

The *Bhagavad Gita* is a part of the *Mahabharata's Bhishma Parva* having 700 verses. Theories on the date of composition of the Gita vary considerably. A section of scholars of Brahmanical literature assert that the *Gita* came into existence in the third or fourth millennium BCE, around the ending of *Dwapara Yuga*. Scholars accept dates from the fifth century to the second century BCE as the probable range. Professor Jeaneane Fowler, in her commentary on the *Gita*, accepts second century BCE for the probable date of composition. Kashi Nath Upadhyaya, a Gita scholar, on the basis of the estimated dates of *Mahabharata*, *Brahma sutras*, and other independent sources, concludes that the *Bhagavad Gita* was composed in the fifth or fourth century BCE. The *Gita* is a set of illustrative dialogue between *Pandava* prince *Arjuna* and his teacher and charioteer *Krishna*.

The *Bhagavad Gita* is created in the great battle field between *Kuru* and *Pandava*. All soldiers are assembled in the battlefield of *Kurukshetra*. Before going to start the battle the chief captain of the *Pandava*, *Arjuna* instructs the charioteer *Krishna* to keep his chariot between two army so that he can guess the strength of the opponent army and make a plan of fighting. But observing the opponent men *Arjuna* becomes afraid.

गाण्डीवं स्रंसते हस्तात् त्वक्चैव परिदह्यते।

न च शक्नोम्यवस्थातु भ्रामतीव च मे मनः ॥ (The Bhagavad Gita, 1.30)

Gandiva slips from my hand, and as for my skin, it burns. I cannot stand firm, and my mind seems to whirl¹. Here Arjuna is deluded by the scene of the battlefield. Up to this Krishna could not utter a single word but now first uttering of Krishna is as follows:

कुतस्त्वा कश्मलिमदं विषमे समुपस्थितम्।

अनार्यजुष्टमस्वर्य् मकीर्तिकरमर्जन॥ (The Bhagavad Gita, 2.2)

Why has this foul delusion come over you in this critical hour, *Arjuna*? It is ignoble, it doesn't lead to heaven, and it is disgraceful². Here like a teacher Krishna reminds him the duties and responsibility in the battlefield. Nature is the field for all living organism to survive. All plants, animal and microorganism have to face the struggle as being faced by *Arjuna*. Here *Arjuna* is the embodiment of the living object or normal man. This struggle is intra and inter specific. Any alter situation of biotic and abiotic may lead to new environment where the specific organism would have to

survive. Those organisms can face the altered situation it can survive. So survival and subsequent evolution depend upon those species who can immediately participate struggle against the changed situation. Similarly normal man has both qualities i.e. virtue and vice intermingled each other. The purpose of life is to remove the vice and increase the virtue component. To reach this goal man has to participate the struggle against all vice for fulfillment of life.

The evolution and formation of new species for all plants and animals who have faced and won over new environmental stress. The extinction has overpowered those who could not mange the environmental stress. Here the statement of the Krishna to Arjuna is the Law of nature. This law indicates that strong and virile one is fit for life and its further development. Strength leads to life and weakness wears it away. Similarly virtue and righteousness are the result of strength. Whereas the vice and wickedness originates from weakness. So this nature is battle field for those organisms who are existing in the nature. The war is in the nature for the purpose of survival against the changed situation, altered biotic and abiotic factors. So a species will be extinct from the earth because of the reason it does not indulge into war against nature or could not conquer the battle. Life is permeated by all organisms throughout soil, air and water. Moreover life subsists on life. Life means to live out. New forms are built at the cost of old ones. Creation, preservation and destruction are three phases of ceaseless activity going on in the nature. Destruction is involved in construction. So weakling has to place in the creation as it is occupied by the stronger one, virile one. So fighting in the battle field of nature is the obligatory duty for all organism and knowing one this warfare is sacred as proclaimed in *Gita* by Krishna, the great teacher of man, a living principle for organism.

Bhagavad Gita gives some idea on Sustenance of Bio-diversity. In Bhagavad Gita Krishna states that so long living beings carry his body, he has to perform certain actions according to nature. These activities include locomotion, rest, feeding, thought and other body related function.

न हि किभेत् क्षणमपि जातु तिष्ठत्य अकर्मकृत्।

कार्यते ह्य अवशः कर्म सर्वः प्रकृतिजैर् गुणैः॥ (The Bhagavad Gita, 3.5)

Surely none can ever remain inactive even for a moment. For everyone is helplessly driven to action by nature-born qualities. So all organisms from their birth helplessly

are driven to action by nature-born qualities. So all are engaged in their natural activities.

In an ecological cycle each component has an important role. Plants are the primary producers in an ecosystem. They use the energy from sunlight to combine carbon-dioxide which is taken from air and water taken from the soil to form energy stores mainly in the form of carbohydrates. Plants take also minerals in dissolved condition with water from the soil. It is natural that plants form the basic food for all animals. The herbivores like deer, goat, cow, rabbit etc., take plants as food. Further, the carnivores like lion and tiger use the former as food staff for their existence. All these plants and animals on death are decomposed by the micro-organisms which include the bacteria and fungi, form manure or raw material for the other surviving plants in the ecosystem. Therefore, in an ecosystem is observed that all forms are interdependent like a chain and forms an integrated system where all are but part and parcel of the whole entity which is called nature.

अव्यक्तादीनि भूतानि व्यक्तमध्यानि भारत।

अव्यक्तनिधनान्येव तत्र का परिदेवना॥ (The Bhagavad Gita, 2.28)

All beings are unmanifested in their beginning, O Bharata, manifeated in their middle sate, and unmanifested again in their end. What is there then to grieve about³? The idea behind the text is - body is manifested form of the life and living being goes from birth to death. After death body of the living organism are disintegrated in the components which goes to the main environment. So environment play an important role for transition of life from unmanifested to manifested being.

नासतो विद्यते भावो नाभावो विद्यते सतः।

उभयोरपि दृष्टोऽन्तस्त्व अनयोस्तत्त्वदर्शिभिः॥ (The Bhagavad Gita, 2.16)

The unreal never is. The real never is not. Men possessed of the knowledge of the truth fully know both these. As per the law of evolution, living beings are always striving to adapt themselves with the changing environmental condition and other related ecological factors. This is only possible if their understanding with the nature and their adjustment with environment are perfect. Life is a series of experiments to give the permanent shape of its expression as there is constant slow change in the environmental cycle resulting into the formation of a new condition. Therefore, each individual change themselves in such a fashion that they can cope up with the

changed environment for their survival. Fossil records show that the rate of evolution has always been greater than the rate of extinction resulting into the formation of millions of varied related and unrelated species⁴.

Man has an important role in the sustenance of bio-diversity. All species in the ecosystem are resulted from selective elimination of some species and advancement of the other species. In the natural process of extinction and evolution, species disappeared naturally during the course of time. No doubt, this process has been slow and the ecological cycle has not been disturbed. However, undesirable human activity has speeded up the process of extinction. With the present rate of human exploitation of natural wealth, it is estimated that one quarter of earth species may be lost within 30 years. Species die out as their natural habitats are destroyed. For instance, more than half the world species present in tropical forest, by 2020 deforestation could wipe out 5 to 15 percent of them. Over exploitation is another threat and commercial interests have reduced many species like whales, elephants and fishes. Modern agricultural methods have reduced significantly the ecological diversity where the emphasis is given on mass production in huge monocultures. This leads to hamper the genetic variations within them⁵.

Krishna in the Gita has explained the reson behind the destruction of natural wealth, the person involved and their unethical attitude.

प्रवृत्तिं च निवृत्तिं च जना न विद्रास्राः।

न शौचं नापि चाचारो च सत्यं तेषु विद्यते॥ (The Bhagavad Gita, 16.7)

The persons of Asurika nature know not what to do and what to refrain from, neither is purity found in them nor good conduct, nor truth⁶. These people possessing these qualities could not understand that these action is not helpful for other living beings and it is highly detrimental their existence. So they never abstain from doing these type of deeds.

असत्यम् अप्रतिष्ठं ते जगदाह्रनीश्वरम्।

अपरस्परसम्भूतं किमन्यत्कामहैतुकम्॥ (The Bhagavad Gita, 16.8)

These people say – The universe is full of untruth, without a moral basis, brought about by mutual union, with lust for its cause, what else⁷? These type of understanding leads to the idea that there is no existence of life. All living beings are but the combination of matter. Due to this misunderstanding people never mind to

unnecessary destruction of the living beings. So ethics or morality starts with the idea that the life is existed and it is present in all beings. Life is manifested through all beings in different forms and expressions. Their subsequent characteristics are described in the later section:

- a) They only care for their sense enjoyments by any means. They believe that only they can get maximum enjoyment in life.
- b) They have full of expectation and to fulfill it they use highest level of lust and greed. Ultimately they accumulate maximum amount of wealth and objects of enjoyment for their enjoyments.
- c) They say that this much have been secured at present. In future we have to secure this much as they believe that whole earth is for their enjoyment only.
- d) These people are egoistic, brute, arrogant, and hateful. They do not believe that life is present in them and other living objects.

Bhagavad Gita text gives deep insight regarding Environment. Kirshan in Gita has advised to start a righteous war against these types of people for protecting the environment and biodiversity on the earth.

स्वधर्ममपि चावेक्ष्य न विकम्पितुमर्हसि।

धर्म्याद्धि युद्धाच्छ्रेयोऽन्यतक्षत्रियस्य न विद्यते॥ (The Bhagavad Gita, 2.31)

Looking in thine own dharma, also thou oughtest not to waver, for there is nothing higher for a kshatriya than a righteous war⁸. The word Kshatriya generally indicates a class of people who are constantly engaged themselves in fighting. But here this word indicates ordinary man who is living on the earth following the ethics and believes the existence of life and its expression. Such type of people never abstain from war against any unethical work which destroys the ecological cycle and the life process on the earth. This war is essential not only for his existence but the existence of the other beings.

अकीर्तिञ्चापि भूतानि कथयिष्यन्ति तेऽव्ययाम्।

संभावितस्य चाकीर्तिर्मरणादितिरिच्यते॥ (The Bhagavad Gita, 2.34)

The world also will ever hold thee in reprobation. To the honoured, disrepute is surely worse than death⁹. If a man fails to fight against these unethical deeds which lead to

utter destruction of the environment, the ultimate result is the utter destruction of the nature and all living beings. It is more painful to an ethical man.

Then Krishna tells Arjuna the path of action through which the biodiversity and environment are restored.

नेहाभिक्रमनाशोऽस्ति प्रत्यवायो न विद्यते।

स्वल्पमप्यस्य धर्मस्य त्रायते महातो भयात्॥ (The Bhagavad Gita, 2.40)

In this path of action there should be no loss of effort nor should there be fear for contrary result. Even little effort or practice of discipline will be an act towards right direction. According to Krishna, any act has to follow two courses, Jynanayoga or the path of knowledge and Karmayoga or the path of action. For survival of the planet and maintenance of biodiversity we have to follow the two courses. For the survival of the planet and the sustenance of the biodiversity, the action line demands these two factors. In the path of knowledge one has to determine the factors responsible for the loss of biodiversity and about those plants and animals which are facing extinction. In the Path of action, the practical aspects are required to be taken into consideration and to evolve and implement such methods for the restoration of the threatened plant and animal species. In the Path of Action there should be no loss of effort nor there should be any fear of contrary results. Even a little practice or efforts of this discipline will be acts towards the right direction.

Many international agencies including the Convention of International Trade in Endangered Species of Wild of Fauna and Flora (CITES), United Nations Environmental Programme (UNEP), Worldwide Fund (WWF), Non-Governmental Organizations (NGO's) in different countries, and many other Governmental agencies of respective countries are working in this direction to find out the reasons for the depletion of biodiversity (Jynanayoga) and the mode of protecting this loss (Karmayoga). The factors responsible for the vanishing species include the destruction of the natural habitats and use of trade of plants and animals. So nowadays the principle of Gita where Krishna tells to Arjuna the great principles is applicable for solving the present scenario of environmental crisis¹⁰.

Generally the following important factors responsible for the depletion of the biodiversity in the ecosystem: Habitat Destruction, Global Warming, Pollution, Over Exploitation, Persecution and Non-Native Species. Habitat loss is generally considered as the largest single cause of biodiversity loss worldwide. When humans

convert wild areas for agriculture, forestry, urban development, or water projects. This Habitat Destruction makes the ecosystem inaccessible for living organism. Global Warming is due to the increase of Earth's average surface temperature which is caused to the effect of greenhouse gases, such as carbon dioxide emitted from burning fossil fuels or from deforestation. These greenhouse gasses trap the emitted heat from the surface of the earth. Pollution of whole water bodies, soil and air due to urbanization, deforestation, industrialization, etc. is the main threat for the loss of biodiversity on the earth. Over-exploitation of natural resource is caused by human beings and the human overpopulation in some areas of the planet leads to everincreasing world demand for the resources and the development of international trade. Illegal persecution of various species by human beings has been identified as threats to the biodiversity of our lands. A non-native species is a species that is not native to a particular area, but arrives (usually with human help), establishes a population. They are responsible for biodiversity loss through the means like - Habitat modification, Compete with native species for resources, Predation of native species, Herbivores effect on native plants, Bringing in pathogens, Hybridize with native with loss of genetic diversity, etc.

Human beings can exert their effort through protection of biodiversity. In general the plan of action for restoration or protection of the biodiversity can be classified broadly in two approach i.e. Individual approach and Mass approach. Individual approach may be practice of ethics, establishment of human relation with other living beings, practice of some sort of sacrifice for other living beings, an attitude of unification with other living beings, etc. Mass approach may be Mass Environmental awareness, Mass Eco-friendly education, Mass Eco-friendly Living, practice of Mass Eco-friendly Behaving, etc.

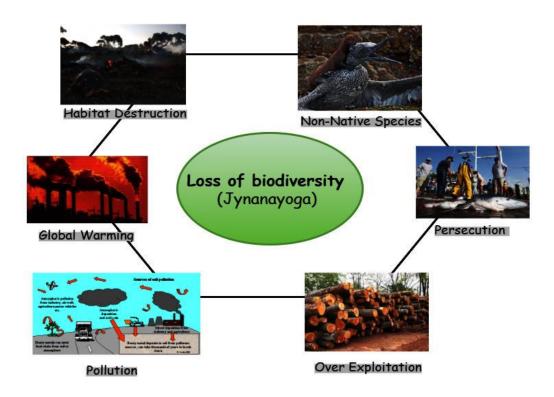


Diagram-30: The loss of biodiversity (Jynanayoga)

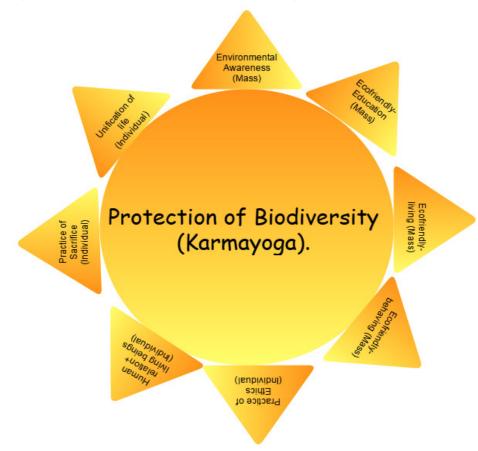


Diagram-31: The protection of biodiversity (Karmayoga)

The example of the dual principle for any plan of action is the 'Earth Summit' at Rio de Janeiro, Brazil from 3-14 June, 1992. It is the largest ever gathering of the world leaders in which 172 Governments agreed to act to ensure the sustainable development of the planet. This summit indicates that time has come to act practically not theoretically, to save the planet from environmental destruction.

Agenda 21 is a commitment to sustainable development, which was agreed by many of the world's governments. Nations that have pledged to take part in Agenda 21 are monitored by the International Commission on Sustainable Development, and are encouraged to promote Agenda 21 at the local and regional levels within their own countries. Agenda 21 addresses the development of societies and economies by focusing on the conservation and preservation of our environments and natural resources¹¹.

The Conservation and Management of Resources for Development, including protection of the atmosphere, the planning and management of land resources, combating deforestation, the management of fragile ecosystems, the promotion of sustainable agriculture and rural development, conservation of biological diversity and protection of the oceans.

Main theme of Agenda 21 and other Earth Summit agreements is the idea that humanity has reached an end point. If all follow the policy, it ultimately leads to economic divisions within and between countries; increases poverty, hunger, sickness, illiteracy and the deterioration of the ecosystems on which life on earth depends.

The United Nations Conference on Environment and Development then unanimously adopted the 27 Principles for the sustainable global development. Considering the idea that earth will be restored in its pristine glory for the sustenance and growth of the future generations.

Among the 27 Principles few are worth mentioning where the deep concern for the environment is expressed.

Principle 3: The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4: In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 10: Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 22: Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Principle 23: The environment and natural resources of people under oppression, domination and occupation shall be protected.

All these meetings revolved on two points i.e. the knowledge regarding the deteriorated state of environment and the action line. According to Bhagavad Gita two principles i.e. knowledge and action are mentioned. So this summit upholds the principle which is told by Krishna in Gita.

The concept of sacrifice for man in environmental perspective:

यज्ञार्थात् कर्मणोऽन्यत्र लोकोऽयं कर्मबन्धनः।

तदर्थं कर्मकौन्तेय मुक्तसङ्गः समाचरः॥(The Bhagavad Gita, 3.09)

The world is bound by actions other than those performed for the sake of sacrifice(Yajna); do thou, therefore O son of Kunti, perform action for sacrifice alone, devoid of attachment¹².

Every moment a living being is interacting with the nature. This interaction is with biotic and abiotic principles. The form of interaction is visible in the sphere of competition, co-operation and sacrifice.

All living beings are competing each other in respect of different need and situation. This struggle is intra-specific, inter-specific and other factors. Intra specific struggle is due to survive as a fittest being on the earth. So this struggle is for food, shelter and other physical / biological need. This mode of competition ultimately promotes the

strong and fittest one. Whereas inter-species competition is due to maintain the biodiversity, ecological cycle and evolution process. But in course of time all types of competitions come to a point where the rate of birth of different organisms and the rate of death of the same organisms are same. This point of equilibrium is attained through series of checks and counter checks. Then a sort of co-operation develops among the different species. This co-operation is the inevitable part of sustainable growth and existence of the different living beings. So the competition and co-operation are the obverse and reverse of the same coin. It is very difficult to distinguish and categorize the two terms in the existing ecosystem.

But man among all living species is something different. Man participates in the former two interactions like other living beings. But man due to some special distinction sometimes interacts with the surroundings in different mode. Former two interactions are every respect selfish in sense. But man sometimes interacts with other species or environment for the betterment or enrichment purpose. This mode is completely different from the former two modes. This type of unconditional and unidirectional interaction makes man a unique species on the earth. This mode of interaction is known as sacrifice.

The some features are found in different organisms. All organisms are struggling every moment for survival. The struggle may be with own species i.e. intra-specific and with other species i.e. inter specific. This struggle is based on mainly food, shelter and predation. This competition leads to mostly promotion of the superior morphological adaptations rather physiological adaptations when it is based upon organisms.

When the competition is with the environment, this leads to reverse situation. In this case adaptation is more physiological rather than morphological. With the normal process of evolution, the mode of competition at the individual level ultimately begets the behaviour of co-operation in the collective life for the survival and growth. Ultimately the association of different types of animals is formed. This association is formed irrespective of unicellular- muticellular, weak-strong, vertebrate-invertebrate, and other differentiation in organisms. The association helps to serve all purpose like predation, shelter, and safeguarding from the external environment. This process of co-operation is mutual understanding of give and take policy. So in this process each member of the group has to extend helping hand for the welfare of the group. But it is all for the survival need of each and individual member.

This has resulted in a small but vibrant renaissance in the science of cooperation, which reveals that cooperation is not unique to humans. It's not even unique to animals. Cooperation is part of nature, down to the cellular level. The reason why is simple, according to evolutionary biologists: Cooperation is one of the most important and beneficial behaviors on Earth. We literally would not be here without it.

Humans, plants, and animals are made up of cells that learned to cooperate long ago. Together they formed multicellular organisms, increasing each individual cell's chances of replication and survival in the process.

From these biological blocks, cooperation prevails at every level of the animal kingdom. Ants that march to the same drummer move faster. Fish rid other fish of harmful bacteria for a free meal. Small birds protect each other from predators. Bats that share food survive¹³.

The form of sacrifice is described in Gita where Krishna tells Arjuna to do all types of action giving up the attachment and fruit of the action. When any action is done for sake of the betterment of the other without expecting the result is nothing but the sacrifice. It is recommended in Gita this type of action.

कार्यम् इत्येव यत् कर्म नियतं क्रियतेऽर्जुन।

सङ्गं त्यक्त्वा फलं चैव स त्यागः सात्विको मतः॥ (The Bhagavad Gita, 18.09)

A prescribed duty which is performed simply because it has to be performed, giving up attachment and fruit, that alone has been recognized as the Sattvika form of renunciation¹⁴.

Gita has mentioned the means of sacrifice. It is the path of knowledge along with the path of action. The path of Karmayoga is performing action for the betterment of the other without expecting any result and having no attachment with the work itself. The knowledge portion leads man to overcome all types of dual nature i.e. good and bad, likes and dislikes, etc. So the form sacrifice is called highest attainment of life for man. Through this mode of interaction man can attain the highest manifestation of the mind stuff. The every activity of man counts merit for environment and the ecosystem. Selfishness begets greed and from greed comes exploitation of the nature and its components. The mode of sacrifice removes all evil tendencies of man and man becomes helpful component of the ecosystem and biodiversity.

The act of sacrifice is performed by the path of knowledge along with the path of action. The discipline of Karmayoga or the path o action consists in honestly

performing, as a matter of duty such actions as are prescribed by the scriptures with due regard to one's order in the society, stage in life, nature and circumstances as are obligatory on him, renouncing the sense of possession, attachment and desire in respect of such actions and their fruit, and maintain attitude of indifference towards their fruit or otherwise their final outcome and finally remaining ever contented with whatever is ordained by the God. At this stage man overcomes all evil; in the form of likes and dislikes, lust and anger and begins to view all alike.

Sacrifice, therefore, is the highest conduct of life and the opportunity is provided only to man to translate it into action. It only prevails at ethical, religion: and spiritual level. It is practiced by those who have attained the stature of 'enlightenment'. In this sacred act one offers his best for the well-being of others, without any pretext or feeling of return¹⁵.

But man has been exploiting nature for his own selfish purpose. All these activities lead to deforestation, over-fishing, indiscriminate killing of animals, and release of pollutants. This is going on different part of the globe and if this continues in an increasing rate then the day comes when the earth is not fit for the survival of any living being. So any species which has taken millions of years to evolve to the present form may be eliminated by man for his selfish activity.

Overexploitation threatens one-third of endangered vertebrates, as well as other groups. Excluding edible fish, the illegal trade in wildlife is valued at \$10 billion per year. Industries responsible for this include the trade in bushmeat, the trade in Chinese medicine, and the fur trade¹⁶. The Convention for International Trade in Endangered Species of Wild Fauna and Flora, or CITES was set up in order to control and regulate the trade in endangered animals. It currently protects, to a varying degree, some 33,000 species of animals and plants. It is estimated that a quarter of the endangered vertebrates in the United States of America and half of the endangered mammals is attributed to overexploitation¹⁷.

Interpol has estimated the extent of the illegal wildlife trade between \$10 billion and \$20 billion per year. While the trade is a global one, with routes extending to every continent, conservationists say the problem is most acute in Southeast Asia. There, trade linkages to key markets in China, the United States, and the European Union; lax law enforcement; weak border controls; and the perception of high profit and low risk contribute to large-scale commercial wildlife trafficking. The ASEAN Wildlife Enforcement Network, (ASEAN-WEN) ASEAN Wildlife Enforcement Network,

supported by the U.S. Agency for International Development and external funders, is one response to the region's illegal wildlife trade networks¹⁸.

Statistics released by the United Nation's' Convention on International Trade in Endangered Species (CITES) showed that 1,215 rhinos were killed in South Africa in 2014.

The number of rhinos killed for their rhino horn was a record high.

1,004 rhinos were poached and killed in South Africa in 2013.

668 were killed in 2012.

341 were killed in 2011

333 were killed in 2010.

122 were killed in 2009.

The rise in poaching of rhinos is due to the high price of rhino horn on the black market. A kilogram of rhino horn is sold for up to \$65,000¹⁹.

All the above data indicate that man has exploited the nature and its resources. This exploitation is due to the man's unending desire for accumulation wealth. At first desire comes in the mind and then the desire converts itself into greed. Overpowered by the greed man does anything and all the mode of actions are detrimental to the natural cycle and biodiversity of the environment. In Gita Krishna has identified certain qualities as demonic in nature.

दम्भो दर्पोऽभिमानश्च क्रोधः पारुष्यम् एव च।

अज्ञानं चाभिजातस्य पार्थ संपदम् आसुरीम् ॥ (The Bhagavad Gita, 16.04)

Ostentation, arrogance and self-conceit, anger as also harshness and ignorance, belong to one who is born, O Partha, for an demonic state²⁰.

आवृतं ज्ञानमेतेन ज्ञानिनो नित्यवैरिणा।

कामरूपेण कौन्तेय दुष्पूरेणानलेन च ॥ (The Bhagavad Gita, 3.39)

Knowledge is covered by this, the constant foe of the wise, O son of Kunti, the unappeasable fire of desire²¹.

In Gita Krishna not only tells the problem but at the same time tells the solution of the overcoming the problem. In describing the problems Krishna identifies the root of all is man. The nature as well as mind staff of man is the root cause of all problems. So the solution or remedy of the problem is also to change the nature of the individual man and make all men as the helpful partner of the entire ecosystem. This can be

achieved by through two means – firstly the attitude of *co-operation* and secondly the attitude of *Sacrifice*.

शक्नोतीहैव यः सोढुं प्राक्शरीरविमोक्षणात् ।

खामक्रोधोद्भवं वेगं स युक्तः स सुखी नरः ॥ (The Bhagavad Gita, 5.23)

He who can withstand in this world, before the liberation from the body, the impulse arising from lust and anger, he is steadfast (in yoga), he is a happy man²². Lust and anger come from the selfish mentality. One becomes unhappy and jealous to others due to the twin action. Then man only believes upon the path of competition. This competition makes him possessive the environment and its component. When man control the natural expression of lust and anger, he gives up his competitive attitude. He looks his surrounding environment in a compassionate and co-operative attitude. Then he feels real happiness in mind.

भोक्तारं यज्ञतपसां सर्वलोकमहेश्वरम् ।

सुहृदं सर्वभूतानां ज्ञात्वा मां शान्तिमृच्छति ॥ (The Bhagavad Gita, 5.29)

Having known Me in reality as the enjoyer of all sacrifices and austerities, the supreme Lord of all the worlds, and the disinterested friend of all beings, My devotee attains peace²³. Man can attain highest mode of cooperation where he feels that one reality expresses in different forms of beings on the earth. At this point all beings are friends to the particular man. Man gets highest peace where he even forgets himself and only thinks the betterment of all beings in the surrounding environment. This is the stage of *Sacrifice*.

Bhagavad Gita gives the idea about the relation among the elements of ecosystem. Living beings present on the earth grossly have the form of plant, animal and microorganism. These exist on the earth inter-connectedly. Their inter-dependence forms the existing ecosystem. Krishna says to Arjuna in Gita its nature and importance.

चातुर्वण्यं मया सृष्टं गुणकर्मविभागशः ।

तस्य कर्तारमपि मां विद्ध्यकर्तारमव्ययम् ॥ (The Bhagavad Gita,4.13)

The fourfold caste was created by Me, by the differentiation of guna and karma though I am the author thereof, know me to be the non-doer, and changeless²⁴. The four classification are the *Brahhmana*, the *Kashatriya*, the *Vaishya* and the *Shudra*.

शमो दमस्तपः शौचं क्षान्तिरार्जवमेव च ।

ज्ञानं विज्ञानमास्तिक्यं ब्रह्मकर्म स्वभावजम् ॥ (The Bhagavad Gita, 18.42)

The control of the mind and the senses, austerity, purity, forbearance, and also uprightness, knowledge, realization, belief in a hereafter – these are the duties of the Brahmanas, born of (their own) nature²⁵. This indicates that Brahmanas are enlightened persons and have all sorts of virtues.

शौर्यं तेगो धृतिर्दाक्ष्यं युद्धे चाप्यपलायनम् ।

दानमीश्वरभावश्व क्षात्रं कर्म स्वभावजम् ॥ (The Bhagavad Gita, 18.43)

Prowess, boldness, fortitude, dexterity and also not flying from battle, generosity and sovereignty are the duties of the *Kashatriyas*, born of (their own) nature²⁶. From these qualities it is clear that *Kashatriyas* are valourous. They always fight to maintain a balance state.

कृषिगौरक्ष्यवाणिज्यं वैश्यकर्म स्वभावजम् ।

परिचर्यात्मकं कर्म शूद्रस्यापि स्वभावजम् ॥ (The Bhagavad Gita, 18.44)

Agriculture, cattle-rearing and trade are the duties of the *Vaishyas*, born of (their own) nature, and action consisting of service is the duty of the *Shudras*, born of (their own) nature²⁷. The *Vaishyas* are wealthy and prosperous. Whereas *Shudras* are helper of all classes.

अव्यक्तादीनि भूतानि व्यक्तमध्यानि भारत ।

अव्यक्तनिधनान्येव तत्रका परिदेवना ॥ (The Bhagavad Gita, 2.28)

All beings are unmanifested in their beginning, O Bharata, manifested in their middle state, and unmanifested again in their end. What is there then to grieve about²⁸? Unmanifested form is the stage between after death and before birth. Manifested form is the stage between after birth and before death.

From the above description *Brahmana* may be considered as plants, *Vaishya* may be considered as herbivores, *Kshatriya* may be considered as carnivores and *Shudra* may be considered as different microorganisms.

Brahmanas are the plants in the entire living beings as they possess some innate capacity of knowledge by which they trap the solar energy and form carbohydrate in form of energy. Plant has chlorophyll by which they trap solar energy and convert it

into static energy form. They are enlightened enough to know the chemistry of photosynthesis. In the process of photosynthesis plant convert carbon dioxide taken from the outer atmosphere and water taken from the soil by means of solar energy into carbohydrate and the oxygen The synthesis of carbohydrate begins the food chain which is very much essential for all living beings. Moreover the production of the oxygen is the only point for the existence of the other living beings and its evolutionary process resulting different species. Manifestation of life requires energy and it comes through breaking down the static form of electricity i.e. carbohydrate by means of oxygen. So without oxygen living beings could not exist on the earth. So plants are called primary producers. It is the plants which can capable of converting the unmanifested into manifested form. The evolution, variation, and divergence in plant species play an important role for the animals and their evolution process. Variation of plant species gives contribution in the primary food chain. All these different varieties of foods ultimately lessen the food competition amongst the animals. This abundance of food reduces the threat of elimination during the course of struggle for existence. They are used as the food for others and sacrifice themselves unconditionally for the other animals. Through their sacrifice they help the ecosystem in its normal functioning.

Plants are the key food producer for the varied living beings other than plant. But their growth requires to be controlled. Otherwise whole earth will be covered by the plants. Moreover checking the growth requires for the development of the other different plant species. This check is done by herbivores. The herbivores are a group of animals which uses different plant species as their food stuff. *Vaishya* are the class devotes themselves in trade and accumulate wealth in a very short time through business policy. Their wealth are for the maintenance of the other three classes in the society. Similarly the herbivores takes plants as their food and grow in number in a very short time. These herbivores are fast feeders and fast breeders.

Their excessive growth is also not helpful for the ecosystem. As they grow quickly it requires to check their number. Otherwise in a short time they destroy the plants in their gazing area. The carnivores are the animals they control the number of the herbivores by using their food stuff. The carnivores are called *Kshatriya*. By their nature of strength and boldness they prey the herbivores. They have to fight for their food due to difficult availability of the prey. So this group of animals grow slowly. They are slow breeder.

Shudras are considered here the different microorganisms. These microorganisms are essential for ecological cycle. They start the process of disintegration of the living bodies after death. So they convert the manifested bodies into unmanifested forms. This disintegration is highly essential for the completion of the ecological cycle. The plants first starts the conversion of the unmanifested form into manifested forms. In this process many plants, animals and microorganisms are formed. All these are the manifested forms. So make the cycle complete these manifested forms should be gone back to the unmanifested form. Through the process of disintegration microorganisms use the dead bodies of plants and animals as the nutrients for their growth and sustenance. So this type of helping attitude is present in the microorganisms. In the caste system *Shudras* are the class of people who help all other class of people for their maintenance.

So for establishing and maintaining the law of natural process of ecological cycle, all living beings are divided into four classes with proper assignment of their duties according to their property and characteristics. But it is important that the requisite strength of all these classes are neither favorable for the attainment of the selfish ends nor aim at subordinate others. Four different duties are assigned upon the four classes of living beings. These are assignments due to proper discharge of duty of all living beings in this earth. The classification and its subsequent assignment of duties are based upon the nature—of the individual group, but not depend upon the idea of superiority or inferiority.

The following is the schematic diagram through which the four stages are depicted clearly and their interdependence is mentioned here.

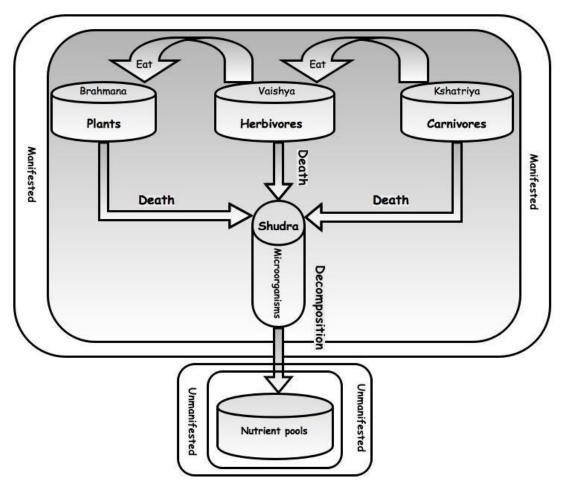


Diagram-32: The four types of living being vs. four stages in human society

The four parts of the living world are interdependent. Plants are the primary producer of food. Herbivores are dependent upon the plants. Carnivores are dependent upon the herbivores. So herbivores are lying in the intermediate position between plants and carnivores and maintain the equilibrium between the two parts of the living kingdom. Brahman and Kshatriya possess just opposite qualities. They are the obverse and reverse of the same coin. Brahmana is friend to every living being whereas Kshatriya is always fighting with other and shows strength. The Vaishya is present intermediate between the two sections. It can be called the transition state between two opposite classes i.e. Brahmana and Kshatriya. So Vaishya has some qualities of Brahmana and Kshatriya. Similarly herbivores are the intermediate between plants and carnivores. Herbivores posses some qualities of plants and carnivores. Herbivores utilize the plants as the food stuff at the same time they are the food stuff of carnivores. The

microorganisms as *Sudras* help the three categories for proper balancing. As *Sudras* are in large numbers and they all help the other three categories for proper functioning their duties. The microorganisms are also large compare to other three varieties and they are continuously engaged in disintegration process i.e. release the gross elements to the nature for further combination and modification. The following picture depicts the interrelation of the four categories of the living beings.

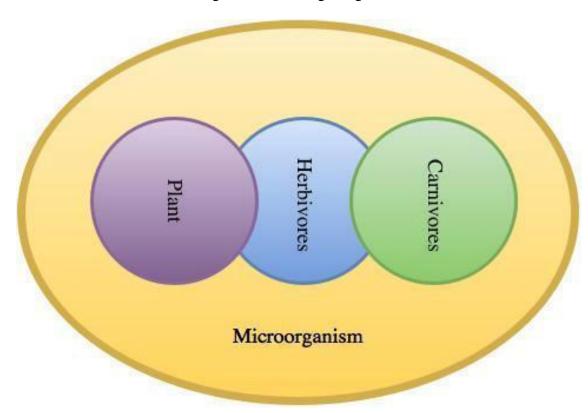


Diagram-33: The interrelation of the four categories of the living beings

In Bhagavad Gita Krishna tells Arjuna the evolutionary tree comparing it with peepal tree.

ऊर्ध्वमूलमधःशाखमश्वत्थं प्राहुरव्ययम् ।

छन्दासि यस्य पर्णानि यस्तं वेद स वेदिवत् \parallel (The Bhagavad Gita,15.1)

They speak of an eternal Ashvattha rooted above and branching below whose leaves are the Vedas, he who knows it, is a Veda-knower²⁹.

अव्यक्तादीनि भूतानि व्यक्तमध्यानि भारत ।

अव्यक्तनिधनान्येव तत्र का परिदेवना ॥ (The Bhagavad Gita,2.28)

All beings are unmanifested in their beginning, O Bharata, manifested in their middle state, and unmanifested again in their end. What is there then to grieve about³⁰?

The tree mentioned in Gita is the symbol of evolution of life. We see in tree all roots are conversing to form the stem. In the stem during courses of growth different branches form in different position. The leaves are present on the branches. Root from the soils absorbs water, salt and nutrients and transfer them to the stem for the development of the tree. So root takes the unmanifested form and it ultimately manifests in the tree. The stem is the symbol of common ancestry. The branches indicate the evolutionary divergence. The evolution takes place to form different plants and animals. The leaves are the existing numerous species which are the common outcome of the process of evolution. All multi-cellular organisms follow one developmental process. They have different branching in course of evolution. All multi-cellular start from a single zygote. Further in course of mitotic division number of cells increase. Before reaching the adult stage it passes through many stages. Two different species that follow the same course of developmental pattern though be variable in line of evolution i.e having different sub-branches, originates from the common ancestor i.e. stem and root. The process is schematically depicted in the following figure.

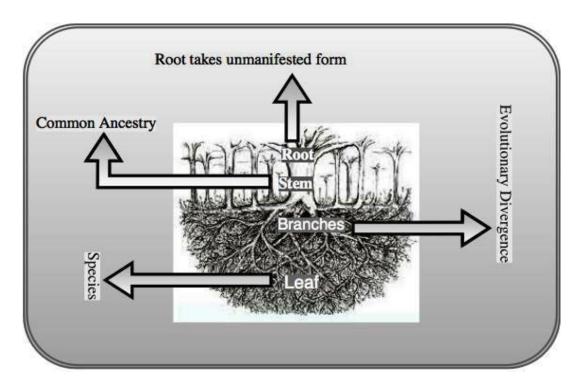


Diagram-34: The tree mentioned in Gita is the symbol of evolution of life

Bhagavad Gita give some idea to discuss the Genetics and Behavior in an environmental approach. In Gita Krishna has discussed the continuity of the species, its interaction with the environment and genetic factors responsible for the formation of varied species of different classes.

Ancestors transfer chromosomes to their offspring. The gene determines the behavior of the organism. The character of living being beings depends upon the behavior. So there is relation between the gene and behavior.

मम योनिर्महद्ब्रह्म तस्मिन्गर्भं दधाम्यहम्।

संभवः सर्वभूतानां ततो भवति भारत ॥ (The Bhagavad Gita,14.3)

My womb is the great Prakriti; in that womb I place seed of all life; from thence, O Arjuna, is the birth of all beings³¹. In this verse the nature has been designated as 'womb'. The word womb means a place where something is developed. The nature is the material cause of all the living beings.

Life originates from the conjugation of sentient and insentient. The body without life becomes a dead corpse and similarly the life without the presence of body is ineffective. The living being means the union of the two i.e. sentient life and insentient body. The former is called in Gita as *Kshetrajna* and the latter is called *Kshetra*. In the Gita Krishna has expressed this idea.

क्षेत्रज्ञं चापि मां विद्दि सर्वक्षेत्रेषु भारत ।

क्षेत्रक्षेत्रज्ञयोर्ज्ञानं यतज्ज्ञानं मतं मम ॥ (The Bhagavad Gita, 13.2)

Me do thou also know, O descendent of Bharat, to be *Kshetrajna* in all *Kshetras*. The knowledge of *Kshetras* and *Kshetrajna* is considered by me to be the knowledge³².

Two things are required for construction of a house i.e. an architect and the building material. An architect has the building plan for proper execution of the construction of the building. He knows very well the placing and utilization of the materials in the building plan. So without architect it is not possible to construct the building. However, an architect has no utility without the building materials. So here building is considered as *Kshetra* and the architect is considered as *Kshetrajna*. Development of any living organism two things required – the genes and the protein. The genes are the structural and functional hereditary units. It are passed from one generation to other. The gene contains some genetic code which regulates the formation of protein in the

organism. Proteins are the polymers of amino acids and are the building block of an organisms. Genes are the short segments of long DNA molecules present n the nucleus of the cells. DNA molecules are made up of four types of nucleotide i.e. Adenine (A), Thymine (T), Guanine (G) and Cytosine (C). Each code is triplet form of nucleotide like A-T-G. From the specific code form a specific amino acids through the process of translation and transcription. Ultimately the linking of specific number of amino acids gives rise to proteins of specific variety. All unicellular and multicellular organism including man posses 20 number of amino acids.

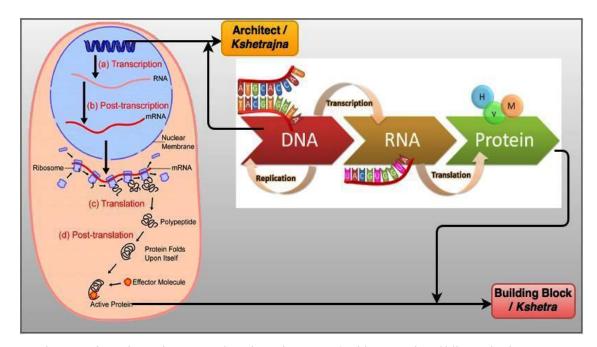


Diagram-35: The Kshetras and Kshetrajna vs. Architect and Building Block

An organism exists in the environment through some interaction. These interactions are mainly three types i.e. friendly, inimical and neutral. An environment is friendly if it contains food and necessary shelter. It is inimical when it provides inadequate food and protection from the other factors. But the interaction in neutral nature is rare, as it does not indicate any expression of life. Organisms try to take away themselves from the inimical situation to the friendly one in the process of struggle and adaptation with the external environment. In course of development any species when starts interaction with its environment, it gets a opposition force from the environment. Species through its inner strength tries to resist this onslaught. Afterwards a stage comes when the superincumbent nature behaves indifferently with the species. When

a species attains this stage, it will survive in the ecosystem. If the species could not pass from the first stage to the second stage, it will extinct from the process of evolution. Ultimately the last stage comes when the same species previously gets the opposition from environment, now the same environment behaves friendly to it. So the process of evolutionary path and the number of species depend upon the successful transition of different stages. The following figure depicts the interaction between species and environment:

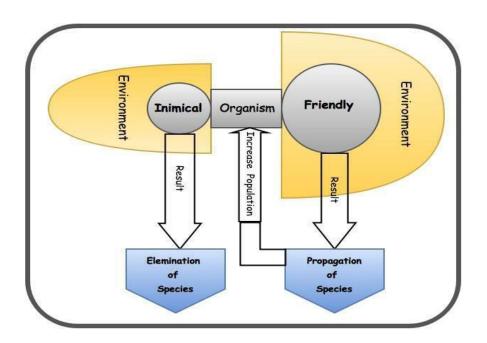


Diagram-36: The interaction between species and environment

The Bhagavad Gita gives the outline of the process through which one species can overcome the onslaught of the environment.

मात्रास्पर्शास्तु कौन्तेय शीतोष्णसुखदुःखदाः ।

आगमापायिनोऽनित्यास्तांस्तितिक्स्य भारत ॥ (The Bhagavad Gita,2.14)

Notions of heat and cold, of pain and pleasure, are born, O son of Kunti, only of the contact of the senses with their objectives. They have a beginning and an end. They are impermanent in their nature. Bear them patiently, O descendent of Bharata³³. In this verse Krishna enumerates some important points:

a) Sense perception originates from the interaction between sense organ and the object of perception present in the environment.

b) This perception is opposite in nature i.e. heat and cold, pain and pleasure, good and bad, etc. It is the duality in nature of perception gives the effect. Though these two qualities are apparently opposite, they are but obverse and reverse of the same coin. Same perception appears to be different like the same environment manifests itself in different species from the unmanifested material cause. It is mentioned in the text that all these dual qualities have beginning and end. It indicates that the qualities like pleasure and pain each has the beginning and the end. When pleasure begins, it has an end. At the same time pain begins with the signal of ending. So the end of one perception is nothing but the end of other. The end of pleasure is the beginning of the pain. Moreover the beginning and end of any perception coexists at any point. It is not possible to differentiate two at a time. It is the actual nature of all dual perceptions. The Pleasure-Pain Continuum is clearly depicted in the following diagram:

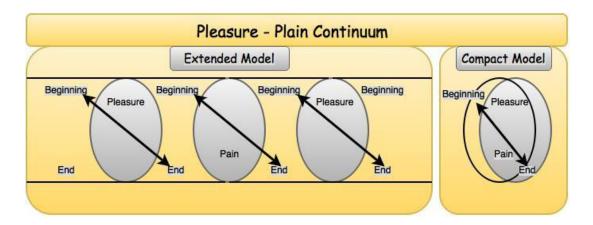


Diagram-37: The Pleasure-Pain Continuum

- c) As all these are originating from ever changing sense objects present in the environment, they are all transient and gives only temporal perception.
- d) If living being patiently bears the interaction between sense organs and environment, this particular species can withstand the onslaught from the nature. They will survive in the evolution process.

There is correlation between the living organism and the environment. The living beings interact with environment according its own nature. Moreover nature of living being is also formed though the interaction with the environment.

सदृशं चेष्टते स्वस्याः प्रकृतेर्ज्ञानवानपि ।

प्रकृतिं यान्ति भूतानि निग्रह किं करिष्यति ॥ (The Bhagavad Gita,3.33)

Even a wise man acts in accordance with his nature. All living beings follow their nature. What can restraint do³⁴?

न हि कश्चितक्षणमपि जातु तिष्टत्यकर्मकृत् ।

कार्यते ह्यवशः कर्म सर्व प्रकृतिजैग्णैः ॥ (The Bhagavad Gita, 3.5)

Verily none can ever rest for even an instant, without performing action; for all are made to act, helplessly indeed, by the *Gunas*(qualities), born of Prakriti³⁵. The living being has certain through which they interact with the environment. In course of interaction living being grows accordingly in physical stature. As the environment is ever changing, the living being simultaneously interacts with the environment for adaptation and growth. In course of interaction the different beings develops different behaviours. All behaviours of the living being are classified in two groups – Instincts (innate) and Acquired. Instincts are the behaviours which is genetically determined. These will act according to the genetic information. But Acquired knowledge is the result of the direct interaction with the environment. As the interaction with environment is always going on, the process of learning in form of Acquired knowledge is also continuing. But actual behavior of a species is the summation of the two i.e. Instincts (innate) and Acquired. For any species two modes coexist. These two are interdependent. Innate influences the Acquired mode of knowledge. Similarly Acquired mode influences the Innate. In the course of evolution species develop newer qualities in the succeeding generation.

Above two verses of Gita give the idea of the innate nature of the living beings. There are some salient points regarding the innate nature which is mentioned in the Gita.

They are mostly practiced by the entire population for a particular species. Innate nature of a species is more or less same. This nature is the indicative point for the identification of the particular species.

The innate is expressed through simple stimuli. The expression of the stimuli of a species takes place in a situation which is adverse to its normal living style. Moreover

species applies it unintelligently. Mode of action indicates that species exerts it in stereotype fashion. All stereotype action is mechanical with absence of intelligence. The innate nature is spontaneous. It does not require any so called previous experience. All species response these nature helplessly.

The following verse in Gita expresses the Acquired nature of the living beings.

तत्त्ववितु महावाहो गुणकर्मविभागयोः ।

गुणा गुणेषु वर्तन्ते इति मत्वा न सज्जते ॥ (The Bhagavad Gita, 3.28)

He however, who has true insight into the respective spheres of the *Gunas* (object of perception), and their actions, holding that it is the *Gunas* (Sense Organs) that moves among the *Gunas* (objects of perception) does not get attached to them, O Arjuna. Some salient points regarding the Acquired nature are also present.

The sense organs interact with environment for getting information. The interaction between the sense organ and the object of perception present in the environment.

The particular sense organ could not stay alone. It always remains with object of perception of a particular type. So the separate identity of the sense organ is not possible. But the conjugate relation between sense organ and the object of perception is observed every where.

Any particular moment living being gets information through the interaction between sense organ and the particular object of perception present in the environment. But the environment is ever changing. So the object of sense organ is also changing accordingly and consequently the information resulting from the interaction between sense organ and object of perception is also changed. Living being could not attach any importance with any one of it. But through the process of interaction it gathers knowledge.

Life in nature is continuously takes newer forms. The expression of life in newer forms is going on continuously. One form is originates from the other. Gita gives idea about the continuity of life and the inter-relationship between different living beings.

अहं सर्वस्य प्रभवो मत्तः सर्वं प्रवर्तते ।

इति मत्त्वा भजन्ते मां बुधा भावसमन्विताः ॥ (The Bhagavad Gita, 10.8)

I am the origin of all, from Me everything evolves – thus thinking, the wise worship Me with loving consciousness³⁶.

यच्चापि सर्वभूतानां बीजं तधहमर्जुन ।

न तदस्ति विना यत्स्यान्मया भूतं चराचरम् ॥ (The Bhagavad Gita, 10.39)

And whatsoever is the seed of all beings, that also am I, O Arjuna. There is no being. Whether moving or unmoving, that can exist without Me³⁷.

In the above verses Krishna states that Source of all being is one. This *one* entity is the seed of all living beings. Environment is the repository of all manifested and unmanifested beings. The unmanifested beings present in environment at first takes form of manifested being. Through course of evolution one being is converted to another being. If the environment is one principle, it takes different form in the manifested objects. So environment is the seed of all beings. Moreover, formation of one form into another is possible. In evolution different species are origination one after another. So the preceding species is the seed of succeeding species. Amphibian is evolved from the fish, amphibian is the seed for reptiles, reptiles are the seed of aves and mammals. The following figure clearly depicts the evolution of one species into another³⁸.

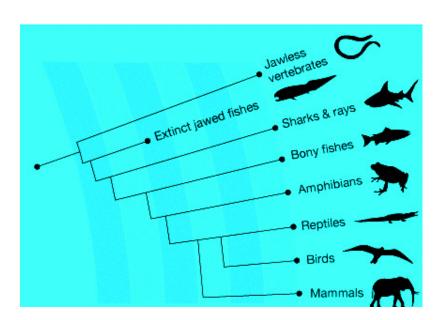


Diagram-38: The evolution of one species into another

Bhagavad Gita mentions some important points regarding the relationship between Abiotic and Biotic factors. In Gita Krishna describes the relationship of different organisms, sentient and insentient beings.

मयाध्यक्षेण प्रकृतिः सूयते सचराचरम् ।

हेत्नानेन कौन्तय जगदिवपरिवर्तते ॥ (The Bhagavad Gita, 9.10)

By reason of My proximity, Prakriti produces all this, the moving and the unmoving, the world wheels round and round, O son of Kunti, because of this³⁹. The environment produces all moving and unmoving objects. Moving objects are sentient. But unmoving objects are both sentient like all types of plants and insentient beings. The whole ecological cycle is rolling on and on perfectly. The sustenance of the ecological cycle depends upon the correlation between the sentient and insentient beings.

प्रकृति स्वामवष्टभ्य विसृजामि प्नः प्नः ।

भूतग्रामिमं कृत्स्नमवशं प्रकृतेर्वशात् ॥ (The Bhagavad Gita, 9.8)

Animating My *Prakriti*, I project again and again this whole multitude of beings, helpless under the sway of *Prakriti*⁴⁰. The environment under the power of the supreme Lord, projects all beings. All beings after their projection in the environment play their role according to their own nature.

The following two verses give the idea of different constituents of the environment.

भूमिरापोऽनलो वायुः खं मनो बुद्धिरेव च ।

अहंकार इतियं मे भिन्ना प्रकृतिरष्टधा ॥ (The Bhagavad Gita, 7.4)

Earth, water, fire, air, ether, mind, intellect and egoism; thus is My *Prakriti* divided eightfold.

अपरेयमितस्त्वन्यां प्रकृतिं विद्धि मे पराम् ।

जीवभूतां महाबाहो ययेदं धार्यते जगत् ॥ (The Bhagavad Gita, 7.5)

This is the lower nature. But different from it, know thou, O mighty-armed, My higher Prakriti – the principle of self-consciousness, by which this universe is sustained⁴¹.

According to the Gita environment is divided into two parts i.e. lower and higher. Lower part is again divided into two sections i.e. abiotic factors (Earth, water, fire,, air ang ether) and subtle part of the living beings (Mind, intellect and egoism). The higher part is the conscious principle and manifesting stage. It is life in living being.

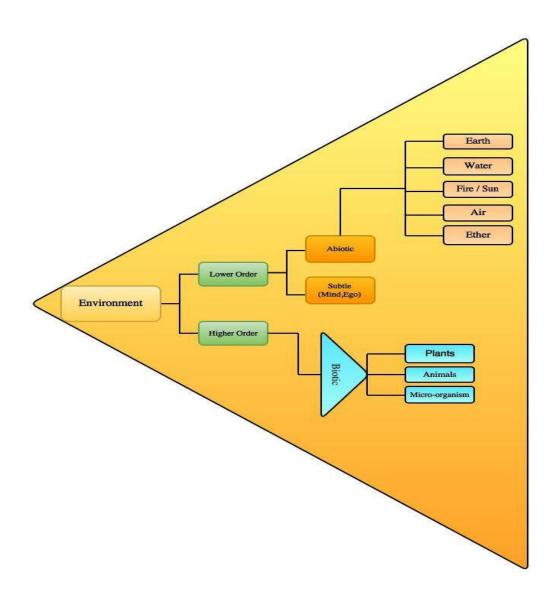


Diagram-39: The division of environment according to Bhagavad Gita

The Gita gives the idea of the code of living in the environment and the sustenance of ecological cycle.

Through the attitude of sacrifice make a relation with different forces in the environment. Though sacrifice man not only makes all living beings as friend on earth but whole earth is his own part.

देवान् भावयतानेन ते देवा भावयन्तु वः ।

परसपरं भावयन्तः श्रेयः परम अवाप्स्यथ ॥ (The Bhagavad Gita, 3.11)

Cherish the *Devas* with this, and may those *Devas* cherish you, thus cherishing one another, ye shall gain the highest good⁴².

So man first serves the environment and its beings and then he thinks for himself. If he thinks only his personal being, he acts like a thief.

इष्टान् भोगान् हि वो देवा दास्यन्ते यज्ञभाविताः ।

तैर्दत्तान् अप्रदायैभ्यौ यो भुङक्ते स्तेन एव सः ॥ (The Bhagavad Gita, 3.12)

The *Devas*, cherished by sacrifice, will give you desired-for objects. So he who enjoys objects given by the *Devas* without offering to them, is verily a thief⁴³.

Healthy life style indicates what man takes from the environment; he should at first offer to the environment and its components.

यज्ञशिष्टाशिनः सन्तो मुच्यन्ते सर्वकिल्बिषैः ।

भुञ्जते ते त्वघं पापा ये पचन्त्यात्मकारणात् ॥ (The Bhagavad Gita, 3.13)

The good, eating the remnants of sacrifice, are freed from all sins, but who cook food for themselves, those sinful ones eat sin⁴⁴.

Man should be aware of the relation with the environment, himself and his deed. Like any living being man takes the birth from food stuff. All food stuff is produce out of cloud and the consequent rain. The cloud is formed out of proper irradiation on the water body present in the earth surface. In the environment all do their allotted duties selflessly as an attitude of sacrifice. So man has to exert his quota in this process of sacrifice. All sacrifices originate from service attitude. This is the interrelation of man, environment and his deed.

अन्नाद्भवन्ति भूतानि पर्जन्याद् अन्न संभवः ।

यज्ञाद् भवति पर्जन्यो यज्ञः कर्मसमुद्भवः ॥ (The Bhagavad Gita, 3.14)

From food come forth beings, from rain food is produced, from Sacrifice arises rain and Sacrifice is born of Karma⁴⁵.

If man does not participate in the ecological cycle and only engages himself in selfish activity, he is doing the wrong deeds. So Man has to participate in the ecological cycle of nature.

एवं प्रवर्तितं चक्रं नान्वर्तयतीह यः ।

अधयुरिन्द्रियारामो मोघं पार्थ स जीवति ॥ (The Bhagavad Gita, 3.16)

He who here follows not the wheel thus set revolving, living in sin and satisfied in the senses, O Parthav – he lives in vain⁴⁶.

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²⁴ Ibid. 4.13

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²⁶ Ibid. 18.43

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²⁸ Ibid. 2.28

²⁹ Ibid. 15.1

³⁰ Ibid. 2.28

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<sup>31</sup> Ibid. 14.3
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³³ Ibid. 2.14

³⁴ Ibid. 3.33

³⁵ Ibid. 3.5

³⁶ Ibid. 10.8

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⁴² Ibid. 3.11

⁴³ Ibid. 3.12

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⁴⁵ Ibid. 3.14

⁴⁶ Ibid. 3.16