

परिसर-नीति-शतकम्

मङ्गेश-वेङ्कटेश-नाड्कर्णिना रचितम्

*Parisara Nīti-Shatakam*

*Mangesh-Venkatesh-Nadkarnina Rachitam*

**A Century of Verses on Environmental Ethics**

**With Transliteration, Translation and Explanatory Notes**

By Mangesh Venkatesh Nadkarni

September 2016

Dedicated to the fond memory of

**Professor V K R V Rao**

who made me take to ecological economics in 1981

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# Benediction

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I deem it a great privilege to write these words of benediction for the *Parisaranīśataka* authored by Dr. Mangesh V. Nadkarni, an illustrious ecological economist of our times. That the book deals with mankind's responsibility towards the protection of his environment and the ecology, is a pleasingly welcome change of genre in the realm of Sanskrit poetry.

The author has, taking inspiration from great poets of yore like Bharṭṛihari, penned these profound, yet simple and mellifluous verses. Anyone with even a rudimentary knowledge of Sanskrit will be able to enjoy these verses that gently urge us to be proactive in taking care of this beautiful Earth that we call 'Our Home'. The author has also provided a word for word translation of the verses in English, making it easy to understand the original Sanskrit. The metrical English translation by the author is equally excellent and competes for glory with his Sanskrit poetry. The short notes that frequent the treatise give greater insight into the author's feeling-full heart, drawing our attention to the intensity of his feelings. Overall it is very emotive work appealing passionately to the moral conscience of humanity urging us to be sensitive to our environment. The work combines, like all excellent treatises, elements of the head and the heart.

Indian culture has always been ecology-friendly: we call the earth 'Bhūmātā'; the rivers such as Gaṅgā, Yamunā, Narmadā, Kaverī are called mothers and their waters are considered to purify all those who bathe in them; the mountains are celebrated as fathers. Verily, the anecdote of Lord Kṛṣṇa enabling the worship of the Mount Govardhana in *Bhāgavata* is too well-known. Trees are revered and animals too worshiped as the manifestation of Divinity. Such were the methods that our ancestors, who were sensitive to Nature, adopted to restrain the abounding selfish propensity of human beings to mindlessly deplete the natural resources that this wonderful earth abounds with even now despite the reckless human activity that has come to characterize the last and the present century.

The *Parisaranīśataka* is sure to make all its readers poignantly pause and tenderly think and forcefully reflect on what each of us can do towards the cause of environmental protection and sustainable development of humans and our brother and sisters – the birds, animals, fishes, the trees and all living creatures. The Vedas tutor us in this when they offer the prayer for us to utter daily: "*saṁ no astu dvipade, saṁ catuṣpade* – let blessings abound on us the two-legged; let blessings also abound for the four-legged." Indeed, we bless ourselves by loving and caring for Mother Nature. There is an urgency in this appeal for environmental protection, for without the welfare of Mother Nature, we shall not be.

May the grace of the Lord and the blessings of the Pūjya Gurudev Swami Chinmayananda be with the author and may this treatise attain fame and bring glory to the author. I pray that more such brilliant Sanskrit works emanate from the pen of Sri. Mangesh V. Nadkarni.

In Śrī Guru Smṛti,

Swami Advayananda, President, CIFSS

# Foreword to Parisara Nīti-Shatakam

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I have known Professor Mangesh V Nadkarni for some thirty-five years now, as a distinguished Ecological Economist and as an able administrator. I was therefore delighted to recently discover that he was also a gifted Sanskrit poet, the more so since I, too, am a lover of Sanskrit and of Bhartirihari. To guide human actions we need to understand how the world is constituted, and how it is changing – plain, empirical facts. But that is not adequate; we need to move beyond facts to the realm of values to ponder on what is right and what is wrong and in what direction we should be moving. Verse is a powerful medium, utilized since the dawn of human language to communicate the relevant facts and acknowledged values succinctly and in a memorable fashion. Such verses have taken many forms, beginning with folk songs and maturing into classic literature. Sanskrit has a wealth of classic literature, Vedas, Ramayana, Mahabharata, Puranas, compositions of Kalidasa and much more. This literature contains many memorable verses in the form of Subhashitas, some with environmental messages. One of my favourites is the advocacy of sustainable harvests in Mahabharata:

पुष्पं पुष्पं विचिन्वीत मूलच्छेदं न कारयेत् । मालाकार इवामे न याथाङ्गारकारकः - महाभारत  
||५|३४|१८|

One should pick just the flowers from a plant, as a gardener does, not uproot it whole like a charcoal-maker.

Bhartirihari, some thousand or more years after Mahabharata composed three centuries of Subhashitas, *Shringara* (erotics), *Nīti* (ethics), and *Vairagya* (renunciation). This Parisara Nīti-Shatakam is a worthy successor to Bhartirihari's Nitishatakam, with easy flowing verses full of grace. Like Gita these verses are simple in language but deep and sophisticated in thought. Spreading of environmental values is more a matter of heart than head, and as Professor Nadkarni points out poetry touches hearts more easily than scholarly prose. I hope therefore that this remarkable set of verses in Sanskrit, a language followed all over India, though admittedly by a select few, would go a long way in making people aware of their ethical responsibilities towards the one and only planet that all of us share. Since my boyhood I have enjoyed Vaman Pandit's elegant Marathi rendering of Nīti-Shatakam as much as Bhartirihari's original Sanskrit, and hope that there would be many, many Vaman Pandits who would render this Parisara Nīti-Shatakam in the many Indian languages, so that its message would spread far and wide.

Madhav Gadgil, Buddha Purnima, 21 May 2016

## Publisher's Note

## Preface

I had not planned to write this book, not in Sanskrit verses at least. I am not a pundit in Sanskrit. Professionally, I am an economist, specialising later in ecological economics at the instance of Professor V K R V Rao. But the grounding in Sanskrit that I had received in my school and college and the love for it, has remained with me. After my retirement from salaried service, I turned to religious literature in Sanskrit, without losing touch with my another love – ecological economics. I saw no conflict between the two, and in one of my recent books, *Ethics for Our Times: Essays in Gandhian Perspective* (2014, second edition), I have shown, drawing from Sanskrit literature, how Indian tradition has been respectful about environment and conservation of nature.

The collection of 113 verses here, which I have called as ‘*Parisara-Niti-Shatakam*’ (PNS) or ‘A Hundred Verses on Environmental Ethics’, were inspired by Bhartirihari’s *Niti-Shatakam*, composed in Sanskrit about 1500 to 2000 years before (cf. M R Kale, *The Niti and Vairagya Shatakas of Bhartirihari*, Seventh edition 1971, Motilal Banarasiidass, Delhi). I must clarify that these verses in my PNS did not strike me from memory of any Sanskrit or other source. They are original, and an outcome of a fusion between my background in environmental or ecological economics and ethics on the one hand and love for Sanskrit on the other.

The purpose of this *Shatakam* is two-fold. One, to sensitise particularly young minds towards environmental concern, and secondly to stimulate further interest in Sanskrit. The need to promote environmental awareness, analyse environmental problems, and sensitise policy makers and people in general towards moral responsibility in this regard is indisputable. I have done my bit towards this in the last three decades in the form of several books and articles, but all in English. Why in Sanskrit now? That too in verses? I have strongly felt in the course of study of environmental issues, that spreading environmental awareness is more a matter of heart than head, especially if it has to spread deep and wide. From this point view the medium of *shlokas* in Sanskrit can be of great value. Poetry touches hearts more easily than scholarly prose. Sanskrit has a special place in India even if not many speak and write in it. Remaining in the background during the last thousand years or so, it has nourished all Indian languages including those which have not grown out of it. Sanskrit literature has been an enduring and significant source of inspiration for a very good part of literature in Indian languages even in modern times. A writing in Sanskrit can still have a significance its own as a means of spreading across different parts of India particularly among non-English speaking and vernacular loving people. It can be more easily translated into Indian languages than a piece in English. Moreover, Sanskrit has a special elegance and dignity. It has the same place as a delicacy savoured not in the same quantity and not so regularly as the main menu, but enjoyed nevertheless. After eating the daily *dal*, *roti*, and *sabji*, a small cup of *kesar-shrikhand* would be quite welcome. And because of this special significance, a message conveyed through Sanskrit may also have an effectiveness of its own. It can reach Indian psyche more effectively and extensively because of it. Besides, this

*Shatakam* is offered along with a transliteration, meaning of words in each verse in the order of a sentence, and translation in to English, for those not familiar with Sanskrit. I have tried to impart some poetic elegance to the English translation, instead of making it plain prose and too literal. I hope that other translations will follow in Indian languages.

It is not known to many that writing in Sanskrit has revived in recent years. Attempts have been also made to encourage conversational Sanskrit and a few popular journals have also been started. Many are trying to learn Sanskrit, not as a part of regular education in schools and colleges, but outside. There is a special emphasis now to use it in secular even day-to-day activities. Once upon a time, Sanskrit was the main medium of advancing knowledge even in science including mathematics, astronomy, medicine and even surgery. There has been some interest now in reviving writing in Sanskrit on science subjects. I hope that this *Shatakam* would be taken as a contribution in this endeavour, particularly in reducing the gap between people and Sanskrit both in terms of the simplicity of the language used and the mundaneness of the topic dealt with. It can serve as an aid to Sanskrit learning applied to non-traditional topics. What is more, I also hope that it will inspire further writing in Sanskrit on such topics.

In the course of this *Shatakam*, I have offered the essence of environmental economics and ethics in simplest possible terms, accessible to non-specialists. I do not claim that all the environmental issues have been dealt with here, but the crucial ones certainly have been covered. The *Shatakam* is explicitly committed to the cause of environment protection and sustainable development. But I am not an 'environmental fundamentalist', a term of abuse used by growth enthusiasts to castigate those who advocate caution and care. I am not saying that there be no human intervention in nature, but only insisting that it be sensitive to environmental and human considerations. A feature of special interest in the *Shatakam* is taking together human welfare as going with environmental soundness, and *vice versa*. A canard canvassed by growth enthusiasts is that environmentalists do not care for human welfare and removal of poverty. In fact, they care more for it than growth-obsessed economists and politicians. The tone of the *Shatakam*, however, is not one of sermonising. Environmental ethics is shown as based on analysis and logic. It is good economics. In contrast, bad economics is that which is obsessed with profit making and income increase, to the neglect of everything else.

As already mentioned, this *Shatakam* is inspired by Bhartrihari's *Niti-shatakam*. According to scholars, there were two persons with the name Bhartrihari, both wellknown, and both belonged to a period anytime between 100 BCE and 500 CE. One was a Buddhist grammarian, and the other, a poet, who wrote three *Shatakams* respectively on *Shringara* (erotics), *Niti* (ethics), and *Vairagya* (renunciation). A *Shatakam* is a set of hundred, but Bhartrihari's *Niti Shatakam* consists actually of 108 verses. It deals mainly with virtue ethics at individual level. In Sanskrit literature, this seems to be the only work exclusively and directly on ethics, though there are numerous other sources also dealing with ethics such as the *Shanti Parva* in the *Mahabharata*, and collections of stories aimed at teaching morals such as the *Panchatantra* and *Hitopadesha*, and of course several *Puranas*. Another ancient classic in Indian literature directly and exclusively on ethics is Tiruvalluvar's the *Kural* in



Tamil, known also as *Tirukkural*. It is not known which came first, the *Niti Shatakam* or the *Kural*. Either of the two authors may not have known the other.

The essence of ethics, according to Bhirtrihari, is selflessness or being considerate and helpful to others. In a beautiful verse, serially numbered 74<sup>th</sup> (p.30 in Kale, op.cit), he classifies human beings into four types. I am giving below the original verse as also its translation (to convey the essence of his thought and the flavour of his beautiful poetry).

एते सत्पुरुषाः परार्थ-घटकाः स्वार्थं परित्यज्य ये  
सामान्याः तु परार्थमुद्यतभृताः स्वार्थाऽविरोधेन ये /  
तेमी मानव-राक्षसाः परहितं स्वार्थाय निघ्नन्ति ये  
ये तु घ्नन्ति निरर्थकम् परहितं ते के न जानीमहे //

(Those are the noblest persons, who giving up self-interest,  
strive for the good of others;  
the common are those who serve others' interests  
with no harm to their own;  
those are demons in human body who harm others' welfare  
for serving self-interest;  
but we know not who they are who harm others' welfare,  
for no purpose at all.)

A link with environmental ethics that comes from this verse is that caring for others, including plants and animals, is at the heart of this ethics. Otherwise, there is precious little directly in Bhartrihari's *Niti Shatakam* about caring for environment, though he certainly despises greed (which is responsible for a lot of harm to the environment) and values *ahimsa* (which implies non-violence to nature too). Environmental ethics is not opposed to virtue ethics like the one which Bhartrihari expounds, but actually draws from it.

The *Parisara-Niti-Shatakam* here is much smaller than that of Bhirtrihari, though mine has 113 verses and Bhartrihari's has 108. Mine is smaller is because the verse form (metre) used by me consists of only 32 syllables in each verse (except in one verse having 44 of them), while Bhartrihari's *Niti Shatakam* has mostly more syllables varying from 32 to 84 in each. In other words, while in my *Shatakam*, each *pada* (quarter) has only 8 syllables, Bhartrihari has 8 to 21 in each, mostly more than 8. As such my *Shatakam* is a modest attempt in comparison. Bhartrihari's *Shatakam* is also more poetic and lyrical. However, the scope of ethics conceived by me is much wider and deeper, and treatment more analytical, than in Bhartrihari's work. My work is basically more down to earth, literally and figuratively, dealing as it does with earthy issues like pollution in different forms and different sources, deforestation, and depletion of water resources. In any case, I have no

pretensions to greatness by writing this. I do not have the mastery over Sanskrit which Bhartrihari had, but I still hope that my *Shatakam* has relevance to the present. I am only a child sitting on the mighty shoulders of Bhartrihari and other ethicists of ancient India, and therefore may be able to see a few further things germane to the present.

Though I was inspired by Bhartrihari in terms of the theme of ethics, the Bhagavad-gita has been my source of inspiration in terms of the language and metre. My repeated reading of the Gita may have made the verses in the *Shatakam* flow into me. The Gita is simple in language but deep and sophisticated in thought, and that is what inspired me. The language of the *Shatakam* here is so simple that any one who is good in Indian languages should be able to follow and appreciate.

Though environmental ethics is of universal relevance, applicable to all countries and people, the background and ethos of this *Shatakam* is mainly Indian. Though India has traditionally venerated the Earth as mother (*Bhumata*), in the course of fast population and economic growth and urbanisation, and compulsive attraction of the Western model of economic growth, Indians have tended to treat environment as a waste-bin. The appeal of this *Shatakam* is specially to such Indians.

The *Shatakam* cuts across religious differences. Though it is in Sanskrit, there is nothing exclusively Hindu about it. It is secular in tone and content, though the last verse is a prayer to God to bestow benign wisdom to mankind to act in its own long term interest. The prayer is to God who is common to all religions.

I am immensely grateful to Professor Shrinivasa Varakhedi of Karnataka Sanskrit University, Bengaluru, who kindly made himself available to check for mistakes in spite of his busy schedule, suggested corrections, and encouraged its publication. Had it not been for his guidance and support, I would not have had the courage to go before the public with this *Shatakam*. Thanks are due to also his colleague, Dr Shivani V, for her valuable help, in making corrections, who in addition also helped by formatting the text for publication. Dr Gangadharan Nair, Chairman of Chinmaya International Foundation also carefully scrutinised the verses and suggested corrections. Their corrections not only cut out mistakes but also added further grace to the composition. Padma-bhushana Professor Gadgil's kind Foreword has contributed considerable extra value to the *Shatakam*. My brother Kishore and Sucheta were the first to listen to few of the verses which I recited before them (when they were here on a short trip from Canada), and were very appreciative. My daughter-in-law Amita was ever at hand ready to help whenever I ran into some trouble with the computer.

Finally I am quite grateful to Swami Advayananda and Dr Dilip Kumar Rana, respectively the President and Director of Chinmaya International Foundation, for kindly publishing the *Shatakam* in good time. I am specially indebted to Swamiji for his kind support and Benediction.

August, 2016

--- M V Nadkarni

(To be replaced by the Key to International Phonetic Symbols used in the final version)

## Key to Transliteration (In Alphabetical Order of Sanskrit)

### Vowels

a - o as in son

a - a as in master

i - i as in if

i - ee as in feel

u - u as in full

u - oo as in boot

ri - ri as in Krishna

au - ow as in now

### Consonants

kh - ckh as in blockhead

gh - gh as in log-hut

ch - ch as in chain

chh - chh as in catch-him

jh - dgeh as in hedghehog

t - t as in ten

th - th as in anthill

d - d as in den

dh - dh as in godhood

n - n as in under

t - t as in Gita

th - th as in thin

d - th as in then

dh - th as in this

n - as in not, singer, bench

ph - ph as in loophole, or as f in fit

bh – bh as in abhor

y - y as in yard

v, w - as in avert, awake

sh - sh as in cherish, *shankara*

sh – sh as in show, *shashtha* (sixth)

s - s as in Sun

h - h as in hot

l - second l as in Malayalam

Note: Illustrations of pronunciation are mostly from Swami Harshananda (*A Concise Encyclopaedia of Hinduism*, 2013: Vol. I, p. x), but the Key followed here is different, consisting simply of underlining, not using diacritical marks or symbols which need special software. This key was successfully used in Nadkarni (*A Handbook of Hinduism*, 2013).

समस्ते सौर-साम्राज्ये

अनन्या शोभते धरा ।

सर्व-सौकर्य-संपन्ना

श्रेष्ठा वासाय जीविनाम् ॥१॥

*Samaste saura-samrajye*

*Ananya shobhate dhara ,*

*Sakala-saukarya-sampanna*

*Shreshtha vasaya jivinam. (1)*

*Samaste* – In the entire, *saura samrajye* – empire of the Sun, *dhara* – the earth, *shobhate* – shines splendidly, (and), *ananya* – uniquely; *sampanna* – richly endowed with, *sakala* – all, *saukarya* – facilities, *shreshtha* – best suited, *vasaya jivinam* – habitat for (all) living beings.

In the entire empire of the Sun,

the Earth is uniquely resplendent;

best suited habitat for living things,

with facilities making a rich endowment. (1)

Note: The Earth is unique in the solar system, and even in the universe, a similar planet is quite rare even if not non-existent. We do not know of any such planet elsewhere anyway. We need to appreciate the uniqueness and precious rarity of the Earth, and take care of it. We have no where else to go if we destroy it recklessly.

वसुन्धरा मनुष्याणाम्  
एकमेव सुखस्थलम् ।  
तस्य संरक्षणं कार्य्य -  
मनुरागेण गौरवात् ॥२॥

*Vasundhara manushyanam*  
*Ekameva sukha-sthalam,*  
*Tasya samrakshanam karyya-*  
*mnuragena gauravat (2)*

*Vasundhara* – The earth, (is), *ekameva* – the only, *sukha-sthalam* – comfortable place, *manushyanam* - of mankind; *tasya (sthalasya)* – its, *samrakshanam* – protection, *karyyam* – has to be done, *anuragena* – with love, (and), *gauravat* – with respect.

The Earth is our only place,  
where we can live and flourish.  
It's mankind's obligation  
to protect it and cherish . //2//

सौन्दर्य-संभृत-स्थानं

सुषमं स्वगृहं त्विदम् ।

विरूपं विकृतं कर्तुं

कथम् अर्हन्ति मानवाः ॥३॥

*Saundarya-sambhrita-sthanam*

*Sushamam svgriham tvidam,*

*Virupam vikuritam kartum*

*Katham arhanti manavah. (3)*

*Idam – This, sthanam – place, (is), svagriham – our home, sambhrita – filled (with), saundarya – beauty, sushamam – charming, tu – surely. Katham – How, (are), manavah – humans, arhanti – authorised, kartum – to render, (it), , virupam – ugly/ deformed, (and), vikritam – devastated/ vandalised?*

This is a place filled with beauty,  
our charming home surely.

What right do humans have  
to vandalise and render it ugly? (3)

Note: It is not the intention of the verse to oppose any human intervention in nature. That would not be in the nature of man. What is insisted, however, is a sense of beauty and harmony, and any human intervention should add to the beauty, variety and usefulness of the world, and not detract from it.

स्रष्टुं चैवेप्सितं प्राप्तुं

यन्त्र-तन्त्रज्ञ-साधने ।

मनुष्य-जातिर्जीवेषु

निर्विवादं शिखामणिः ॥४॥

*Srashtum chaivepsitam praptum*

*Yantra-tantrajna-sadhane ,*

*Manushya-jatih jiveshu*

*Nirvadam shikhamanih. (4)*

*Srashtum* – To create, *cha-* and, *eva* – also, *praptum* – to obtain, *ipsitam* – (what is) desired/ willed, (and), *yantra-tantra-sadhane* – in technology, *manushya-jatih* – humankind, *jiveshu* – among living beings, *nirvadam* – indisputably/ undoubtedly, *shikha-manih* – is crest-jewel (comes at the top).

In obtaining or creating what is wished,

and in the achievements in technology,

mankind is at the top like crest-jewel,

among all beings, with no apology. ( 4)

समर्था मानवा अद्य

अपूर्वेण बलेन हि ।

नाकं वा नरकं कर्तुं

पोषणं वा प्रदूषणम् ॥५॥

*Samartha manava adya*

*Apurvena balena hi,*

*Nakam va narakam kartum*

*Poshanam va pradushanam. (5)*

*Manavah* – humans, (are), *samarthagh* – capable, *adya* – today, *apurvena* – with unprecedented, *balena* – (with) power, *hi* – surely, *kartum* – to create/ make, *nakam* – heaven, *va* – or, *narakam* – hell, *poshanam* – protection, *va* – or, *pradushanam* – pollution.

Having a competence as never before,  
humans today can be so resolute  
as to create heaven or hell  
to protect or pollute. (5)

Note: It is entirely within the will and competence of man to control or even prevent pollution, even as he is the one to have caused it in the first instance.



पथ्यापथ्यविमर्शन

पालनीया क्षितिर्द्रुतम् ।

लोकक्षेमाय कर्तव्या

विवेकेनैव योजना ॥६॥

*Pathyaapathya-vimarshena*

*Palaniya kshitirdrutam,*

*Lokakshemaya kartavya*

*Vivekenaiva yojana. (6)*

*Kshitih* – the earth, *palaniya* – has to be protected, *drutam* – promptly/ fast, *vimarshena* – through deliberation (of), (what is ), *pathya* – truly good/ wholesome, (and), *apathya* – bad/ harmful. *Lokakshemaya* –For the welfare of people, *yojana* – planning (of economic development activities), *kartavya* – has to be done, *vivekena eva* –only through proper discrimination/wisdom.

Deliberating on what is truly good and what is bad,

the earth has to be protected promptly,

for the welfare of all

by **planning very wisely**. (6)

Note: The need to protect the earth and its life-supporting ability and the need to care for the welfare of the people are linked together. This will become evident in the verses below. Promptness or speedy action in the matter is specially emphasised.

आनीता पृथिवी चाद्य

संकटे विषमे खलु ।

यत्कृतं मनुजैस्तस्य

परिहारश्च तैर्भवेत् ॥७॥

*Anīta prithivī chadya*

*Sankate vishame khalu,*

*Yat-kritam manujaistasya*

*Parihgrashcha tairbhavet .(7)*

*Cha* – And, *Prithivī* – the world, *anīta* – (has been) brought, *adya* – today, (into), *vishame* – terrible/ very difficult, *sankate* – crisis, *khalu* – really; *yad* – what, *kritam* – is done, *manujaih* – by men (humankind), *tasya* – of that, *parihgrah* – solution, *cha* – also, *bhavet* – should happen/ be done, *taih* – by them.

The world today has been brought

into a terrible crisis really.

What is done by men,

has also to be solved by them surely. (7)

Note: Since the environmental crisis has been brought about by the recklessness of mankind, it is also their duty to solve the problem. We cannot just leave it to God. Nature has a capacity to repair the damage, if it is within sustainable limits. But the damage done during last hundred years seems to be beyond the automatic capacity of nature to heal, and that is why it is a crisis. But there is still a scope for damage correction, which requires man's intervention. Human will for repairing and reversing the damage is indispensable. It is our responsibility to resolve the crisis. The nature of the crisis has been described in the verses that follow.

हरिता सस्य-संपूर्णा

भरिता जीवराशिभिः।

विजृम्भते स्म पृथ्वी वै

बहुवैविध्यसंपदा ॥८॥

*Harita sasya-sampurna*

*Bharita jivarashibhih,*

*Vijrimbhate sma Prithvi vai*

*Bahuvaividhya-sampada. (8)*

*Harita* – Green, *sasya-sampurna* – full of plants/ vegetation, *bharita* – filled with, *jivarashibhih* – with masses of living creatures, *Prithvi* – the earth, *vijrimbhate sma* – used to display in celebration, *bahuvaividhya* – great diversity, *sampada* – of wealth.

Full with green vegetation

filled with masses of living creatures,

the earth used to display in celebration

its rich variety of features. (8)

गते च शतवर्षे तु

जीववैविध्यसंपदः ।

जले स्थले समुध्वस्ता

लोकपुष्टिकराः खलु ॥ ९॥

*Gate cha shatavarshe tu*

*Jivavaividhyasampadah,*

*Jale sthale samudhvsta*

*Loka-pushtikarah khalu. (9)*

*Gate*– In the last, *shatavarshe* – hundred years, *jivavaividhya sampadah* – treasures of bio-diversity, *jale* – in water, (as well as), *sthale* – on land, *samuudhvsta* – have greatly perished/ significantly destroyed/disturbed, *lokapushtikarah* – (which were) supportive to people.

In the last hundred years,

treasures of bio-diversity grand,

supportive to people, have greatly perished

in water as well as on land. (9)

बहुलाऽरण्यनाशेन

कर्बोत्सर्गाः प्रवर्धिताः ।

भू-वातावरणं तस्मात्

अभवत् उष्णवर्धकम् ॥१०॥

*Bahulaaranya nashena*

*Karbotsarggh pravardhitah,*

*Vatavaranam mahertasmāt*

*Abhavat ushnavardhakam. (10)*

*Nashena* – Due to the destruction (of), *aranya* – forest (s), *bahula* – in great quantity, *karbotsarggh* – carbon emissions, *pravardhitah* – greatly increased; *bhu-vatavaranam* – the earth's atmosphere, *tasmāt* – thereby, *abhavat* – became, *ushnavardhakam* – heat-increasing.

With great many forests destroyed,

carbon emissions did multiply;

the earth's atmosphere became

heat-increasing thereby. (10)

पश्चात् औद्योगिकक्रान्तेः

उष्णतराऽभवद् धरा ।

वर्धमानस्य तापस्य

त्वरितं दमनं शुभम् ॥११॥

*Paschat audyogika-kranteh*

*Ushnataraabhavat dhara,*

*Vardhamanasya tapasya*

*Tvaritam damanam shubham. (11)*

*Paschat* – After, *audyogika-kranteh* – the Industrial Revolution, *dhara* – the earth, *abhavat* – became, *ushnatara* - warmer /hotter; *tvaritam* – speedy, *damanam* – suppression, *vardhamanasya tapasya* – of the rising temperature, *shubham* – is very good/highly beneficial.

After the Industrial Revolution,

the earth became warmer.

Speedy suppression of the rising heat

would bring greater succour. (11)

विवृद्ध-तापमानेन

द्रवीभवितुमुद्यताः।

हिमाद्रयो हिमौघाश्च

जगतो दक्षिणोत्तरे ॥१२॥

*Vivrid<sub>h</sub>a-tapama<sub>n</sub>ena*

*Dravib<sub>h</sub>avatum udyata<sub>h</sub>,*

*Himadrayo himaughashcha*

*Jagato dakshinottare. (12)*

*Himadrayo* – Icebergs, *cha* – and, *himaughah* – glaciers, *udyata<sub>h</sub>* – have started, *dravib<sub>h</sub>avitum* – to melt, *vivrid<sub>h</sub>a tapama<sub>n</sub>ena* – (due to ) increased temperature, *dakshinottare* – (both) in the south and the north, *jagato* – of the world.

In the world's north and south,

under heat increasing,

icebergs and glaciers

have started unfreezing . (12)

Note: The mass of ice in the polar regions has started melting, and so have the glaciers in the snowy mountains including the Himalayas.

उल्लङ्घनाय वेलानाम्

सागराश्च समुद्यताः।

वर्षाकालोऽपि सर्वत्र

तथैव चञ्चलोभवत् ॥१३॥

*Ullanghanaya velanam*

*Sagarascha samudyatah,*

*Varshakaloapi sarvatra*

*Tathaiva chanchaloabhavat. (13)*

*Sagarah* – The seas/oceans, (thereby), *samudyatah* – tended to/are set to, *ullanghanaya* – to cross, *velanam* - the coastlines/shores, *cha* – and, *varshakalah* – the rainy season, *sarvatra* – everywhere, *api* – also, *tathaiva* – similarly, *chanchalah* – uncertain/ unstable, *abhavat* – became.

The oceans thereby

tended to cross the coastlines;

and the rain season too

is having uncertain times. (13)



अस्थिरवृष्टिकालेन

आगताः संकटे खलु ।

अकुर्वन्नात्महत्यां हि

बहुत्रस्ताः कृषीवलाः ॥१४॥

*Asthira-vrishtikalena*

*Agatah sankate khalu,*

*Akurvannatmahatyam hi*

*Bahutrastah krishivalah. (14)*

*Asthira- vrishtikalena* – Due to unstable/ uncertain rain season, *bahutrastah* – greatly troubled/distressed, *krishivalah* – farmers, *agatah* –came, *sankate* – into crisis, *khalu* – really, (and), *akurvan* – committed, *atmahatyam* – suicide, *hi*- even.

Greatly distressed farmers

due to uncertain rain,

facing critical crisis,

committed suicide in vain. //14//

अल्पवर्षाः महावर्षाः

वारं वारं भवन्ति च ।

विनष्टाः बहुसंख्येषु

दीनदेशेषु जीविकाः ॥१५॥

*Alpavarshah mahavarshah*

*Varam varam bhavanti cha,*

*Vinashtah bahusamkhyeshu*

*Dinadesheshu jivikah. (15)*

*Alpavarshah* – Droughts/ scanty rains, *mahavarshah* – excessive rains/deluge, *bhavanti* – happen/ take place, *varam varam* – again and again/ very frequently, *cha* – and, (thereby), *dina-desheshu* – in poor countries/regions, *jivikah* – livelihoods, *vinashtah* – (are) destroyed/ lost, *bahusamkhyeshu* – in great numbers.

Droughts and deluges

take place again and again,

destroying livelihoods in lots

in many a poor domain. (15)

निर्वासिताः स्ववासेभ्यः

दुष्काले आटकाः कृताः ।

पर्यटन्ति च वृत्त्यर्थे

दूरं निर्गतिका इव ॥१६॥

*Nirvasitah svavasebhyah*

*Dushkale atakah kritah,*

*Paryatanti cha vrityarth*

*Duram nirgatariva. (16)*

*Atakah* – Migrants, *kritah* – (are) rendered, *nirvasitah* – displaced, *svavasebhyah* – from own homes, *dushkale* – in bad times/ droughts, *cha* –and, *paryatanti* – wander, *vrityarth* – in search of employment, *duram* – far, *iva* – like, *nirgatariva* – destitutes/ with no support.

Those displaced from own homes

become migrants in droughts,

and wander in search of employment,

far and wide with no supports. (16)

दारिद्र्येण तु ग्रामेषु

क्रमन्ति नगरान् प्रति ।

दुष्करस्तत्र वासस्तु

कुस्थलेषु वसन्ति ते ॥१७॥

*Daridryena tu grameshu*

*Kramanti nagaran prati,*

*Dushkarastatra vasastu*

*Kusthaleshu vasanti te. (17)*

*Daridryena* – Due to poverty, *grameshu* – in villages, *te* – they ( farmers), *kramanti* – migrate/ go, *nagaran prati* – to cities, *tatra* – there (in the cities), *vasah* – residence, *dushkarah* – hard/ difficult, *vasanti* – stay, *kusthaleshu* – in the slums( in bivvies or tiny temporary-like shelters).

Poverty in villages,

pushes them to cities;

finding a place to reside there is hard,

so they live in bivvies. (17)

बहवः नगराः अद्य

वायुमालिन्यपीडिताः।

भूतैल-वाहनेभ्यश्च

अगण्येभ्यः प्रदूषिताः ॥१८॥

*Bahavah nagarah adya*

*Vayu-malinya-piditah,*

*Bhu-taila-vahanebhyashcha*

*Aganyebhyah pradushitah. (18)*

*Bahavah –Many, nagarah – cities, adya – today/now/ presently, piditah – are distressed (by), vayu-malinya – dirty air, pradushitah – polluted (by), aganya – countless, bhu-taila vahanebhyah – vehicles (run on ) fossil fuels.*

Many cities today

are distressed by dirty air;

countless vehicles driven by fossil fuels

pollute without any care. (18)

अभावे पौरधर्मस्य

प्लास्टिक्-कोशादि विक्षयान् ।

क्षिपन्ति वीथिपार्श्वेषु

नागरिका इतस्ततः ॥१९॥

*Abhave paura-dharmasya*

*Plastic-koshadi vikshayan,*

*Kshipanti vithi-parshveshu*

*Nagarika itastatah. (19)*

*Abhave – In the absence, puara-dharmasya – of civic sense, nagarikah – citizens, kshipanti – throw, plastic-kosha – plastic covers/bags, adi – and the like (etcetera), vikshayan – wastes/dirt, vithi- parshveshu- on road sides, itastatah – here and there (indiscriminately).*

Citizens throw plastic bags

with no civic sense to guide,

and clutter other wastes here and there

on the unwilling road-side. (19)

कर्मिणश्चाविचारेण

तत् स्थानेषु दहन्ति तान् ।

धूमो भवति सर्वत्र

स्वास्थ्यनाशं करोति वै ॥२०॥

*Karminashchavicharena*

*Tat sthaneshu dahanti tan,*

*Dhūmo bhavati sarvatra*

*Svāsthya-naśham karoti vai. (20)*

*Cha – And, karminah – workers, dahanti – burn, tan – them, tat sthaneshu – in the same (respective) places, avicharena – thoughtlessly/ indiscriminately, dhūmah –smoke, bhavati – takes place/ arises, sarvatra – everywhere, karoti – does, naśham – harm/ destruction (to), svāsthya – health/ wellbeing, vai – surely.*

Town workers burn them

in the same places thoughtlessly ,

causing smoke to rise everywhere,

harming health heartlessly. (20)

बालका अपि संत्रस्ताः

श्वासकोशरुजाकरैः ।

स्थानं नास्ति च पर्याप्तं

विहर्तुं क्रीडितुं तथा ॥२१॥

*Balaka api santrastah*

*Shvasakosha-rujakaaraih,*

*Sthanam nasti cha paryaptam*

*Vihartum kriditum tathā. (21)*

*Balakah* – Children (lit. little boys), *api* – even/also, *santrastah* – (are) tortured, *shvasakosha-rujakaaraih* – by things that cause lung diseases, *cha* – and, *sthanam* – place, *nasti* – is not there, *paryaptam* – enough/ adequate, *vihartum* – to roam about/ to walk for exercise or pleasure, *tathā* – similarly, *kriditum* – to play.

Even young children are (thus) tortured

by things that cause lung disease;

and there is not enough place

to play or walk for pleasure in peace. (21)



मलपूरित-निःस्रावान्

त्यजन्ति पुरपालिकाः ।

सरसीषु स्रवन्तीषु

शुद्धीकरण-वर्जितान् ॥२२॥

*Malapurita-nihsravan*

*Tyajanti purapalikah,*

*Sarasishu sravantishu*

*Shuddhikarana-varjitan. (22)*

*Purapalikah* – Municipalities, *tyajanti* – discharge, *nihsravan* – effluents, *malapurita* – mixed with filth, *sarasishu* – into lakes/waterbodies, *sravantishu* – (and into) rivers or rivulets, (with), *shuddhikarana* – purification, *varjitan* – avoided.

Municipalities discharge

dirty and filthy effluents

without due purification

into lakes, rivers and even rivulets. (22)

उपभोगेन चात्यन्तम्

मलिनीकरणेन वा ।

जीवनाऽवश्यकं पेयम्

अभवत् दुर्लभं जलम् ॥२३॥

*Upabhogena atyantam*

*Malinī-karanena vā,*

*Jīvanāvashyakam peyam*

*Abhavat durlabham jalam. ( 23)*

*Upabhogena* – Due to consumption, *vā* – or, *atyantam* – excessive, *malinī-karanena* – due to polluting/making filthy, *jalam* – water, *peyam* – fit for drinking, *jīvanāvashyakam* – necessary for life, *abhavat* – became, *durlabham* –scarce.

Due to excessive consumption

or making it dirty,

life's necessity like water is

facing serious scarcity. (23)

समत्वञ्च निसर्गेऽस्मिन्  
बहुरूपेण बाधितम् ।  
भविष्यं हि मनुष्याणाम्  
अभवत् भीतिपूरितम् ॥२४॥

*Samatvancha nisarge asmin*  
*Bahumukheshu badhitam,*  
*Bhavishyam hi manushyanam*  
*Abhavat bhiti-puritam. (24)*

*Samatvam cha* – And balance/evenness, *nisarge asmin* – in this Nature, *bahumukheshu* – in many aspects / ways/dimensions, *badhitam* –(was) harmed; *bhavishyam* – the future, *manushyanam* – of humans/mankind, *hi* – even, *abhavat-* became, *bhiti-puritam* – fearsome/ frightening.

With ecological balance  
in many ways thus disturbed,  
the very future of mankind  
has become perturbed. (24)

मनुजातिः किमाश्चर्यं

चित्रबुद्धिर्दुरध्यया ।

उत्कृष्टा बुद्धिचातुर्ये

निकृष्टाऽचरणे हिते ॥२५॥

*Manujateh kim ascharyam*

*Chitrabuddhih duradhyaya,*

*Utkrishta buddhichaturye*

*Nikrishta acharane hite. (25)*

*Manujateh* – Of humankind, human species, *kim* – what, *ascharyam* –wonder!  
*Chitrabuddhih* – Intriguing mind, *duradhyaya* – difficult to understand/study, *utkrishta* –  
best, *buddhi-chaturye* – in cleverness of intellect, *nikrishta* – worst, *acharane hite* – in  
benignity of behaviour.

Of what wonder is the human species!

Of intriguing mind, hard to understand!

The best in cleverness of intellect, yet

the worst in benignity of behaviour! (25)

शोचनीयकथायां तु  
प्रकृतेर्ननु सम्प्रति ।  
दीनानां दलितानां हि  
कष्टमेव विशिष्यते ॥२६॥

*Shochaniya kathayam tu*  
*Prakriternanu samprati,*  
*Dinanam dalitanam hi*  
*Kashtameva vishishyate. (26)*

*Nanu shochaniya kathayam* – In the surely regrettable story, tu – however, *prakriteh* – of nature/environment, *samprati* – presently, *kashtam* – the pain/ difficulty/ trouble, *dinanam* – of the meek, (and), *dalitanam* – of the oppressed, *vishishyate* – stands out as special.

In this sad story, however,  
of the nature presently,  
pain of the meek and oppressed  
stands out remarkably. (26)

एकत्र धनिकाः कामान्  
यथेच्छं पूरयन्ति वै ।  
अन्यत्र निर्धनास्सन्ति  
विफला उपजीवने ॥२७॥

*Ekatra dhanikah Kaman*  
*Yathechchham purayanti vai,*  
*Anyatra nirdhanassanti*  
*Viphalarupajivane. (27)*

*Ekatra* – On one hand, *dhanikah* – the rich, *purayanti* – quench/ satisfy/ meet, *kaman* – desires/ wants, *yathechchham* – to heart's content/ without restraint, *vai* – surely; *anyatra* – on the other hand, *nirdhanah* – the poor/ moneyless, *santi* – are, *vipalah* – who have failed, *upajivane* – in subsistence.

On the one hand, the rich surely  
quench desires to heart's insistence;  
on the other hand are the poor  
who fail to meet their subsistence. (27)

एकत्र विलसद्वासः

अन्यत्र दुःखजीवनम् ।

नरैरेव हि वैषम्यं

कृतं नेदञ्च ब्रह्मणा ॥२८॥

*Ekatra vilasad-vasah*

*Anyatra dukkhajivanam,*

*Naraireva hi vaishamyam*

*Kritam nedancha Brahmana. (28)*

*Ekatra* – On one side/place, *vilasad* – luxurious/ shining, *vasah* – residing/ living; *anyatra* – on the other side, *dukkha-jivanam* – living in misery. *Idam cha*– And this, *vaishamyam* – disparity, *kritam* – (was) made, *naraih*– by men (humans), *eva* - only, *hi* – surely, *na* – not, *Brahmana* – by Brahma the Creator.

Shining luxury on one side,

on the other, living in misery.

Not the Creator, but man only

made this disparity. (28)

Note: The disparity between luxurious living on one side and penury on the other, is a result of our social, economic and political system, created by man over time, and not by God. Since humans have created it, only humans have to change it by collective and co-operative effort, instead of leaving it to God and doing nothing about it. There are hundreds of thousand who are homeless, with no basic amenities for living, for no fault of theirs. The needs of the needy have to be met first, before indulging in excessive and wasteful consumption.

एकत्र भूरिभोगस्तु

विद्युतश्च दिवानिशम् ।

दुर्लभाऽन्यत्र दीपाय

रात्रौ हि निर्धने गृहे ॥२९॥

*Ekatra bhuri-bhogastu*

*Vidyutascha divanisham,*

*Durlabha-anyatra dipaya*

*Ratrau hi nirdhane grihe. (29)*

*Ekatra* – On one side, *bhuri bhogah* – excessive consumption, *vidyutah* – of electricity, *tu* – indeed (expression for emphasis), *diva-nisham* – day and night; *anyatra* – on the other side, *dipaya* – for lighting, *ratrau hi* – even at night, *durlabha* – scarce to obtain, *nirdhane grihe* – in a poor home.

Excess consumption of electricity

day and night on one side,

but on the other, scarce to obtain it in a poor home

even for lighting at night. (29)

Note: The disparity noted above is conspicuous in the case of electricity as the verse above rues. There are all-electric homes with air-conditioning and other amenities at one extreme, and at another, the poor school-going children, with no proper homes, have to depend on street-lights to do their homework and study. The rich have to generate their own electricity by using solar energy wherever technically possible to do so. At present, the bulk of electricity consumption is by the rich.



विद्युत्पादने भूमेः

खनिजाङ्गारयोजनैः ।

भवेद्वै वायुमालिन्यं

कर्बोत्सर्गेण निर्भरम् ॥३०॥

*Vidyutpadane bhumeḥ*

*Khanijaṅgara-yojanaiḥ,*

*Bhaved vai vāyumalinyam*

*Karbotsarṅeṇa nirbharam. (30)*

*Vidyut-utpadane*– In electricity generation, *yojane* – by using (through burning), *bhumeḥ* – the earth's, *khanija-ṅgara* – mined coal, *nirbharam* – excessive/ huge, *vāyu-malinyam* – air pollution, *bhaved(d) vai* – is bound to take place, *karbotsarṅeṇa* – due to carbon emission.

In the generation of electricity

by burning coal,

there sure takes place huge air pollution

by way of carbon emission. (30)

विषमत्वं जगत्यां तु  
सर्गबाधस्य कारणम् ।

श्रीमद्भिः भूरिभोगेन  
जातः परिसरे क्षयः ॥३१॥

*Vishamata jagatyam tu*  
*Sarga-badhasya karanam,*  
*Shrimadbhih bhuribhogena*  
*Jatah parisare kshayah. (31)*

*Vishamata* – Disparity, *jagatyam* – in the world, *karanam* – (is) the cause, *sarga-badhasya* – of the trouble to nature; *kshayah* – depletion/ exhaustion (of resources), *parisare* – in the environment, *jatah* – (is) born/caused by, *bhuri* – excessive, *bhogena* – enjoyment/ consumption, *shrimadbhih* – by the rich.

Disparity in the world  
causes troubles for nature's environment;  
depletion of resources is born  
from the affluent's excess enjoyment. (31)

Note: The verse means that limitless and unsustainable consumption by the rich has tragic consequences in both ways: rapid depletion of the earth's resources; and deprivation of the poor. The environmental crisis has thus an inseparable socio-economic dimension.

व्ययो निसर्गसम्पत्तेः

बाधते दीनजीविकाः ।

असहायस्थितौ तेषां

ते हि नश्यन्त्यकिञ्चनाः ॥३२ ॥

*Vyayo nisarga-sampatteh*

*badhate dinajivikah,*

*Asahaya-sthitau tesham*

*te hi nashyantyakinchanah.(32)*

*Vyayah* – Depletion, *nisarga-samapatteh* - of natural resources, *badhate* – harms, *dina* – poor, *jivikah* – livelihoods; *tesham asahaya-sthitau* – in their helpless situation, *te hi* – only they; *akinchanah* – the very poor; *nashyanti* – perish.

The depletion of natural resources

harms livelihoods of the poor;

only the very poor perish

without a help for sure. (32)

प्रकृतेः क्षय-भारेण

प्रमदाः पीडिताः परम् ।

अभावे जल-काष्ठानां

भवन्ति बलिजन्तवः ॥३३॥

*Prakriteh kshaya-bhareṇa*

*pramadāḥ pīditāḥ param,*

*Abhave jala-kashtānām*

*bhavanti bali-jantavah. (33)*

*Pramadāḥ* – women, *pīditāḥ* – (are) troubled, *param* – specially/ more, *bhareṇa* – (due to) the burden (of), *kshaya* – depletion, *prakriti* - (of) nature, natural resources; *abhave* – in the scarcity, *jala-kashtānām* – of (drinking) water and fuelwood, (they), *bhavanti* – become; *bali-jantavah* – sacrificed animals/victims.

The burden of depletion of natural resources

is specially harsh on women;

when water and fuelwood are scarce

the victims they become. (33)

Note: When forests or common lands are depleted of fuel wood, it is the women who have to walk far and wide in search of it and spend more time on it. The same story prevails when water resources decline. It robs them of opportunities for gainful work. When they do not earn, their status in the family tends to suffer.

निसर्ग-नाशनं रोद्धुम्

नायकत्वं धरन्ति ताः ।

ग्रामस्थ-महिलाः प्रायः

प्रकृतिं प्रति जागराः ॥३४॥

*Nisarga-na<sub>ś</sub>hanam roddhum*

*na<sub>y</sub>akatvam dharanti taah,*

*gramastha-mahilā<sub>h</sub> prayah*

*nisargam prati ja<sub>g</sub>arā<sub>h</sub> (34)*

*Roddhum* – To stop/prevent, *nisarga-na<sub>ś</sub>hanam* – destruction of nature, *taah* – they, *dharanti* – hold/ take up, *na<sub>y</sub>akatvam* – leadership; *gramastha* – rural, *mahilā<sub>h</sub>* – women, *prayah* – mostly, *ja<sub>g</sub>arā<sub>h</sub>* – (are) awake/ alert/ sensitive, *nisargam prati* – towards nature.

In halting nature's destruction,

they hold leadership;

where nature is concerned,

most rural women are sensitive. (34)

Note: Both in India and abroad, there have been several women who achieved eminence by leading movements on ecological or environmental issues. They have also been interested in improving the lives of women. The names of Indian women leaders like Medha Patkar, Vandana Shiva and Aruna Roy are well known. Apart from women with elite or educated background, many simple illiterate or semi-literate rural women also have taken up the cause of nature. Among them is Thimmakka from southern Karnataka who planted trees on roadsides for kilometres and looked after their growth in their initial years.

विद्यते न सुखोपायः

उद्भूते सङ्कटे भुवः।

विवेकबुद्धयेऽस्माकं

परीक्षाकाल आगतः ॥३५॥

*Vidyate na sukhopaya*

*Udbhute sankate bhuvah,*

*Vivekabuddhaye asmakam*

*Parikshakala agatah. (35)*

*Sankate* – In the crisis, *bhuvah* – of the earth, *udbhute* – that has emerged, *na* – no, *sukhopayah* – easy solution, *vidyate* – exists; *asmakam* – our, *parikshakalah* – testing time, *agatah* – has come, *vivekabuddhaye* – for our sense of discrimination/wisdom.

In the crisis that emerged on the earth,  
there exists no easy solution.

A testing time has come for  
our sense of discrimination. (35)

Note: Our consumption habits cannot any longer be based on whims, showmanship, rivalry, ostentation, and the like. Our decisions to consume or produce anything have to take note of consequences on our and others' wellbeing, and also on the health of the earth's resources and environment.

यन्त्रतन्त्रान्वुपाश्रित्य

किञ्चित् सौख्यं लभामहे ।

संकटस्य परीहारं

न हि तेन तु कुर्महे ॥३६॥

*Yantra-tantranvupashritya*

*Kinchit saukhyam labhamahe,*

*Sankatasya pariharam tu*

*Na hi tena tu kurmahe. (36)*

*Upashritya* – By depending, *yantra-tantran* – on technology, *kinchit* – a little, *saukhyam* – pleasure/ happiness/relief, *labhamahe* – (we) obtain; *tu* – but, *tena* – thereby, *na kurmahe* – we cannot create/ contrive, *pariharam* – solution, *sankatasya* – of the crisis; *hi* – surely.

We can get some relief

by depending on technology;

but cannot contrive an escape

from the cruel catastrophe. (36)

Note: We tend to solve environmental problems only through technology, but technology cannot always provide an easy and full solution. For example, waste can be collected and recycled, but not fully and inexpensively. It would be far more sensible to minimise waste at the source itself. Further energy use is required in processing wastes, which itself may be polluting. Even where a technological solution is technically feasible, it may not be adopted if it is not economical. In the meanwhile, depletion of resources and pollution goes on practically unabated. An example to show why technology, even if relevant and required, is not a full solution, follows in the next verse.

चिकित्सा शस्त्रवैद्येन

हृद्रोगे तु सहायिका ।

स्वास्थ्यसम्पालनञ्चैवा-

वश्यमन्यपथैरपि ॥३७॥

*Chikitsā shastravaidyena*

*Hṛidroge tu sahayika,*

*Svasthya-sampalanchaiva-*

*vashyam anyapathairapi. (37)*

*Chikitsā* – Treatment, *shastravaidyena* – by a surgeon, *hṛidroge* – in heart disease, *sahayika* – is helpful; *tu* – but; *svasthya-sampalanam* –taking care of health, *cha eva* – (added for emphasis), *avashyam* – (is) necessary, *anya pathair(h)-api* – by other ways also.

Surgical treatment may help

in the diseases of heart;

but taking care of health

needs other ways smart. (37)

Note: Even a heart-surgeon, a technologist by all means, tells the patient that surgery is not enough and advises proper diet, rest, exercise and meditation to relax. Technology is not all.



तथैव धरणेः कष्टे

नह्यलं तन्त्रविद्यया ।

जीवने तु मनुष्याणाम्

अवश्या नैतिकोन्नतिः ॥३८॥

*Tathaiva dharanerkashte*

*Nahyalam tantravidyaya ,*

*Jivane tu manushyanam*

*Avashya naitikonnatih. (38)*

*Tathaiva* – In the same way/ similarly, *dharaneh kashte* – in the difficulty of the earth, *na hi alam (nahyalam)* – it is not enough, *tantravidyaya* – with technology; *manushyanam jivane-* in the life of mankind/people, *naitika unnatih (naitikonnatih)* – moral uplift, *avashya* – is necessary.

Likewise in the earth's troubles,

not enough is technology;

A moral uplift in mankind's life itself

is an absolute necessity. (38)

Note: Just as a heart patient requires to overcome stress and have some discipline in life with or without surgery, a moral uplift in our life is needed to overcome environmental problems with or without technology. This is in the form of restraint on our wants, consideration of consequences on others and oneself of what we consume and produce, cultivating and nurturing a sense of beauty, care for nature including plant and animal life, and sharing our surplus wealth with the needy (as Mahatma Gandhi emphasised) instead of spending it all on ourselves.

मुख्यमुत्तरदायित्वं

धनिकानां हि विद्यते ।

निग्रहश्चोपभोगानाम्

अहार्यस्त्वरितं खलु ॥३९॥

*Mukhyam uttaradayitvam*

*Dhanikaṅam hi vidyate,*

*Nigraha upabhogaṅam*

*Aharyaḥ tvaritam khalu. (39)*

*Mukhyam* – The main, *uttaradayitvam* – responsibility, *vidyate* – remains, *dhanikaṅam* – of (with) the rich, hi –only; *nigraha* – restraint, *upabhogaṅam* – of indulgence/(excess) consumption, *tvaritam* – quickly, *aharyaḥ* – (is) unavoidable, *khalu* – really.

The main responsibility

really remains with the rich,

of restraint on indulgence,

sure and brisk. (39)

Note: The environmental problem should not be tried to be solved by keeping many in poverty. This would be an unacceptable way of checking the consumption of resources of the earth. Regrettably this has been the prevalent way, both between countries and within. The verse makes it clear, that the morally acceptable way is to restrain the consumption of the rich, voluntarily or compulsorily.

जगतो धनिकैस्सर्वै-

रदम्यशोषणेन हि ।

क्षतानि पञ्चभूतानि

दूषितानि दुराशया ॥४०॥

*Jagato(ah) dhanikai(r)h sarvaih*

*Adamyashoshānena hi,*

*Kshatāni panchabhūtāni*

*Duṣhitāni durāshaya (40)*

*Pancha-bhūtāni* - five basic elements of nature/creation (*prithvee*- earth ,land ; *ap* - water; *tejas* - light; *vāyu* - air; *ākāsha* - space), *kshatāni* – are harmed/depleted, (and), *duṣhitāni* – polluted, *sarvaih* – by all, *jagatah dhanikaih* – the world's rich, (through), *adamyā* - unrestrained, *shoshānena* – exploitation, *hi* – only, *durāshaya* – due to greed.

The endless enjoyment

and greed of all the world's rich

only has caused depletion and pollution

of all the five basics of life in our niche. (40)

भोक्तृत्व एव मन्तव्यो

निग्रहो यदवश्यकः ।

व्ययशीलेन भोगेन

भविष्यं हि प्रणश्यति ॥४१॥

*Bhoktr̥itva eva tu mantavyo*

*Nigraho yadavashyakah,*

*Vyayashilena bhogena*

*Bhavishyam hi pranashyati (41)*

*Bhoktr̥itve* – In the act of consumption, *eva* – only/ itself, *yad* – what, *nigraha* – control/check, *avashyakah*– (is) necessary, (this), *mantavyah* – should be thought of. *Vyayashilena bhogena* – By wasteful consumption, *bhavishyam* – future, *hi* –itself/ only/ surely, *pranashyati* – perishes/ faces destruction.

A check has to be thought

in very the act of consumption.

In wasteful consumption for sure,

future faces destruction. (41)

Note: If a voluntary check on wasteful use is not working, it would necessitate compulsory checks, such as by administrative rationing of scarce natural resources or by effectively taxing their consumption. A difficulty in relying on pricing or taxing as a tool to check wasteful consumption, is that the rich are not very sensitive to prices as they have enough incomes to buy expensive resources, and if the rise in prices covers all, the poor are deprived of adequate access to them even in meeting necessities. Obviously careful thinking is needed in devising compulsory checks. If only the rich understand and co-operate, voluntary checks are far better, but self-restraint on the part of the rich is too much to hope for in real life specially in the absence of an ethical orientation.

कठोपनिषदि प्रोक्तं

श्रेयःप्रेयोविभेदनम् ।

श्रेय आत्मसुखायैव

प्रेय इन्द्रियतोषणे ॥ ४२ ॥

*Kaṭhpopanishadi proktam*

*Shreyah-preyo-vibhedanam,*

*Shreya atmasukhayaiva*

*preya indriya toshane. (42)*

*Kaṭhpopanishadi* – In the *Kaṭhpopanishad*, *proktam* – is told, *vibhedanam* – the difference/distinction, *shreyah-preyo* – (between) *shreyas* and *preyas*. *Shreyas* – (which is) happiness in the long run, *atma-sukhaya* – (is) for the happiness of the soul/spiritual happiness; *eva-* only, *preyas* – (which is) momentary pleasure, *indriya-toshane* – (is) for sensual gratification.

The *Kaṭhpopanishad* tells

of the difference between happiness and pleasure.

Happiness concerns the soul, and

pleasure is meeting sense pressure. (42)

आत्मसुखं चिरानन्दं

नश्वरम् चेन्द्रियं सुखम् ।

पृथ्व्यास्सम्पत्तिनाशोऽस्ति

प्रेयोभोगेन नान्यथा ॥ ४३॥

*Atmasukham chiranandam*

*Nashvaram chendriyam sukham,*

*Prithvyassampatti-nashosti*

*Preyo-bhogena nanyatha. (43)*

*Atma-sukham* – happiness of the soul, (is), *chiranandam* – enduring/lasting happiness, *indriyah sukham* – pleasure through the senses, (is), *nashvaram* –momentary/ transitory. *Prithvyah* – the earth's, *sampatti-nashah- asti* – depletion/destruction of wealth/ resources takes place, *preyo-bhogena* – by sensual enjoyment, *na* – not, *anyatha* – otherwise.

Happiness of the soul is what endures;

momentary is pleasure sensual;

Earth's resources deplete

by sensual pleasures, not by the spiritual. (43)

वस्तूनामुपभोगेषु

आत्मानन्दो न वर्तते ।

आत्मानन्दाय लोकानां

प्रेयोभोगा न यौक्तिकाः ॥४४॥

*Vastuṅam upabhogeshu*

*Atmanando na vartate,*

*Atmanandaya lokanam*

*Preyo-bhoga na yauktikah.(44)*

*Upabhogeshu* – In the enjoyment/consumption, *vastuṅam* – of commodities/ material resources, *na vartate* – there is no; *atmanandah* – happiness of the soul; *atmanandaya* – for the happiness of the soul, *lokanam* – of the people, *preyobhogah* – sensual enjoyments (are), *na yauktikah* – not relevant/suitable.

In the consumption of commodities,

there is no happiness of the soul;

to have such happiness for people

pleasure of senses can't be a goal. (44)

Note: The distinction between petty pleasures of senses (*Preya*) and happiness of the soul (*Shreya*) made here following the *Kathopanishad* is similar or almost the same as the distinction made by Amartya Sen between enjoyment based on consumption of commodities and happiness of developing one's capabilities. He advises, in his book, *Commodities and Capabilities* (1985), that our objective has to be to develop capabilities, and not confined to consumption of commodities. Capability is a long term affair, and is source of enduring happiness. It is spiritual in nature, not just material. However, there can be no quarrel about some basic consumption of commodities to sustain and develop our physical and intellectual capabilities. What is opposed is obsession or compulsive habits of excess or wasteful consumption, based on considerations other than need.

सर्वेषाम् अधिकारास्तु

सन्त्यावश्यकताः प्रति ।

यात्रायै जीवनस्यापि

अनिवार्या भवन्ति ये ॥४५॥

*Sarvesham adhikarastu*

*Santyaavashyakatah prati,*

*Yatrayai jivanasyapi*

*Anivaryah bhavanti ye (45)*

*Adhikarah* – right, claim, *sarvesham* – of all, *tu* – however/ surely, *santi* –exist, *avashyakatah* *prati* – towards necessities, *ye* – which, *bhavanti* – become, *anivaryah* – indispensable, *yatrayai jivanasya*– to carry on in one’s life, *api*- also.

All, however, have rights

to necessities surely;

which are indispensable needs

to carry on in life really. (45)

Note: Basic needs are not just to survive, but to live in atleast minimum comfort, that is , to carry on in one’s life smoothly. For example, food should in quality and quantity be such that it enables one to have at least minimum nutrition and energy to lead an active healthy life. The word, *Sharira-yatra*, taken from the *Bhagavad-gita* (III.8) captures this concept well. The last word, ‘really’, has a significance; it is not just living but really living, for which the basic needs are justified, and none should be derived of them.



स्वस्थं सुखमयञ्चैव

सर्व इच्छन्ति जीवनम् ।

अनिन्द्या चेदृशी वाञ्छा

सर्वेषां हितकारिणी ॥४६॥

*Svasthan sukhamayam chaiva*

*Sarva ichchhanti jivanam,*

*Anindya chedrishī vanchha*

*Sarvesham hitakarini. (46)*

Sarve – All, *ichchhanti* – desire/ aspire, *svasthan* – healthy, *chaiva* – and, *sukhamayam* – happy, *jivanam* – life; *idrishā* –such, *vanchha* – desire (noun), (is), *anindya* – blameless, (and), *hitakarini* – promoting good/wellbeing, *sarvesham* – for all.

For a healthy and happy life,

all dearly aspire;

as it promotes the good of all,

blameless is such desire. (46)

परन्तु सुखभोगानां

निग्रहः क्षेमकारकः ।

विलासिधनिकानां ते

यदि सन्ति विशेषतः ॥४७॥

*Parantu sukhabhoganam*

*Nigrahaḥ kṣemakārah,*

*Vilāsi-dhanikaṇam te*

*Yadi santi viśeṣataḥ. (47)*

*Parantu* – however, *nigrahaḥ* – control, *sukhaabhogaṇam* – of enjoyments/consumption, *kṣemakārah* – promotes welfare/ is beneficial, *viśeṣataḥ* – especially, *yadi* – if, *te* – they, *santi* – are, *vilāsi-dhanikaṇam* – of (by) the luxury-loving rich.

A curb on enjoyments, however,  
promotes long term bliss,  
especially if they are  
by the luxury-loving rich. (47)

Note: A curb on enjoyments especially of the rich doubly blesses – first by reducing pollution and depletion of natural resources, and secondly for the rich themselves by diverting their attention from the merely sensual to the sustainable spiritual happiness.

राष्ट्रस्य क्षेमं न निसर्गनाशे

मालिन्यसृष्टौ न च लोकसौख्यम् ।

उत्पन्नवृद्धिस्त्वनियम्य ध्वंसं

लोभेन युक्ता हि दुरर्थका नः ॥४८॥

*Rashtrasya kshemam na nisarga-nashe*

*Malinya-srishtau na cha lokasaukhyam /*

*Utpanna-vridhistvaaniyamya dhvamsam*

*Lobhena yukta hi durarthaka nah (48)*

*Kshemam* – Welfare, *rashtrasya* – of a country/nation, (is), *na* – not, *nisarga-nashe* – in the destruction of nature; *cha* – and, *loka-saukhyam* – happiness of people, (is) *na* – not, *malinya-srishtau* – in creating pollution. *Utpanna-vridhiih* – Increase of production/income, *tu* – (for emphasis), *aniyamya* – without restraining, *dhvamsam* – destruction (of environment), *hi* – indeed, *lobhena yukta* – gripped by greed, (is), *durarthaka* – harmful/bad economics, *nah* – for us.

A country's welfare is not in destroying nature;

nor is people's welfare in polluting it.

Surely, increasing production gripped by greed

with no restraints has harm in-built. (48)

Note: A country's welfare is actually reduced by nature's destruction, but it is not considered in national income accounting. People's happiness directly declines faced with pollution, but this does not go into the reckoning of costs of production. It is vicious economics to increase incomes and production without reckoning these costs or controlling them.

(The metrical form of this verse is different from others, consisting of eleven syllables in each quarter, or *pada*, instead of eight as in other verses.)

उद्यमैरादिशः कार्यम्

उत्सर्गानां बहुक्षयः ।

शुद्धीकरणयोगेन

पुनरावर्तनेन च ॥४९॥

*Udyamair(h)adishah karyam*

*Utsarganāṃ bahukshayah,*

*Shuddhikarāyogena*

*Punaravartanena cha. (49)*

*Adishah* – first, of priority, *karyam* – duty, *udyamaih* – by (of) industries, (is), *bahukshayah* – minimisation, *utsarganāṃ* – of emissions or effluents of waste, *shuddhikarāna-yogena* – through purification treatment, *cha-* and, *punaravartanena* – by recycling (of waste).

Minimisation of wastes is

the first duty of industries,

through recycling and

removing impurities. (49)

Note: There are technologies available to treat both emissions and effluents which can capture and recycle chemicals and other wastes before releasing them into the air or water. For example, cement dust emitted into air by cement industries can be captured and re-used.

लङ्घनं करणीयस्य

जनघातं करोति वै ।

उद्यमेभ्यो जनाघातः

प्रतिकूलः सुनिश्चितः ॥५०॥

*Langhanam karaniyasya*

*Janaghātam karoti vai,*

*Udyamebhyo janaghātah*

*Pratikūlah sunischitah (50)*

*Langhanam* – Wilful neglect, *karaniyasya* – of (this) duty, *karoti* – inflicts/ causes, *janaghātam* – harm to people, *vai* – surely; *udyamebhyah* – for the industries, *pratikūlah* – (is) counter-productive/ working against, *sunischitah* – quite certainly.

Wilful neglect of this duty

surely harms people;

and harm to people works quite certainly

against industries terribly. (50)

समीपस्थ-जनेभ्यस्तु

स्नेहाचारस्सदा शुभः ।

मालिन्याद् वायुवारीणाम्

प्रक्षोभो वर्धते खलु ॥५१॥

*Samipastha janebhyastu*

*Snehacharassada shubham,*

*Malinyad vayu-varinam*

*Prakshobharvardhate khalu. (51)*

*Janebhyah* – With people, *samipastha* – in the neighbourhood, *tu* –surely, *snehacharah* – friendly behaviour/treatment, (is), *sada* – always, *shubham* – good/ beneficent, *malinyat* – due to pollution, *vayu-varinam* - of air and water, *hi* – however, *prakshobhah* – great agitation/ turbulence, *vardhate* – rises/ grows; *khalu* – really.

Friendly treatment of people

in the neighbourhood is always beneficent;

polluting water and air, however,

really makes them turbulent. (51)

Note: The people in the neighbourhood are directly affected by pollution of air and water, who therefore, feel greatly troubled and agitated by it.

मालिन्य-विषये ह्यस्ति

सुयोग्यं राजशासनम् ।

पालनीयमदः सर्वं

कापट्यमन्तरा सदा ॥५२॥

*Malinya-vishaye hyasti*

*Suyogyam rajashasanam,*

*Palaniyamadah sarvam*

*Kapatyam antara\_sada . (52)*

*Malinya-vishaye* – Regarding pollution, *hi asti* – there surely is, *suyogyam* – proper, *rajashasanam* – law; *sarvam* – all, *adah* – this, *palaniyam* – has to be obeyed, (and), *sada* – always, *kapatyam antara* – without cheating/deception.

There sure is proper law

governing pollution.

It should all be obeyed always

without any deception. (52)

शीघ्रलाभाय दुर्लक्ष्य

मालिन्यस्य नियन्त्रणम् ।

उद्यमान् ये तु कुर्वन्ति

सर्वे ते ह्यात्मघातिनः ॥५३॥

*Shighra-labhaya durlakshya*

*Malinyasya niyantranam,*

*Udyaman ye tu kurvanti*

*Te sarve atmaghatinah. (53)*

(Those), *ye* – who, *shighra-labhaaya* – for the sake of making quick profits, *udyaman kurvanti* – run industries/enterprises, *durlakshya* – having wilfully neglected, *niyantranam* – control, *malinyasya* – of pollution, *te sarve* – all of them, *tu atma-ghatinah* – harm themselves indeed/alone.

Those who run industries neglecting

pollution control for quick profits,

they would all be harming

themselves alone, these nitwits! (53)



उद्यमानां हितं तेषां

मुद्रामौल्यं समाश्रितम् ।

तदावलम्बितं मौल्यं

शीलाचरणमुद्यमे ॥५४॥

*Udyamaṅgam hitam tesham*

*Mudra-maulyam samāshritam,*

*Tadavalambitam maulyam*

*Shilācharaṅgamudyame. (54)*

*Hitam* – Advantage/profitability, *udyamaṅgam* – of industries, *samāshritam* – relies well on, *mudra-maulyam* – (their) brand value/image, (and in turn), *tad* –that, *maulyam* – value, *avalambitam* – is dependent on, *shilācharaṅgam* – moral conduct/ integrity (of industries).

The profitability of an industry

depends on its brand image;

the brand image depends in turn on

on its moral plumage. (54)

Note: Plumage to a bird is essential for it to be active; it also lends grace and beauty to it. Similar is the case with moral conduct for an industry.

उद्योगानां सुचारित्र्यं  
वर्तते सर्गरक्षणे ।  
ग्राहकाणां च कारुणां  
निर्दोषं क्षेमवर्धने ॥५५॥

*Udyoganam sucharitryam*  
*Vartate sarga-rakshane,*  
*Grahakanam cha karunam*  
*Nirdosham kshemavardhane. (55)*

*Udyoganam* – of industries, *sucharitryam* – good behaviour/ moral character, *vartate* – consists (in), *sarga-rakshane* – (in) the protection of nature, (and) *kshema-var dhane* – (in) promoting welfare/happiness, *grahakanam* – of consumers/buyers, *cha* – and, *karunam* – of employees/workers, *nirdosham* – without blemish.

Good behaviour of industries  
lies in protecting environment,  
and in promoting without blemish  
buyers' and workers' contentment. (55)

Note: More than quick profits, it is the long term profitability of an industry or corporation that decides its destiny and attractiveness in the share market. Such a profitability depends on the sincerity with which it takes of environment and implements laws, and promotes the welfare of both buyers of its products and services, and of the workers in the company. That is why an industry which cheats in these respects harms itself significantly.

यदुद्योगे ह्यसन्तुष्टा ग्राहकाः कार्मिका अपि ।

मालिन्येन च संत्रस्ताः समीपस्था जना अपि ।५६।

तदुद्योगो हि कुख्यातिं लभते न धनागमम् ।

मुद्रामौल्यं च तस्यापि अधोगामि भविष्यति ॥५७॥

*Yadudyoge hyasantushta grahakah karmika api,*

*Malinyena cha santrastah samipastha janapi, (56)*

*Tadudyogo hi kukhyatim labhate na dhanagamam,*

*Mudramaulyam cha tasyapi adhogami bhavishyati. (57)*

*Yadudyoge* – The industry in which, *grahakah* –buyers, *api* – also, *karmikah* – workers, *asantushtah* – (are) unhappy, *cha* – and, *samipasthah janah* – people in the neighbourhood, *malinyena santrastah* – (are) distressed by pollution (of environment), *tadudyogah* – that/such an industry, *labhate* –gets, *kukhyatim* –disrepute, *hi* – only, *na* –not, *dhanagamam* – coming/gain of wealth; *cha* –and, *tasya* – its, *mudra-maulyam* –brand value, *adhogami bhavishyati*– will go downward.

The industry in which unhappy are the buyers and the workers

also the people in the neighbourhood distressed by nature's blight,

such an industry gets only disrepute and and not any gain in wealth;

its brand value too takes a downward slide. (56 &57)

तस्मात् मालिन्य-सम्भूतेः

निग्रहो लाभदायकः ।

उपेक्षा तु निसर्गस्य

सर्वेभ्यो नष्टदायका ॥५८॥

*Tasmat malinya-sambhuteh*

*Nigraho labhadayakah,*

*Upeksha tu nisargasya*

*Sarvebhyo nashtadayaka. (58)*

*Tasmat* – Therefore, *nigraha* – control, *malinya-sambhuteh* – of the production/creation of pollution, *labhadayakah* –(is) profitable; *tu* – but, *upeksha* – indifference/ neglect, *nisargasya* – of nature, *nashta-dayakah* – is loss making/ unprofitable/ depriving, *sarvebhyah* – for all.

That is why profitable is

the control of pollution;

neglect of nature leads

all to deprivation. (58)

कृषिक्षेत्रेऽपि हानिर्वै

निसर्गस्य सुविस्तृता ।

विद्यते सलिले भूम्यां

सस्येषु च समीरणे ॥५९॥

*Krishikshetreapi hanirvai*

*Nisargasya suvistr̥ita,*

*Vidyate salile bhūmyam*

*Sasyeshu cha samirane. (59)*

*Krishi-kshetre-api* – Even in agriculture, *suvistr̥ita* – quite wide spread, *hanir* – injury/ loss, *nisargasya* – of nature, *vidyate* – is there, *vai* – surely, *salile* – in water, *bhūmyam* – on land, *sasyeshu* – in plants, *cha* – and, *samirane* – in the air.

There takes place injury to nature

quite widespread in agriculture;

in water and on land,

in plants and in the air. (59)

कीटनाशिरसास्सन्ति

अतिप्रयोगे बाधकाः।

रोगोपरोधकाश्चैव

कृत्रिमोत्पन्न-वर्धकाः ॥६०॥

*Keeta-nashi-rasassanti*

*Atiprayoge badhakah,*

*Rogopadhakashchaiva*

*Kritrimotpanna-vardhakah. (60)*

*Kita-nashi-rasah* – Chemical insecticides, *santi* - are, *badhakah* – harmful, *ati-prayoge* – in excessive use; *cha eva* – and so (are), *rogoparodhakah* – pesticides, (and), *kritrimotpanna-vardhakah* – artificial/chemical fertilisers.

In excessive uses, chemical insecticides

are sure to harm,

so are pesticides and

chemical fertilisers darn. (60)

मृत्तिका-स्थित-वैराटाः

ये सन्ति सस्यपोषकाः ।

नश्यन्त्यतिव्ययेनैषां

साधनानामचिन्तया ॥६१॥

*Mrittika-sthita-vairatah*

*Ye santi sasyaposhakah,*

*Nashyantyativyayenaisham*

*Sadhananam achintaya. (61)*

*Vairatah* – Earth-worms, *sthita* – staying, *mrittika* – (in) soil, *ye* –which, *santi* – are, *sasyaposhakah* – plant nourishing, *nashyanti* – perish/ get destroyed, *achintaya* – by thoughtless, *ati-vyayena* – over-use, *esham sadhananam* – of these (chemical) inputs.

Earth-worms in the soil

which nourish plants,

perish under thoughtless use

of these chemical clans. (61)

Note: There are families (clans) of chemical inputs which have a common outcome of harm for natural nutrients in the soil – insecticides, pesticides, weedicides, and chemical fertilisers. These easily available chemicals also come in handy for distraught farmers intent upon committing suicides. So they have become farmer-cides also!

भ्रमरा मधुकर्तारः

परागाधानकास्तथा ।

बहुत्रस्ता भवन्त्येतैः

साधनैश्चाप्यजीवकैः ॥६२॥

*Bhramara madhukartarah*

*Paragadhanakastatha,*

*Bahutrastah bhavantyesham*

*Sadhanaishchapyajivakaih. (62)*

*Bhramarāh* – large black bees/ flower beetles, *madhukartarah* – honey bees, *tatha* – similarly (other) *paragadhanakah* – pollinators, *cha api* – also, *bhavanti* – become, *bahutrastah* – greatly distressed/ harmed, *etaih ajivakaih sadhanaih* – by these inorganic inputs (chemicals).

Pollinators like flower beetles

and honey-bees

are greatly harmed

by chemicals these . (62)

Note: Pollinators are absolutely essential for agriculture and horticulture. There is a great variety of them like honey bees, bumble bees, flower beetles, pollen wasps, butterflies, moths, and birds. Their populations are at high risk under an extensive use of chemical pesticides and insecticides, threatening the very future of agriculture and horticulture in the world.



एतेषान्त्वतिमुख्या वै

सस्येषु फलकारकाः ।

तेषां कुण्ठितसंख्याभिः

पतति च फलोदयः ॥६३॥

*Eteshantvati-mukhya vai*

*Sasyeshu phalakarakah,*

*Tesham kunthita-sankhyabhih*

*Patati cha phalodayah. (63)*

*Eteshan* – these (pollinators), *tu* – however, *ati-mukhyah* – are important/ crucial, *vai* – surely, *phalakarakah* – (as they) cause fruition, *sasyeshu* – among plants; *tesham kunthita sankhyabhih* – due to fall in their populations, *phalodayah* – production of fruits/harvest/ crop production, *patati* –falls, cha- too.

But in agriculture, pollinators

are crucial for causing fruition;

when their population falls,

harvests too suffer diminution. (63)

अत्यन्तं जलसेकेन  
भूमिर्भवत्यनुर्वरा ।  
नष्टमूल्या हि मौढ्येन  
क्षाराणां संचयेन वै ॥६४॥

*Atyantam jalasekena*

*Bhumirbhavaty<sup>anurvara</sup>,*

*Nashtamulya maudhyena*

*Ksharanam sanchayena vai. (64)*

*Jala-sekena* – By irrigation, *atyantam* – very much/ too heavily, *bhumih* – land, *bhavati* – becomes, *anurvara* – infertile; *nashṭa-mulya* – priceless, extremely valuable (land) gets useless, *maudhyena* – foolishly, *ksharanam sanchayena* – due to accumulation of salts, *vai* – of course.

Owing to heavy irrigation,  
priceless land becomes infertile,  
foolishly lost of course  
by making land saline. (64)

Note: Heavy irrigation in lands unsuitable for it, such as black cotton soils, causes accumulation of salts, and makes land saline and thus infertile. Farmers are often advised not grow heavily irrigated crops or water-loving crops in lands unsuitable for them. They get a few good crops initially, but within a few years, land becomes infertile. Even where light irrigation is advised, heavy irrigation is given under a foolish belief that more water is better for crops. This is a double loss – loss of scarce water, and of scarce and valuable land. It is very costly to bring back saline lands into fertile ones. What is particularly tragic here is that the whole thing is a man-made disaster.

'अति सर्वत्र वर्ज्यं हि'

पूर्वेषां भाषितं हितम् ।

कृष्युद्यमेऽपि तद्युक्तम्

अद्य यद्यपि न प्रियम् ॥६५॥

*'Ati sarvatra varjyam hi'*

*purvesham bhashitam hitam,*

*krishyudyame-api tadyuktam*

*adya yadyapi na priyam. (65)*

*Ati – Excess, sarvatra – everywhere, varjyam – should be avoided, hi - surely, bhashitam– (so) was said, purvesham – by our ancestors, hitam – (which advice is) wholesome; krishyudyame – in agriculture, api – also/ too, tad-yuktam – that (is) proper/ relevant, yadyapi – even if, na – not, priyam – liked, adya - nowadays.*

'Excess should be shunned everywhere',

so was said in the past as beneficial;

in agriculture also today

it fits well even if not palatable. (65)

कृषीवलास्त्रिता पूर्वे

स्वरूढ-साधनानि हि ।

आपणानाश्रयन्त्यद्य

विनष्टं स्वावलम्बनम् ॥६६॥

*Krishivalas-shrita purve*

*Svarudha-sadhanani hi,*

*Apanan ashrayantiadya*

*Vinashtam svavalambanam. (66)*

*Krishivalah* –farmers, *shritah* – depended *purve* – in the past, (on), *svarudha* – self-grown, self-produced, *sadhanani* – inputs, *hi* –indeed; *adya* – today, (they) *ashrayanti* – depend, *apanan* – on markets/ shops; (thus), *svavalambanam* – (their) self-reliance, (is), *vinashtam* – cut down.

Farmers in the past who

used inputs self-grown ,

depend today on the market

with self-reliance mown. (66)

परस्ताद् हरितक्रान्तेः

बहवो लघुक्षेत्रकाः ।

प्रक्षिप्ताः पण्यवीथीषु

बहुनष्टेन पीडिताः ॥६७॥

*Parastat harita-kranteh*

*Bahavah laghu-kshetrakaah,*

*Prakshiptah panyavithishu*

*Bahunashtena piditah (67)*

*Parastat* – After, *harita-kranteh* – the green revolution, *bahavah* – many, *laghu-kshetrakah* – small farmers/holders, (were), *prakshiptah* – thrown, *panyavithishu* – into the market, (and were), *piditah* – troubled, *bahu-nashtena* – by heavy losses.

After the Green Revolution,

small farmers many

were thrown into the market

and suffered losses heavy. (67)

अजीविकानि द्रव्याणि

न्यूनीकृत्य हलोद्यमे ।

कष्टान्निस्तरणं शक्यं

वर्धयेत् स्वावलम्बनम् ॥६८॥

*Ajivikani dravyani*

*Nyunikritya halodyame,*

*Kastannistaranam shakyam*

*Vardhayet svavalambanam. (68)*

*Nyunikritya* – (By) minimising, *ajivikani* – inorganic/chemical, *dravyani* – materials/inputs, *halodyame* – in agriculture/farming, *nistaranam* – relief/escape/solution, (is), *shakyam* – possible, *kastat* – from difficulty/trouble; *vardhayet* – enhance/ increase, *svavalambanam* – self-reliance.

By minimising inorganic inputs

and self-reliance expanding,

a relief from trouble

is possible in farming. (68)

अपूर्वजनवृद्ध्या हि

विभक्ताः भूमिधारणाः ।

आर्थिकक्षमता तेषां

अत्यन्तं कुण्ठिताऽभवत् ॥६९॥

*Apurva-janavridhya hi*

*Bhu-dharanah vibhajah,*

*Arthika-kshamata tesham*

*atyantam kunthitabhavat. (69)*

*Apurva-Janavridhya* – Due to unprecedented population increase, *bhu-dharanah* – landholdings, *vibhajah* – (got) divided/ sub-divided; *tesham* – their, *arthika-kshamata* – economic viability, *kunthita bhavat* – declined/fell, *atyantam* –very much.

Due to population increase,

landholdings got divided;

with their economic viability

very much declined. (69)

Note: The crisis in agriculture is thus many fold. Uncertainty in rain, price-instability, depletion of soils, increasing scarcity of water, declining population of pollinators, increased dependence on the market purchased costly inputs, and decreasing economic viability of land holdings which are becoming smaller under population pressure – they have all contributed to this crisis. This has made a vital economic sector as agriculture unattractive to farmers.

हलोद्यमाज्जनानाम् उत्-

क्रमा क्षेत्रेश्वपि ।

प्रारम्भतो हि प्रागेव

अपर्याप्ताः परन्तु ते ॥७०॥

*Halodyamat jananam ut-*

*krama kshetreshvapi,*

*Prarabhato hi prag-eva*

*Aparyaptah parantu te.(70)*

*Utkramah* – departures, migrations; *jananam* – of people; *halodyamat* – from agriculture/farming; *kshetreshu* – into other fields/occupations/vocations, *api* – also, *prarabhatah* – began/ started, *prag-eva* – even earlier, *hi* – of course; *parantu* –but, *te* – they (migrations), *aparyaptah* – (are) inadequate.

Migration of people from farming

into other occupations seen,

started even earlier of course,

but enough that has not been . (70)

Note: Migration of people from agriculture, that has been seen for quite sometime, has not been enough to lighten the pressure of population there. The average size of landholdings has continued to fall. The economic sectors outside agriculture have not created adequate job opportunities fast enough to gainfully absorb people migrating from agriculture. The next verse tells about Mahatma Gandhi's solution to the problem, which is environmentally also benign.



कृषीतर-विभागेषु

भूयिष्ठभाग-जीविकाः ।

उत्तजोद्यमैश्च कर्तव्याः

इत्थं गान्धि-प्रबोधनम् ॥७१॥

*Krishitara-vibhageshu*

*Bhuyishthabhaga- jivikah,*

*Utajodyamaishcha Kartavyah*

*Ittham Gandhi-prabodhanam. (71)*

*Krishitara-vibhageshu* – In the non-agricultural sectors, *bhuyishtha-bhaga* – maximum, *jivikah* – jobs/ livelihoods, *kartavyah* – should be created, *utajodyamaish* – through cottage industries, *ittham* – thus/ so, *Gandhi-prabodhanam* – is the teaching by Gandhi.

Jobs be maximised

through many a cottage industry

in the sectors non-agricultural,

so is the teaching by Gandhiji. (71)

विकेन्द्रीकरणं कर्तुं

व्याप्तुं च सर्वदेशतः ।

कृष्युत्पादाश्रिताः शक्ताः

ग्रामोद्योगाः प्रजाहिते ॥७२॥

*Vikendrikaraṇam kartum*

*Vyaptum sarvadeshatah,*

*Krishyutpadaashritah shaktah*

*Gramodyogah prajahite. (72)*

*Gramodyogah* – village industries, *krishyutpada-ashritah* – based on agricultural produce, *shaktah* – (are) able, *Kartum* – to do, *vikendrikaraṇam* – decentralisation, *vyaptum* – to spread, *sarvadeshatah* – throughout the country, *prajahite* – for people's good/welfare.

Village industries based on farm produce

can decentralise and spread

through the entire country,

and provide people's bread. (72)

कर्बानिलं लघूकर्तुं

ग्रामोद्योगाः विशेषतः ।

जीविकावृद्धये चैव

समर्था वा अनेकधा ॥७३॥

*Karbanilam laghukartum*

*Gramodyogah visheshatah,*

*Jivika-vridhdhaye chaiva*

*Samartha va anekadha. ( 73)*

*Gramodyogah* – village (cottage) industries, *visheshatah* – especially, *samarthah* – are able, *vai* – surely, *laghukartum* – to reduce/ minimise, *karbanilam* – carbon gases, *chaiva* – and also, *jivika-vridhdhaye* – to achieve an increase in employment/livelihoods, *anekadha* – in several ways.

Village industries specially

help carbon gases to minimise,

and in manifold ways

cause job numbers to rise. (73)

व्यतिरिक्ताः महोद्योगाः

वै कुर्वन्त्यधिकाधिकम् ।

कर्बोत्सर्गं तु लाभार्थं

न्यूनीकुर्वन्ति जीविकाः ॥७४॥

*Vyatiriktāḥ mahodyogāḥ*

*vai kurvantyadhikādhikam,*

*Karbotsargam tu labharthe*

*Nyunīkurvanti jivikāḥ. (74)*

*Vyatiriktāḥ* – different, contrasting, (are), *mahodyogāḥ* – large industries, (which), *kurvanti* – create, *adhikādhikam* – maximum, *karbotsargam* – carbon emissions, *tu* –however, *labharthe* – for the sake of profits, *nyunīkurvanti* – minimise, *jivikāḥ* – jobs.

Quite in contrast are large industries,

that emit carbons maximum,

and for the sake of making profits

create jobs in the minimum. (74)

कार्मिकाः बृहदुद्योगे

भवन्ति यन्त्रभागवत् ।

ग्रामोद्योगेषु केनापि

स्वात्म-भागो न विस्मृतः ॥७५॥

*Karmikah bṛihadudyoge*

*Bhavanti yantra-bhagavat,*

*Gramodyogeshu kenapi*

*Svatma-bhago na vismritah.*(75)

*Karmikah* – workers, *bṛihadudyoge* – in large industry, *bhavanti* – become, *yantra-bhagavat* – like a cog in the machine; *tu* – but, *gramodyogeshu* – in village industries, *svatmabhagah* – the role of one's own self, *na vismritah* – is not forgotten/lost, *kenapi* – by anybody (worker).

Workers in large industry

become cogs in the machine;

but in village industries,

self-alienation is not seen. (75)

आनेतुमुद्यमान्सर्वान्

ग्रामोद्योगे न शक्नुमः ।

अधुनाऽर्थव्यवस्थायां

तद् अशक्यं न संशयः ॥७६॥

*Anetum udyamaṅ sarvaṅ*

*Gramodyoge na shaknumah,*

*Adhuna arthavyavasthayam*

*Tad ashakyam na samshayah. (76)*

*Na shaknumah* – we cannot/not able, *anetum* – to bring, *udyamaṅ sarvaṅ* – all industries/enterprises, *gramodyoge* – under village industry; *adhuna* – today, *artha-vyavasthayam* – in the economic system, *tu* – however, *tad* –that, *ashakyam* – is not possible, *na samshayah* – without doubt.

We cannot bring all enterprises

under village industries only;

in the economic order of today,

that is impossible, undoubtedly. (76)

उत्सर्ग-रहितास्सर्वे

ग्रामोद्योगान सन्ति तु ।

उद्योगेष्वपि सर्वेषु

संशुद्धीकरणं विधिः ॥७७॥

*Utsarga-rahitassarve*

*Gramodyoga na santi tu,*

*Udyogeshvapi sarveshu*

*Samshuddhikaranam vidhih. (77)*

*Sarve* – All, *gramodyogah* – village industries, *tu*- however, *na* – (are) not, *rahitah* – without, *utsarga* – emissions and effluents of waste. *Sarveshu* – In all, *udyogeshu* – industries, *api* – also, *samshuddhikaranam* – effective cleansing, *vidhih* – is an inviolable rule/ indispensable/ without alternative.

Not all village industries, however,

are free from waste release;

effective cleansing in all industries

has any way no alternative. (77)

यद् यद् कुर्मः वयं तस्यो-

दर्कः भवति किन्नु तु ।

एतस्यापेक्षिता प्रज्ञा

इतरान्श्च स्वयं प्रति ॥७८॥

*Yad yad kurmah vayam tasyo-*

*darkah bhavati kinnu tu,*

*Etasyapekshita prajna*

*Anyan<sup>am</sup> cha svayam prati. (78)*

*Yad yad* – whatever, *kurmah vayam* – we do, *tasya* – its, *udarkah* – outcome/  
consequences, *bhavati* – happens/occurs, *kinnu tu* – how, *prajna* – the awareness, *etasya* –  
of this, *apekshita* – is expected/ needed, *itaran cha svayam prati* - about others as well as  
on one's own self.

What outcome occurs

from whatever we do,

on others as well as one's own self,

expected is its awareness due. (78)



स्वाधिकारान् तु सर्वेऽपि

भोक्तुमर्हन्ति विष्टपे ।

अलन्ध्याः यदि नो न्याय्यं

मूलभूतास्तु सन्ति ते ॥७९॥

*Svadhikaran tu sarve'pi*

*Bhoktum arhanti vishtape,*

*Alanghyah yadi no nyayyam*

*Mulabhutastu santi te. (79)*

*Sarve'pi* – All, *arhanti* – are entitled, *bhoktum* – to enjoy, *mulabhutah* – basic, fundamental, *svadhikaran* – own rights, *vishtape* – in the world, *te santi* – they are, *alanghyah* – inviolable, *tu* – surely, *nyayyam no yadi* – unless under due law/legal process.

Certain rights in this world

every person is entitled to;

they are fundamental and inviolable,

except under lawful process due. (79)

Note: The fundamental rights of any person cannot be violated, except when law permits such a violation, such as when a person is arrested on charges of murder. Even the arrested persons have certain rights, such as being informed of the charge under which the arrest is made, and to basic necessities like being provided with food and water. It is necessary to remember about the rights in the context of environmental ethics, because industries or development projects might trample on the rights to livelihood, right to clean air for breathing, and to clean drinking water. This is as bad as inflicting painful punishment on the innocent.

ते संत्युद्दिश्य जीवित्वं

पेय्यनीरञ्च जीविकाम् ।

वासयोग्यं गृहं चाऽपि

चित्तशान्तिं निरामयम् ॥८०॥

*Te santyuddishya jivitvam*

*Peyya-niram cha jivikam,*

*Vasayogyam griham chaapi,*

*Chittashantim niramayam. (80).*

*Te santi* – they (the rights) are, *uddishya* – addressed to/ concerning, *jivitvam* – life, *jivikam* – livelihood/ employment, *cha* – and, *peyyaniram* – drinking water, *vasayogyam* – fit to reside, *griham* – house, *chitta-shantim* – peace of mind, *chaapi* – and also, *niramayam* – freedom from disease.

These rights concern life and livelihood,

drinking water, a house fit to live,

peace of mind, and also

freedom from disease. (80)

जनो वा जनसन्घातः

उद्योगो वा प्रशासनः ।

नार्हति सूदनं कर्तुं

स्वाम्यानामीदृशां ननु ॥८१॥

*Jano va janasanghatah*

*Udyogo va prashasanah,*

*Narhati sudanam kartum*

*Svamyanam- idrisham . (81)*

*Janah* – People, *va* – or, *janasanghatah* – a group of people, *udyogah* – industry, *va* – or, *prashasanah* – Government, *na arhati* – is not authorised/qualified/fit, *kartum* – to do, *sudanam* – destruction/ violation, *idrisham* – of such *svamyanam* – (of) rights, *nanu* – surely.

No government or industry,

people or group of them,

is fit enough to destroy

any of such rights, ahem! (81)

आर्थिकाः कार्यकल्पास्तु

शुभदाऽपि केभ्यचित् ।

अन्यकतिजनाः दुःखं

अनुभुञ्जन्ति तादृशैः ॥८२॥

*Arthikah karyakalpastu*

*Shubhadā'pi kebhyachit.*

*Anya- kati janāh dukkham*

*Anubhunjanti tadṛshaiḥ. (82).*

*Api* – Though, *arthikah karyakalpastu* – development projects, *kebhyachit* – for some people, [delete *tu – surely*,] *shubhadā* – are beneficial; *anya- kati janāh* – some other people, [delete *hi – however*,] *anubhunjanti* – experience, *dukkham* – sorrow/ disaster, *tadṛshaiḥ* – due to them.

Development projects

bring luck to some;

some others, however,

have only sorrow to come. (82).

अधिकास्सन्ति संख्यायां

यद्यपि सुखिनो जनाः ।

तदापि च दुरालक्ष्यं

नार्हन्ति केऽपि दुःखिताः ॥८३॥

*Adhikāssantti sankhyayam*

*Yadyapi sukhino janah,*

*Tadapi cha duralakshyam*

*Narhanti kepi dukkhitah. (83)*

*Yadyapi* – Even if, *sukhino* –happy, *janah* –people, *santi* – are, *adhikah* – more, *sankhyayam* – in numbers, *tadapi* – even then, *dukkhitah* – the unhappy, *na arhanti* - do not deserve, *duralakshyam* – neglect.

Even if people happy

are in numbers more,

people unhappy

none should ignore. (83)

Note: Any principle that if the majority is happy with a decision or a development project, a minority who suffer as a result of it, can be sacrificed, would go against the fundamental principle that all individuals have certain basic rights as described in previous verses. In such cases, the minority's loss has to be duly and adequately compensated so that they are not worse off.

जल-विद्युत्-प्रकल्पेषु

क्षेत्राण्यपि गृहाणि वै ।

जलस्यान्तर्निमज्जन्ति

तेन नश्यन्ति जीविकाः ॥८४॥

*Jala-vidyut-prakalpeshu*

*Kshetrani grihani vai*

*Jalasyaantarnimajjanti,*

*Tena nashyanti jivikah. (84)*

*Jala-vidyut-prakalpeshu* – In hydro-electric projects, *kshetrani* – lands, *api* – also, *grihani* – houses, *nimajjanti jalasya antah* – go under water; *tena* – thereby, *jivikah* –livelihoods, *nashyanti* – get destroyed.

In hydro-electric projects,

houses as well as lands

go under water,

thus ruining livelihoods. (84)

जीवितं दुःखितानां तु

सर्वेभ्योऽपि महत्तमम् ।

पुनरुज्जीवनं तेषां

प्रकल्पेनैव कल्पयेत् ॥८५॥

*Jivitam dukhitanam tu*

*Tebhyassanti mahattamam;*

*Punarujjivanam tesham*

*Prakalpenaiva kalpayet. (85)*

*Jivitam* – Life and livelihoods, *dukhitanam* – of those who have suffered, *mahattamam* – is of highest importance, *tebhyah* – for them, *prakalpen eva* – by/as a part of the project itself, *tesham* – their, *punarujjivanam* – rehabilitation, *kalpayet* – should be planned/designed/done.

Their life and livelihoods have highest value

for those who have suffered;

as a part of the project itself, they must all be

duly compensated and restored.(85)

तथैव कल्पयेत् तेषां

पुनर्वासं सदा द्रुतम् ।

प्रकल्प-परिणामेन

न कोऽपि दुःखितर्भवेत् ॥८६॥

*Tathaiva kalpayet tesham*

*Punarvasam sada drutam,*

*Prakalpa-parinamena*

*na koapi dukkhitarbhavet. (86)*

*Tathaiva (Tatha eva) – in the same way/ likewise, tesham – their, punarvasam – resettlement, kalpayet – should be arranged, sada – always, drutam – speedily. Prakalpa-parinamena – Due to the project/ as a result of the project, na koapi – no one, dukkhitarbhavet (dukkhitah bhavet) – should suffer/ be unhappy/worse off.*

Likewise they be resettled

without any time-loss;

no one should be worse off

for the project's cause. (86)



अनेकेषु प्रकल्पेषु

नश्यन्ति जङ्गला अपि ।

यद्यपि निर्जनास्सन्ति

समृद्धाः जीवराशिभिः ॥८७॥

*Anekeshu prakalpeshu*

*Nashyanti jangala api,*

*Yadyapi nirjanassanti*

*Samriddhah jivarashibhih. (87)*

*Anekeshu prakalpeshu* – In several projects, *jangalah* – forests, *api* – also, *nashyanti* – perish; *yadyapi* – even if, *nirjanah* – uninhabited, *santi* – (they) are, *samriddhah* – endowed well/ rich, *jivarashibhih* – with massive bio-diversity/ life forms/ masses of plants and animals .

In many a project,

perish forests too;

endowed richly with life forms

even with people few. (87)

अरण्यान्यनिवार्याणि

नराणां भाविजीवने ।

नाशस्तेषां न चास्मभ्यः

कदापि हितकारकः ॥८८॥

*Aranyanyanivaryani*

*Naranam bhavi jivane,*

*Nashastesham na chaasmabhyah*

*Kadapi hitakarakah. (88)*

*Aranyani* – forests, (are), *anivaryani* – indispensable, *bhavi jivane* – in the future/  
forthcoming life, *naranam* – of humans; *cha* – and, *tesham* – their, *nashah* – destruction,  
*asmabhyah* - for us, *kadapi na* – (is) never, *hitakarakah* – beneficial.

For humans' future life,

forests are indispensable;

their ruin for us can't

ever be beneficial. (88)

कर्बोत्सर्गान् समाकृष्य

स्वेश्वेवं सस्यराशिषु ।

महयास्तापं लघूकर्तुं

कान्ताराः उपकारिणः ॥८९॥

*Karbotsargan samakrishya*

*Sveshvevam sasyarashishu,*

*Mahyastapam laghukartum*

*Kantarah upakarinah. (89)*

*Samakrishya* – By absorbing, *karbotsargan* – carbon emissions, *sveshu* – within own, *sasyarashishu* – in the mass of plants/trees, *kantarah* – forests, *upakarinah* – are useful, *evam* – thus, *laghukartum* – in minimising, *tapam* – temperature/heat, *mahyah* – of the earth.

By absorbing carbon emissions

within own trees growing,

forests are useful thus in

reducing global warming. (89)

समाहृत्य हि पर्जन्यान्

भूजलानां प्रवर्धनम् ।

काननानि प्रकुर्वन्ति

नदीनां जनकान्यपि ॥९०॥

*Samahritya hi parjanya*

*Bhujalanam pravardhanam,*

*Kananani prakurvanti*

*Nadinam janakanyapi. (90)*

*Samahritya* – By collecting/ absorbing, *parjanya* – rain/ rainwaters, *hi-* itself/ themselves (expression for emphasis), *sarve* – all, *kananani* – forests, *prakurvanti* – do, *pravardhanam* – enrichment/ increase, *bhujalanam* – of groundwaters; (they are), *api* – also, *janakani* – creators, *nadinam* –of rivers;.

By absorbing rainwater itself,

forests replenish aquifers,

and also generate

streams and rivers. (90)

अरण्यानि मनुष्याणां

महाभाग्यं महानिधिः ।

ओषधीनां निवासाश्च

अक्षया यदि रक्षिताः ॥९१॥

*Aranyani manushyanam*

*Mahabhagyam mahavidhih,*

*Oshadhinam nivasascha*

*Akshayah yadi rakshitah. (91)*

*Aranyani* – forests, (are), *mahabhagyam* – a great fortune, *mahavidhih* – great treasure, *manushyanam* – of people/mankind, *cha - and, avasah* – home, *oshadhinam* – of medicinal herbs; (they are), *akshayah* – unperishable/ lasting, *yadi* – if, *rakshitah* – protected (from destructive human intervention).

Forests are mankind's great fortune,

a great treasure trove,

home for medicinal herbs;

if only protected, they will ever grow. (91)

Note: Forests are often considered as nuisance in the march of agriculture and urbanisation. It is not generally appreciated that we found most of our food resources originally from them, such rice, wheat and fruits. This process of discovery from them should not be presumed as having come to an end. Forests thrive by themselves, if only they are not hindered by human intervention. Sadly, humans have been their greatest enemies though they have benefited endlessly from them.

वनसम्पदमाश्रित्य

वसन्ति बहवो जनाः ।

वनेष्वितरवासेषु

ग्रामेषु नगरेषु च ॥९२॥

*Vanasampadam aśhṛitya*

*Vasanti bahavo janāḥ,*

*Vaneshvītaraavaseshu*

*Grameshu nagareshu cha. (92)*

*Bahavo* – Many, *janāḥ* – people, *vasanti* – live, *aśhṛitya* – depending on, *vanasampadam* – forest wealth, *vaneshu* – in the forests, *itara-vaseshu* – in abodes elsewhere, *grameshu* – in villages, *nagareshu cha* – and in cities.

Using forest wealth

live many people, a few

in forests, and also elsewhere

in villages and cities too. (92)

Note: Even people not living in forests, depend on forest wealth in many ways directly and indirectly. Livelihoods of several people in villages and cities are based on forest resources.

समृद्धानामरण्यानाम्

यदि सन्ति विपत्तयः ।

प्रायोजित-प्रकल्पेण

सन्त्यजेत्तमसंशयम् ॥९३॥

*Samriddhanam aranyanam*

*Yadi santi vipattayah,*

*Prayojita-prakalpena*

*Santyajet tam asamshayam. (93)*

*Yadi-* If, *vipattayah* – great dangers/harms, *santi* – exist, *samriddhanam aranyanam* – for richly endowed forests, *prakalpena* – from a project, *prayojita* –planned/ about to be undertaken, *santyajet* – (we/they) should give up, *tam* – that (project), *asamshayam* - undoubtedly.

If great dangers exist

for forests endowed richly,

from any project planned,

just give up that undoubtedly. (93)

एकदा विपिनं नष्टं

दुस्साध्योस्य पुनर्भवः ।

पुनस्थापनमन्यत्र

कथं तस्य सुसम्भवम् ॥९४॥

*Ekada vipinam nashtam*

*Dussadhyosya punarbhavah,*

*Punasthapanamanyatra*

*Katham tasya susambhavam. ( 94)*

*Ekada* – once, *vipinam* – a forest, *nashtam* – is lost/destroyed, *dussadhyah* – very hard to have, *asya* – its, *punarbhavah* – (its) rebirth/ regrowth. *Katham* – How, *tasya puna-sthapanam* – (is) its replacement/ compensatory remaking/ re-establishment, *api* –also, *anyatra* – elsewhere, *susambhavam* – easily possible?

Once a forest is lost,

it's hard to have its recovery;

how possibly elsewhere

replaced can it be? (94)

Note: If projects proposed to be started happen to be at the cost of rich forests, it is usual for interested technocrats, bureaucrats and politicians to console saying that they will grow them elsewhere. But such forests are irreplaceable, and a rich forest lost once, is lost forever.



तस्मात् कान्तारनाशस्य

प्रतिबन्धो विधीयताम् ।

वनवासि-जनानाञ्च

संरक्षया जीविका ध्रुवम् ॥९५॥

*Tasmāt kantāra-nāshasya*

*Pratibandho vidhiyatam;*

*Vanavāsi-janānancha*

*Samrakshya jivika dhruvam. (95)*

*Tasmāt* – Therefore, *pratibandhah* – prohibition, *kantāra-nāshasya* – of forest destruction, *vidhiyatam* – should be mandatory; *jivikāh* – livelihoods, *vanavāsi- janānam* – of people living in forests, *samrakshya*– should be protected, *dhruvam* – definitely, surely.

Necessary, therefore, is prohibition

of forest destruction;

and so is surely forest living people's

livelihood protection. (95)

उद्यमा एव कष्टा न

स्फुट-मालिन्य-कारकाः ।

धार्मिकोत्सव-चर्याश्च

कुप्रसिद्धा भवन्त्यपि ॥९६॥

*Udyama eva kashta na*

*Sphuta-malinya-karakah;*

*Dharmikotsava-charyashcha*

*Kuprasiddha bhavantyapi. (96)*

*Udyamah* – Industries (and other enterprises including agriculture), (are), *na* – not, *eva* - the only, *kashtah* – difficult (to deal with), *sphuta-malinya-karakah* – sources of conspicuous dirt creation. *Dharmika-utsava-charyah* – Performances of religious festivals, *api* – also, *bhavanti* – become, *kuprasiddhah* – notorious.

Industries are not the only

sources of waste creation;

notorious has also become

religious festivals' celebration. (96)

बहुलोका हि कुर्वन्ति

उपेक्षां स्वच्छतां प्रति ।

दुर्गा-गणेश-पूजासु

निक्षेपास्सर्ववर्तिनः ॥९७॥

*Bahuloka hi kurvanti*

*Upeksham svachchhatam prati,*

*Durga-Ganesh-pujasu*

*Nikshepah sarva-vartinah. (97)*

*Bahulokah* – many people, *hi* – surely, *upeksham kurvanti* – disregard/ act negligent, *svachchhatam prati* – towards cleanliness, *Durga-Ganesh-pujasu* – during the worship of Durga and Ganesha (in their respective festivals), *nikshepah* – litter/ thrown wastes, *sarva-vartinah* - are spread all over.

In worshipping Durga and Ganesha,  
many disregard cleanliness,  
with litter everywhere,  
creating huge ugliness. (97)

संलिप्तान् विषवर्णेर्हि

दुर्गा-विघ्नेश -विग्रहान् ।

पयस्सु ते विसर्जन्ति

कुर्वन्ति च प्रदूषणम् ॥९८॥

*Samliptan vishavarnairhi*

*Durga-Vighnesha-vigrahan,*

*Payassu te visarjanti*

*Kurvanti cha pradushanam. (98)*

*Te* – They (people), *visarjanti* – immerse, *Durga-Vighnesha- vigrahan* –idols of Durga and Vighnesha (Ganapati), *samliptan visha-varnaih* – coloured with toxic paints, *payassu* – in water-bodies, *cha* – and, *kurvanti* – create, *pradushanam* – pollution.

They immerse in water bodies

Durga and Ganesha idols holy

but painted with toxic colours unduly,

and create pollution unholy. (98)

Note: There is nothing in the Shastras to necessitate colouring the idols with toxic paints, or using new idols every year for the festival. Unpainted clay idols can very well do, and they have a beauty of their own. The immersion can be so arranged as to even reuse the clay. A recent trend is to use idols made with plaster of Paris which further adds to pollution. The public celebration of Ganesha festival is not an ancient practice, and was started only in the early 20<sup>th</sup> century by Lokamanya Balagangadhar Tilak, mainly to use it as a part of the freedom struggle. There is now an undeclared competition to make bigger and bigger idols in public celebrations. It is a ghastly sight to see the disfigured immersed idols in ponds and lakes piled up one on another. There is also unacceptable level of noise in the environment on many roads during these festivals, with songs relayed through loudspeakers disturbing the whole neighbourhood. It is ironical that we use holy idols to create unholy pollution.

क्षिपन्ति त्याज्यवस्तूनि

विग्रहैस्सह ते जनाः ।

जलाशयेषु कुर्वन्ति

अधिकाधिक-कर्दमम् ॥९९॥

*Kshipanti tyajyavastuni*

*Vigrahaissaha te janah,*

*Jalashayeshu kurvanti*

*Adhikadhika-kardamam. (99)*

*Te janah* – Those people, *kshipanti* – throw, *bhūri-nikshepan* – huge amount of wastes, *vigrahai-sahitaṅ* – along with idols, (and), *kurvanti* – create, *adhikadhika* – maximum, *kardamam* - dirt, *jalashayeshu* – in water bodies.

Along with idols people throw

huge amounts of waste,

and create maximum dirt

in water bodies waste. (99)

कथं विन्दति साफल्यं

भक्तिर्मालिन्यकारिका ।

शुद्धं परिसरं वापि

मलिनं हि करोति या ॥१००॥

*Katham vindati saphalyam*

*Bhaktirmalinyakarika,*

*Shuddham parisaram vapi*

*Malinam hi karoti ya .(100)*

*Katham* – how, (can), *bhaktih* – worship, *vindati* – get/ obtain, *saphalyam* – success, *ya* - which, *malinyakarika*– is dirt creating, *vapi* – and even, *karoti* – makes, *shuddham* – clean, *parisaram* – environment/neighbourhood, *pradushitam* – polluted.

How can worship get success,  
that creates dirt, and turns  
quite clean environs  
into polluted ones? (100)

ग्रामेषु नगरेश्चैव

भूजलं बहुशोषितम् ।

क्षयस्तस्याधिको जातः

पूरण-शक्तये परम् ॥१०१॥

*Grameshu nagareshchaiva*

*Bhujalam bahushoshitam,*

*Kshayastasyadhikarbhutam*

*Puranashaktaye param. (101)*

*Grameshu* - In villages, *cha eva* – and also, *nagareshu* – in cities, *bhu-jalam* – ground water, *bahushoshitam* – (is) over-exploited, *tasya* – its, *kshayah* – depletion, *jatah* – became, *adhikah* – more, *param* –than, (its), *purana-shaktaye* – replenishment capacity.

Ground waters are over-exploited,

in villages as also cities,

their depletion rates exceeding

replenishment capacities. (101)

अत्यन्तं च कृषिक्षेत्रे

यवक्षार-प्रयोजने ।

भूजलं दूषितं भूतं

वर्धितं जलनाशनम् ॥१०२॥

*Atyantam cha krishi-kshetre*

*Yavakshara-prayojane,*

*Bhujalam dushitam bhutam*

*Vardhitam jalanashanam. (102)*

*Atyantam* – (With) excessive, *yavakshara-prayojane* – use of urea/nitrates, *krishi-kshetre* – in agriculture, *bhujalam* – ground water, *bhutam* – became, *dushitam* – polluted, (thus), *jala-nashanam* – depletion of (drinking) water, *vardhitam* – has increased.

With excessive use of nitrates in agriculture,  
getting ground water also polluted,  
drinking water already scarce  
becomes only more depleted. (102)



खनिज-द्रव्य-शोधार्थे

गिरि-देशेषु नाशिताः ।

बहुमूल्या हि कान्ताराः

उध्वस्था मृत्तिका तथा ॥ १०३॥

*Khanija-dravya-shodharthe*

*Giri-desheshu nashitah,*

*Bahumulya hi kantarah*

*Udhvastha mrittika tatha. (103)*

*Shodharthe* – In search of, *khanija-dravya* – minerals, *giri-desheshu* – in hilly regions, *bahumulya* – very precious, *kantarah* – forests, *hi* – even (added for emphasis), *nashitah* – are destroyed, *tatha* – likewise, *udhvastha* – dug up/devastated, *mrittika* – soil.

For the sake of extracting

minerals in hilly regions,

even precious forests are destroyed

likewise dug up soils, in legions. (103)

मृत्तिका-राशि-युक्तानि

पर्जन्ये प्रवहन्ति हि ।

जलानि ननु कुर्वन्ति

नदीः सङ्कुचिता मृदा ॥१०४ ॥

*Mrittika-rashi-yuktani*

*Parjanya pravahanti hi,*

*Jalāni nanu kurvanti*

*Nadīh sankuchita mṛda. (104)*

*Parjanya* – When it rains, *jalāni* – waters, *mrittika-rashi-yuktani*- mixed with huge quantities of soil, *hi* – surely, *pravahanti* – flow down, *nanu kurvanti* – and make, *nadīh* – rivers, *sankuchitah* – clogged/constricted, *mṛda* – with soil.

When it rains, waters

mixed with huge amount of soil,

flow down and foil

the free flow of rivers with eroded earth. (104)

शोचनीयमिदं सर्वं

परं शक्तेस्तु धारणे ।

प्रकृतेः शोषणं नूनं

लोकक्षेम-विनाशकम् ॥१०५॥

*Shochaniyam idam sarvam*

*Param shaktestu*

*Prakriteh shoshanam noonam*

*Lokakshema-vinashakam. (105)*

*Idam sarvam* – All this, *shoshanam* – exploitation, *prakriteh* – of nature, *param* – beyond, *shakteh tu dharane* – (its) carrying capacity/ sustainability, (which is ), *vinashakam* – destructive, (of), *lokakshema* – people’s welfare, (is), *noonam* – surely, *shochaniyam* – regrettable/saddening.

It’s saddening that all this

exploitation of nature surely

is beyond its sustainability,

and destructive of people’s welfare clearly. (105)

मतभेदानतिक्रान्ता

नीतिः परिसरं प्रति ।

पालनीया हि सा सर्वैः

सर्वदेशेषु सर्वथा ॥१०६॥

*Mata-bhedan-atikranta*

*Nitih parisaram prati,*

*Palaniya hi sa sarvaih*

*Sarvadesheshu sarvatha . (106)*

*Parisaram prati nitih* – Ethics towards environment, *atikranta* – has transcended, *matabhedan* – religious differences; *sa* – she ( *nitih* – Ethics), *palaniya* – has to be observed/ followed, *sarvaih* – by all, *sarvadesheshu* – in all countries, *sarvatha* – by all means/ at all times/ absolutely.

Ethics towards environment

transcends religious differences;

has to be followed with respect

in all countries by all means. (106)

Note: Though environmental ethics has to be observed strictly especially by rich countries, poorer countries also should follow it. This is because even the latter have rich people in it whose demands on nature are high; and also because the poor countries in the process of becoming rich should not follow the same path which was taken by the present rich countries in the past which has created the environmental crisis.

नागरिकाश्च ग्रामीणा

अनूढाश्च कुटुम्बिनः ।

प्रकृतिं परिरक्षन्तु

श्रद्धया व्याजमन्तरा ॥१०७॥

*Nagarikashcha Gramina*

*Anudhashcha kutumbinah,*

*Prakritim parirakshantu,*

*Shraddhaya vyajamantara. (107)*

*Graminah* – villagers, *nagarikah cha* – and citizens, *anudhah* – the unmarried (uncaught!), *cha* – and, *kutumbinah* – family persons/ householders, (all), *parirakshantu* – should protect, *prakritim* – nature, *shraddhaya* – with honest commitment, (and), *antara* – without, *vyajam* – cheating.

Villagers and citizens,

householders and the uncaught, -

all should care for nature

honestly and without mischievous thought. (107)

Note: In many small ways, environment has to be cared for at homes also, such as by avoiding any wasteful use of water, composting organic waste at home if possible, waste segregation by type at source, minimising the use of air-conditioners and cars, switching off lights and fans not in use, using LED bulbs, not allowing stove flame to go beyond the bottom of the vessels while cooking, installing rain-water harvesting and solar generators, and keeping some place for gardening around the house and not paving the whole unbuilt area with cement so that rainwater soaks into the ground.

वर्तमान-जनानां तु

नियोगो न हि विद्यते ।

आगामि जन्मनां कर्तुं

जीविकायास्तु नाशनम् ॥१०८॥

*Vartamana jananam tu*

*Niyogo na hi vidyate,*

*Agami janmanam kartum*

*Jivikayastu nashanam. (108)*

*Niyogo na hi vidyate* – There is no authorisation at all, *vartamana-jananam* - of (for) present people/ generations, *nashanam kartum* – to do destruction, *jivikayah* – livelihoods, *agami* – future; *janmanam* - generations .

The present generations

do not have the right to deprive

the our future generations of their right

to livelihood and rejoice. (108)

पूर्वजेभ्यो यथा प्राप्ता

सुभोग्या सा वसुन्धरा ।

तथैव भावि जन्मभ्यः

देयाऽस्माभिः सुपालिता ॥१०९॥

*Purvajebhyah yathā praptā*

*Subhogya sa vasundhara ,*

*Tathaiva bhavijanmabhyah*

*Deya asmabhih supalita. (109)*

*Purvajebhyah* – From ancestors, *yatha* – how, (we), *praptā* – obtained/ received, *sa vasundhara* – the earth, *subhogya* – fit to enjoy well, *tathaiva (tathā eva)* – just so/ in the same way, *bhavi janmabhyah* – for future people, descendants, (it); *deya* – should be given / passed on, *asmabhih* – by us, *supalita* – well/nicely protected.

We received from ancestors

the earth fit to nicely enjoy,

we should give it just so,

well cared, to descendants for their joy. (109)

यस्मात् मनुष्यजातिर्हि  
सर्वजीवेषु धीमती ।  
आयतिं प्रति पृथ्व्याः सा  
तस्मादुत्तरदायिनी ॥११०॥

*Yasmāt manushya-jatirhi*  
*Sarvajiveshu dhimatī,*  
*Ayatim prati prithvyah*  
*Tasmāduत्तरदायिनी . (110)*

*Yasmāt* – Because, *manushyajatih* – humankind/ human species, hi- surely, *dhimatī* – is (most) intelligent, *sarvajiveshu* – among all beings/species, *tasmāt* – therefore, sa – she (it), *uttaradāyī* – is responsible, *prithivyah ayatim prati* – towards the future of the world/earth.

Because among all beings in the world  
the most intelligent is the humankind,  
she has also the responsibility  
to safeguard the future by applying her mind. (110)

Note: The status of being the most intelligent among all beings does not confer the right to exploit the world greedily, but on the contrary, assigns the duty of safeguarding it, of being a trustee, as the Buddha is said to have preached more than two millennia ago. The humankind is referred to as 'she', because its equivalent word in Sanskrit has the feminine gender.



निर्व्याजाचारमुद्दिश्य

प्रस्तुतं शतकं मया ।

अभ्यासः पठनं वास्य

पर्याप्तं नेति मे मतिः ॥१११॥

*Nirvyajacharauddishya*

*Prastutam shatakam mayā,*

*Abhyasah pathanam vasya*

*Paryaptam neti me matih. (111)*

*Acharam uddishya* – for implementing/ observing in practice, *nirvyaja* –honestly, *shatakam* – (this) collection of a hundred (verses), *prastutam* – is presented, *maya* – by me.  
*Paryaptam na* – Not enough is, *asya* – its, *abhyasah* - study, *va* – or, *pathanam* – recitation/  
reading, *iti me matih* – so is my view.

The *Shatakam* is here presented

for honest implementation;

not enough is its mere study,

nor its reading or recitation. (111)

नहयलं द्रव्यभोगेण

देवभक्त्या च नहयलम् ।

अनिलोऽपि हलाहलं

पर्यावरण-दूषणात् ॥११२॥

*Nahyalam dravyabhogena*

*Devabhaktya cha nahyalam,*

*Aniloapi halahalam*

*Paryavarana-dushanat . (112)*

*Nahyalam (Nahi alam)* – not enough, *dravya-bhogena* – with the enjoyment of wealth/ possession, *cha* – and, *nahyalam* – not enough, *devabhaktya* – with devotion to God. *Aniloapi (anilah api)* – even the air (becomes), *halahalam* – deadly venom/poison, *paryavarana-dushanat* – by polluting the environment.

Devotion to God is not enough,

nor is enjoyment of possession.

In the neglect of environment,

even air becomes deadly poison. (112)

Note: How even the air that we breathe can become deadly poison was demonstrated unforgettably on the night of December 2 and 3 in 1984, through gas leak from Union Carbide India at Bhopal. Within hours of the leak, the streets of Bhopal were littered with thousands of human corpses, and carcasses of cows, buffaloes, goats, street dogs and birds. Here again, it is the poor who suffered the maximum loss both in terms of own life and animals owned which died. The immediate human deaths were estimated to be 3800, while many more died a slow death. It took a long time to clean up the toxic mess. Compensation to victims was settled only in October 2003. It was a chemical pesticide manufacturing factory that produced this disaster. (For details, see M V Nadkarni, *Ethics for Our Times: Essays in Gandhian Perspective*, 2nd edition, 2014, Oxford University Press, pp. 256-9).

नाशोद्यतमनुष्येभ्यः

सुबुद्धिं देहि धीश्वर ।

यैः सर्गं प्रति तादात्म्यं

सामरस्यमलक्षितम् ॥११३॥

*Nāshodyata-manushyebhyah*

*Subuddhim dehi Dhīshwara,*

*Yaih sargam prati tadatmyam*

*Samarasyam alakshitam. (113)*

*Dhīshwara* – Lord of Intellect!/ God! *Dehi* – Give, *subuddhim* – good sense/wisdom, *manushyebhyah* – to humans, *nāshodyata* – (who are) bent upon destruction, *yaih* – by whom, *tadatmyam* – unity/ oneness, (and), *samarasyam* – harmony/ synergy, *sargam prati* –towards nature/creation, *alakshitam* – (is) forgotten.

Oh Lord! Give good sense

to men bent upon destruction,

who have ignored oneness

and harmony with Creation! (113)

Note: A conspicuous change in the attitude of humans towards nature after the Industrial Revolution is that they now look upon nature as something with which they are in conflict, something to be conquered. Earlier, the attitude was mainly one of working with it, modifying it in harmony with it. In the modern situation, man has forgotten that he is an inseparable part of nature. This probably is the basic cause behind the environmental crisis which mankind is facing. When man realises that he would inevitably perish if nature perishes, and that his survival and future happiness will depend on working synergetically or harmoniously with nature, there is a way out of the crisis. New discoveries in science and developments in environment-friendly technology will be a help and not a hindrance in this. A moral uplift of mankind, especially through the control of greed and being considerate to all others including nature, is also indispensable. The Divine is invoked to impart the necessary wisdom to mankind for success in this task.

// इति मङ्गेश-वेङ्कटेश-नाडकर्णिना रचितं परिसरनीतिशतकम् //

### **A Note on the Author**

Dr. M V Nadkarni (b. 1939) is presently Honorary Visiting Professor, Institute for Social & Economic Change, Bengaluru (ISEC); and Member, Governing Body, CMDR, Dharwad. An economist by professional training, with specialisation in agricultural and ecological/environmental economics, he is also actively interested in development economics, political economy, history, sociology, philosophy, ethics, religion, and Gandhian Studies.

He was ICSSR National Fellow for two years – 2002 to 2004, and Vice Chancellor, Gulbarga University, for a full term of three years 1999 to 2002. Before this he was a Professor of Economics at ISEC from 1976 to 1999. He was on the Board of Governors of this Institute for 15 years spanning both pre- and post-retirement periods. At ISEC, he started the Ecological Economics Unit in 1981 (now known as the Centre for Ecological Economics and Natural Resources), and the *Journal of Social and Economic Development* in 1998. He did his Ph D under the guidance of Dr D M Nanjundappa at Karnatak University, Dharwad in 1968.

His recent books since 2011 are: *Ethics for Our Times – Essays in Gandhian Perspective* (Oxford University Press, 2<sup>nd</sup> enlarged edition in 2014; 1<sup>st</sup> edition in 2011); *Handbook of Hinduism* (Ane Books, New Delhi, 2013); *Social Science Research in India – Institutions and Practice* (Edited jointly with R S Deshpande, including own article) ( Academic Foundation, New Delhi, 2011).

His book on *The Bhagavad-Gita for the Modern Reader: History, Interpretations and Philosophy*, is being published by Routledge, scheduled to be out before the end of 2016. For a full list of his many books and papers, and details of his career, visit his website: [www.mvnadkarni.com](http://www.mvnadkarni.com).

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