the species surviving in the nature. It's because nature is the safe home of every species including human beings should be maintained considering all the effect upon the earth that ruins the habitats should be carefully managed.

Environmental management involves reducing the global warming along with minimizing the human impact on its surroundings, conserving the perennial source of the resources. Prime agents to manage the mounting challenge definitely is the human being. Consequently, human beings becoming the creator as well as the destroyer of the nature because of over construction of buildings and monuments, industry, and big public places. The resources sometimes misused evidently that impacts the earth resulting in environmental pollution. Reminding the situ-

ation of the species that depend upon the nature for survival should be managed carefully. For all the resource management in the entire world must come to be considering the basic foundation of the matter to keep well surviving the species. Evidently the agriculture farming in every part needs to be based on 'self-employment in agriculture continues to be the most important source of household income in Nepal, followed by agricultural wage employment' (Statistics, 2005). With all the description on the significance of environment it becomes indispensable matter for the species in the globe.

Considering the importance of environment human race should be driven towards for the socio-economic sector management. Recent back that might due to the environmental degradation earthquake hampered the livelihood of Nepal evidently hypothesized that's the reason of ecological disbalance. So, as devastating dimensional incidents might be earthquake, floodings, hurricane, tsunami and more that resulting due to the lack of natural resource manage that reason environment becomes worst devastating the habitats of the species in the nature. Considering all the effect upon the earth human being must come to be consciously working to manage the environment across the globe. If so, happen human resource would bring the situation to manage comfortable environment in every livelihood living in the community all over the world.

Human world these days surrounding by the difficulties in numbers that threatening further existence of the species in the earth. Uncontrolled population growth, scientific invention and the development in the countries extinguishing the resources available, depending upon the fossil fuel, industrialization, misuse of natural resources just as concretization of fertile land, polluting the rivers and seas, cutting the forests, killing animals destroying their habitats and many are standing the reason why environmental degradation becoming the great challenge to the human world.

UN declaration on the part of maintaining environmental goal raising equally the issues among

the 17 goals started from 2015 targeting for 15 years becoming the major consideration on the process of implementation of the program blanketing all over the world also is questioning by the experts looking around the activities of the countries that indeed becoming difficult to go for evaluation. Then after the reason why so environment has been destroying that's indeed a production of arms, selling them to use for fighting to the countries, bombarding in the cities and villages where people living becoming the major question why so happening in the name of development that definitely becoming the cause of global warming. Now just seemed to be ending the pain of Syria came to be suffering from playing arm and amenities among the people, along with the same way Israel and Palestine conflicts raising on the issue of Gaza occupation becoming a hard-core matter that become difficult to bear in the human world also gradually derailing the environment in the middle east region to be considered by the super powered nation.

In the same way the problem in the human world raising by the destructive war in between Russia and Ukraine, since 2022 included naval incidents and cyberwarfare raising the pain to the human world. In February 2022, Russia launched a full-scale invasion of Ukraine and began occupying more of the parts of Ukraine, what becoming the biggest conflict in Europe since the World War II to be stopped immediately. Because human being never needs fighting bursting bomb contaminating the air that may poisonous for the living beings. Therefore, human being deserving consciousness among the species to manage the nature keeping perfect environment reducing global warming could only be possible as well.

Management of environment by reducing the global warming, to be considered basically the natural resource needs to be properly managed for production of the products for human satisfaction. For the management of the resources various fundamental measures might be applied to keep ecological system in order. With the analytical vision creating conceptual frame work

would be applicable for the description of the resources available in the nature. Categorically the resources have been defined naming with the letter in Nepali vernacular Ja, so as: Ja-Jal, water, Jamin- land, Jungle -forest, Jadibuti-medicinal and aromatic herbs, Jarajuri-plants, Jalabayu-climate, Janawar-animal, and Janashakti-human resource. These all are the resources categorized in the Asta Ja (Eight Ja) framework. These Eight Ja resources are depicted in the following diagram how all are significantly used in the entire world as:

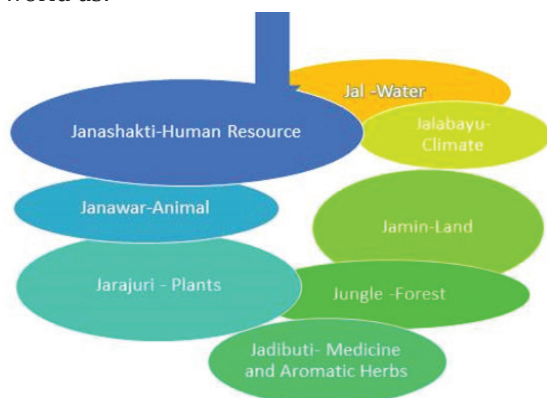


Diagram 1: The Asta Ja (Eight Ja) framework

If used the resources perfectly environmental protection and management reducing global warming may be friendly for the species living in the planet. As in the description of the resources that could be managed with the process across the management cycle that goes through, resource identification, resource utilization and resource conservation need to be followed. Resources also conglomerating to send for the processing through the ways that has been defined in the production management cycle. Process of utilization starts from identification to find out the quality and volume of the resources how that could be utilized for what the purposes, then the process reaches to the stage of utilization where the products on the use of the society could be produced in this stage. By producing the products for human use the last process activates for the conservation of the perennial source that may keep utilizing the same for the generation to

come. If the process systematically applied for the management of the resources environmental degradation would be stopped reducing global warming. So, as the environment never be contaminated if the resources manage in this cycle given in the following diagram as:



Diagram 2: Resources manage in cycle

Among the description of the resources human resource becomes the vital one for the maintenance of the resource that remain depending upon the skill of human skill for utilization. Consequently, that should be managed perfectly making all capable to identify, utilized and conserve the resource. To make all human resource able to manage the resources they need arising to make them trained by giving the lesson of Buddha's noble eight-fold path, that's' called Ashtanga Marga (Eightfold Path) just as: Right view, Right intention, Right speech, Right action, Right livelihood, Right effort, Right mindfulness, and Right concentration. If human resource given the lesson of Buddha in every model village where they used to be living, they all become honest, skillful, dedicated, non-corrupt, with the noble character to go for the management of the resources. If the skillful human resources working for the management of resources, they will carefully utilize the resources to produce the quality products for human satisfaction that will be the right process to manage the environment. Then the concept has been developed so as that could be applied globally. Because the Asta Ja (Eight Ja) resources and Ashtanga Marga both becoming substantially significant to manage the resources perfectly. Then the following diagram identifies the Ashtanga Marga of the Buddha that needs to be learn in every model village community so as:

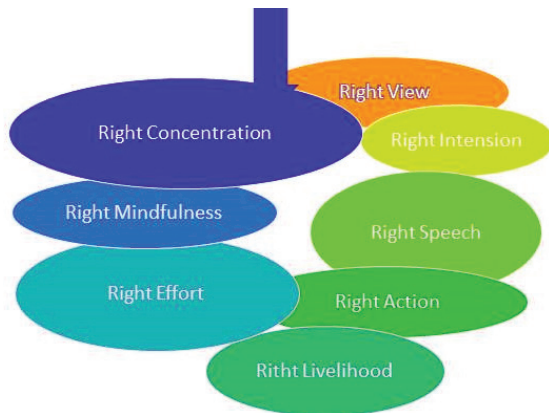


Diagram 3: Ashtanga Marga (Eightfold Path)

Environment must be carefully managed globally stopping the war and fighting between and among the people because there may come to be used the gun missiles and rocketed hitting against their enemies. Due to reason they used to be killing people and smashing the habitats of the communities massively destroying all the properties producing gun powder and dust that becomes the reason of polluting the environment with global warming.

This millennium is forwarding through the sentimental perspective of global village. Advocating the situational gamut Prof. Jeffrey Sachs from the University of California, assertively mentions 'Humanity has always been globalized, since the dispersals of modern human race from Africa some seventy thousand years ago' (Sachs, 2020). This statement indicates that the earth just is definitely a global village because the same human being used to be living around in different segments artificially dividing in states and the villages. Regarding all the mysterious matters that across since the social evolution presently it's reached to the age of new and scientific innovation. This innovative world now just combined by the technology to become together, in the sphere of human world being living in this global village. Regarding the situational matters of cooperation and coexistence creating a global village that has been lucidly described by the great economist and thinker prof. Jeffrey Sachs from the university of California in the US becoming a notable

matter for the management of every socio-economic perspective in the world.

Despite of the sentimental effects of the global village the countries they named super powered are not considering about the cooperation and coexistence among the human world. Super power nations with all the arm equipment they have produced instead of spending some for humanitarian benefit aiming to grab the resources from the backward nations of Asia and Africa in the globe definitely becoming the reason of war and terror in the globe. Therefore, the super powered nation deserving the big responsibility to maintain peace and prosperity should be rightly realized, with great power comes great responsibility. If they realized this responsibility the world becomes heavenly place for all the species living including human beings in this globe.

Considering all the facts, that happened due to the mistakes of the powered must be controlled by the way of realizing the problem of the human world. may give them the lesson to control themselves is only the Buddhist Economics. Buddhist Economics gives the lesson of Eightfold Path (Ashtanga Marga) to the human world that's make all discipline and ready to go for the utilization of resources that mentioned in the Eight Ja resource management notions in the framework. All the concept described in Buddhist Economics system that gives the lesson to the Human Resource to make all disciplined for their own progress and prosperity. If they learn the lesson of Buddha's Ashtanga Marga (Eightfold Path), then the human resource become never corrupt and lazy so that they would be making the right lab in their Model Village community for the utilization of the resources. Consequently, all the problems happening, may stands for threatening to the world community could be mitigated easily. Scholars from the very great status gaining their reputation with all used to be find the way they go through the delivering their thinking by means of writing books and proposals for development and human welfare even they are doing nothing for implementation, then their thinking would be worthless. Accordingly, their working in the

name of development and human welfare largely remains, on decorating their respect and the document also used to be kept in the library and the planning office of the government. These all are manifestation of the character of the intellectuals making the society under the trap of various difficulties becoming the major trap from which general people couldn't come out free from the difficulties. Concerning to the expert used to be writing big volume of books and reports that merely gone to decorate the book shelves without implementation. The reason why status of the world community seems desperate dividing greatly a few are richer, leaving the majority of the people in terrible poverty. If the program remaining in the books, proposal and the lectures in the program without implementation, the architect of the documents and lectures of the experts could be raising their height as they used to be called renowned among the academic society. Therefore, every individual must come to work in the environmental lab that has been proposed herewith describing in the following section of the study that may supportive to manage the environment globally.

C. Principle of environment management

The ways that may be defined into the principle, presenting some modalities and so forth even the society needs the logical change in their live situation. Here literary description is nothing for the poverty. Poor people need change in their life's situation through the ways of environmental protection reducing global warming. So, following are some of the ways that may keep environment safe protecting the mother earth with proper use of the resources available in the nature. Therefore, give some moment going through the description below as:

a. Principle of Preventive measure: Prevention of attack of the disease definitely to cure of the sickness is the basic source of proverb used to be describing since the time immemorable. Realizing the facts to be transformed into the literary articulation of the intellectuals, that's all must bring into implementation that may protect their living house, the earth. Primarily the earth is the

major shelter of the species including human beings. If the earth gone damaging entire people should feel losing their habitats. Therefore, every individual and the government of the country in the entire world should be careful to protect the earth that may keep species safe to exist. Regarding this, the major role of the human races should be played by the governments of each country working for managing the environment by planting trees, starting organic farming, rearing livestock, and cleaning the surroundings all over. Because preventive measures to anticipate and avoid environmental damage before it occurs becomes the best technique to protect this globe. Instead caring the situation of the environment, nuclear power if installed and detoxification plant in some parts of the globe, that's all would be the means of contamination of water to drink would be poisonous may harm the lives of the society. Therefore, everyone in the community must be trained giving the lesson of Ashtanga Marga (Eightfold Path), to manage their living community safe from the striking of nuclear reactors, guns, and missile whatever produced would be the means of contamination of every environment related sectors like the water that's generally used to drink. So, every community people must be careful to know about the preventive measure of environment.

b. Principle of Precautionary measure: Precaution becomes the great part of consciousness that keeps Society safe from the attack that realized or unrealized dangers may fall over the lives of the community people. Therefore, the need of authorities to be carefully working by designing the program for implementation may safeguards the livelihood before environmental harm. It involves having an adequate risk management system to minimize environmental hazards. For example, the German and Peruvian governments have a moratorium on the cultivation of genetically modified organisms, given that there is not enough scientific evidence of the effects on the ecosystem and public health. Concerning to the matter of web pages that gives various literature on how to be cautious from the danger that may happens from the environmental degradation.

c. Principle of Integration measures: Incorporate effort of the people in the living community significantly valued for the prevention of the weather-related difficulties in the livelihood. For the application of integrated measures every government and organization should have an environmental management policy to manage the surroundings to make friendly for livelihood. Because, this is very crucial part of the management for the socio-economic prosperity. It may seem to be ensuring sustainable development across all areas in the living community. This requires all the people need to be consulted to work jointly working, with the local authorities, and the agents to determine if the project will have adversely affected without careful management of the environment.

Significant measures of Pollution

Pollution creates dangerous situation to hamper the society must be controlled with remedial measures from the source where the pollution generates. Environmental degradation and global warming becoming the cause of pollution that transcending to the living community from the source where that generates. Producing missiles, rockets for warfare, arm amenities all bursting in the war field deteriorates the environment in the entire world. These days conflicts arising due to the encroachment of NATO in Ukraine war happening in between Russia and Ukraine polluting the environment destroying the fertile land in Ukraine. Like in the same way since last October Hamas attacking Israel raising an unending dispute in that middle east region. Therefore, the party that causes pollution should bear the costs of the damage and its remedy. This principle acts as a deterrent and directs accountability for the harm, playing a crucial role in environmental management. For example, a Dutch Court in December 2021, ordered Shell to pay £13.29 million to three Nigerian farmers for oil spills that took place in their village between 2004 and 2007 (web page). Witnessing all the environmental situation the countries of polluting source should pay the charges of carbon generating to the underdeveloped countries suffering from the industrialized countries in the world.

D. Diversified features of Nature in Nepal and Environment management

Nepal and its Nature

Nepal is called the land of paradise of Nature all come to enjoy the scene of Himalayan ranges spreading from East to West in its Northern borders all-round the years. Mt. Everest is its great assets gifted by the nature now coming to be the attraction to all the energetic people in the world. The climatic setting thus indicates there severe cold and no species easily exist in the Himalayas. Polar bear, Yeti and a few are available are the precious part of the study of bio-diversity subject.

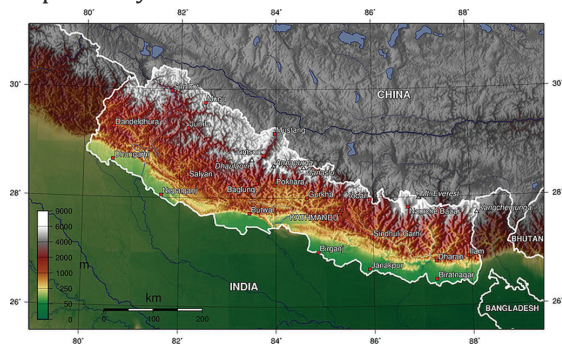
Down to the Himalayas the historic ranges of middle hills called Mahabharata range are spread as the Himalayas to in the North are also the attraction to the natural vegetation. Here the various species are dwelling as they all are safely living at home. The range spreads making different beautiful valley keeps the people living happily comes to be one is Kathmandu Valley which is renowned in it's a kingdom of Nepal. The major attraction of the valley covered with the ancient temple and monuments called the city of temple and historic place of archeological values.

Going from North to South the plain land called Terai is the store of food grain that has been enriching the community as well by supporting the economic development of the country. Terai deserves the special quality to produce food grains and also a number of industrial parts are there, where the number of people get the opportunity for employment. Terai has its peculiar quality to keep species living beautifying the nature not only in Nepal but it's becoming the attraction of the world. Rare species of rhinos, elephants, birds, and deer are for the world's attraction and paying much to the national economic development.

Geographical Settings

Describing Nepal and its bio-diversity could be met only through the identity of its shape and size, giving some glimpse how it's functioning. Going to the wave page "Nepal measures about

800 kilometers (497 mi) along its Himalayan axis by 150 to 250 kilometers (93 to 155 mi) across. With 147,181 square kilometers (56,827 sq mi) it slightly outranks the state of Arkansas in the United States". With such spatial natural setting "Nepal is landlocked by India on three sides and China's Tibet Autonomous Region to the north" comes to be unique one in the world. "West Bengal's narrow Siliguri Corridor or Chicken's Neck separate Nepal and Bangladesh" and its Eastern part is again India and some mile to reach Bhutan crossing the border land of India the map given bellow becomes the useful instrument to know Nepal easily.



Map 1: Geographical Map of Nepal

Rivers

Rivers of Nepal are richly flowing towards the Ganges in India if kept them using for power generation and irrigation millions of species could be safe from every danger of flooding and land sliding are also the "systems, from east to west: Koshi, Gandaki/Narayani and Karnali (including

the Mahakali/Sarda along the western border), all tributaries of the Ganges". Various types of water bodies could be seen in the river of Nepal. Ghadiyal Gohi is one of the famous one and said its only in Nepal.

Bio-diversity in Nepal

Nepal naturally has its diversified climate automatically becoming the home of different types of species. It is compared "latitude is about the same as that of Florida, however with elevations ranging from less than 100 meters (300 ft) to over 8,000 meters (26,000 ft) and precipitation from 160 millimeters (6 in) to over 5,000 millimeters (16 ft) the country has eight climatic zones from tropical to perpetual snow" is found describing in the web page makes all aware about the climate of Nepal.



Map 2: Satellite image of Nepal in October 2002

Eight climatic zones are unique in Nepal for millions of species the same could not even to be thought in a single country in the world that could be figure out by studying the following table.

Table 1: Diversity of Species in Nepal

S. N.	Vegetation		Wild lives	
	Group	No of Species	Group	No of Species
1	Gymnosperm	24	Mamal	181
2	Angiosperm	5160	Aves	844
3	Mosses	380	Reptile	100
4	Fern and its allies	463	Amphibian	43
5	Lichen	465	Fish	185
6	Algae	687	Butterfly	635
7			Spider	144

“The above statistics of the vegetation and wild lives, bio-diversity has a great importance in Nepal” as it is described in the web page. The figure presents the strength of Nepal to be able to keep “about 2.2 percent of the world’s vegetation” Based on the publication of Ministry of Forest and Soil Conservation in 1997 on the plant species makes some status in this regard may keep the importance of the country among the world community. “According to this the status of vegetation by comparing the statistics of algae, fungi, bryophytes and pteridophytes of species in the

world “has just found described and posted on the web page. It is again “comparing with the global scenario, algae (1.72 percent), fungi (2.38 percent), lichen (2.07 percent), bryophytes (6.09 percent), pteridophytes (3.19 percent), flowing plants (2.07 percent) are available in Nepal” has been cited in the web. Comparatively the species studied in Nepal there are a lot in numbers of diversity present identifies itself a home of the species need to be cared and protected. The data again could be presented below makes all aware to manage it.

Table 2: Diversity of Animals and Birds in Nepal

S.N.	Animals and Birds	Species in the World	Species in Nepal	Share of Nepal (%)
1	Insects	7,50,000	5,000	0.01
2	Butterflies	15,000	635	4.2
3	Fish	More than 8,500	185	2.2
4	Amphibians	More than 4,500	43	1.1
5	Reptiles	More than 6,500	100	1.5
6	Birds	More than 9,881	844	8.5
7	Mammals	4,327	181	4.2

As to go along with the above table Nepal again seems a resourceful country with natural habitat. Comparing to the world’s numbers of species as depicted to the table Nepal only has 5000 in numbers of insects out of 7, 50,000 that accounts the percentage 0.01, similarly in butterflies 635 out of 15,000 that comes to 4.2 percent. In case of the birds Nepal is indeed a rich one as compared in the world could easily studied with the help of the figure given in the table above.

Significance of Bio-diversity in Nepal

Keeping in view of the bio-diversity distribution Nepal keeps its greater strength in the world. International Union for Conservation of Nature (IUCN) has its office in Nepal and studying the entire sector purposefully that are to be conserved and protected. Inventory it has made and regularly monitoring to the sectors presents the greeneries and the living creature in it may come to be significant for managing ecosystem in Nepal. Nepal is peculiarly a mountainous country with diversified geographical regions deserves its

richness in terms of different climate to suit for varied types of species. Nepal again signifies by having about 18% out of total land for national parks, conservation areas, reservation of wild-life and also separated the hunting areas making available for tourism purposes.



Picture 1: Natural vegetation in Nepal

"It is recorded that Nepal has a total of 118 types of ecosystems, 75 types of vegetation and 35 types of forests. There are different animals and plants found only in Nepal. And different animals and plants are found according to ecological region" IUCN web publication reiterates.

Following the pictorial presentation gives the model places where the rare types of species surviving what becoming the great assets of Nepal, may generating income from the tourist industry. To look upon the greeneries and the species the academicians from abroad used to be coming to study the nature and natural habitats in Nepal. With all that Nepal deserves its pride of having such the natural beauties with special features presenting for the world community. So, that Nepal is a university where academicians may

come from abroad and study the nature for their purpose to complete their research policing their career path. Following figure depicting a clear picture of the natural vegetation in particular part of Nepal with what any one of the visitors expecting to enjoy with the same locative viewing in entire parts of the country Nepal.

As of the study of IUCN has presenting the wonderful figure that Nepal indeed becomes the place as if it is the University of Bio-diversity where someone may keep interest to study come Nepal could be satisfy with a number of species within a short time of visiting and observing diversified natural settings. The following table may draw the attention to keep all safe by studying how it demands for its proper management.

Table 3: Plant and animal species of Nepal and the World

S. N.	Group (Life Form)	World Number	Nepal		Group (Life Form)	World Number	Nepal	
			Number	%			Number	%
1	Flowering Plants	231,638*	6,391	2.76	Mammals	4,675+	185	3.96
					Birds	9,799@	874	8.90
2	Pteridophytes	10,369*	534	5.15	Hereto	12,650	195	1.54
3	Lichens	>17,000**	471	2.77	Amphibians	4,780+	118	2.47
4	Bryophytes	>14,000**	668	4.77	Reptiles	7,870+	78	0.99
5	Fungi	>70,000**	1,882	2.69	Fish	10,000@	187	1.87
6	Algae	>40,000**	687	1.72	Butterflies	17,500#	651	3.72
	Total	>403,000	10,633	2.80	Moths	160,000#	785	0.49
					Spiders	39,490*	175	0.44

Source: IUCN

Figure shows the details that could be imagined and studies Nepal how it has been exposing all in its embryonic setting to keep the species could easily be studied. Then again, the following fig-

ures of terrestrial separation seems again the strong point to present Nepal because it has itself separated from the land more than 18 percent out of the total areas for the species.

Table 4: Proportion of terrestrial areas protected (%)

S.N.	Terrestrial PA (coverage%)	1990	2000	2009
1	World (including Antarctica)	8.7	10.7	11.6
2	World (excluding Antarctica)	9.6	11.8	12.9
3	Developing Region	9.4	12.4	13.9
4	South Asia	5.5	6.1	6.4

S.N.	Terrestrial PA (coverage%)	1990	2000	2009
5	Southern Asia excluding India	5.9	6.8	7.4
6	Developed Regions	11.6	12.9	13.6
7	Least Developed Countries (LDCs)	9.4	10.0	10.2
8	Lest Developing Countries (LLDCs)	8.8	10.8	11.2

Source: IUCN and UNEP-WCMC (2010) The World Database on Protected Areas (WDPA): January 2010 Cambridge, UK: UNEP-WCMC

Diversity Syndrome

Talking about diversity making all parts that are significantly different even in human settlements might be the beautiful example for general people too. Regarding to see all again concerning to the bio diversity that covers all biosphere in nature for all the purposes as that can be said; identification, utilization and conservation process going across the cycle coming to the challenge these days for all concerned on the subject matter. As in the study that are set protected

areas (pa) may seem to be a few in the world scenario for bio diversity management purposes in comparison to Nepal itself has more than 17 percent. Thus, the comparative analysis makes different and pushes for well management of all the sectors that are urgent for the maintenance of environment. Anyway, regarding to the bio-diversity syndrome Nepal is comparatively rich and it should be jointly protected by the world community as these all are the common assets for the future generation.

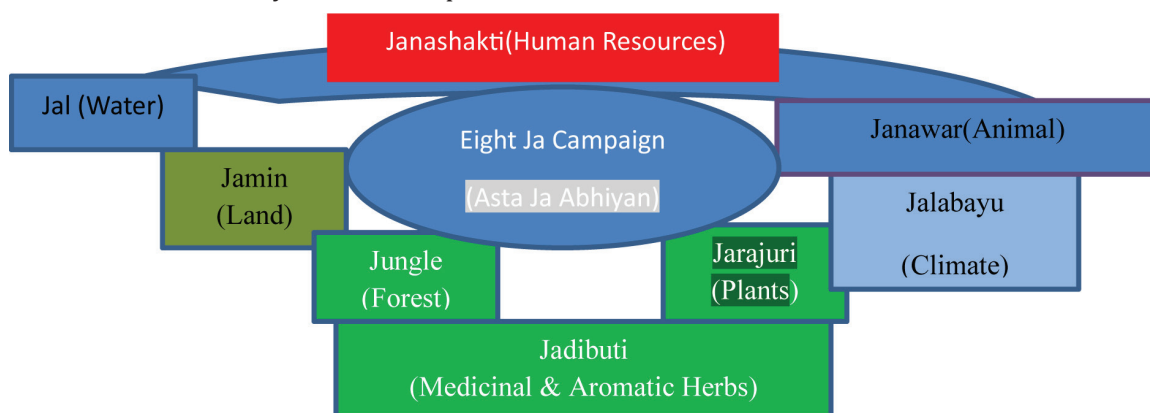


Diagram 4: Eight Ja Campaign

E- Strategy of Bio-diversity Conservation

Visualizing all the things happening in the society resource management process has been designed with proper description for identification of each component what has been describing in the above section of this document, that fundamentally defining in Asta Ja (Eight Ja) frame work. This has been now a popular sounding to identify the resources that has now been given in the following diagram. Identification of the resources with proper sounding that may keep managing well with rightly with full of utilitarian modalities

conserving the perennial sources that may utilized by the generation to come in future days making environment safe forever. This concept has been captured into a model diagram which may keep all aware of the utilizing properly the resources to produce the products for their satisfaction.

Asta Ja (eight ja) then in relation with the bio-diversity syndrome coming to be a way how anyone can think and manage all the resources on the way conserving the species. If talk on soil, every species existing may come to be a base for

identifying, utilizing and conserving the species that are significantly contributing to the ecosystem of the universe. Similarly, water, forest, medicinal herbs, plants, climate, animal, and human resource all are the basic element for the decoration of the globe, making the way for earning and industrializing, keeping the pace of development in sustainable manner all come through the fundamental description of eight ja resources.

The strategy then could be described as all should utilize the resources carefully making them attractive to the animal world for keeping safe the habitat of the species in the world. Even the resources available are different in nature as per the geographical setting of the countries and places in the earth. For making all aware on the Eight Ja framework following the diagram has been given to make all known of the concept herewith as:

Among the eight human resource plays a vital role to change all the remaining in Asta Ja Framework for the benefit of human beings. All may see the forest has been destroyed, animals are killed, and the minerals are extracted only for earning purpose without considering the resources. Because the species must be conserved making them safe in the nature. Recently the media news giving the information about the falcon are vanishing that effect the live of the human being in India because of this effect yearly 5 lakh people died due to the loss of falcon. So, that conservation of the species living on them becoming a threat to the bio-diversity management. Therefore, all should think to manage the resources categorically as defined by eight ja campaign.

Conclusion

Overall discussion of the environmental management the need of the proper identification of resources given on the above discussion fundamentally in Asta Ja framework, aiming at the utilization of all the resources perfectly with proper identification, conserving the perennial sources that gives proper care of environment reducing global warming. Regarding the resource care human resource must be trained giving the lesson of Ashtanga Marga (Eightfold Path) of Buddha.

If they learn the lesson Ashtanga Marga then all will be dedicated in working together in the disciplined manner in cooperative ways for the well-being of the community living in Model Village. If well-trained human resource went for the utilization of the resources, they would be producing quality products that may satisfy the community people regularly. Then only implementation of the sustainable development program will be started as to achieve it in time frame announced by the UN within 2030. The program implemented by the UN will be carried through the ways of socio-economic as well as environmental protection program equally. Then only the model village will be settled with competitive ways among the village community everywhere. Lastly targeting for the achievement of goal along with the major achievement of peace in the human world would be assured what has been an urgent task of every conscious people around the world.

If all came to work with the components describing here would only be the way that manage the environment well as supposedly considering "On Environmental ethics, Resources Management and Regional Development: Issues, Challenges and Prospects". With the management of the resources that may open all the prospective to make the globe a heavenly place for all living beings. Considering all the facts responsively every individual must be trained to work together for the management of the resources. Then only the environment becomes safe for ever. If the investors come to go for the resource management all will be contributing a lot for environment management safe for all the species living with comfortable ways.

References

1. Kinchi Shyam, S. Biodiversity Distribution and Conservation, Pointer Publishers, Jaipur, 2015.
2. Jeffrey, D. Sachs. The Ages of Globalization, Columbia University Press, New York, 2020.
3. Kul Chandra, Gautam. Global Citizen from Gulmi, Publication Nepalaya Kalikasthan Kathmandu, 2018.
4. Editor: Ambika Prasad Adhikari and Govinda P.Dahal - IUCN - 2018.

5. Resilience Amidst Conflict Report, The World Bank DFID, 2005.
6. Shiva Adhikari. Strategy of Asta Ja on Biodiversity Distribution and Conservation Management in Nepal – book Shyam S. Kinchi, Printer Publishers Jaipur, 2015.
7. Poudel, D.D. 2010b. The Asta-Ja Environmental and Natural Resources Policy Framework (Asta-Ja ENRF) for Sustainable Development in Nepal, *Journal of Comparative International Management*, [Forthcoming].