Chapter 4
Finding the Long-Lost Path: Developing Environmental Awareness Through the Pandemic

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Abstract The continuous degradation and mass destruction of the environment has led environmentalists to believe that our planet would become uninhabitable for any species in the future. As a result of the restrictions in place due to the pandemic, critical aspects of our impact on the environment have been brought to our attention. This chapter focuses on such insights, and emphasises on how the observations during this time could help us understand the need of the hour, i.e., learning to share the same space with other species on the planet. To achieve this state, the priorities would have to shift from an attitude of constant consumption and short-term satisfaction, to a sense of well-being based on community and harmony with nature. The chapter further goes on to explore the contribution of psychology in changing the existing unsustainable actions of humans towards pro-environment and sustainable behaviour through an examination of both the contributing factors as well as obstacles to achieving such a change. Finally, a psychosocial model for sustainable action is proposed, focusing on promoting global health, wealth and peace; thus, creating a safe and secure space for all living beings.

Keywords Pandemic · Well-being · Community · Harmony

4.1 Introduction

The continuous degradation of the environment in terms of pollution, extreme weather conditions, rising sea levels, accumulation of waste and contamination of oceans has led to mass exploitation, resulting in a planet we may no longer be able to inhabit in the future. Humans seem to have taken the phrase “ignorance is bliss” way too literally in this context. Extreme complacency on our part, along with an
arrogant assumption that as the “superior species”, we have the right over anything and everything we touch. This self-acclaimed superior status and the intelligence that caused it does not seem to have been used for the collective benefit; rather, it has been utilised for the exploitation of all plausible resources on Earth for their own benefit. What’s worse is that humans tend to share the belief that sustainability can be achieved through exploitation of nature by further controlling it in a “better” manner. Human kind’s reluctance to take meaningful action has severely delayed any progress towards the betterment of the environment and it is imperative that it be brought to attention now. Although such a bleak view might seem to be true, and to a great extent it actually is, there is hope that humans are now rising up to the occasion and are recognising the harm that their behaviours from centuries of exploitation have done to the environment. And the current pandemic may have some hand at bringing about this change.

According to the World Health Organization’s report, almost 30% of the nations had no ways of being prepared and dealing with the COVID-19 spread. In the absence of any vaccine, precautionary measures like frequent washing of hands and other exposed areas, wearing a mask, practising social distancing and avoidance of crowded spaces are being excessively promoted. In order to overcome the paucity in social interactions, video conferencing, online learning, work from home are a few measures that have been propagated among the public to engage in [76].

As a result of large-scale industrial shut down some direct effects on the environment have been observed, such as reduced air, noise and water pollution. Furthermore, due to the pandemic there has been significant reduction of human movements across the globe which revealed critical aspects of our impact on the environment. Insights from the changes during this time would be able to better assist us on how to further share the same space with other species in a more harmonising manner. Rutz et al. [56, p. 1] elaborated on this and introduced a term for the “pause” the entire globe experienced:

“We noticed that people started referring to the lockdown period as the ‘Great Pause’, but felt that a more precise term would be helpful. We propose ‘anthropause’ to refer specifically to a considerable global slowing of modern human activities, notably travel.”

The lockdown has had a huge impact on wildlife, with animals that had never been sighted before walking freely around in the vicinity. Generally, it seemed like there are more animals than before. Perhaps this change would pave the way for a greater change that would be a result of direct human intervention towards better future. However, for that to occur, we must ensure that we understand the linkages between human and animal behaviour, and how our destructive behaviour impacts the other animals that share the same space as us. Such an extremely vital knowledge, although known, has been very conveniently ignored this far.

Furthermore, an indirect effect of people being isolated and house-bound has resulted in them engaging more with the environment than before. As the speedy rush of the mundane life has come to a slow halt, people are finding themselves noticing more birds in the sky, feeling the freshness of the air while doing yoga in their backyard and figuring out new trails on their morning runs—thus experiencing
first-hand the effects of caring for the environment, or in this context, letting nature be, and heal itself. Therefore, on the brighter side, the pandemic may have vividly amplified the awareness that humans have been facing an environmental crisis from time immemorial, and the pandemic may have provided the right conditions to rise up to the occasion.

Horton & Horton [41] hypothesised that in order for change to occur, two possible paths could be taken. The first being a large-scale catastrophe leading all governments to unite for change. This global uprising can be equated to a revolution or an uprising. The second scenario took into account an age of enlightenment, where evidence and past failings are recognised, and necessary changes are made in a democratic fashion. The pandemic, in one way or another, may have brought both these scenarios into the current picture. The pandemic in itself is a global catastrophe, and increasing media attention has been given to the changes in the environment during the periods of lockdown all over the world. As the media directed attention towards the self-healing properties of nature, most people became increasingly aware of the extent of environmental degradation that had been caused due to human interference, while several of them became more active in showing concerns for the environment—thus reaching the hypothesised “new age of enlightenment”. Perhaps then, we may have reached this arena of revolutionary change today, as an indirect consequence of the pandemic situation.

Increased harmony between the environment and the people is the need of the day, and such a new way of being can be achieved by increasing focus on environmental knowledge and communication, eco-technology, environment-friendly policies and international global agreements. Here, the priorities would shift from the immediate satisfaction resulting from the constant consumption towards a sense of betterment and well-being, that relies on community living that is in accordance with nature—an unsurprising insight that has come to surface during the pandemic, which is a focus of the present chapter.

This chapter first mentions how the COVID-19 pandemic has impacted the environment, and then goes on to explore how the environment impacts the well-being of humans. It goes further beyond to explain how psychology can be used to change human behaviour to make it more pro-environment, so as to promote sustainable behaviour. It explores both the contributing factors as well as obstacles in achieving the same. Finally, a psychosocial model for sustainable action is proposed, which focuses on promoting global health, wealth and peace, thus creating a safe and secure space for all living beings, and existing in harmony with nature. This lockdown and our observations of its impact on the environment tell us that small changes to our lifestyle can have a huge impact on the environment, and these insights may help us from irretrievably losing our precious planet to destruction and greed. One can only hope that humanity emerges from this shock into a sustainable, cleaner world.
4.2 Impact of the COVID-19 Pandemic on the Environment

There have been several major pandemics that have swept the globe in the period between 2000 and 2019, such as Severe Acute Respiratory Syndrome, H1N1, Ebola virus, and Zika fever and so on. However, the COVID-19 pandemic is the only pandemic with such widespread and large-scale impacts [46]. Several studies have been done to examine the impact of the novel coronavirus on several aspects of our environment, as mentioned below:

1. Crowding and the physical environment

   Due to overcrowding and high population in the cities, most live in crammed houses with lesser space between people. The impact of the virus in terms of the safety measures like social distancing and being locked at home meant that the psychological impact of the pandemic was larger in cities. Lesser people outside meant less crowding and more space per person [14].

2. Air quality

   The pandemic has caused a decline in the economic activities of several industries, such as energy and resources, retail, manufacturing, high-tech and communication, and transportation [15]. However, the positive impact of this reduction in activities on the quality of the air we breathe in has been visible since March. The degree of air pollution reported in various countries like China and Italy, as well as in cities like New York and Delhi showed a sharp reduction. Furthermore, the level of greenhouse gas emission has been predicted to reduce in a similar manner for the rest of the year [67].

3. Fossil fuels and reduction in emissions

   The reduction in human domination on the environment resulted in drastic climate change. As a result of the halt in the functioning of industries, as well as the constraints in movement of vehicles, the utilisation of fossil fuels has been reduced substantially [52]. Therefore, nitrogen dioxide and carbon dioxide emissions have reduced in a huge manner in many of the metropolitan cities across the world. Due to the decrease in air and water pollution in several places such as China, Italy, Spain, India and France, people are experiencing surprising change in their surroundings—a form of environmental revival—as they see cleaner air, and clear waters, as well as an increase in the visibility of wild animals around cities and other human habitats. We are directly experiencing the nature bouncing back. The pandemic has been successful at one thing—in providing us a hint of what our planet might look like, with sustained efforts and a decrease in the use of fossil fuels.

4. Impact on other areas

   A better impact on other areas was seen, such as betterment of health and well-being, availability of clean water, education, sanitation, sustainable cities and communities, clean energy, consumption and production in a responsible manner,
peace, partnerships and international cooperation, improvement in aquatic and marine life, etc. [69].

It is very likely that once the world walks out of the pandemic, the previous levels of pollution would bounce back, therefore, it becomes imperative to make changes to our lives at a personal and political level to ensure that such effects do not go to waste. How we make the best use of these unprecedented circumstances that seem to have had a good impact on the environment still remains a question. Rutz et al. [56] have provided certain recommendations for the same. First, the biologists must continue to collect data even during the lockdown, while ensuring appropriate caution [42, 57]. The exact data on the restrictions on human mobility and its impact on the environment of the area is important to take account of. The leaders of local projects must contact and communicate with the larger organisations that are launching projects in order to enable data standardisation, as well as an exchange of expertise and increased coordination. Lastly, increased funding must be allocated to research in this area as it is the need for this hour. These projects can become a critical source of data for the future of our environmental policies and developments.

A global crisis such as this has shown us that more focus on research related to such disasters, greater political focus on climate change, as well as emphasis on increased availability of ecosystem services must be made a priority. Stakeholders must reconsider the strategies and development plans keeping such unlikely events in their mind. Eventually, it is highly likely that the COVID-19 pandemic will result in profound changes in both social and economic behaviour at a global scale. Furthermore, continued research on “anthropause” effects would lead to an elaborate understanding of the interactions between human and wildlife. We will not only be able to identify the species that have been highly affected by human activity, but also those species that could possibly respond to change, along with other species that appear to be vulnerable. The research will also throw light on the critical thresholds of human disturbance, going beyond which would have serious effects not only on wildlife alone, but also on the dynamics of the ecosystem, thus eventually negatively impacting human well-being.

### 4.3 The Relationship Between Ecosystem and Human Well-Being

A sustainable society is able to fulfil several needs such as that of increased access to fresh and clean water, control of greenhouse gas emissions (physical–environmental needs); social justice, better living conditions, better access to education (social needs); better infrastructure, increased participation of science (political/institutional needs); lower levels of corruption, better income distribution, higher employment rates (economic needs; [29, 31, 35]. Therefore, a sustainable society is able to fulfil the basic needs of its citizens, is able to distribute natural and social resources in an
equitable manner, promote progress in the acquisition of knowledge and maintain the integrity of all its natural resources.

This state of satisfaction from sustainable societies has been explored in research [22]. The development of personal capacities and growth, also known as personal well-being, is enhanced in altruistic and pro-ecological individuals [18]. All of these contribute to happiness and psychological well-being of the individual [66]. Therefore, engaging in pro-environmental behaviours and living in a sustainable society would contribute to one’s subjective well-being and happiness.

Moreover, some European countries and Australia have recognised the importance of this concept and have taken into account the subjective well-being of their citizens as a national and sustainable policy goal. In fact, the Kingdom of Bhutan declared that its official goal is to measure the growth of the country and economy not by the “Gross National Product”, but through measures of happiness of its citizens through “Gross National Happiness” [32].

The effects of pro-environmental behaviour on human well-being can also be explained through the exploration of the causes (antecedents) and results (consequences) of such behaviour, as identified by environmental psychologists. Some of the antecedents identified so far include knowledge and attitudes towards the environment and sustainable behaviours, personal morals and attitudes towards diversity, conservationist motives, as well as beliefs and values regarding the ecology (see [4, 16]. As one can notice, most of these values are learnt through culture, therefore bringing to light the importance of placing emphasis on corrective socialisation in order to make pro-environmental behaviours more common among the public. The importance of culture in promoting pro-environmental behaviour has been discussed later in the chapter.

The consequences of sustainable behaviour are both intrinsic (from within) and extrinsic (from outside) in nature. Research has identified extrinsic motivation, such as receiving external rewards for engaging in sustainable or pro-environmental behaviour as problematic [47], the reason being that although the individual will engage in pro-environmental behaviour, the dependency on extrinsic consequences would mean that such sustainable behaviour will reduce once the source for rewards is removed. Furthermore, there is also an additional cost to the society for providing these rewards to the individuals [17]. Also, individuals motivated extrinsically could engage more in behaviours for materialistic gains, greed and consumption, which could indeed be more harmful [19]. On the other hand, intrinsically motivated people are not only cost-effective for their communities, but are also an asset as their engagement in pro-environmental behaviour would continue regardless of the presence of an external source of reward. Research has shown that intrinsic motivation occurs as a consequence of being pro-environmental [23], and that being intrinsically pro-environmental could result in a state of psychological restoration [38]. In fact, engaging in pro-environmental behaviours intrinsically leads people to perceive themselves to be happier than those who don’t [6, 12, 68].

Similar to the concept of intrinsic and extrinsic motivation are the basic human values involved in engagement in pro-environmental actions. There are four types of
values that appear particularly important to understand the individuals’ engagement with regard to their pro-environmental actions, which are explained as follows [64]:

a. Biospheric
d. Hedonic values.

Biospheric values focus on goals for larger areas like the nature and environment, while altruistic values focus on the same towards other people and for the society in general. As humans’ actions affect the environment which in turn affect the humans again, these values generally encourage pro-environmental actions as they would be profitable for the nature and the environment, as well as the society in the larger run. Egoistic values prioritise goals that better one’s own selfish motives, such as that of status, materialistic possessions, power, etc., while hedonic values focus on increasing one’s level of comfort and pleasure. These two values do not promote pro-environmental behaviours as these actions would generally be associated with higher costs and lesser benefits to the individuals personally. Therefore, it could be assumed that the ignorance and delay in taking pro-environmental action could largely be due to the execution and promotion of egoistic and hedonistic values among people; and on the other hand, due to a lack in promoting and altruistic values [10].

Such an explanation seems very valid until one checks the available empirical evidence. Surprisingly, research has shown that the biospheric and altruistic values are promoted more than the egoistic and hedonic values [28]. Further studies showed that when one advertised biospheric values and consequential benefits, it seemed to be more effective in encouraging individuals to engage in energy-saving programmes than providing financial benefits to people [59]. Additionally, other pro-environmental actions associated with the biospheric values, such as switching off lights when not in use, encouraging eco-driving or dietary changes were found to be more rewarding than any associated financial benefit for people [27].

Such findings on improved well-being based on sustainable behaviour can be explained through evolutionary mechanisms as well. According to these theories, humans are wired to experience positive emotions, which increase by behaving in ways that profit the communities as well as themselves [39]. On the contrary, acting in ways that would profit the person would lead to immediate rewards but would affect the society in the long term, thus leading the people to dislike and not approve of the person’s behaviour, leading to the “tragedy of the commons” [37, 73]. Altruism, therefore, helps the individual as well as the community in the long term, boosts psychological well-being of all and improves their happiness. Now that we have an idea of how the environment impacts our well-being, let us now understand how human psychology is linked to the environment.
4.4 How Can Psychology Help to Promote Sustainable Behaviour?

The Brundtland Report of the World Commission on Environment and Development (WCED) in 1987 defined sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (p. 363). Therefore, in order to make the switch to sustainable development, sustainable behaviours must be emphasised and promoted. Psychology is the science of human behaviour. Therefore, it seems imperative for the study of environmental policy, especially with regard to the more complex environmental problems. Environmental problems, are in fact social and behavioural problems, and they need to be addressed as such [44]. Such behaviours are in fact a result of the underlying cognitions—our thoughts, values, beliefs and feelings. Psychology can help in understanding the factors that drive non-sustainable behaviour, identifying barriers to sustainable behaviours, develop strategies that can encourage pro-environmental action and motivate people and governments alike to move towards change, enhancing communication among the stakeholders regarding environmental issues, inspire environmental education, policy development, as well as assist in the final implementation and enforcement of such changes [43].

Currently, the major threat to the world is the continuous reckless consumption of human beings and degradation that is causing irreversible harmful changes to the environment. This behaviour impacts the entire population, and further, the generation to come as well. Therefore, it is important that a psychological perspective to this problem is gained. The major aspect of environmental psychology is the focus on human behaviour as a cause of such problems, which can all be reversed by adapting more pro-environmental behaviour by the individuals [51]. It had been predicted earlier by George [34] that by the year 2020, about 20% of the population would become “environmental refugees” because of the widespread damage that would be done to the different regions. We cannot be sure of the exact estimate of these group of people today, but one can say with assurance that the people are now becoming more sensitive to environmental issues and are genuinely changing towards adopting sustainable and eco-friendly ways.

There has been a shift on the factors for sustainability that we currently focus on. Earlier, in the more traditional sense, sustainable development [13], Harris, 2003) was based on the three “Es”, i.e., economy, equity, ecology. Along with these was a focus on the right of the future generations to enjoy the environment and access and make better use of the resources. Psychologically, sustainability views not only the ecological and social environment but focuses on bettering and enhancing everyone’s well-being [25]. Here we see the difference—while the earlier description of sustainable development focused on the destruction, exploitation, irreversible depletion, etc., the new description emphasises on the promotion of change, growth, enrichment (Di Fabio, 2016).
4.4.1 Culture and Pro-Environment Behaviour

Individuals may engage in pro-environment behaviour for different reasons—cultural values being one of them [78]. Culture is a form of mental programming that is acquired at birth and which continues to influence us throughout our lives [40], the cultural values being used as guiding principles [78]. The individualism/collectivism dimension is one of the most common ways used to distinguish cultures. Although it’s an effective way to conceptualise cultural influences and predict group behaviour, it is important to keep in mind that while these orientations may exist at the macro-level, at an individual level, both these dimensions could exist simultaneously—one becoming more salient than the other based on the situation [79]. Gammoh, et al. [30] compared India and the United States on this dimension, relating it to the degree of environmental consciousness and pro-green behaviour. Contrary to belief, it was found that collectivism in both countries significantly predicted environmental consciousness, irrespective of the individualism/collectivism orientation. Therefore, while the influence of individualistic principles remained non-significant, collectivistic beliefs significantly influenced green consciousness. Similarly, the authors also found that harmony, as compared to mastery, influenced environmental consciousness.

As the behavioural sciences are now gaining importance through their contributions to promoting sustainable efforts through research, aiding policy decisions and guiding experts such as conservational biologists in pro-environmental efforts, the recognition of basic and applied psychology for promoting a more pro-environmental behaviour is a relatively new development [45]. Although very little of the earlier efforts of environmental psychologists were aimed towards conservation of the environment (see [54, 55]), such a trend seems to be increasing, with major developments in psychology and related-research, such as that in conservation psychology [58]. One of the major developments in this area reflects the role of culture in the deficit of environmental consciousness and awareness in the individuals. To be more specific, the culture of valuing immediate or short-term individual goals and ignoring its long-term group effects seems to be at the heart of unsustainable behaviour [33]. This occurs when individuals overuse and degrade a shared resource for their own personal benefit [45]. Such behaviour can be explained using operational conditioning principles, where short-term rewards seem to be more compelling than long-term or delayed costs of the behaviour [63]. Similarly, the perceived costs of making change in behaviour to benefit the shared resources on a long-term basis represent a significant barrier. Therefore, the adverse future consequences of climate change, which are more abstract, are discounted in the light of immediate concrete and definite rewards that one receives by engaging in degrading and unsustainable behaviours [74].

When one takes this direction, it seems imperative that the governmental policies, laws and regulations promote pro-environment behaviour by mobilising prosocial behaviour and ethos of collectivism and harmony [37], along with encouraging individuals to take action on a personal basis to focus on more long-term benefits on the environment rather than immediate rewards of their behaviour, which contribute
to the environmental degradation. In fact, research has shown that it is plausible to improve environmental engagement by promoting future orientation, while at the same time, reducing immediate concerns [2]. Furthermore, exposure to the environment can improve this future orientation [70]. This is good news, as people seem to be focusing more on the environment during the period of lockdown that the pandemic brought onto the world. Thus, such an enhanced awareness of the effects of our collective behaviour on the environment would pave the way for better knowledge and informed actions towards a better future.

Furthermore, by focusing on group dynamics and harmony, we can succeed in increasing the feeling of collectiveness among the people, and such has been backed by research which showed that individuals with readily let go of immediate rewards for long-term group goals if they identify with a group and feel responsible for it [21, 71]. The focus here is on developing a collective consciousness by realising and accepting the impact of each and every individual’s behaviour on the environment, and the need for acting in synchrony and with the feeling of togetherness in order to overcome the hurdles and achieve pro-environment consciousness, as “what’s good for the environment is also good for us” [60].

It is therefore evident that by modifying and changing certain human behaviour towards pro-environmental behaviour is the key for sustainability. This can be further understood by the action carried out in the Yellow Stone National Park situated in the United States of America [11]. It is an authoritative example of how nature can be used in order to both heal and balance itself, and eventually, to help humans. After being absent for about 70 years, a pack of wolves was introduced to the forest by the park authorities. As would be expected due to the removal of top predators, their absence had led to a trophic cascade in the forest. Considering the future challenges of the same, the wolves were introduced in order to utilise their hunting instincts. This in fact led to positive outcomes such as population control, reforestation, stabilised river banks, as well as increased vegetation, resulting in habitation and flourishment of many other species of birds and animals. Therefore, this act proved that there was absolutely no need for any artificial human interference into nature—only through natural means we can bring the necessary change.

World Wide Fund for Nature’s (WWFN) June report [77] suggested that more than 200 countries have been affected by COVID-19, thus causing chaos to humankind existence. In 70% of the cases, the root cause of such epidemic diseases has been attributed to animals that have come in close encounter or interactions with humans. It is therefore imperative to understand that without giving enough importance to environmental and animal health, it is impossible to stabilise human health as well. Such a concern has been raised by many environmentalists.

Fostering the feeling of collective harmony has become a major challenge during this pandemic as people are encouraged not to engage with each other, or to attend events that involve large groups. Earlier, these events would have been the major source of ensuring the feeling of harmony and collectiveness among people. Protests, demonstrations and other such group activities are largely discouraged. However, there are ways one can feel better connected to nature and the society by engaging in some very simple practices.
4.4.2 Actions to Develop the Feeling of Collectivism

It is important to understand two major concepts in psychology that are implicated in behaviour change—motivation and psychological needs. Motivational force that drives us to complete some action can either be intrinsic or extrinsic in nature, or various other possibilities in between. It is believed that intrinsic motivation is stronger and more effective than extrinsic motivation, as has been explained before. Furthermore, the concept of psychological needs consists of autonomy (making meaningful choices about our needs), competence (interacting with the environment to see that we are making some difference) and relatedness (connection with the people and environment).

During the pandemic, most people were asked to completely change the way they functioned. From going outside and socialising to minimal interactions and social distancing—there are very significant changes that people, till date, are trying to adjust to. These changes threaten all the basic psychological needs our sense of autonomy by not allowing certain choices, competence by not being able to do much or be productive and connectedness by not being able to interact with significant people.

The focus therefore becomes that of enhancing these basic needs and keeping them in check. We can increase collective feelings of autonomy, competence and connectedness by doing some very small things such as ordering a take-out from our local store. It is also important to stay in touch with ourselves. Practices like mindfulness seem to help gain control over the present moment and over our own selves, thus enhancing competence and autonomy. Connecting with people using online tools, video calls, etc., can be helpful, although it will not be an exact substitute for direct social interactions. We must also keep in mind that this situation was brought onto us in a very sudden manner, and in order to adjust and effectively change our behaviour according to it would take some time. Anything that is rooted in motivation and changes our basic psychological needs would take a long time to adjust to.

Although many people would agree that the environment needs to be saved, a lot of them would, at the same time, not engage in behaviours aimed towards fulfilling these attitudes. There are many explanations for such a behaviour, ranging from undervaluing the environment in order to profit financially and economically, thus prioritising one’s own self-interests over the environment [8, 36]. On the other hand, some studies have shown that people in fact care for the environment and are supportive of the pro-environment changes [26, 64]. Similar to this, Bourman and Steg [9] showed that it is not the undervaluing of the environment among people that is causing the environment concerns to be ignored, rather, people tend to underestimate how much other people care. This also explains why politicians seem cautious in declaring pro-environmental actions as policies unless change is very openly demanded by the public, as they underestimate their group members’ values regarding the care for environment.
A quick solution to this would be making these values more visible and known to the public, as we have seen recently in terms of organised marches for the environment and against climate change, the organisations such as WHO advocating pro-environment change, etc. Such actions have the ability to undo, or rather, reduce the structural underestimation of people’s pro-environmental values. Therefore, what is also important is that the media cover such events and give it enough attention for it to reach larger public, something that unfortunately, still seems missing. It could be vital to correct the beliefs that the society favours personal gains over the larger environmental concerns and replace them with a sense of unity and awareness of collective care for the environment (Bourman & Steg, 2019). One can also invest in eco-friendlier products over time. Existing literature has demonstrated that larger one-time investments, such as purchasing environment-friendly vehicles can be a better way of saving energy, when compared to rather minor efforts such that turning off lights and using less water in the shower [33]. Therefore, although the investment might look huge at the outset, it definitely works out better for the environment as well as the individual in the long run. Further research has also emphasised the possibility of interventions in increasing sustainable behaviour. Remarkable results can be achieved by using a blend of several types of interventions, such as educating the masses while also providing rewards and incentives, while also focusing on removing blocks that hinder the shift to pro-environment action [65]. Improvement in technology can help us to use the available resources in a much more efficient manner as well (see [3, 62]. Engaging in such activities through online platforms can make environmental education more accessible and affordable and will thus help create sense of collectivism in the people. However, it is also important that people be motivated enough to change their lifestyle towards adopting more sustainable ways. Such can be achieved through certain actions at the individual, as well as the national level.

4.4.3 Creating Motivation to Change

What usually tends to happen when people try to change is that they perceive the costs of making the change higher than the benefits, thus making it look like they have to make a sacrifice. De Young’s [24] motivational concept looks at four types of intrinsic satisfactions that are important to achieve pro-environmental behaviour. These include not only the sense of satisfaction achieved from behavioural competence due to a more thoughtful consumption and from being an active member of one’s community activities, but also from making the fullest use of the luxuries that one attains as a member of the community. Such a view therefore displaces the sense of “self-sacrifice” that is often dominating when altruistic motivations for pro-environment behaviour are emphasised.

Furthermore, motivation can be improved through engagement in organised group activity, which could lead to the development of collective self-efficacy among the masses [5]. This form of organised activism would be necessary in a more frequent
manner, in order to help reduce or prevent damage caused to the environment, because more often than not, the major polluters are certain corporations that hold enough power to ignore individual criticisms. The mass media can also be a very important influence in making this process happen. In fact, it has played an important role in promoting awareness among the masses, in helping to organise, conduct and call for environmental action. Through promotion of the campaigns, showing models behaving in a pro-environmental and sustainable manner and adopting eco-friendlier ways of functioning, the media can motivate individuals to also engage in such behaviours.

Another means of creating the motivation for change would be to provide clear behavioural norms—which would have to be done at the larger global or national level. Some countries have already moved in this direction, such as The United States, and many other countries that signed the Montreal Protocol, phasing out the production of CFCs; banning open fire in Los Angeles County as a means to reduce smog and other stringent smog checks in America. These are some of the examples for laws, rules, policies and norms that can be implemented in order to create motivation among people to adopt more environmentally appropriate behaviours.

Another way to unite the people towards larger change would be to make them aware of the achievement of sustainable lifestyle as a superordinate goal that can be shared among all nations and people [61]. The common enemy would be the enemy of an uninhabitable Earth. This would definitely bring people together and make them realise the urgency of the matter. Again, the pandemic has been successful to a degree in achieving such a state. It has shown people what the world could look like without their interruption, and if such short-term effects can create the sense of urgency among the masses to come together to save their planet, a long-term, consistent and dedicated effort could definitely do wonders. Therefore, now is the perfect time for the environmental activists and governmental agencies to come together and work towards educating and making the public aware of the concerns for the environment, creating and fostering motivation among them, while at the same time providing avenues to move towards the required change. These stakeholders would also have to keep in mind certain obstacles that could come in the way of achieving such goals.

### 4.4.4 Blocks to Sustainable Action

There have been several warnings over the course of years, or rather decades, about the irretrievable environmental degradation and mutilation that the humans, or particularly the *Homo economicus* have taken upon. Although he has reached the top of the food chain in much a god-like manner, he has contradictorily ceased to behave in that fashion [49]. Similarly, despite several environmental activists and organisations cautioning the world leaders, there haven’t been many stringent actions being taken to protect the environmental resources. In fact, some countries still seem to pay no heed to such warnings, thus continuing to walk the glorified path to environmental destruction. The Millennium Ecosystem Assessment (MEA), a comprehensive assessment
of the human impact on the environment called forth by the United Nations Secretary General Kofi Annan in 2000, reflected the urgent need to focus on environmental sustainability:

“At the heart of this assessment is a stark warning. Human activity is putting such a strain on the natural functions of the Earth that the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted” [48].

It is time to acknowledge and pay attention to the factors that are influencing and feeding such growing ignorance among the individuals, economies and the world at large [50]. What is more surprising is that we, as an “intelligent” race, have failed to recognise that we are walking the path to destruction and annihilation of our own selves. Closing our eyes to the problem isn’t anything other than a faulty coping mechanism that humans have conveniently developed.

So, what is it that is causing such a deep ignorance on our part? Rees [75] provides a novel understanding of this problem. The author argues that as a result of our habitat and resource-based competitiveness, humans have been evolutionary trained to value instant over delayed gratification, thus making our tendency to discount the future—a trait that has evolved through natural selection—simply meaning that such is the nature of Homo sapiens.

Rees [75] goes on to further elaborate on these explanations through sociocultural reinforcement. Through the socially constructed means of economic expansion and trade, humans have come to believe that their ingenuity will find alternatives and substitutes to any problem (in other words, called the expansionist myth), thus creating the illusion of unlimited resources which further encourages environmental depletion and unsustainable behaviour. Such evolutionary factors are of course present at a subconscious or unconscious level [53]. Such a situation is further complicated by the assumptions of free will that is held by humans [7], thus giving an illusion of making active rational choices, when all this while we have been nothing but slaves to our evolutionary and biological predispositions [20].

Apart from these, other influences have shaped how we humans look at our current needs, which in turn affect how we view our resources and continue to engage in unsustainable behaviour. The basic needs for existence, relatedness and growth seem to be the centre of environmental exploitation. Individuals are convinced that “existence” means accumulating materialistic possessions and consumptive behaviours; while “relatedness” has become mass events and activities, and all these are influence people to reduce their perceived social deprivation. On the other hand, “growth” has come to mean strong preference for rapid innovation and change, becoming desperately future focused such that the present has lost its value [1, 72].

Apart from the biological and evolutionary mechanisms, several other practical issues surface when considering change to sustainable behaviours. The multinational corporations benefit in a humongous manner through the use of various fossils and through the degradation of the forests, minerals, industries that dump waste into the rivers and pollute the air, use of pesticides and other chemicals. These companies are able to resist the policies and laws at the centre, and seem to act like the laws don’t apply to them, as they have influence on the government. Communities and societies that are directly impacted by these actions of the corporate world come into action
because they are the ones who suffer. However, some individuals are themselves against making any changes to their lifestyle, which could be due to various factors such as [51]:

(a) inertia which may delay the action until permanent damage is done
(b) denial among the people of any threat to the environment due to fear
(c) belief in technology as the saviour of the environment
(d) opposing any lifestyle changes as it is perceived to include making self-sacrifice.

This chapter has focused on all of the above-mentioned obstacles and how to tackle the same. It is important that active action is taken and changes are made as soon as possible. The pandemic may have provided us an opening to dealing with such obstacles by initiating environmental awareness among the public. We must take this opportunity and enhance it, while effectively dealing with inertia and other obstacles that appear on the way. Hopefully, the human race will emerge from the pandemic more aware about environmental concerns in the least, and at the most, actively working towards collectively creating a sustainable planet.

4.5 Psychosocial Model for Promoting Pro-Environmental Behaviour

Based on the existing literature and resources, the authors have developed the following model which focuses on the what and how of promoting pro-environmental behaviour among human beings. It brings to light the multidimensional aspect of sustainable behaviour by focusing on different aspects of development that are necessary to bring about the required change Fig. 4.1.

The Psychosocial model of pro-environmental behaviour for sustainability has to be validated by the researchers before implementing. The model focuses on basic human values which place emphasis on understanding group dynamics, culture and hedonic values. The education mainly highlights training in sustainable pro-environmental actions and implementing environmental policies, providing scholarships, incentives and increasing funding to promote necessary pro-environmental innovations. One of the major innovations has been the use of the cactus plant as fabric in order to replace animal skin. Such a development would reduce poaching, illegal trade and not to mention, animal cruelty.

As mentioned in the model, pro-environmental behaviour can be achieved through life skills training which is very essential in everyday problem solving, in promoting the development of empathy and awareness of self, creative as well as critical thinking skills. The model also emphasises the importance of giving enough weightage to risk assessment and management, further upholding the importance of lifestyle changes and unpredictable environment. The model also focuses on promoting awareness among public towards pro-environmental behaviour. Alternatively, it brings to light a new factor in pro-environmental behaviour—the understanding of human perception by applying psychology in order to understand the different motives, psychological
needs as well as the different values held by humans. All of these factors, when taken into account, would not only promote pro-environmental and sustainable behaviour, it would also lead to the creation of a comfortable and interactive space for humankind as well as to the other species.

It is important to understand that the implications of such a step would be very wide-reaching—i.e., from the local to the global level. As mentioned earlier, sustainable and healthy ecosystem of the country would lead to the betterment of the health and well-being of the citizens. This would further encourage pro-environmental attitudes among the people. Such actions are therefore of local, national, and ultimately, global significance. The Kingdom of Bhutan has been measuring the country’s economy through the Gross National Happiness index. It is the same country that has a negative carbon footprint; i.e., it absorbs more greenhouse gases than it emits. Perhaps Bhutan is way ahead of the rest of the world in valuing both the nature and human life, and in understanding the interdependence of both—something the rest of the world is finding extremely hard to understand.
4.6 Conclusion

The COVID-19 pandemic has given rise to various issues such as downfall of economy, threat to human existence and survival, loss of loved ones and significant rates of unemployment further weakening the individual mentally and physically. As most of the activities are now confined indoors, there has been a positive shift of attention towards the world outside which showed tremendous changes in nature as a result of the absence of human interference, highlighting how disconnected the human race is from this important aspect of themselves and of the world. Furthermore, as nature slowly replenishes itself, people are noticing the scent of fresh air, hearing the birds chirp and watching the lakes reflect the clear skies. As a result of these, and many other factors, people are not only having a first-hand experience of the advantages of lack of human influence on nature, but are also becoming more aware of the importance of staying in harmony with it. Undoubtedly, an improvement in quality of life of the nature will in turn improve our physical and psychological well-being, and such has been shown in the chapter, and by the Psychosocial Model. As we learn to adapt to the new normal, we must finally come to acknowledge what we have largely been neglecting on social, political and humanitarian grounds, and the chaos of the pandemic has provided a much-needed reminder for the same. There is a vital need to focus all our energy into the prevention of future catastrophe, a possibility that seems much more likely now than it ever did before. This could be only chance the environment has given us to raise like phoenix from the ashes, with only one option that is to live and let live. By focusing on “one health” and adapting to nature’s rules, we can engage in sustainable actions that not only promote global health, wealth and peace, but also create a safe and secure space for all living beings existing in harmony with mother nature.

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