

The Human Ecology: An Inverted *Asswattha* Plant (*Ficus religiosa*), A Symbolic Presentation by Sri Krishna in The Bhagavad Gita—An Analytical Review

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ABSTRACT Sri Krishna has presented human ecology (*Manusya Loka*) as an imperishable banyan tree in Bhagavad Gita that has its roots upward and branches down. The leaves of the plant are the Vedic hymns (human knowledge) and the twigs and buds are the objects of senses. The tree has also roots growing down (towards the branches), which are bound to the fruitive actions of human society. The plant is nourished by the three modes (*Gunas*) of material nature. The real form of this tree cannot be perceived in this world. No one can understand its foundation, beginning and end. The workculture of detachment is the weapon to cut down this strongly rooted tree, to make oneself free from the cycle of birth and death.

INTRODUCTION

Bhagavad Gita reveals the scientific background of ancient people regarding the awesome nature of the cosmos, age of the universe, fundamental principles of environmental science, creation of life and evolution, basic theme for conservation and ramification of the biodiversity, diversity of human characters and work-culture for sustenance of life at par with the modern science (Padhy 2019). Similarly, diversified exemplary approaches to explore and understand the human ecology are noteworthy (Bhasin and Bhasin 2000; Bhasin and Malik 1998; Bhasin and Susanne 2010a,b; Bhasin et al. 2001). The divine love for the plant world as expressed in Gita says that, any offer to God with love, be it a leaf, flower or fruit with purity of heart is pleasantly accepted (Gita 9/26). Sri Krishna has told, “Among all trees, I am the *Asswattha* plant” (*Ficus religiosa*). *Asswattha* represents the whole phytodiversity. Infact the *Asswattha* plant is worshipped throughout India as a representative of *Bhagawan Vishnu* (Padhy et al. 2020).

In the 15th chapter of Gita, the creation of the human ecology is represented as ‘The Tree of Life’ (15/1-2). The diversity of the creation is represented as an imperishable *Asswattha* plant, which exists in inverted condition with its roots above and branches below the ground. The aim of the present research is to explore the anthropological and biological theme of this presentation by Sri Krishna.

METHODOLOGY

Study of ancient literature and mythology comes under ‘Literary Research’ in ethno-biological research techniques (Padhy 1998; Padhy et al. 2015; Jain and Rao 1983). It reveals the ancient scientific thoughts, encapsulated in the Sanskrit hymns (or any other language) and religious icons in symbolic terms and/or forms, respectively. In the present study, Bhagavad Gita, written in Sanskrit is the study material, which was earlier, focused from an ethnic-environment point of view (Padhy 2019). This study will provide scope to realise the importance of ancient Indian environmental and ethical education, which needs rediscovery and ecological implementation in the present context.

OBSERVATIONS AND DISCUSSION

Chapter 15 of Bhagavad Gita is known as ‘Purushottama Yoga’, which refers to the yoga of the Supreme person. The two starting *Slokas* of this chapter are:

Sri Bhagawan uvaacha:

*Uudhva muulam adhahsaakhamasvattham-
praahur avyayam;*

*Chandaamsi yasya parnaaniyas tam vedasa
vedavit. (15/1)*

*Adhas co’rdhvam prasrtaas tasya saakha
gunapravrdhaah visayapravaalaah*

*Adhasca muulaany anusamtataani
karmaanubandhiimi manusyaloka* (15/2)

Sri Bhagawan said:

It is said that there is an imperishable banyan tree that has its roots upward and its branches down towards the ground and whose leaves are the Vedic hymns. One who knows this tree is the knower of the Vedas (15/1).

The branches of this tree are extended downward and upward, nourished by the three modes (*Gunas*) of material nature. The twigs are the objects of the senses. This tree also has roots growing down, and these are bound to the fruitive actions of human society (15/2) (Prabhupada 1972).

The following facts of the above two referred versions are necessary to be analysed.

1. The Tree of Life
2. The Branches
3. The Leaves
4. Twigs and Buds
5. The Root System
6. Source of Nutrition

The Tree of Life

Physically, biologically and ecologically it is impossible for the continuance existence of a plant system in inverted condition. Basically the shoot system is positively phototrophic and negatively geotrophic and the root system is negatively phototrophic and positively geotrophic. SriKrishna has compared the human society with the inverted plant from a symbolic point of view. Root is the basis on which the plant is established. Even when the shoot system is cutdown, there is every possibility of regeneration if the root system survives. The upward existence of the root of the symbolic plant indicates the origin of human society from above where the *Pitruloka* (manes habitation), *Devaloka* (habitation of *Devataas* or ecological powers), *Brahmaloka* (habitation of Brahmaa, the creation power) and *Vishnuloka* (Vishnu is the fostering power of the creation) are established as per Hindu belief. The human society is maintained by the above-located powers. That is why the origin of the humanity is mentioned above as the root of the *Asswattha* plant. However, the whole creation is a manifestation of the Divinity/God, who is pervaded everywhere.

God is indefinable. His absolute state is beyond the ken of mind and speech. His existence in

the universe is denoted as *Satchitanandam* (*Sat* + *chit* + *anandam*) means existence, knowledge and bliss. *Sat* is the reality, which is not affected by time, space and causation. Reality focuses over appearance of the cosmic soul as individual souls or the *Jivatmans* appearances as beings, which has spread as the biodiversity/human ecology. *Anandam* is happiness, the basic motto of life.

In Gita (11/31), Arjuna asked SriKrishna after witnessing the *Viswaroopa* (vision of the whole universe), "Tell me who you are with a form so terrible?" The answer was, "*Kaalo 'smi'*" or "I am inflamed *Kaala*, the eternal time spirit. No one knows when the time started and when it will end. Time is not limited between beginning and end. It is the beginning, the middle and end of all creation (11/32). Time is God, the cosmic creation factor."

One lunar month of the human beings is 24 hours of *pitrū* (Manes). The dark fortnight is their day of active exertion and the bright fortnight is their night of sleep. One earthly year of human beings is one day of Gods. The half-year during which the sun progresses to the north (*Uttaraayana*) is their day and when it goes southwards (*Dakhinaayana*) is their night. Accordingly, 360 earthly years of human beings is one year of God's Divine Year. The life span of Brahmaa is 720,000 *Kalpas* accounts to 31104×10^{10} earthly years. In one *Kalpa* (4,320,000,000 earthly years) Brahmaa (the creation power of Hindus) causes expansion of his creation (His day time) and in the next *Kalpa*, He squeezes his creation (night time) (Manusmriti chapter 1/66-74). May be at the end of the life span of Brahmaa the entire universe, every galaxy, nebula, star, each and everything perishes. This is how time is realised as God reflected in ancient Indian science (Mohapatra et al. 2001a). The sum total of years since the beginning of this *Kalpa* (present creation) is 1,972,949,120 years till 2020 AD. Ironically the 100 years of human life is only equivalent to 0.001 second of Brahmaa, the creation power (Padhy 2019).

In the tenth chapter of Gita (Padhy 2016a) very scientifically SriKrishna has presented the chronological expansion of the creation, starting from the beginning of life till the proliferation of human society (Fig. 1). Systematically every activity of nature changes scientifically according to the tune of time, following the rules and regulations of the divinity (natural laws). No deviation of the nature is acceptable, whatever it may be, however strong

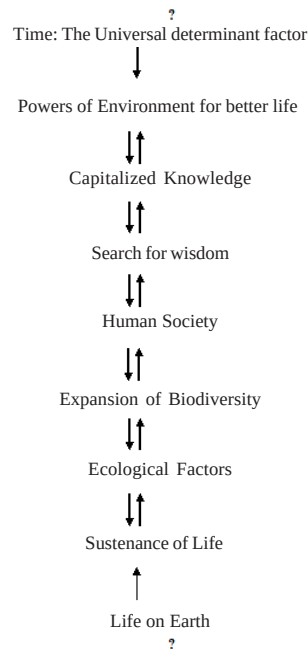


Fig. 1. Ascending interacting sequence of proliferation of the Biodiversity and Human Society
Source: Padhy 2016a

it may be created, (man-made), and by whomever he may be. The Tree of Life is represented in Figure 2. The non-attached involvement of God with the creation is reflected in Gita as follows (Padhy 2021):

Creation and Evolution

All this universe is pervaded,
by Me, the form of unmanifested.
Within Me
all beings exist,
within them
I am not present.
Never situated in Me
all this creation,
but, be hold every thing
My *Yoga* power divine.
I am,
the very source of creation,
living entities,
I maintain and sustain,
yet not,
a part of cosmic creation.

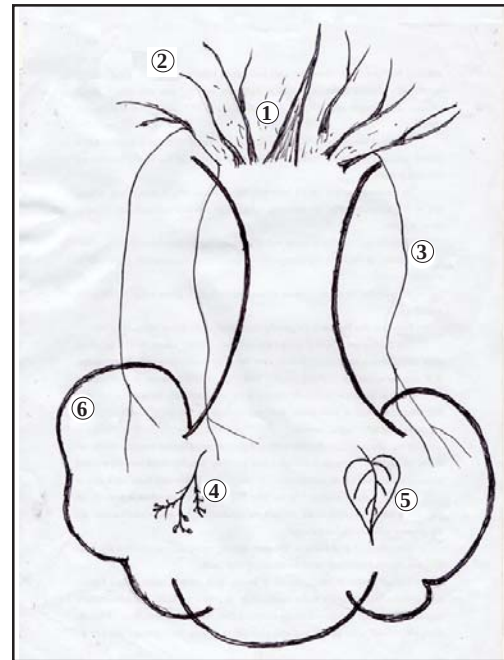


Fig. 2. The imperishable inverted Asswattha plant, presented as The Human Ecology

Source: Author

1. The Originating Roots: Creation Power of Nature.
2. Nutrition Source: The *Gunas*.
3. Descending Roots: Attachment to Fruitive Actions.
4. Buds: Sense Objects.
5. Leaves: The Source of Knowledge.
6. Expanded Branches: The Human Ecology.

As the,
extensive air,
moving everywhere,
remains in either.
Similarly,
know that all beings,
abide in, My source.
All beings
enter my *prakruti*
during final dissolution,
In next *kalpa*
beginning of creation
I generate them again.
My Creation power;
send forth
multitude beings
again and again,
helpless

under *prakruti*
 strict regimentation.
 For such activity,
 I have no reactivity.
 Being totally unbound,
 unconcerned
 and unattached.
 Because of My direction,
 nature's whole creation.
 The beings-
 moving and non-moving,
 the world
 that's why revolving.
 (Gita: 9/4-10)

The expansion of plants is represented by its branches. Similarly, the expansion of biodiversity is represented by the number of species identified on the earth. The natural world contains about 8.7 million of both plants and animals (Internet source). The number of species known to science increases substantially every year. The evolution and expansion of biodiversity can be well imagined from the above data in conformity with the Gita's presentation such that:

"He (God) has endowed with numerous arms, hands, thighs and feet on all sides; many bellies and heads in all directions with innumerable mouths, teeth, eyes and ears all around, extended forms: stands pervading all the universe (globe)" (Gita 11/16,23; 13/13).

Man or *Homo sapien* is only one species amongst the animals. The present world human population is 7.8 billion as recorded on August 2020 (Internet source). Among human beings there are lot of variations based on cognitive ability, personality, physical appearance, immunology, genetics, etc. This variability is partly heritable and partly acquired. In addition to the above, human society has educational, cultural, financial and habit-habitat based innumerable variations. SriKrishna has nicely presented that the tree of life has branches extended downward and upward.

The Leaves

Gita has claimed that the leaves of the banyan tree are the Vedic hymns. He who understands this tree in the knower of the Vedas (15/1).

The word Veda has an etymological origin from the Sanskrit word *vid*, which means to know. Veda speaks of itself (Saraswati 1973). Vedas are a uni-

versal and perennial source of knowledge. The divine knowledge of Vedas is applicable to all people, all places, in all times and available above the discrimination of religion and sex. The wisdom of Vedas is ever fresh, ever appropriate and ever lasting above the limitations of time, place and action. It is beyond the range of doubts, disbelief and danger. It is irreversible, infallible and indestructible. Vedic knowledge is permanent, which is flawless, stainless and spotless (Telreja 1982).

Vedas make a special claim to be divine in their origin with an adjective *Apaurusheya* (not created by human, but revealed by God). The ancient saints have realised the Vedic knowledge in their transcendental state of mind in deep meditation. Further they have scribed the knowledge in the form of hymns. They have attributed the knowledge to the source of divinity, instead of claiming the authorship for self.

Ultimately, the cream knowledge of the creation of the entire universe is based on the essence of Veda. The Hindu God Brahma, responsible for the creation of the universe is found to be holding the Vedas in his hands. The Veda is divided into four parts, namely, *Rigs*, *Saam*, *Yajur* and *Atharva* with their branches and associated with six Vedic age literature, namely, *Upaveda*, *Vedaanga*, *Upaanga*, *Smruti*, *Tantra* and *Purana*. Only the four Vedas contain 20,379 hymns, and the addition of the Vedic literature makes the whole system vast.

Knowledge is the only parameter to measure the importance of any civilisation. Historians have recorded the first six civilisations of the world that arose independently approximately 6000 to 3500 years ago. They are Mesopotamia, Egypt, Indus Valley, Andes, China and Mesoamerica. As a plant system lives based on the photosynthetic activity of its foliar system, similarly the human community survives on its own knowledge acquired. Gita was revealed by SriKrishna in the Mahabharata war field about 5000 years ago following a period of ancient Vedic age of India. It is rightly reflected that he who understands the inverted tree is the knower of the Vedas. As oxygen is a by-product of photosynthesis, as it purifies the environment and responsible for living beings' sustenance, similarly knowledge is the basis for the existence of human ecology.

Twigs and Buds

Gita says that the twigs and buds of the inverted plant are the objects of the senses. The senses are known as *Indriyas* in Sanskrit, which reflects

on the power/force/capacity of distinct perception. The senses are divided into two groups of abstract knowing organs or *Jnyaanendriyas*, and abstract working organs or *Karmendriyas*. Power to hear (*Srotra*), power to feel (*Twak*), power to see (*Chakshu*), power to taste (*Rasana*), and power to smell (*Ghraana*) are known as abstract knowing organs. Similarly, the power to express (*Baak*), power to procreate (*Upastha*), power to excrete (*Paayu*), power to grasp (*Paani*) and power to move (*Paada*) are the abstract working organs. To make the *Indriyas* functional five subtle elements are involved called as *Tanmaatras* (sense powers). They are *Sabda* (sound), *Sprassa* (touch), *Roopa* (form), *Rasa* (flavour) and *Gandha* (odour). The five *Mahaabhootas* (ecological factors) are ether, air, fire, water and earth, which are the sense particulars, and act as vehicles through which the *Tanmaatras* manifest. This is how a living organism (human beings) perceives through its sense organs, which leads to its involvement in a system to perform any work (*Karma*) (Mohapatra et al. 2001b).

Human beings in addition to their work performances misuse the sense organs for sense gratification. They consider that enjoyment through the body, sense organs, mind and intellect is the real pleasure. This causes the downtrend of life process and a great obstacle for spiritual (or any) evolution.

Sri Krishna has said:

That man attains peace who lives devoid of longing, freed from all desires (2/71).

The *Gunas* of *Prakriti* (Nature) perform all work. With the understanding clouded by egoism, man thinks, "I am the doer" (3/27)

Knowledge is covered by the insatiable fire of desire (3/39)

The senses, the mind and the intellect are said to be the seat of desire (3/40)

Senses are the destroyer of knowledge and realization (3/41)

The enemy (around us) in the form of desire, difficult to overcome (3/43)

Knowledge is veiled by ignorance; mortals are thereby deluded (5/15)

The delights that are contact-born (of senses) are verily the wombs of pain (5/22)

One is expected to resist the impulse of desire and anger before he quits the body (5/23)

End Point of Sense Brooding

The excited senses,
even of a wise man
striving for perfection,
carry away forcibly;
the escape for any one,
should sit for meditation.
Brooding over sense objects,
man develop attachments.
Attachment springs up desire,
discontent desire ensues anger.
From anger
arises delusion,
deluded memory
causes confusion.
Confused intelligence
spoil reason,
loss of reason
causes destruction.
Gita:2/60-63(Padhy 2021)

The Root System

The roots of the inverted banyan tree are upward projected and also have parts growing down (towards the branches), which are bound to the fruitive actions of human society(15/2)

The root system is the basic on which a plant is established, which indicates the origin of the human society discussed earlier. But the binding of the roots with the fruitive actions of the human beings reflects on their dragging down as rebirth due to the effects of *Karma Phala* (fruits of actions). Moreover the engendering action of man gives rise to the root system.

Gita says, as a man casting off worn-out garments puts on new ones, so the embodies, casting off worn-out bodies enters into others that are new (2/22)

Death is certain of that which is born; birth is certain of that which is dead. You should not therefore lament over the inevitable (2/27)

Beings are all, unmanifested in the origin (before birth), manifested in their mid-state (the life period) and unmanifested again in their end (death). What is the point then for anguish? (2/28)

In many Indian ancient epics it is mentioned that a *Jivatman* (individual soul) passes through 84 lakh birth and death cycles before it progresses in the spiritual line for self-upliftment with self-

realisation. In 80 lakh lives, its progress and evolution is automatic, which passes through biodiversity other than the human life. This is because, except man all the members of the biodiversity express only behavioural character. But in human life, the fruits of his actions of one life determine the progressive or retrogressive status of the next life. Moreover, the thinking of a person at the time of death determines the mode of the next life.

“Thinking of whatever entity one leaves the body at the time of death, that and that alone one attains (in the next life), being ever absorbed in its thought (8/6).”

Further Sri Krishna has advised to develop positive thoughts through yoga in the form of practice of meditation (8/7-14).

“Great souls, who have attained the highest perfection, having come to me, are no more subjected to rebirth, which is the abode of sorrow, and transient, by nature (8/15).”

The Thought Power

The mind vibrates on and off often. Mental vibrations so released form wireless mental broadcasting center that travel with lightening speed for and wide in all directions. Either positive or negative they enter into the minds of other persons and produce in them similar thoughts. This universal law is continually operating and people with similar thoughts get attracted towards each other. That is why, thoughts are considered very contagious and accordingly a mind interacts with another mind and the mental environment around them. One is expected to watch their self-mental vibration in every situation when they come across sense objects, which induce action and work accordingly with a positive attitude.

The thought vibrations released from a mind never perish, rather they get recorded in the ethical environment. They reach the cosmos, colloid and combine with similar vibration present earlier in the surrounding, again rebound to the place of origin being reinforced. Further, such vibrations activate the mind again and again in similar direction, get multiplied and ultimately dominant the mental sphere. One must be careful of own's thoughts, which are sent out of the mind, as it comes back to the centre of origin being reinforced. Any good or bad thought first affects the thinker, then the object personality and finally affects the

mankind by joining the cosmic mental atmosphere. (Padhy 2016b)

In one's daily life the mental energy is misdirected in various worthless worldly thoughts. It is said that:

Man sows a thought and reaps an action. He sows an action and reaps a habit. He sows a habit and reaps a character. He sows a character and reaps a destiny. So one's own destiny is due to own thinking and acting. One can change his destiny, as he is the master of his own. Thought power is that powerful, that it can change the civilisation (Sivananda 1976), the basis of human ecology.

Binding of Karma

In a human body, the soul is encased successively in three bodies:

1. External gross corporeal body (*Sthoola Sarira*)
2. The middle astral body (*Sukhsma Sarira*)
3. The inner casual body (*Kaarana Sarira*)

The casual body is a matrix of 35 ideas or thought forces, out of that 19 elements are intelligence (*Budhi*), ego (*Ahamkaara*), feeling (*Anubhaba*), senses-consciousness of mind (*Manas*), five powers of *Jnyaanendriyas*, five powers of *Karmendriyas* and five instruments of life force empowered to perform functions of the body like crystallising (*Sangraha*), assimilating (*Grahana*), eliminating (*Niskaasana*), metabolising (*Jeerna*) and circulating (*Sanchaalana*) compose the astral body. The other sixteen elements comprise five (earth, water, fire, air, ether) *Pancha Mahaabhoota*, and five physical organs to perceive the knowledge, that is, ear, skin, eye, tongue and nose, and five physical organs to perform actions like tongue/lips, sex organs, anus, hand, and feet. Plus, the sixteenth element is the physical brain of the physical body.

The actions and events performed in a person's life time leaves an indelible trace in the subconscious region of the mind, which finally gets recorded in the casual body in the form of *Karmic* seeds. These seeds are the *Samskaara* of a person, the balanced statement of deeds of past life experienced in the present life. *Samskaara* is carried in the subconscious memory as experience of one's past life and grows into a character or destiny in the present life. It is the theme of the inner mental environment or the mental impression resulted as the effect of *Karma* transmitted from life

to life and forms bonding of the soul. In this context, the world famous book 'Many Mansions' written by Gina Cerminara in 1950 is enough to clear all doubts. As a universal factor, the internal environment of a human personality is also governed by three *Gunas* (qualities) of nature, and their property essence will be discussed later.

The Fruits of Karma

Based on expression of the results of *Karma* related to *Samskaara* they are divided into three categories:

1. *Sanchita Karma* (saved, accumulated, collected)
2. *Praarabdha Karma* (fate, destiny, luck)
3. *Kriyamana Karma* (the present performance)

Sanchita Karma

1. These are the fruits of actions, which are accumulated in the mental sphere as *Samskaara* since many lives.
2. When the *Sanchita Karma* expresses its effects in the next life, the resultant is named *Praarabdha*.
3. There are no specific rules for the chronological turning of the *Sanchita* to *Praarabdha*. The *Samskaara* of the lives ago may remain as *Sanchita* and the effects of last life *Karma* may express its results.
4. The experience of *Praarabdha* is dependent on the physical and mental ability of a person. The amount of *Sanchita Karma* that one can tolerate/enjoy is converted to *Praarabdha*.
5. As such, *Sanchita Karma* has no direct effect on the activity and character of a person in the present life. It is a silent factor, which awaits its expression as *Praarabdha* in right time.

Praarabdha Karma

1. The present experience of luck, destiny is called *Praarabdha*, which strongly influences the character and activity of a person.
2. Five important events of life such as life span, professional activity, property, education, and the environment of death are pre-fixed as per luck.

3. Many times one witnesses the unripen death of a person, an invalid's best performance, a beggar turns a millionaire, and a fool turns to be a scholar. These are all the effects of *Praarabdha*, difficult to analyse.
4. It is not possible to change the *Praarabdha*. However, great Yogis can diminish the effects of *karma* of disciple to some extent, if required.
5. Effects of *Praarabdha* are expressed as good or bad characters of a person, which continue till the end of life. A local saying, "The character of a person drops down only after his death".
6. With the influence of his self-virtues, man shows all his activity. Much analysis and self-control may change the bad qualities to some extent.
7. It is necessary for a person to search out his good qualities, which can be expanded to perform better deeds for the society. Many a times a jasmine flower blooms in a forest, and sheds down without utility (a local saying).
8. Guru helps the disciple to find out his good qualities and shows the way to overcome bad characters.
9. *Praarabdha* is experienced negatively as poverty, disease and misfortune. All these may come suddenly or the sufferings come slowly for a long time depending on fortune.
10. There are many instances where the Guru or spiritual power can diminish the sufferings of the disciple, give him strength to tolerate it or expand the suffering period for long time with low dose. Even sometimes Spiritual Masters take away the sufferings of the disciple and suffer themselves for that.
11. No one has the power to avoid the *Praarabdha* completely.
12. Certain negative silly characters like stealing small things, bad attitude to another's wife, unnecessary spreading of false information, causing trouble to others for self-pleasure, to show false ego, misappropriation of others money are found with certain persons. They are unable to control self from such work and with a mental impulse forced to perform such negative activity.

Even such characters are seen with highly developed, well-educated and great persons as a negative reflection of *Praarabdha*.

However, performance of good deeds in the present life diminishes the effect of *Praarabdha* to some extent and makes one light in lifestyle.

Kriyamana Karma

This reflects on the actions performed in this life. Many factors get involved for the activity, and can be projected as follows:

1. This work is the performance of the present life, which is the activity of the functional mind, determinative faculty and individuating principle being influenced by the surrounding environment.
2. *Kriyamana Karma* is directly affected by *Praarabdha*.
3. Both the present environment and *Praarabdha* interact with the *Kriyamana*. But however, the stronger between these two is the one that directs the person concerned to perform an activity.
4. The *Kriyamana Karma* slowly metamorphoses to *Sanchita Karma* for the next lives.
5. The defect of the *Kriyamana karma* can be rectified by Guru or well wishers.
6. If *Kriyamana Karma* of this life turns violent, its effects are reflected in the present life directly.
7. The enjoyments and sufferings of this life is a mixed effect of *Praarabdha* and *Kriyamana Karma*.
8. By the influence of *Praarabdha* the good deeds through *Kriyamana* become more enlightened and mask the bad characters. Man is expected to take care of his present activity keeping an eye on his *Praarabdha* (Padhy 2017)

Karma Category of Human Society

In Gita SriKrishna has announced that the duties of the four orders of society (*Chaturvarna*) have been divided according to their inborn qualities (Gita 4/13,18/41). The same classification was expressed earlier in Manusmruti in the Vedic period, which reflects on the eugenic concept of ancient Indians (Padhy 2010). In the present contest, a new mode of social classification related to the

Praarabdha and *Kriyamana Karma* of human beings (Naushir 2014) needs discussion as three stages. This classification is based on the scientific, social and spiritual progress of human beings.

In the first stage of human beings, the life gets devoted for fulfilling base desires. This stage is also characterised by lifelong struggle, challenges and all sorts of depravation. Even they used to struggle for survival issues like food, clothing and shelter. The members of this stage hardly bother for the pain, harm or suffering caused to other humans in the process. The soul experiences strong qualities like greed, avarice, lust, hatred, cruelty, violence, extreme jealousy and low level of intelligence. They are easily influenced by ritualistic practices and indoctrination, which may be religious or political. They are strongly attached to the physical senses and pleasures. By all these activities, negative *Karmic* seeds get accumulated as *Samskaara*. Due to continuous operation of universal law of cause and effect the *Karmic* cycle begins. This stage highlights the journey of a soul through self-preservation and self-gratification.

In course of time after countless birth and death cycles, the soul shifts to mental development from physical interest. This is the second stage when the lifetime is mainly devoted on self-propagation, fame, achievements, wealth-accumulation, academic pursuits, seeking power, scientific research and all-round self-expression. The individual fully enjoys all the physical dimensions around him. The basic struggle for survival as in the first stage is absent in this stage. The persons develops intelligence, adherence to rule of law and slowly develops spiritual inquiry. Devotion, worship, sacrifice and charity, interest slowly grows in the person concerned. He maintains balance between positive and negative *Karmas*. However, burning ambitions, desire to dominate others and self-ego dominates this stage of life.

One enters to the last stage after many incarnation of human life with the full spirit of self-definition, self-enquiry, self-discovery and self-realisation. The blue print of every life in the form of *Samskaara* will lead towards the last stage to open the final door of self-progress. In the final stage the soul faces few physical challenges and faces many life situations for testing mental strength. He realises that happiness lies beyond material possessions and develops disillusionment with religious dogmas and doctrines. He feels stifled by

rituals and elaborated ceremonies. The soul expresses qualities like compassion, generosity, tenderness, tolerance and kindness, and maintains a balance all round.

The three stages projected above are not watertight compartments and significantly overlap on each other as a rule. In Gita SriKrishna has focused, "This multitude of beings, coming forth again and again (as cause of rebirth) (8/19).

All worlds including that of Brahma (the power of creation) are subjected to return (as rebirth)" (8/16).

Neither in this world nor in the next there is no destruction for the doer of good (6/40).

He reborn in the house of a pure and prosperous or in a family of wise Yogis only. He regains the same knowledge acquired in his former births and strives more than before for perfection. Such birth like this is verily very difficult to obtain in this world (6/41,42,43).

After attaining the highest perfection the great souls are no more subject to rebirth (8/15).

The lord has clearly expressed the character at the third phase persons called as *Sthitaprajna* (stable in wisdom) (2/55-61)

His desire of the heart are abandoned.

He is satisfied in the self by the self.

His mind is not perturbed by adversity.

He does not crave for happiness.

He is free from fondness, fear and anger.

In constant wisdom he remains silent.

He is not attached everywhere.

He is not delighted at receiving good nor dejected at coming by evil.

His wisdom is poised.

He withdraws the senses from sense-objects.

In the description of the inverted banyan tree, God has said that its roots are aimed upward as well it has also roots going down which are bound to the fruitive actions of human society (15/1,2).

How the roots are linked with the fruitive actions and cause the rebirth was elaborated earlier.

Source of Nutrition

Any biological system requires nutrition for its existence. Similarly the inverted banyan tree is nourished by the three modes of material nature called *Gunas* (quality) (Padhy 2014).

The nature (*Prakruti*) consists of three essential constituents called *Gunas* (quality), named

Sattva, *Raajas* and *Taamas*. *Gunas* are the property and essence of all things. The existence of *Prakruti* cannot be realised in the absence of the *Gunas*, as one cannot expect the presence of fire in absence of heat. In the process of cosmic evolution, the *Gunas* never separate from each other nor do they function separately. They coexist in everything, and they support one another and are intermingled with one another. But one of them or the other may predominate and the variegated arrangement of the *Gunas* accounts for all the diversified manifestations of nature.

Before creation, the primal nature cosmic substances were believed to be in existence with the homeostatic balance of the *Gunas*. It was in an unexpressed condition (*Abyakta*). For some reason the balance of the *Prakruti* was first disturbed (when, how and why is unknown) and the *Gunas* interacted for manifestation (*Byakta*). They started functioning in the order of *Sattva*, *Raajas* and *Taamas* with their activity as follows:

1. Their function in the universal condition of nature is to reveal, move and restrain.
2. In the phenomenal world they signify adhesion, cohesion and disintegration.
3. From psychological point of view, they illuminate, activate and obscure.
4. On the moral plane they are emancipation, affinity and sin respectively.

Sattva, *Raajas* and *Taamas* are the three qualities born of nature to tie down the imperishable soul to the body. *Sattva*, being stainless, is luminous and unobstructed. But, it binds someone by creating attachment to happiness and attachment to knowledge. A hearty enjoyment of a pleasure in its turn breeds an inordinate attachment to it. He who enjoys pleasure greatly next tries to increase his knowledge of the object of enjoyment. Pleasure derived from an object and the knowledge of that object is interrelated. Accordingly, the attachment to the pleasure is also an attachment to the knowledge, and both of them cause bondage.

The quality of *Raajas*, which is of the nature of passion and the source of thirst and attachment binds the soul through attachment to action and their fruit. The *Raajas* quality instils desire and excites someone into undertaking new projects. It causes thirst or hankering of the mind after things not yet acquired, and develops attachment, the act of clinging on to the objects already acquired. *Raajas* encourages greed for sense-objects, visi-

ble and invisible. The *Taamas* quality is born out of ignorance. It is the deluder of all those who; look upon the body as their own self. It binds the soul by heedlessness; sloth and sleep (13/19;14/5-8). So *Guna* is responsible for bondage.

Guna: A Human Ecological Factor

In relevance to the analysis pertains to this paper, *Gunas*, which are to be analysed from a mental point of view are an expression of human characters. They can be studied directly as follows.

Sattva Guna: It is the abstract principle of illumination or the power of the nature that reveals all manifestations with qualities like compassion, concentration, courage, detachment, enlightenment, faith, forbearance, forgiveness, humility, indifference, gay, modesty, pure action and valour.

Raajas Guna: It is the abstract principle of activity or the power of activating or exciting without which the other two *Gunas* cannot manifest their qualities. *Raajas Guna* has qualities like argumentation, attachment, abusiveness, animosity, back biting, braggadocio, craving of the senses, desire to afflict and kill, desire to buy and sell, deception, doubt, disrespect, drudgery, egoism, envy, frenzy, falsehood, gambling, habit of evil thoughts, heedlessness, insulting criticism, irregularity in conduct, jealousy, lack of shame, opinion, ostentation, quarrelling, remorse, selfishness, scepticism, scandal mongering, suspicion, treachery, thievery, wreath, all temptations and fancies.

Taamas Guna: It is the abstract principle of restraint or the binding potency of nature. Its function is to resist motion with qualities like avarice, carelessness, delusion, deluded connection, fear, grief, ignorance, indecision, insolence, laziness, lewdness, lassitude, pride, sleepiness, stolidity and want of faith, discrimination, knowledge, memory and liability.

In Gita Sri Krishna has said:

“The *Gunas* of the Nature perform all work (3/27).

The whole biodiversity is deluded by these threefold dispositions of Nature – the *Gunas* (7/13).

The deluded do not realise who departs, stays and enjoys being conjoined with the *Gunas* (15/10).

There is no being on earth or in the middle region or even among the Gods or anywhere else, which is free from these three *Gunas*, born of *Prakruti* (18/40)”.

All the aspects about the *Gunas* narrated by Sri Krishna in different chapters pertaining to various aspects of human life are discussed as follows.

“*Guna* expression determines the working efficiency of a person (14/9-17).

The knowledge, action and the performer and divided according to *Guna* (18/20-28).

The understanding, firmness and happiness of a person are of three-fold division according to *Guna* (18/29-39).

The faith, sacrifice, austerity and charity of any one are based on *Guna* (17/14-16).

The food habit of human beings is purely dependent on their *Guna* and develops to a social tradition of food and eating habit (17/8-10).”

The four-fold classification of the society (*Chaturvarna*) follows the *Guna* and *Karma* of a person, but not a birth right. For further details regarding genetic analysis of *Chaturvarna* division one may follow an earlier review (Padhy 2010).

The diversity of human characters discussed above shows that the human ecology is strongly influenced and controlled by the variegation of the *Gunas*. Accordingly, they nurture the inverted banyan tree, the expanded human ecology. Sri Krishna has further discussed about the effect of *Gunas* on the death and birth cycle of the beings (13/21, 23; 14/14, 15, 18). He has opened the doors of knowledge on how to overcome the effect of *Gunas* (14/19-26). The *Gunas* are none other than nature. They are the agents for all the activities, no matter where they take place. The senses and the objects of the senses are all nothing but the modification of the *Gunas*.

Gaining the pure *Sattva Guna* is the climax of the earthly life. But one must reach the state beyond the three *Gunas*, that is, *Nirguna*. Sri Krishna has announced, “The *Gunas* have evolved from me: I am not in them, they are in me (7/12).”

One can realise the importance of the *Gunas* in the universal condition of nature for manifestation as revealed in the Gita.

Cut the Tree: Be Free

Sri Krishna further expressed (15/3) that one may not see real shape of the inverted tree, neither its end, nor its origin, nor its existence. Rather one should cut asunder this firm-rooted *Asswattha* tree with the strong axe of non-attachment. Earlier the existence and expansion of the tree was elaborat-

ed and later its non-existence is focused. This contradiction clearly indicates the imaginary existence of the tree. However, how one can cut an imaginary object that adds more to the imagination.

The human ecology is so vast and so expanded that it is out of imagination of its origin, growth and evolution. There is no end for the anthropological research on different aspects of human life behaviour and culture. Moreover, a person concerned cannot cut his relationship with his ecological existence. All actions of every being are performed by the modes of nature (primordial matter) (3/27). Sri Krishna has focused that one must cut the attachment with the axe of non-attachment following the right work culture. One must be within the society and at the same time without any attachment, which is the right theme of all the above presentations.

The sustenance of nature (God's creation) needs the perfect work-culture of the members of biodiversity. Man being the supreme being of the nature is given prime importance by Sri Krishna to follow the work-culture (Fig. 3) perfectly (Padhy 2018). Gita focuses over the scientific philosophy of human ecological responsibility (Padhy 2013) with the following lines to protect the nature.

"At the beginning of creation. The Creator created the mankind along with the spirit of sacrifice, said them "you shall prosper by this; may this yield the enjoyment you seek" (3/10). Further the performance of action being non-attached and its social implications as reflected in Gita is discussed as follows.

One Has to Work

It is essential for anyone to perform actions as per his nature born qualities. Any living body is a biological machine, which needs to work. One is expected to know the right channel of his performance.

All living creatures follow their own tendencies to perform any work (prescribed for them) (3/33).

To accomplish all action, five factors are essential. They are the biological body, consciousness, various sense organs, different functions of the organs and the environment (18/14).

None can ever remain really without action even for a moment, for everyone is helplessly driven to action by nature-born qualities (3/5).

One evolves through Actions only

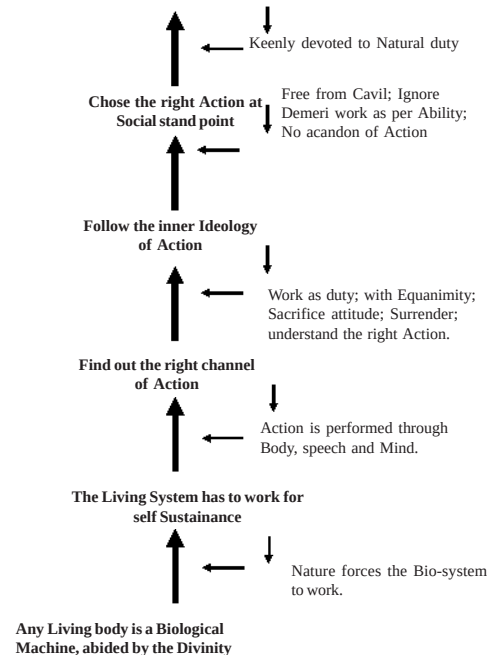


Fig. 3. Steps of Work – culture in Bhagavad Gita
Source: Padhy 2018

For reluctance to perform action, one cannot even maintain his body (3/8).

It is indeed impossible for an embodied being to give up actions entirely (18/11).

He who does not follow the wheel of creation thus set going in this world and does not perform his duties, is sinful and sensual. He lives in vain (3/16).

The Ideology of Work

You have the right to perform your duty; but never to the fruit there of (2/47).

Be even-tempered in success and failure (2/48).

Be neither the producer of fruits of actions nor lean towards non-action (2/47).

They are poor and wretched; those who are instrumental in making their actions bear fruits (2/49).

Efficiently perform your duty, free from attachment for the sake of scarifies alone. The world is bound by actions other than those performed for the sake of sacrifice (3/9).

They are sinful, who cook food only for themselves; they verily eat sin (3/13).

Whatever you perform (eat, sacrifice, bestow a gift, practice austerity) offer it to divinity with a pure heart. Such work automatically turns free from bondage (9/26, 27).

Work from Social Standpoint

To perform duty one should be uncoiling and with a devoted mind, following the teachings of divinity. Such persons are released from the bondage of all actions (3/31).

There is no work in nature, which is completely free from evil. One should ignore to that (18/48).

Follow the standards set up by great man to perform a work (3/21).

Do not unsettle the mind of ignorant persons attached to action. Allow them to perform their duty, while you duly commit performing your own duties (3/26).

With the fear of physical strain, because it is painful, do not avoid any work (18/8).

A prescribed duty is to be performed simply because it ought to be done (18/9).

It is indeed impossible for an embodied being to renounce action entirely. One has to work as per his ability (18/11).

Action is ever superior to non-action. Therefore perform your allotted duty (3/8).

Actions like sacrifice, charity, and austerity should not be relinquished (18/3).

Sri Krishna has emphasised that, keenly devoted to his own natural duty, being non-attached with the spirit of equanimity and attitude of sacrifice is the right ideology of action. It is the axe of non-attachment that can only cut down the inverted banyan tree of bondage and make one free from the fruits of actions, and this directs the spiritual upliftment of a soul.

Man attains the highest perfection by worshipping the divinity through his own natural duties. One should not abandon one's innate duty, even though it may be tainted with blemish (18/48).

LAST LINES

The entanglement of this material world is compared with the inverted banyan tree. One who is engaged in fruitive activities, for him there is no

end of this banyan tree. He wanders from one branch to another. The tree is the material world has no end, and for one who is attached to this tree, there is no possibility of his liberation. The leaves of the tree are the Vedic humans (knowledge), which are meant for self-elevation. The roots of the tree grow upward directs its origin from Brahma, the creation power. The twigs of the tree are considered as the sense objects with which the human society is fully entangled throughout life.

The real form of this tree cannot be perceived in this world. No one knows where it ends, where it begins, or where its foundation is. If one can understand this indestructible tree of illusion, then one can get out of it. One must cut down this strongly rooted tree with the weapon of detachment. The work culture of Bhagavad Gita teaches the right way to perform one's duty and that is the only one axe to cut the tree and be free.

This work is a wish of the Great Master Sri Krishna.

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