



Safeguarding India's Sacred Rivers: Ma Ganga and Ma Yamuna

On the 20th March 2017 in the high court of Uttarakhand at Nainital in Northern India, a very significant and timely law was passed. The Ganges and Yamuna rivers (Ma Ganga and Ma Yamuna) were granted the same legal status as persons. This means that by law these rivers are entitled to exist and flow naturally, from their source to the sea, without being polluted or degraded.

Until recent times these great rivers were revered as Goddesses and were therefore protected. It was recognised that they were sacred and that they sustained the lives of countless billions of life forms and so they were respected and cared for. However, in present times, this understanding, along with the recognition of humanities interdependent relationship with all of nature, has been largely ignored. Due to a sharp increase in materialistic, self-centred and shortsighted ways of looking at things, humanities respect for nature and the vital roles that Earth's ecosystems play in maintaining life on Earth has degenerated. This has led to the pollution of these sacred rivers, mass deforestation throughout the world, extreme fresh water crisis and catastrophic environmental instabilities, which are upsetting the very balance of nature and bringing about major climatic disturbances world wide.

However, having passed the law, the question arose as to how to go about implementing it, considering the enormous complications that it posed. Therefore ten days later on the 30th March 2017, the same high court passed another law. This gave the Himalayan mountain ranges, glaciers, rivers, streams, rivulets, lakes, jungles, air, forests, meadows, dales, wetlands, grasslands and springs protection as legal entities, for their survival, safety, sustenance and resurgence. These changes in law have come at a time when they are urgently needed and it would be highly beneficial for other world governments to follow suit, as due to a lack of concern or protection for nature worldwide, there is now unpredictable and increasing instability within the global water cycle and climate systems.

This situation has become so severe that very soon, the Earth's entire global water cycle could cease to function effectively. Glaciers, which are the sources of all major rivers and form the Earth's fresh water towers, are melting at an alarming rate worldwide and aquifers and underground springs are drying up. Eco-systems from the oceans up to the mountains have been seriously degraded and destroyed and entire species have become or are becoming extinct. However these eco-systems; particularly those in mountain regions, are utterly essential for maintaining the life supporting cycle, which regulates, replenishes and efficiently transports fresh water around the world and controls climate. We the global community now have the responsibility to do what we can, to ensure that this global water cycle continues to function effectively for both present and future generations. Therefore these recent laws; passed by the High court of Uttarakhand, are a valuable tool, which could be utilized to aid in doing this. Yet what changes need to be implemented and what can be practically done to put these laws into action and achieve life saving results?

In 2012 in Rio Janeiro, the Indian government of the time, along with the majority of world

governments signed a sustainable development mandate called 'The Future We Want' in which they agreed upon this intrinsic connection and the importance of taking action. In paragraph 122 they stated: *"We recognize the key role that ecosystems play in maintaining water quantity and quality and support actions within respective national boundaries to protect and sustainably manage these ecosystems."*

In paragraphs 210 and 211 of the same document they agreed to take concerted action concerning mountain regions and their local communities:

210 *"We recognize that the benefits derived from mountain regions are essential for sustainable development. Mountain ecosystems play a crucial role in providing water resources to a large portion of the world's population; fragile mountain ecosystems are particularly vulnerable to the adverse impacts of climate change, deforestation and forest degradation, land use change, land degradation and natural disasters; and mountain glaciers around the world are retreating and getting thinner, with increasing impacts on the environment and human well-being."*

211 *"We further recognize that mountains are often home to communities, including indigenous peoples and local communities, who have developed sustainable uses of mountain resources. These communities are, however, often marginalized, and we therefore stress that continued effort will be required to address poverty, food security and nutrition, social exclusion and environmental degradation in these areas."*

A few years later in September 2015, the present Indian government, along with all world governments in the United Nations, signed a global sustainable development paper called: 'Transforming our World: the 2030 Agenda for Sustainable Development'. Within it they agreed to ensure the lasting protection of the planet and its natural resources by 2030. To implement these agreements they created a set of Goals and Targets. Ones relating to the recent laws passed in Uttarakhand and which could be of value in helping to realize them are:

Target 6.6 *"By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes"*

Target 15.1 *"By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements"*

Target 15.4 *"By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development"*

We at Active Remedy Ltd. have given these issues a great deal of thought and spurred on by increasing instability in the Earth's climatic systems, the global water cycle and the related increase of natural disasters, we have designed an innovative horticultural program, which can be applied and adapted to facilitate ecological restoration, preservation and adaptation efforts throughout the mountain regions of the Himalayas and the whole world. This program, which has been designed in relation with mountain people from Uttarakhand, is known of as 'The Sacred Groves and Green Corridors' (SGGC) Method. This could be an effective program to implement when considering the protection of the Ganges and Yamuna Rivers, along with their

respective glaciers, as it promotes the protection and restoration of the mixed mountain forests, which sustain and maintain healthy rivers and glaciers throughout the Himalayas. This program has been designed as a way of protecting and restoring mixed forests, local biodiversity, glaciers, rivers and aquifers for their survival, safety, sustenance and resurgence. Due to the intrinsic connection between mountain forests and the water cycle, it also aims to ease regional and global fresh water crisis and climatic instability.

The Sacred Groves and Green Corridors method is intended to be simple, yet respectful of the cultural norms and requirements of local people, as well as being highly adaptable for the widely varied conditions found in mountainous regions. It is composed of a variety of approaches that are adaptable to the specific requirements of local ecosystems, values, spiritual customs and traditions. It is a horticultural method of working directly with mountain communities that integrates modern and traditional knowledge conservation methods, along with long-term sustainability concepts. It does this through combining the conservation methods of sacred groves, green-corridors/ greenbelts, permaculture and companion planting. This basic method is a way of creating a global network of interconnected, healthy ecosystems, through which biodiversity can flow freely. It is a set of guidelines for a sequence of techniques and approaches that, if used together, can aid in regenerating mountain ecosystems and the sources of rivers, regardless of the harsh climatic conditions found in these regions. Creating biodiversity corridors/ greenbelts is an integral part of this method. These are an ideal and successful approach for efficiently spreading and linking biodiversity throughout mountain regions. They can be used to link a network of forested areas, thereby creating a green biodiversity network. This concept of green corridors is being implemented in Australia, Africa and other parts of the world and is known of as 'Connectivity Conservation'.

Sacred groves are another fundamental part of this method. Safeguarding and maintaining sacred groves is an ancient tradition that is recognised internationally and which has proven to be a highly effective method for protecting and conserving biodiversity over thousands of years. Utilising this practice is also beneficial because it can enable ecological restoration efforts, to be in harmony with the traditions and customs of mountain communities and many rural social groups. There are numerous sacred groves throughout the Himalayas but many of these are now isolated and vulnerable due to environmental degradation. Therefore creating new sacred groves and linking them to ancient sacred groves by green corridors is an ideal way of preserving these spiritual sanctuaries and making a strong biodiversity network that is intertwined with the needs and spiritual traditions of local communities. They could also be conserved and protected by using the ancient laws, which protect existing sacred groves.

Linking these sacred groves with green corridors, full of biodiversity, would give greater shelter to the surrounding lands and help give protection against the intense effects of climatic fluctuations, droughts, landslides, floods and pests. These corridors would be environmentally restorative and support many of the needs of the local mountain communities, if planted with the various plants, which supply fodder, fuel, medicines etc. and the ones that, over time, could provide the ingredients for local cottage industry. They can be grown and locally managed, using companion planting and Permaculture techniques, so that there would remain a constant presence of green plant cover, as well as a constant supply of natural resources that can be utilised by local communities. Their very presence would raise ground water levels and positively effect local springs, streams and wells.

It is important to recognise that the proper employment of and the collaboration with mountain communities is essential for the effectiveness of any environmental mountain restoration endeavour of this magnitude. They not only carry knowledge, regarding ecosystem restoration within mountain regions, they also have the capacity, unlike most others, of living within these areas. Throughout many generations they have evolved mentally, emotionally and physically with the extreme conditions of mountain landscapes. In 2002, at the UN, World Summit on Sustainable Development, world governments agreed to: *"Promote full participation and involvement of mountain communities in decisions that affect them and integrate indigenous knowledge, heritage and values in all development initiatives;"*

Uttarakhand is a state that has a significant environmental impact upon ecological stability throughout the whole of India. As part of the Third Pole, it also has a far-reaching influence upon global climate and water cycles. Maa Ganga and Maa Yamuna are of deep spiritual significance to all Hindus and because they have their sources in Uttarakhand, it is an ideal state in, which to establish a cohesive environmental program for safeguarding these sacred rivers. It is also in a key position in, which to initiate a strong global move towards safeguarding those essential ecosystems, which sustain the global water cycle and hence all life on Earth. As was recognised in 1998: *"Water is at the heart of both the causes and the effects of climate change ((NRC, 1998)"* (USGCRP, 2001)

Active Remedy Ltd. is a UK based, Not for Profit Company, founded in 2005 by Tara Joy and Stella Joy. We are focussed upon protecting the global water cycle, which is presently under threat. Our aim is to raise awareness and understanding of this fresh water cycle and get action taken worldwide, which safeguards it. From carrying out extensive research we have pinpointed a vital link between the present instability in this cycle and the massive deforestation of the primal mountain forests worldwide. Hence the SGGC Method is a potential solution for dealing with the protection of nature and the rebalancing of the global water cycle. This is because it is based upon the protection and restoration of the environments, which the water and climate cycles are dependent upon to function effectively.

The Active Remedy Ltd. SGGC Method has been accepted by the United Nations as a potential tool for climate adaptation, using Local Indigenous, Traditional Knowledge Practises. A Report giving greater information about the SGGC Method can be found in the UNFCCC Knowledge Portal at this link:

<http://www4.unfccc.int/sites/nwp/pages/item.aspx?ListItemId=25551&ListUrl=/sites/nwp/Lists/MainDB>

We at Active Remedy Ltd. would very much like to help to safeguard Maa Ganga and Maa Yamuna and to help in their newly recognised rights being realized. We believe that the implementation of the SGGC Method could be highly beneficial in doing this because it helps to replenish and secure their watersheds and source waters. We therefore wish to work towards this goal with mountain communities and other groups and individuals, with the same sincere intentions. We look forwards to hearing from you.

Tara Joy and Stella Joy can be reached by email at: **enquiries@activeremedy.org**
For more information about our work please visit our website: **www.activeremedy.org**