



**Making Peace with
the Earth
Through
Diversity, Mutuality,
Non-Violence & Care**

**An Ecofeminist
Manifesto**





The One Who Made All Life, had a vision of a place of unimaginable beauty and wealth of life, gathered dust and pollen from magnificent locations in the Universe, swirled all particles together, creating a jewel in the cosmos. A life force of infinite love was placed in First Mother Earth for all Life to thrive, for the continuance of life, for regeneration and revitalization of all Beings deemed sentient. Sacred First Laws were given to maintain the balance and to give thanks daily for the paradise called Our First Mother, our Earth Mother.

- Kahontakwas Diane Longboat, M.Ed



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This manifesto reflects discussions, contributions and written inputs at the gathering of Diverse Women for Diversity from all parts of the world and from all walks of life at Dehradun, India, in early March 2023. These were merged with inputs and elaborations by the editorial team, Vandana Shiva, Caroline Lockhart and Nadia El-Hage.

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Diversity

Foreword

"Who sows wheat sows justice"
– Zarathustra

Founding Statement of Diverse Women for Diversity

Twenty five years ago the Diverse Women for Diversity movement started with the statement of Concern:

"We women, in all our vibrant and fabulous diversity, have witnessed the increasing aggression against the human spirit, human mind and human body and the continued invasion of and assault upon the Earth and all her diverse species. And we are enraged.

We demand of governments, international organizations, transnational corporations and individual men who share our rage, that they address the crisis that has been caused by the creation of mono cultures and the reduction, enclosure, and extinction of biological and cultural diversity.

We insist that those who would address the crisis listen to and take leadership from women, indigenous peoples, farmers, and all who have raised these concerns at the local level. We call on them to heed those whose wisdom, stewardship, knowledge and commitment has already been demonstrated by the preservation of the diversity we celebrate today."

We, Diverse Women for Diversity, diverse in culture, race, religion, socio-economic conditions, have one common goal: biological and cultural diversity as the foundation of life on Earth. We stand for self-sufficiency, self-reliance and solidarity, locally and globally.

We, Diverse Women from all walks of life, are creating a new solidarity, where we show that our cultures have long existed on this Earth in peace. At the 1996 World Food Summit we declared that we must keep food sovereignty in women's hands in the face of industrial agribusiness that was creating disease, hunger and ecological destruction. Coming from all over the world, the Diverse Women For Diversity movement has continued to gather and share the belief that our differences, our contexts, the variety of our voices, the variety of ways that they express our care, is the key to resist the imposition of industrial uniformity. It is our diverse cultures that will continue to lead the way to the future.



In March 2023, we gathered at the Navdanya Biodiversity Conservation Farm in Dehradun, India for an international festival to celebrate the unique and rich diversity of life, cultures, food and knowledge, to share our struggles, victories, and actions in defense of the Earth, biodiversity, and food. Over 150 women gathered, from more than 20 countries, from all across 21 states of India, Latin America, North America, Europe, Japan, Africa, and Australia, among many others. Together we were farmers, bakers, poets, archivists, indigenous leaders, travelers, fisherwomen, archaeologists, gift economists, geneticists, academics, doctors, mothers, and more. We were in our twenties and we were in our eighties. We celebrated our Sacred Mother Earth by planting a Garden of Hope with seeds from all over the world, cooking and sharing our Breads of Freedom. We shared seeds, prayers, music and dance. It was a celebration of Nature, the sacred laws of Ecology and the regeneration of the Earth Family through women's creativity and power. Our celebration also became the space for us to reflect on the current state of our world, and how we see the answers to all the overlapping crises in Mother Earth.

In a world increasingly being controlled by surveillance capitalism and financialization of all life forms, we reject and denounce all false solutions. We resist all attempts by the corporate world and their allies to re-edit and engineer the genetic basis of life for corporate profit. We do not accept genetically engineered crops and animals, including gene edited food, or fake foods, which result in greater monopolization by corporations and further destroy biodiversity. We call for no more contamination, pollution, distortion and colonisations of our food. No more resource exploitation, no more ecological destruction, and theft of our indigenous knowledge.

Instead we call for the imperative transition to local, biodiverse, ecological systems that work in harmony with Nature, in order to heal ourselves through healing the Earth. We are all connected through biodiversity, from the soil microorganisms, to plants, animals, our food and our microbiome. We need diversity in food systems, diversity in seed, diversity in food and economies. We are all made and interconnected through these living webs of diversity. Just as the biodiversity of life connects us all, so does our cultural diversity, our language diversity, and the diversity of our struggles. Diversity is the thread that connects us all.

Today, women are again in the vanguard of defending biodiversity, seed freedom, and food sovereignty. Women activists, scientists and scholars are at the forefront of shaping new scientific and economic paradigms to reclaim seed sovereignty and food security across the world.

As seed keepers and food producers, as mothers and consumers, we are engaged in renewing a food system that is better aligned with the ecological processes of the Earth's renewal, the laws of human rights and social justice, and the means through which our bodies stay well and healthy.

Eighty percent of the world's remaining biodiversity is found on Indigenous land. It is time we start listening to women, indigenous people and the small-scale farmers protecting their plants, seeds and cooperating with Mother Nature to live in harmony with the Earth. Our food is our life, and we will continue to defend it. **We stand for the promotion, protection and practice of diversity: biological, cultural, economic, political, and knowledge.** We will continue to share and reaffirm the commons, the knowledges for living, the true science of life, all rooted in ecofeminist and indigenous epistemology.

Just as Mahatma Gandhi's spinning wheel, the Charkha, became a symbol for freedom, Seed has become our Charkha for the emancipation of all life forms from transnational corporations and the governments they have captured in this period of recolonisation. Seed is self-organized complexity in permanent renewal, regeneration and interconnectedness. We call for a celebration of the Seed, symbol of life and of future potentials. We recognize that the revitalization, and conservation of biodiversity is only possible through diverse women, their culture, their needs, and their creativity. We stand for Seed Freedom, freedom of people, freedom of the Earth, and the freedom of every living species. The conservation of diversity is the commitment to let alternatives flourish in society and in Nature, in economic systems and in knowledge systems.

Each of the chapters that follow is a reflection of this vision, goes deeper into the many aspects of diversity that we feel must be recognized. Each emerged from one of the many conversations that took place during the meeting of the DWD in May. Each chapter was penned by a different author, hence the diversity of tone and technique throughout this collective Manifesto. It is meant to reflect our diversity, our collective struggles, lessons and victories, our stories, and our festivals. In essence, this collection of voices is also meant to support the argument that each chapter makes: that diversity is the key to survival.

Part one, *Planet Earth - One Earth Family United in Diversity, Love and Care*, discusses the idea of the One Earth Family, and touches on structures of power that give rise to the domination over women and Nature and offers a roadmap to their natural disassembly through the diverse wisdom of indigenous, ecological, and feminist perspectives.



Part two, *Ecofeminist Epistemology - Learning from Nature's laws of life*, articulates the two paradigms that are struggling to co-exist in the world. It discusses ways in which a worldview that renders Nature as mechanical, dead, and as a storehouse of resources for human use has stirred up mass suffering and destruction for all life on Earth. It also lays out the plan, from our Ecofeminist worldview, on how to reverse this trend. This chapter puts into words the epistemological friction that feminist emancipatory movements are constantly working to overcome.

Biodiversity and the Web of Life, the third part is concerned with the world's biodiversity, the collective awe of true abundance, and the unanimous obligation to conserve it. This chapter allows us to reflect on the variety of plant and animal species that we have in our regions, but also encourages us to think a little further on this idea of biodiversity. The sum of all the plants and animals is not the whole story. There are also the relationships that all the organisms have built with each other, and there are our relationships with them all, our biocultural heritage. It is all of this, together, that is elemental to the resilience of our communities amidst changing climates and extractive industries.

The fourth part titled, *Mother Earth and our Health are Interconnected*, touches on the key issues regarding public and individual health today. This chapter is written from within the holistic health paradigm, and is concerned with strategies to prevent avoidable struggles around health and points to the interconnection of climate change and health.

Ecofeminist Economics of Giving and Care, is an appeal to the Homo economicus to turn away from the economies of greed and extraction, and begin to make visible the Economy of Care. We found that without a conversation about the future of our economies, our aspirations for justice and equity would be incomplete. This chapter provides a plan for remembering an economy based on relationality and care.

The final part, *Making Peace with the Earth*, brings us back to the mission underlying all of this work, to make peace with the Earth. It gives a final expression of the vision of the DWD on how we can actually move forward. As intelligent and caring beings we envision a future of peace and nonviolence, of abundance and well-being for all Earthlings. This final chapter was a response to the often asked question during the event: what should I do in my day to day? What is it that I am meant to embody in all the small moments of my life as well as the bigger ones? And the answers are there.

The future of food and the future of life on Earth, as well as the solutions to the ecological collapse cannot be found in the logic and hands of those who caused it in the first place. Solutions are in the hands of women, agroecological farmers, social movements and networks that are resisting the disruption of Nature and society.



Mamala Kiwicha (Amaranth)

So very old is this Mamala, she has been forgotten.

The appreciative ones are the women that still sing during seedtime, receiving from her the initiation onto new paths and the sustenance for body and soul.

PART 1

Planet Earth - One Earth Family, United in Diversity

Preamble

The Earth is vibrant and living. All is interdependent, interconnected, and interrelated through the web of life. All is relational. The Earth gives us life; she is Sacred Mother Earth.

Ecofeminism is a worldview that recognizes that all humans are part of Nature, not separate. Irrespective of their gender, culture, work and livelihood, no human is superior to any other. We are one interconnected and interdependent humanity living on planet Earth.

The Indigenous Way is to uphold the sacredness of Mother Earth as an aspect of Nature and to be both restorative and regenerative where desecration may have occurred. Nature's rights and human rights are inseparable and fundamental to the health and the well-being of both humanity and the Earth.

We are all nurtured by the same sunlight and feminine moon. We are all part of a cosmic network, called Indra's Net that holds the wisdom of inter-dependence and inter-being. We all receive the same 'Prana', our life force, breath of life, from the forests, soil, oceans, and the sky. The same water that flows through our streams, rivers, oceans, wells, soils, and plants is the currency that connects us in a cycle that gives life to all. The food web that nourishes us is the same that feeds the soil, the plants, and our sentient relatives. It is the currency of life.

Two paradigms of thought

There are two main paradigms of thinking of ourselves in the world and of our relationship with the Earth. We either think of ourselves as being separate from Nature or as being one and part of it.

The paradigm of separation

One of the most deeply rooted beliefs in the colonial industrialized culture of the contemporary West is the idea that humanity is separate from Nature - where humans and Nature's sentient beings are objects for human exploitation and profit.

The founding fathers of the mechanistic system of knowledge consciously constructed anthropocentrism on the assumptions that humans are separate from Nature and that humans are superior to other species to justify mastery over Nature. Nature was objectified and made an object of manipulation, control, and exploitation.

Thus began the convergence of the economy of greed and the mechanistic dominion over Nature. It has led to the destruction of Nature and cultures, local economies and indigenous knowledge systems, and the drastic impoverishment of both the Planet and humanity. It is the basis of the violence and wars around us. It is what is leading us to ecological, economic, and social collapse.

This stunted relationship of separation with Nature is what fuels the process of conquest that continues unabated today. Violence is the method and the consequence of the paradigm of extractivism and 'growth' without limits: deforestation, mining, fracking, extraction industries of oil and gas, poisoning of waters with nuclear waste, with the extinction of animal, plant, bird and water life, contaminating food with chemicals and genetic mutations.

Battles of conquest and greed in the name of 'development' and 'conservation' are being fought in territories where there is the greatest biodiversity, the territories of indigenous peoples. These areas are of major importance for life cycles, mangroves, paramos, and watersheds. Those who resist or oppose are criminalized, murdered, persecuted, and repressed. Women play both a supporting and spearhead role: they preserve life in the territories and at the same time are at the head of the resistance. Direct action and resilience based on self-determination, autonomy, and self-regeneration, are the most effective strategies for protecting the rights of Nature and her people - and women are at the core.



Mechanistic reductionism

The culture of separation and domination is the basis of capitalist and mechanistic thinking which rules us today.

The epistemology of mechanistic reductionism separates that which is interconnected and is blind to the self-organizing power of life. The separations and polarizations leading to the multiple crises are: Humans vs Nature, Mind vs Body, Spirit vs Matter, Production vs Reproduction.

Mechanistic knowledge sees the world as a machine, not as a self-organized living system. Machines are assembled and controlled externally. Their function is given from outside, such as the production of a specific output. They neither evolve nor adapt. They either run or break down, and are then discarded. In the period of industrialization, mechanistic knowledge consisted of machines and artificial facilities that altered the physical and chemical states of the Earth's ecology. Acting as if the world were a machine leads to a world in which living processes and systems are undermined and destroyed.

Recently, the coming together of data networks, automation, and artificial intelligence has become a new intermediary link for humans to transform the natural ecology with new life and symbiosis, with growing serious concerns regarding the evolution of artificial intelligence from human culture to independent life that may replace humans on the evolutionary path. An alarming prospect that needs careful consideration, based on the precautionary principle, of what this means in the long term for the future of our society.

The paradigm of oneness

The other way is to recognize that we are interconnected, one and part of Nature, and must follow the laws of Nature. Harming the Earth means harming oneself and your neighbor. Ecuador's constitution recognizes the Rights of Nature, and expressly refers to "Pachamama", and calls for citizens "to maintain and generate her cycles... ", and refers to the nurturing and reproductive aspects of life, and the relationships of reciprocity, mutuality, and belonging.

Care and mutual support are the currencies of life both in Nature and society interacting as a whole. Nature and women, contrary to the norms of the ruling hierarchies of power, are not objects to be exploited.

The ecological mind grasps living processes, relationships, interconnectedness, flows, and constant dynamic change. Ecofeminism connects the Earth and women in an interconnected web of creativity and care. Nature is living. Nature and women create Life.

As custodians of the Earth, women know the need for and restrictions of self-regulation. They know how to take care of water, soils, and forests; they know and take care of seeds. Women understand how to heal bodies and Nature itself, and make it an ally - not an adversary - for regeneration. They know the laws and secrets of caring for life.

Indigenous worldviews - Nature has a fundamental right to be

Similarly, the Indigenous worldview sees all life as interdependent, interconnected, and interrelated. All is relational. Nature has a fundamental right to be. Throughout the world the Indigenous Way recognizes the interconnectedness, interrelatedness, and interdependence of all facets of Creation and Life. Mother Earth is sentient and not isolated from the whole.

Indigenous knowledge systems arise out of a deep and long understanding of ecological principles of Nature's Law and ecological sustainability. They have preserved and ensured healthy living systems and their peoples' survival down the ages. When Nature speaks, the Indigenous Way is to listen and take heed. They see Nature not as an object existing for human use and exploitation, but as one Earth Family of sentient beings, to live and evolve through love and care.

The Indigenous Way thus recognizes Nature not as an object existing for human use and exploitation, but one requiring the protection of Nature by governments and legal systems as a living entity with inherent rights to exist, flourish, regenerate, evolve, and restore. Given the interconnectedness between all facets of creation, "human rights are dependent on Nature's rights, human health is interdependent on planetary health, human freedom is dependent on the freedom of wild animals, and human dignity is dependent on dignifying Nature". Nature has an inherent right to be.





Image credit: *Protecting Diversity, Resisting Monocultures, and Fighting Monopolies* - DWD

PART 2

Ecofeminist Epistemology - Learning from Nature's Laws

Nature's Laws

Ecofeminist epistemology and ontology follow the basic ecological principles of Nature's laws: the logic inherent in the natural ecosystems and the principles of self-organization and self-regulation.

These eternal laws are understood and embraced in different ways in different places, but there are similar patterns that can be recognized across all of them.

The Earth, Gaia, is a self-organized, self-regulating living organism, teeming with biodiversity composed also of self-organized and living organisms. All species have agency and intelligence. Life is self-organized complexity and intelligence in constant evolution, interaction, change, and emergence. The Earth and all sentient life have the inherent right to co-exist, flourish, regenerate, and evolve.

Diversity, not monocultures. Nature's self-organizing intelligence creates, maintains, and regenerates diversity. Nature does not function on the principle of uniformity and monocultures. Where there is biodiversity, self-organization occurs. The natural world constantly strives for diversity of expression. Cultural diversity flows from Nature's ways and her biodiversity.

Synchronicity. Nature works through interdependence and reciprocity. Life processes do not follow the laws of cause and effect, but rather the law of simultaneity, or synchronicity. According to this approach, all beings are in the service of all other beings, like a cell among many others in an organism or the different organs that constitute a body. Nature's wisdom of global self-regulation constantly heals shortages and discordances. Only a farming approach, working in harmony with Nature's laws, offers a prosperous future for the Earth and human health. In a healthy farm, the soil, plants, animals, and farmers interact in synchronicity and harmony to promote species diversity, increase plant and animal vitality, and hence, harvest food with increased nutritive values. Connections with the landscape consider the presence of forest, shrubbery, and meadows in the farm vicinity for the provision of soil for mushrooms and toadstools to keep harmful parasites under check.

Plants and insects are interdependent with plants providing sap to insects, bees, wasps, and ants providing the formic acid necessary to plants for healing and healthiness. Formic acid produced by anthills also heals degenerating forest soils and helps to remediate the decay and withering of Earth's resources.

Symbiosis. Symbiosis is the interaction between two or more biological organisms that help each other survive or coexist. The corals are classified as animals by science but they do not produce food except for in their symbiotic relationship with the algae that live in them, the zooxanthellae. These are photosynthetic algae that produce the food that the animal coral needs by extracting water and carbon dioxide, thus feeding the coral. This is an example of symbiotic interaction.

Creativity. Collaboration between organisms is when creativity emerges. Science said that differentiating is where new forms of life emerge. It misses how both happen: and it is when they merge and collaborate that the new emerges. Multicellular life on the planet was born out of the merging of two simple cells that came together and “half-digested” each other. In completing that experience, something new emerged.

Homeostasis. the self-regulation principle. Is a dynamic process within every living system in Nature through which organisms find optimum stability while adjusting to external changes. It is a feedback mechanism by which Nature organizes herself.

Equilibrium. The law of Nature whereby it always seeks its equilibrium through different processes. There is an ethic of care and love. Once we care, we feel committed to protecting, to tending, to bringing things back into balance. The law is about equilibrium and we must move our minds from competing to harmonizing. Returning to balance, processes of continual co-becoming. Processes and practices that we continue to turn to restore balance. Continually tending to live.

Law of Circularity. Nature works without waste. All growth of one element (plant, animal, or microorganism) is based on the availability of nutrients - energy and water - that are made available by the other elements. Man on the other hand continuously adds elements (fertilizers, pesticides,...) to harvest and create so-called waste (crop residues, plastic, antibiotics, manure,...). By learning how Nature sustains production and services we can learn how to produce all the food and services we need without creating waste, pollution, and sterile soils.

Fractals. Fractals are never-ending patterns of the Universe. In Nature, we see fractals everywhere, where the same pattern or shape, repeated over and over creates a complex shape. The cells are in a honeycomb, each perfect in its own way.



The scales of a snake, each unique and perfect, repeat again and again to create a complex shape. The parts of a cauliflower or broccoli – each unusual and unique, repeated, create that vegetable. The form and structure of leaves – each one perfect and with its small cells and vessels, repeated time after time create a tree. Crystals grow when an unusual shape and pattern is repeated time after time.

Fractals can be found in social systems as fractals of activity: patterns of action, interaction, and behavior that are consistent and can be predicted. Depending on the paradigm from which this activity emanates, the repetitive activities may cement destruction or, if following the fractals of Nature, may be regenerative and foster the circularity of Nature's laws.



Image credit: Marion Bessol

PART 3

Biodiversity and the Web of Life

“Every living thing will have its share of soil and life, and the bread we eat each morning, everyone’s daily bread, will be hallowed and sacred, because it will have been won by the longest and costliest of human struggles.” – Pablo Neruda

Biodiversity can be defined as a continuum of life forms and relationships that form one single organism: our unique vibrant Earth. With more diversity comes more resilience and stability for the whole system.

Self-organized complexity of living systems

Self-organization occurs when parts of a system behave and interact in a way that gives rise to a system-level order, an emergent quality. Self-organization comes from a cooperative system of actors, and not from the imposition of laws or order from above or outside. For example, combinations of atoms give rise to living cells, and those cells make muscles move and hearts beat. An ecosystem is not just the sum of its species, nor a species simply the sum of its genes. Soil formation, predation and pollination, are emergent properties of healthy and functional ecosystems.

Soil carbon sequestration, one of our strategies for climate change mitigation, only happens in living soil. There are millions of species of fungi and bacteria, and hundreds of species of nematodes and protozoa that make up living soil communities. More than 100 billion organisms can live in just one handful of healthy soil, and all of them contribute to the overall function of the soil ecosystem. To facilitate nutrient exchanges and symbiotic relationships in the soil is to facilitate the survival of our own species, because through the relationships and exchanges of the soil, which can only happen in the abundance of biodiversity, do the the properties of soil ecosystems that we rely on emerge.

While we can work to cultivate diversity in our soils through chemical free farming, diversity may also be uncultivated. Uncultivated plants and animals are not simply ‘wild’, they belong to common land or in common bodies of water, which themselves are managed through traditional practice. These are found only if the ecosystem exists in harmony with Nature. Biodiversity then is not just the inherent value of cultivated seeds and breeds in a given area, it is also all the life forms that play a role in the function of an ecological system, including the plants, animals, and fungi that are foraged, fished, or hunted.

Biodiversity is not a tally of what is grown in a field, but a holistic term that includes the microbes, pollinators, bacteria, fungi, trees, shrubs, algae, lichens, as well as the various systems they give rise to. Biodiversity, seeds, and food are components of a system that is naturally circular, relational, multi-scale, spiritual, and cultural.

Biodiversity and cultural diversity are linked. People eat uncultivated greens to balance out the bodily effects of changing seasons; milpas, or the three sisters, is a complete diet that emerges from a symbiosis of crops and is an example of the benefits of diversity. The three sisters are, in a way, their own culture, existing in perpetual mutualism and relying on each other to survive. Human cultures exist in this way too. Our cultures are symbiotically passed down through our own mutualisms: storytelling, shared practice, song, oral traditions, festivals, art, and craft. Food provides us with energy and nutrients, shapes our bodies, souls and minds, influences our microbiome and contributes to our well-being. Uniformity in the field supports uniformity on the plate and ultimately uniformity of people. Diversity and creativity do the opposite. In order to move forward we need to emphasize the role of women, farmers, mothers, and the Earth as the key contributors and producers of our systems of knowledge, culture, and food.

Biodiversity at heightened risk

"Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself" - Chief Seattle

The Sixth Extinction and biocultural heritage

The current and ongoing disappearance of species understood as the "sixth extinction" has been caused in large part by the unrelenting exploitation of Nature for profit. We cannot allow those elements that are necessary to the continuation and preservation of humanity to become goods whose exchange value makes them susceptible to appropriation and commodification. Industrialized agriculture does not value diversity; it diminishes it. Genetic modification pushes them further to produce higher and higher yields within this system of chemical dependent monocultures. The more uniform the products, the easier they are to control, sell, and trade. However, this type of agriculture serves the profit of large companies. The richness of nutrients, stability of ecosystems, natural beauty, and the diversity of tastes fall by the wayside. Life does not belong in the hands of chemical companies but in the hands of peasant ecologists and farmers whose millennia-old expertise is being lost.

Since ancient times, the oceans have been central to the self-regulation of the Planet and home to many forms of life. For these and other reasons, the health of the seas has been indispensable for the development of livelihood of all species, especially of marine life, and coastal maritime communities and cultures. The multiple threats that the ocean faces - depredation, contamination, deep sea mining, climate change, looting, commercial exploitation - impact the role it plays in keeping the balance of the Planet.



Biodiversity is also about the people who contribute their living knowledge to the nurturing and conservation of cultural seeds, foods, and traditions. In particular, women seek biodiversity to nourish their families and herds, while they engage in creative crafting to sustain their households. Women keep biodiverse systems alive and cultural systems alive. Women form the central and most important part of our entire food system, from the farms to the tables. The health of our biodiversity, soil, seed, food, and the web of life depends majorly on women.

The exclusion of traditional knowledge and Indigenous cultures from mainstream food systems has resulted in a curtailment of our knowledge of the world. Knowledge that humanity needs in order to face a crisis of multiple dimensions. The tendency to exclude the knowledge and perspectives of Indigenous communities, women, farmers, the elderly and the youth is making humanity intellectually poor and more vulnerable.

Diversity is our highest security. Diversification has been the most successful and widespread strategy of agricultural innovation and survival over the past 10,000 years. It increases the options and the chances of adapting to changing environmental conditions and human needs. For these reasons and others, in contrast to the present trends towards monocultures and genetic erosion, diversity must once again become the overarching strategy of future development.

GMO imposition and continued biopiracy

The world is seeing a renewed attack through the imposition of old GMOs. Under the false excuse of a food crisis, GMO wheat was pushed in Argentina, Bolivia, and Brazil, GM mustard was pushed in India, GM Golden Rice all over Asia, and Bt Brinjal in Bangladesh, the Philippines, and India. All in the name of feeding the world and reducing pesticide use, over and over we have seen that these are false narratives. Attempts to protect biodiversity, farmers' rights, and the sanctity of seeds, are also being punished by governments that are influenced too heavily by the agribusiness lobby. In Mexico, when the government chose to protect biodiversity and health by phasing out GM corn and glyphosate, the government faced potential litigation by the United States government on behalf of Bayer-Monsanto, but the Mexican government has resisted. Resistance is alive in India, Europe, and Latin America too, everywhere there are unjust seed and food laws, there has been push back by citizens and movements. In the struggle for seed freedom and food freedom across the world we must stand resolute and continue to protect our right to safe and healthy food and seeds.

The industrial agriculture giants have launched a long offensive to recolonize seed and food through the deregulation and renewed imposition of old GMOs, and a second generation of GMOs. In the European Union, the agribusiness lobby has set out to make new GMOs, so-called "new breeding techniques" (NBTs) exempt from previous GMO regulations. If these products are allowed a loophole they could avoid being tested, monitored, and labeled before making it to market. Once again, we must prepare to defend our seed freedom, as we always have.

Seeds are alive and are the most essential foundation of life, health, and nutritional security. Seeds are the building blocks of a resilient community. Seeds exist as physical entities, but seeds also exist as knowledge, seeds of wisdom. Seed holds the memory and gift of the living soil, the sun, and the knowledge of our ancestors. Seeds are preserved to preempt disaster and when disaster strikes are shared amongst and between communities. Seed varieties cannot be lost forever; they can be found with wisdom and knowledge. Seeds should be free to be exchanged and shared among the farming communities without any restrictions. Seed is self-organized complexity in permanent renewal, regeneration, and interconnectedness. How we relate to seed will determine the quality and richness of the future of all life on Earth.

The World Trade Organisation Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) gives global corporations the 'right' to claim monopoly ownership over seeds through patents and similar mechanisms. Farming communities, those who produce the majority of the world's food, are not being consulted on the WTO obligation to introduce intellectual property rights systems on life forms. However, farmers' rights to save, develop, exchange, and sell seeds are part of a wider framework of inalienable community rights. The South Asian farmers' groups rejected patents on life forms, and in the same spirit, we do not accept the principle of intellectual property rights systems in any construction and by any name over the world's biodiversity. Private monopolies over genetic resources not only go against the moral and cultural values of our people, but they directly threaten food security and the livelihood strategies of farming communities. (From SANFEC statement 2001).

When we manipulate and monopolize seed for the profits of corporations, we create monocultures and make biodiversity disappear. We contribute to greenhouse gas emissions, and we create hunger and suicides.

When we co-create with living seeds, we increase biodiversity and reverse climate change. Seed is the first link in the food chain and the repository of life's future evolution. Healthy seeds produce healthy food, whereas seeds bred to respond to chemicals or genetically modified seeds contribute to disease and ill health. Seed freedom is food freedom.

Crop genetic diversity is indispensable in building resilience in the face of unpredictable environmental and climate changes and in meeting the needs of an ever-expanding human population. Diversity of crops and genetic diversity within our crops, i.e. biodiversity, improve the living conditions of farmers and protect the natural environment. Farmers' rights are non-negotiable, and our right to save and exchange open-pollinated, non-GMO, non-patented seed is inalienable.



Today, threats to biodiversity have heightened immensely:

- **Knowledge colonization:** the application of modern biotechnology techniques which create genetically-modified organisms susceptible to patenting through intellectual property rights promote appropriation of biodiversity and the knowledge originally generated by ancestral cultures. Currently, GMO legislations exclude the new generation of genome editing which changes an organism's DNA and thus, allows more of the same gene flow and resistance evolution to proceed unchecked.
- **Digital colonization:** biopiracy is accelerated through proprietary computational digitalization, and thus dematerialization, of biodiversity through mapping of genes related to key plant traits. Although a genomic map does not create a living seed, such instruments allow ownership and control of biodiversity through computer simulations to find out about particular traits by comparing gene sequences from many different organisms. Furthermore, gene digital sequencing platforms (such as EvoCAT, and the Evogene Clustering & Assembly Toolbox) jeopardize international agreements such as the Access and Benefit Sharing of the UN Convention on Biodiversity and Farmers' Rights of the International Treaty on Plant Genetic Resources.
- **Food colonization:** culinary diversity is being replaced by synthetic foods leading to a standardized diet world over. Techno-fixes lead to wrong conclusions or help us make choices geared towards the cancellation of cultural foods and diverse systems. For instance, plant-based food is not the solution, although it is strongly promoted as a "sustainable" alternative to animal proteins; this is a commodification of agriculture that further dispossesses us of our food sovereignty.
- **Carbon colonization:** land grabbing to grow industrial plantations and monocultures is compounded by land grabbing for carbon credits, that allow corporations based elsewhere to keep their business-as-usual pollution. This fake and failed solution to climate change is a form of carbon colonization promoted by corporations and governments through emissions trading on the global carbon market.
- **Life colonization:** agricultural mechanization is upgraded by robotics and artificial intelligence to displace farmers from their fields. Robots and artificial intelligence can now be used to conduct non-standardised tasks (e.g., fruit picking, selective weeding, crop sensing) previously reserved for human workers and at economically feasible costs. As a consequence, hundreds of thousands of jobs in agriculture will be soon replaced by robots. This new robotic ecosystem creates complex ethical, legislative, and social impacts.

Human knowledge and human labor are made obsolete, naturalness is attacked at its roots. Ironically, biotechnology development is not possible without biodiversity. The current transhumanist trend does not only threaten the extinction of seeds and breeds but of farmers and farming altogether, and consequently humanity's connection with the land and Nature that makes us humans.

Climate adaptation through biodiverse practices

Climate change requires a dynamic response with a rapid impact at the farm level. The changes in the spectrum of pests, associated with changes in temperatures and rainfall, represent a challenge for centralized breeding programs. Changes are expected to be location specific, making successful adaptation a moving target. A breeding program based on decentralized selection offers the required dynamism that is needed, because it can expose the breeding material to a range of target environments. Locations, time of year, agronomic management system, and social contexts, all determine what seeds will work well in a given region. With ongoing collaboration of users (farmers and other stakeholders), decentralized, context specific breeding regimes will increase the adoption rates of crops by shortening the time between the recognition of a problem and finding a functional solution. Adapting to changing climates requires ongoing collaboration between scientists, farmers, and community members. In order to adapt our food systems, specifically our crop cultivars, it is imperative that we begin to breed a variety of crops in a variety of places, and use the wisdom of elders along with climate projections in order to contextualize our crop breeding strategies.

Participatory plant breeding has been promoted for its advantages to increase selection efficiency, variety adoption, and farmers' empowerment. It is also more socially equitable and gender-responsive than conventional plant breeding. Decentralized selection with the collaboration of farmers can address the diversity of agronomic environments, which is likely to increase because of the location specificity of climate change.

Local food systems encourage the preservation and expansion of locally bred and indigenous varieties. Farmers who save their seeds can gradually increase crop resistance to pests and diseases by breeding for "horizontal resistance", the ability of a crop to resist many or all strains of a particular pest. Growing hardy, horizontally resistant crops is our alternative to breeding for "vertical resistance", having one gene to resist one specific strain of a disease. By exposing a population of plants to a certain disease or pest (or to several pests at one time), then selecting a group of the most resistant plants and interbreeding them for several generations, a given population becomes more resistant than the original. Horizontally resistant cultivars are well adapted to the environment in which they were bred but may be less suitable for other growing conditions.

Traditionally, farmers have bred varieties for quality, nutrition, resistance, and yield. Organic and biodynamic farmers breed varieties for thriving in reduced input growing conditions. Research has shown that these characteristics are more likely to be found in older native cultivars. In particular, open-pollinated varieties, which offer diverse and regionally adapted characteristics making them better suited to input-free agriculture. Open-pollinated varieties, which represent an important gene pool for resource-poor farmers living in marginalized and stress-prone areas, are rapidly vanishing.



They are often replaced by a few hybrid varieties which require inputs not available to poor farmers and which require dependence on large seed companies. A considerable proportion of local breeds remains in the care of pastoral people and traditional livestock owners in developing countries (e.g., pigs in China, cows in India, and poultry in Asia and Latin America). Local breeds are robust and suitable for free-ranging. However, two local breeds are becoming extinct every week. Locally bred seeds will be a key to the success of our food systems in the near future, and together we manifest the large-scale adoption of traditional farming and plant breeding techniques.

How we farm, eat, and consume must be in alignment with Mother Nature. Regenerative agriculture (including but not limited to traditional organic, permaculture, biodynamic, and natural farming) is the beginning of a return to a balanced ecosystem. Science and Nature have taught us how healthy living soil can capture carbon, recycle nutrients, and hold onto water, thus helping mitigate the climate crisis, while producing food, fibers, and materials to build with. By protecting, regenerating, and caring for our biodiversity, the pillar of a thriving planet, we can end our global dependence on industrial agriculture and intensive livestock farming. We do not need mass quantities of fossil fuels and artificial synthetic resources to care for the land we live on.

When diversity is encouraged, locally adapted plant and animal breeds that are more appropriate to local ecosystems can be used. Genetic diversity in agriculture is basic insurance against crop and livestock disease outbreaks. Agrobiodiversity is crucial for adaptation to climate change, for resilience, and for human health.

FREEDOM OF SEEDS

Seeds are a gift of Nature and of diverse cultures: They are not a corporate invention. Passing on this ancient heritage from generation to generation is a human duty and responsibility. Seeds are a common property resource, to be shared for the well-being of all and saved for the well-being of future generations. Hence, they cannot be owned and patented. Seed saving and sharing is an ethical duty that cannot be interfered with by any national or international law which makes seed saving and seed sharing a crime. The law of the seed must protect the freedom of seed and the freedom of farmers based on the following principles:

1. Freedom of farmers
2. Freedom of farmers to breed new varieties
3. Freedom from privatization and biopiracy
4. Freedom of farmers to exchange and trade seeds
5. Freedom to have access to "open source" seed
6. Freedom from genetic contamination and GMOs
7. Freedom of seed to reproduce
8. Seeds for the future: breeding tomorrow's seeds
9. Community based seed conservation and development
10. Embedding in agricultural ecosystem
11. Reduce greenhouse gas emissions
12. Eliminate and phase out toxic inputs
13. Diversity within
14. Breeding for food quality
15. Women are the protagonists of biodiversity. Globally, women represent most of the agricultural work force and are the present and traditional custodians of seed security, diversity and quality. Women are also the prime depositaries and disseminators of knowledge about the quality and methods of processing food.

Source: Navdanya



Stories of creation through biodiversity

Chaitra Sankranti, Bangladesh. The Bangla calendar year ends on the last day of the month Chaitra (13th April). The word Sangranti implies the moment of transition that has no beginning and no end. The notion of time in agrarian culture is not linear, but cyclical. In the cyclic movement, every point is the end of the cycle as well as the beginning. In Bangla, the cyclical return of time is also known and distinctly experienced as “Ritu”, which is usually translated as “season”. On the day of Chaitra Sankranti women collect fourteen different kinds of uncultivated leafy greens - one must be bitter - which expresses the intention that uncultivated food sources are numerous and must be conserved as an integral part of agriculture to regenerate life in an infinite manifestation and expression of commons.

Gima (*Glinus oppositifolius*) has a bitter taste. Shak grows in exceedingly difficult conditions. It grows on its own in drought conditions when many other greens are not available. If Gima is available, it is an indication of ecological balance and the preservation of biodiversity. Gima is preventive against diseases so finding Gima is considered a gift of Nature. Fourteen is a symbolic number, representing the multitude of uncultivated spaces, many of which are sacred for women, as they are a source of food and fodder for humans and animals. Chaitra Sankranti is a celebration of the availability of biodiversity. Women carry out environmental and ecological audits to find the natural balance in their respective areas. Most humans are being deprived of their control over seeds and food, as producers and consumers. Seed freedom, therefore, lends to human freedom, and both are critical for survival. Seed freedom is food freedom is survival.



Akshat, India. Akshat, rice in Sanskrit, means imperishable and when we know that two hundred varieties existed in India, the place of origin of Indica Sativa, it is understandable. Though thousands of species have disappeared, many thousands have been saved, of which four thousand by Navdanya and these include eco-resilient varieties such as salt, drought, and flood-resistant ones. Given these facts, it is not surprising that in India, rice is the metaphor for abundance and endurance; it also plays a key role during rites of passage and celebrations.

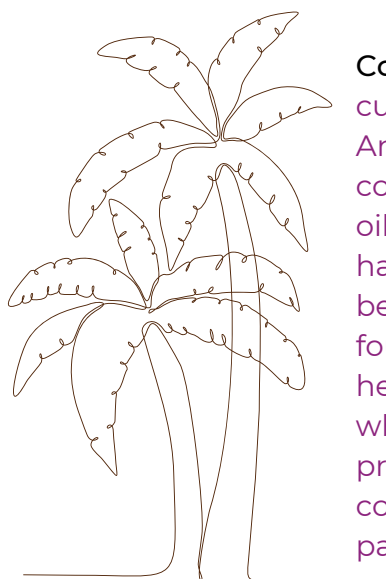
When a bride leaves her parental home, she throws rice grains over her shoulders as a blessing for her parental home for continued prosperity, even though she, the Lakshmi (Goddess of plenty) of the house is going away.

During the festival of Diwali, the festival of lights celebrating the victory of Good over Evil, a kalash, or pot, filled with rice, surmounted with coconut and mango leaves, all symbols of auspiciousness, is placed at the praying altar. Cultural expressions around biodiversity ensure it remains perennial.



Ayurveda, India. Ayurveda is a holistic system of healing that studies how the food we consume affects our bodies. Our food is our medicine - if we have a variety of foods in our daily diet, then we do not need to depend on medicines when we get unwell. Ayurveda notes the thermal properties of the food we eat, such that it produces certain effects within our body and mind. Each body is different and requires a diversity of ingredients to maintain overall health.

We have become accustomed to eating limited kinds of foods. But if there is a vast diversity of tastes, textures, and smells, we can engage all our senses while eating. Ayurveda identifies six tastes - Sweet, Sour, Salty, Bitter, Pungent, and Astringent and the combination of the food one can create with it, allows us a diversity of flavors.



Coconut, India. The Coconut plays a significant role culturally in India, more specifically in the south of India. Any new beginnings are marked with the breaking of a coconut and sprinkling of its water. Its oil is the preferred oil for cooking in south India, which is not surprising as it has cooling properties. It also has many health properties being anti-bacterial, anti-fungal, and containing lactic acid found in mother's milk. Cultural wisdom is important in helping preserve biodiversity, as in the case of coconut, which was wrongly maligned to be unhealthy. This propaganda was floated to displace culturally appropriate coconut oil with so-called refined industrial oils such as palm and soya.



Gumbi, Australia. There is no single creation story among Aboriginal peoples, who have a diverse mythology. Some traditions hold that the Earth was created by one of the gods of the Dreamtime, while others that creatures were created by particular gods or spirit ancestors. When the eternal ancestors arose, in the Dreamtime, they wandered the Earth, sometimes in animal form - as kangaroos, emus, or lizards -- sometimes in human shape, sometimes part animal and human, sometimes as part human and plant. The Gumbi is a sacred tree. It is the story of the gumbi bush spirit, a woman who lived alone by the water hole, and one day while out gathering food she came across a male bush spirit. They courted and fell in love, and when the Gumbi spirit lady fell pregnant, she gave birth, and the baby came out of the seed pod. The Gumbi Mais a bush medicine that has extraordinary healing properties.

Maize, Mexico. Maize is a sacred plant in Mexico and Mesoamerican countries because it is intimately linked to the inhabitants of these regions. On one hand, the ancestral myths highlight the importance of maize in creating humankind. For example, in one of Maya's sacred books, the Popol Vuh, men, and women were made from maize.



The story goes that Gods, after experimenting with different materials like wood, clay, and stone, finally resorted to maize for humankind, so that they could have hearts and be flexible. Other myths mention that ants guided people so that they could find in the caves the corn of maize for them to eat and live. On the other hand, as maize got domesticated, the Mesoamerican woman established a very close relationship with the plant which enabled its very transformation, from a small meal with small fruits into the plant we know today. This change also transformed the inhabitants of the region.

Oak, Portugal. One significant threat to biodiversity and cultural diversity is the introduction of non-native tree species in inappropriate contexts. Native tree species hold cultural and spiritual value, and they are crucial to climate variability resilience. The replacement of native oak tree species in Portugal exemplifies this. In a context that is traditionally home to a variety of wildfire-resistant oak trees, monocultures of flammable eucalyptus trees have been planted, decreasing the resiliency of the country to climate variability and disaster, and contributing to the loss of cultural diversity.

Seikatsu Club, Japan. The members of the Seikatsu Club grow and consume their food through collective work with local producers. Employing this model, of consumers partnering with producers to grow food, means products are not grown for profit as commodities. The Seikatsu club instead chooses a “sustainable lifestyle” in coexistence with Nature, and, as far as humanly possible, aims for self-sufficiency and recirculation in Food, Energy, and Care.

Living means consuming. The choice of “what” and “how” to consume is directly linked to “what kind of future we want” and “what we will leave for the next generation”. All activities are conducted on the basis that the next generation is as important as the people who are alive today.

The Club is not limited to the food itself; efforts are also being made to improve the safety of and reduce the energy used to produce food containers and packaging materials, as well as items for daily use. They aim to solve the issues of everyday life through this co-creation model.

In Japan, the commercial distribution of genetically modified (GM) foods was approved in 1996. In the following year the Club made a deliberate decision to not to handle GM foods, based on three reasons, the lack of knowledge on the true safety of GMOs; the risks GMOs pose to biodiversity; and not wanting to allow big companies, such as Monsanto to control local food systems.

The Club then began monitoring raw ingredients, and working with producers to exclude GMOs from products. For example, a confectionery company replaced the cornstarch used in making candies with sweet potato starch, as it was unknown if the corn starch was from GMOs or not. The countermeasures implemented by the Club against GM ingredients in consumer materials have currently reached a level where only the issue of trace ingredients remains in a small number of consumer materials. This was made possible by working closely with producers.

What is unique about Seikatsu Club is that they work hand in hand with their local producers to come to a consensus as to what their local food system should look like. Working not only with organic farmers but also with conventional farmers to try to support them to become organic. As well as working to promote other sectors of the food system such as fisheries, and livestock farming. by raising the proportion of domestically produced raw materials and animal feed. With consumers and producers coming together in unity, the Seikatsu Club is enhancing food sovereignty, health, and the conservation of local environments through creating self-sufficient, and interdependent food economies.





Image credit: Carbon8

PART 4

Health of the Earth and Human Health are Interconnected: Biodiversity, food and climate change

Preamble

The Earth is an interconnected web of life. Biodiversity, the variety of all life on the planet, sustained by Earth's ecological system of communication, is the outcome of Nature's true intelligence. Nature's laws and knowledge systems, arising out of deep understanding of ecological principles and sustainability, ensure the continuation of healthy systems.

Life creates and maintains life. Living systems have negative feedback loops which keep the conditions of the planet within boundaries that are favorable to life. Climate Change is the result of the rupturing of these boundaries and destruction of knowledge and cultures that live in accordance with the laws of ecology, the laws of *Oikos*, our common Home.

The health of the planet and human health are non-separable. The world is facing a planetary climate crisis and health crisis largely the result of a globalized industrial agriculture system, beginning with the soil, water and seeds, to production, processing and distribution of food.

Climate Change is a result of the arrogance that has led to the destruction of the biodiversity of the Earth and her ecosystems, the rupture of planetary boundaries, of land, seas, waterways, and atmosphere, and displacement of the diversity of indigenous cultures that have trodden lightly on the planet over thousands of years, leaving no destructive signs of violence against the Earth.

Since ancient times, the ocean has been central to the life of the Planet, home to many forms of life that add to biodiversity, food, communication, trade, recreation and inspiration. The health of the seas has been indispensable for the development of livelihood of all species, of marine life and coastal maritime communities and cultures. The multiple threats that the depredation of the ocean and its contamination faces, impacts the role it plays in keeping the balance of the Planet's temperature.



The critical state of the climate crisis along with the interconnected and catastrophic outcomes of soil degradation, desertification, polluted waterways & oceans, loss of species, and greenhouse gas emissions, are all grave symptoms of a global society that has lost its way and rapidly growing more and more dependent on artificial inputs and artificial solutions, the very 'solutions' that have led us to the crises we find ourselves in today.

Artificial intelligence in agriculture such as fake food, biotech engineering, and synthetic fertilizers & pesticides and their fossil fuel dependence not only destroys the delicate balance and vitality of biodiversity but disrupts Earth's ability to deliver and contribute natural solutions to human-induced problems as well as the changing climate.

The Coronavirus pandemic clearly showed us that we can be linked worldwide through the spread of disease. We violate the integrity of species when we manipulate animals in factory farms and genetically manipulate plants through genetic engineering with viral promoters and antibiotic resistance markers. The illusion of the Earth and her beings as raw material to be exploited for profits is creating one world, connected through disease.

We can be connected through health and wellbeing by protecting the diversity of ecosystems, biodiversity and the integrity and self-organization (autopoiesis) of all living beings, including humans.

Transitioning away from industrial agricultural systems toward ecological systems is not only essential to deterring further emissions and mitigating climate change, it means food and water security, improved livelihoods and jobs, the protection and regeneration of biodiversity and of critical ecological systems, animal well-being, human health, and more equitable socio-economic societies.

Biodiversity and climate change

Mother Earth is a self-organized, self-regulating living organism. Through her biosphere she regulates the climate. The Earth's living systems self-regulate global temperature, atmospheric content, ocean salinity, thus maintaining the infrastructure for life to persist and evolve.

The Biodiversity Crisis and the Climate Crisis are one Planetary Crisis. The Biosphere and Atmosphere are intimately coupled systems of the Living Earth.

Over 3.3 billion years, the Earth has been cooled by her living systems. The process of photosynthesis allows living organisms, first microbes and later plants, to capture the sunlight and the carbon dioxide in the atmosphere. Which then allows carbon recycling through the oxidizing process of plants and living organisms. This is Nature's own sophisticated carbon capture 'technology' process. These living processes and living technologies sustain, maintain, and regenerate life and create living economies.

With the Earth, her plants, her biodiversity as teachers we can co-create Biodiverse Economies of Care that provide for people's needs while cooling the planet. The Earth is showing us the Biodiversity Way to address the climate emergency.

Food and health

There is an inseparable link between the way our food is produced and the state of our health. The industrial system of producing food and its consequences to our health and our planet are of critical concern for the health and wellbeing of people around the world.

The root of the problem is the high chemical input in agriculture and food production that industrial agriculture and its Poison Cartel are spreading around the world, and the harm this is causing to people's health due to the loss of biodiversity and consequent loss of micro-nutrient content that is the foundation of healthy food. Alarming, these negative health effects affect every stage of human life with some effects being found to be passed on from generation to generation.

Malnutrition in all its forms (including under-nutrition, micronutrient deficiencies and overweight and obesity) affects over 2 billion people. The incidence of cancer is expected to increase 70% in the next two decades, neuro-degenerative diseases are doubling, and adverse developmental and reproductive effects of chemicals interfering with the endocrine systems, as well as antibiotic-resistance, are alarming concerns for present and future generations.

We are seeing a renewed attack on our food sovereignty and seed sovereignty. The industrial agriculture giants have launched a long offensive to recolonize seed and food through the deregulation and renewed imposition of old GMOs, and a second generation of more dangerous new GMOs created through gene editing. In the European Union, the agribusiness lobby has set out to make these new gene edited GMOs, or so-called "new breeding techniques" (NBTs) exempt from previous GMO regulations, and thus avoid testing, monitoring and labeling. In February of this year the European Court of Justice issued a ruling setting the stage for full deregulation of new GMOs. Despite the fact that there are several highly documented risks associated with these new gene editing technologies, these new GMOs will not have to undergo the same environmental, and healthy checks prior to release as traditional GMOs do. This deregulation is a violation of the rights of people and the integrity of biosafety.

For millennia, farmer's growing of seed and the free exchange of seed was the basis to maintaining biodiversity and food security. Seed is the first link in the food chain, and the repository of life's future evolution. How we relate to seed affects all life on Earth and every human being. Healthy seeds produce healthy food, whereas seeds bred to respond to chemicals or genetically modified seeds contribute to disease and ill-health.



Property rights under the monopolistic and profit-based control of giant agro-corporations transformed seed from a commons shared and exchanged by farmers to a commodity, leading to indebtedness, poverty and underdevelopment, the displacement of huge numbers of farmers and an epidemic of suicides.

The persistent take-over of land throughout the world by mega corporations is powered by huge quantities of chemical fertilizers, pesticides, herbicides, and modified seeds that are impoverishing the Earth, and indiscriminately poisoning soils and citizens.

These high environmental and health costs are largely excluded from the pricing of food, creating the illusion, through false marketing, that these nutritionless and unhealthy food products, with high financial, ecological and health costs, are 'cheap'.

It is crucial to recognize that the agriculture sector is a major component of what can best be described as 'predatory globalization', the control and management of the world economy to ensure mega profits for agri-business giants under the guise of 'efficient food systems for feeding the world', and clearly not for the wellbeing of people and the planet.

The corporate push for synthetic foods

In response to the crises in our food system we are witnessing a rise of technological solutions that aim to replace animal products and other food staples with lab-grown alternatives.

Biotech companies and agribusiness giants are seeing the opportunity to move into this promising market of "green" consumption and these products are marketed to a new generation of environmentally conscious consumers who are growing critical of the grim realities of industrial food production. As a result, meatless burgers and sausages, as well as imitations of cheese, dairy products, seafood, and others, have begun to flood the market, being found anywhere from fast food chains to local grocery stores.

The notion that high-tech, "farm free" lab food is a viable solution to the food crisis is simply a continuation of the same mechanistic mindset which has brought us to where we are today - the idea that we are separate from and outside of Nature.

Artificial food and the ecological transition

Faithful to its mechanized mindset, Industrial agriculture is further re-inventing its future based on "fake food" and "fake farming", along with chemicals and GMOs, surveillance drones and spyware - having reduced food to a commodity, to "stuff" that can then be constituted in the lab.

Although these products market themselves as 'eco-friendly', 'healthy', and 'sustainable', they are no such thing as they do little to truly address the root problems of industrial agriculture and its environmental, and health consequences.

Synthetic foods are made from lab-produced proteins which include meat, fish, dairy and egg-like foods, produced with plant raw materials grown with GMOs and herbicides and supplemented with minerals, vitamins and fats (plant-based) - or through cell culture and scaffolding - cells from a live animal (by harmless biopsy) in bioreactors. The claim is to produce proteins free of animal suffering, while lowering land and livestock greenhouse gas emissions. However, energy use of cultivated meat releases more greenhouse gasses than traditional farming and even water consumption is higher than livestock operations.

These artificial mechanistic modes of food production deny the essential symbiotic relationships between humans, plants, animals and microorganisms and, in turn, deny their potential to maintain and regenerate the web of life. The notion that we are separate from and outside of Nature and that Nature and what she produces can be manipulated and commodified for commercial bartering and financial gain, means farming without farmers, farming without biodiversity, and farming without soil. It is a vision of those whose systems have already brought us to the brink of catastrophe.

Real food is not created in a laboratory, but comes from biodiverse farms that take care of the land through a regenerative agriculture model. Food is the web of life and we cannot separate food from life. Similarly, we cannot separate ourselves from the Earth.

The Earth is showing us the Biodiversity Way to address the Climate Emergency, hunger and the health crisis. The Biodiversity Way works with Nature, working with the soil in regenerating and intensifying biodiversity and ecology instead of intensifying fossil fuels and chemicals.

We must therefore work actively to renew and regenerate the Planet by participating in ecological processes of reciprocity and restoring biodiversity. For this to happen, the act of eating must once again become an ecological act as a first step in stopping these false solutions being pushed by the advocates of synthetic foods, which in effect do nothing to counter the polluting ways of the agri-food industry.

Mitigating climate change through ecological farming

Numerous scientific reports tell us that industrial food systems contribute at least 30 percent of greenhouse gas (GHG) emissions. Additionally, industrial agriculture is responsible for approximately 80 percent of biodiversity loss and uses up to 70 percent of freshwater. Agriculture is the second leading cause of outdoor air pollution, accounting for 20% of the total disease burden. Globally, outdoor air pollution leads to 3.3 million premature deaths annually. The global industrial food and farming system is a major global warming culprit and uses an intense amount of natural resources.



Soil health impacts the entire carbon cycle and how we manage farms, ranches, forests, wetlands, and grasslands is central to limiting global warming. Solid science confirms that healthy soils can actually draw down CO₂ from the atmosphere and store it underground where it should be. Good farming and care of our landscapes and natural resources is essential towards reducing GHG emissions and re-balancing the CO₂ in our atmosphere.

We must preserve our planet's biodiversity and redress the Planet's rapid deterioration and ability to sustain life on Earth. For this, it is imperative to put into practice farming practices that protect and preserve land, ecosystems, biodiversity, local economies, cultures, and communities. This implies respecting, relying on, and adhering to Nature's true wisdom.

One such farming practice is Agroecology that is based on biodiversity and works in harmony with, not against Nature. It is a vibrant and fully proven alternative approach to food security and food production, for the integral development of communities, combining quantity and quality and maximizing the benefits to the health and wellbeing of the planet and people. Agroecology promotes the essential shift from the present extractive, linear approach to one based on circularity, reciprocity and sharing, and regenerates the health of the planet's ecosystems and communities.

Climate change and Antimicrobial Resistance (AMR)

Scientific evidence demonstrates that heat is closely associated with bacterial processes and infections. There is a mounting spread of infections, including antibiotic-resistant infections, worldwide. With the changing climate, antimicrobial resistance will dangerously increase. It is clear that human impact on the environment is the main source of climate change and AMR genes. Flooding can determine the spread of waterborne infections due to the overflowing of contaminated waters by livestock or from sewage lines, a known reservoir for antibiotic-resistance genes. Flooding can also disseminate pollutants, heavy metals from industrial manufacturing and plastics in the environment, which are known to enhance AMR.

It is increasingly accepted that all environments where food of animal or non-animal origin is produced and/or processed, have become main drivers of antimicrobial resistance. Food producing environments are increasingly contaminated by antimicrobial-resistant bacteria that derive from different environmental effluent sources. Inappropriate use of antibiotics also contributes to the increase of resistance. The reality is that the commodification of Nature and its living beings, built on the overuse of antibiotics outside of the field of human medicine, is the major factor that we need to address.

Solutions to our global crises already exist and they come from building cultures of interconnection and regeneration, as well as healing our relationships with food, Nature and community. We need to become aware of the connections that give us the opportunity to regenerate the Earth, our health, our food economies and food cultures through a real agriculture that cares for the Earth and health of people.



Image credit: *umlambo wokhanyo* (translation "river of light") by Sisonke Papu // KHNYSA

"This work is an on-going exploration of 'izithunywa zendalo: amanzi' (messenger of Nature: water (element)), and centralizes the fluidity of breath. The river of light can also be considered as the energy system that runs through our nervous system, which in turn represents the veins in plants and river systems both above and below the Earth."

PART 5

Ecofeminist Economics of Giving, Reciprocity and Care

An Economy of Care is the Economy of Life. The word Economy derives from the Greek word 'Oikonomia' - *Oikos* means Home - people and the Earth are placed at the center of how we run our Home - humanity's home, Mother Earth and all her sentient beings. Economics is about living in harmony with others in mutual reciprocity. It is not an instrument of competition or power which leads to enmity and war. It is about living in peace, care, and mutuality.

Economy is about life's generosity and the joy of the present and of the natural world, which increases and is to be shared. Economy is not an instrument of extraction or of separation, It is the act of Mothering, innate not only in the woman but also in the caring, compassionate man.

Ecofeminist Economy is about freedom - the freedom of every person, man, and woman, to mother and care for their children, their families, and communities, and to pass on their knowledge and love of one another and of the Earth, in harmony with the rhythm and cycles of all sentient beings on our planetary home.

The Gift Economy

Indigenous peoples have survived and brought with them down the ages their ancestral mothering economy known as the gift economy.

Gifting is a law of Nature, a flow of universal love, which outlasts and survives its use. The Gift Economy creates bonds as added value that is devalued as mere 'interest' within the exchange economy. With the gift, sustainability is guaranteed because its use at once assures its plenty. What you give back to Nature returns as its sustainable use. Balance is thus retained. The ecological crisis is the effect of a misguided worldview where we are cutting the very branches of the tree of life on which we sit ourselves. Gifting is the holistic model of abundant lifeways which we need to embrace into our economy of life. Gifting applies to all fields of society and is the way our civilization will survive.

Manifesto on Economies of Care and Earth Democracy

On Biodiversity Day in 2022, Navdanya International presented the Manifesto on Economies of Care. Below are excerpts of the principles.

Care and mutual support are the currencies of life both in Nature and society interacting together as a whole, sharing intrinsic values and inherent rights. The Earth, Gaia, Terra Madre is a living planet whose rich biodiversity of life has evolved over billions of years and sustains all life. It is neither dead matter or raw material to be exploited and degraded. Care of the Earth and of all life is our ethical and ecological responsibility.

Earth Care is the Economy of Life, Oikonomia.

In a time of ecological and social collapse, healing and regenerating the Earth is the basis to restoring the human future.

1. Care of the Earth and Earth Rights

Recognize we are one Earth Family, interconnected living beings, in all our diversity, participating in, and sharing a common web of life. Care of the Earth regenerates Nature's resources, biodiversity and economy that provide us with life and sustenance.

Industrialization, driven by fossil fuels and oil, is destroying Earth's living ecosystems and has led to the crises confronting humanity today.

2. Human Intelligence, Autonomy, Freedom, and Rights

Humans have been co-creating with the Earth, her biodiversity and with each other since time immemorial. The Cartesian mechanistic and separative approach to all life has reduced humans to machines, to non-thinking and mechanical beings, responding mindlessly to imposed norms and stimuli. High-frequency technology and digitalization is numbing our brains and intelligence and eroding our inherent right to choose.

Economies of care are based on reclaiming our minds, autonomy and creative potential, to preserve our freedoms and our rights to work in service to the Earth. Economies of care stimulate creative freedom, justice and cohesion.

3. Regenerating Community

Life is a sensitive and caring communal phenomenon - in society as in Nature. It is relational, not atomistic. Communities are where local economies of sustenance, health and wellbeing converge and regenerate, creating harmony and prosperity .

4. Reclaiming the Commons

Economies of care are based on reclaiming the commons and public goods - the commons of seed and biodiversity, of water and land, of food and nourishment; and the public goods and services that societies have evolved through common responsibilities and common rights : knowledge, democracy, health, education, energy, transport, and shelter.

Mother Earth is Not for Sale.



5. From Competition to Cooperation, from Economies of Greed to Economies of Care from Extractive to circular economies of the Law of Return

Cooperation and synergy are the basis of Care economies. Economies of Care respect Earth's limits and are based on needs.

Competition and greed destroy the capacity of ecosystems and communities to renew, regenerate and produce, and create scarcity, hunger and disease, disposability, unemployment, and violence.

Economies of care are based on circular economies, of giving, reciprocity, sharing and mutuality – the Law of Return. They increase the creative and regenerative potential in society and Nature. They are participatory and lead to harmony, wellbeing and plenty.

6. Diversity and Decentralization

Globalization has led to centralized control over the Earth's resources, centralization of control over markets and the degradation of quality – of the food we eat and the clothes we wear. Quality requires care. Economies of care imply decentralization and participatory democracy and encompass cultural and biological diversity which engender participation and localization rooted in relationships and affinity

7. Democracy

Economies of care are based on equality, justice and dignity for all and are at heart of a living democracy of the people, by the people, for the people. Economies of Care generate food, health and work for all.

Economies of greed are based on centralized control, uniformity, and care-less technologies, rendering people dispensable, and are a threat to democracy, Earth Democracy is the democracy of all life .

8. Consideration and Care for the Rights of Future Generations

Principles of economies of care are founded on the visionary Seventh Generation Principle of the Iroquois Confederacy, where the guiding principle for all policies is consideration and care of the next seven generations : "In our every deliberation, we must consider the impact of our decisions on the next seven generations".

9. From War and Conflicts to Peace and Harmony

Greed and competition create conflicts and wars over resources of the Earth that destroy the Earth. To avoid ecological collapse and species extinction, we must stop the warring against the Earth in accordance with ecological laws, planetary boundaries and the rights of the Earth, Nature and people.

Regenerating and healing broken cycles and ruptured societies through care allows us to make peace with the Earth. As Gandhi reminded us "The Earth has enough for everyone's needs, but not for a few people's greed". Caring for and sharing Earth's gifts is the path to Peace.

The full version can be found at <https://navdanyainternational.org/publications>.

Corporate economies

Corporate globalization has put corporate profits above people and the planet, and reduced Earth's home economy to the corporate economy. The capitalist world of industrial agriculture has proven deeply destructive to the health of the planet and of people. Greed, corporate globalization, and free trade are producing a sick planet, dying democracies, and dying economies.

The polarization of society between the 1% and 99% is a symptom of the economic war against society and people. The 1% does not represent society, an economy, or democracy. They embody the limitless urge for profit, accumulation, extraction, domination, and control. The 1% now controls 82% of the economy, robbing the rest of humanity of their rights and their share of the planet's resources, societies' wealth, livelihoods, and basic needs. This system of theft from the 99% is built into the rules of corporate globalization written by the controlling corporations for their unfettered profits and undermines all democratic systems that ensure justice and equality.

High-frequency technology and digitalization along with big data algorithms, artificial intelligence (AI) and robotics are numbing our brains and intelligence. They now imagine a future of farming without farmers, manufacturing without workers, education and information without teachers, health without doctors. The numbers of unemployed are increasing exponentially, and the young are unable to envisage a future with a family.

The recent COP-Conferences of Parties, on Climate in Egypt and on Biodiversity in Canada ended up with false solutions, based once again on 'free markets'. New frontiers are opening up for their conquests with a new wave of commodification and financialization of Nature. Global leaders are pro-actively working to give a price to the ecosystems and their functions and to trade them on a new global financial market, open to rabid speculation.

'Free market democracy' is an oxymoron which really means complete freedom to the commercial whims of the corporate world, and no democratic rights for people. Some signs of vocal discontent have begun to emerge. At the start of the Davos World Economic Forum, the Club of Rome reported that some thirty world-leading economic thinkers from sixteen different countries previously signed an open letter calling for taxing the richest 1% and calling for bold steps to tax wealth, income, and companies to avoid a dangerous threat to democracy.

A market-free society, not a free-market society, for an economy of care

The creation of scarcity, the globalization of spiritual and material poverty and the destruction of cultures and species are essential expressions of a parasitical centralizing market system which denies the gift-giving logic of mothering and are emblematic of a wealth-creating system. Planetary boundaries must be recognized and respected. We need a 'cap-and-share' policy rather than a 'cap-and-trade' policy.



Life cannot be traded or bought; its value cannot be quantified. We need different markers to define economic values. The rights of Nature and Nature's Laws must take precedence over the laws of profit and competition. It is only through radical transformation to an economy of reciprocity and care that humanity can build a future for the generations to come.

Against the dogma of a destructive and profit-based market, we need an Earth's rights-based approach, both human and non-human rights. An approach that recognizes both people's right to a healthy Planet and the rights of Nature. An approach that those who do damage to ecosystems and the Earth are held accountable.

Reclaiming the original care economy

We must reinstate the ecological laws of Nature including ecology-honoring diversity, sharing the commons, caring for Mother Earth, and respecting her creativity. Care protects biodiversity, it protects water, and it protects land. Care implies a shared mutuality between each of us, which extends to the Earth, including the commons. Care is the dance of effective alliances.

We need to reclaim the 'Buen vivir', 'Ubuntu', of our Latino and African sisters and brothers, as the philosophy of humanity, personhood and compassion, the ancestral philosophy of gifting as the causative, dynamic life-force, or power responsible for all of creation.

Traditional gift giving societies integrated the care logic of mothering into the wider community in many ways, not least in shaping the future of their offspring based on security and love, creating a more caring and just future. Hence motherhood as a human norm and a cultural, not biological model of gifting, brings fundamental balance for a peaceful future. To do so, we need to transform politics, religions, cultural practices and myths, education, and health care to ground them in the ecological laws of Nature - prerequisites for transitioning to a just and peaceful Life on Earth.

Economies of care are now a social, political, ecological imperative. Sowing the seeds of the future demands that we participate in democratically shaping our economies and how and what we produce and consume.

Economy is about our home. Globalization has stolen our power and right to choose how we run our Home. We must reclaim that power, decentralize, and put our home economy into the hands of caring people.

We need to remind our leaders that the laws of Nature take precedence over the self-interested rules of the profit-based competitive corporate economy and that it is only by replacing competition with cooperation and respecting the rights of Nature and of people that we can hope to guarantee a more equitable and caring future for all Humanity.



Image Credit: Marion Bessol

PART 6

Making Peace with the Earth

Making Peace with the Earth begins with making peace with ourselves as Earth beings, as Earth citizens.

Violence against the Earth, women, indigenous people has been the dominant trend in our times. A Separatist mind of powerful and competitive men, assuming superiority, perceives humans as at war with each other and with Nature. The Capitalist paradigm of science, technology and economy has created a permanent war against the Earth, her biodiversity, her diverse cultures.

Colonialism, mechanistic science, and industrialism have separated us in our minds from Nature and the Earth. We have become blind to our interconnectedness among ourselves and with other species, and our dependence on them in all their diversity. We are rushing to extinction in anthropocentric arrogance, destroying the conditions of life on Earth.

Inspired by Descartes' mechanistic paradigm that mind and body are two completely different things, advocates of the transhumanist movement are still seeking to escape the body, and merge with the machine, following the narrow Cartesian denial of humans as sentient living beings with life and intelligence embodied in our bodies and in our relationships with other living beings. Through the use of current and emerging technologies—such as genetic engineering, artificial intelligence (AI), and nanotechnology, they are manufacturing illusions that we will overcome death, and become enhanced age-defying human beings. In the last two decades, with the ultimate goal of becoming "posthuman" the movement has become the next lucrative capitalistic high-tech venture with Silicon Valley entrepreneurs leading the way. Blind to the harms caused by mechanistic reductionism, they are rushing headlong into denial of life, the integrity, autonomy and intrinsic value of our lives, and the interconnectedness of our lives with other living beings.

Long-term profits and control over life take precedence once again over the perils and dangers to the health of humanity and the future of society. We will end our humanity by disappearing into machines and their algorithms.

Because our bodies connect us biologically and ecologically to Nature and her living processes, through exchange of nutrients, water, energy, intelligence - a denial of our bodies, and a denial of our being human in embodied form, becomes a denial of Nature and of life, a denial of the potential of critical thought and our duty to care.

The value of the Earth in a capitalistic and globalized world has been reduced simply to its commercial value that can be sold, made toxic or simply ignored. The Earth's ecological capacity to sustain life is poorly recognized, as is her capacity to lift spirits with her majestic and simple beauty. Mechanistic, reductionist science has very limited capacity to explain the complexity and self organization of Nature that creates resilience to shocks and is capable of adaptation.

Humans measure Nature's evolution through a reductionist and short time perspective called "productivity". Its production and reproduction have been separated, even though in a regenerative living world and in circular economies, production is part of reproduction. This is not only true for the capitalistic vision of Nature, but it is equally true for the role of women seen as a reproductive role, sex objects or childbearing machines, dismissive of their vital role in producing food, providing water, and being central to the economy of care.

It is clear that as a Human Family, we have contravened Earth's Sacred Laws, and now Mother Earth is communicating and showing us that she is very, very sick. As a Human Family we have reached the precipice where our actions will determine if Life will continue. Warnings have been given by Indigenous Nations throughout the world and over centuries to keep the balance and sacredness of Life intact. All warnings have gone unheeded, ignored, voices marginalized, leaders murdered and even science refuted.

The 20th century, one in which conventions and covenants on human rights and environmental protection flourished, was also a century of record-breaking death, human rights violations and ecological destruction perpetrated within wars, both declared and undeclared. The 21st century has begun with no less gruesome hostility and environmental destruction.

At this writing, there are over 27 ongoing wars in the world with colossal sums being spent on armaments that are spewing toxins and damaging our ecosystems, monies that instead could go towards improving the health of millions of women and children who could benefit from our care, our science, our knowledge, as well as the millions of degraded lands that could help mitigate the crisis of climate change. Nature and women give us life not death. We must engage to stop this madness and make peace with our Earth through the care, the harmony, the solidarity, and collective collaboration that women radiate.

All wars, putatively just and unjust alike, including 'dirty wars' of repression, low-intensity conflicts within and between countries and political groups, ethnic conflicts, and civil wars, are unexamined public health and environmental disasters. They leave in their wake humanitarian crises and human rights abuses, aggravated sexual exploitation of women and girls, and extreme and often irreversible environmental degradation. The egregious and singular trauma of war for women and the natural world, harm that is belittled as collateral damage, is rarely documented by the perpetrators of armed conflict and unaccounted for in war reparations.



This must and can change if the UN implements fully Security Council Resolution 1325. This resolution affirms that peace and security efforts are more likely and sustainable when women are equal partners in the prevention of violent conflict, the delivery of relief and recovery efforts and in the forging of lasting peace. As the Ghanaian statesman and former Secretary General of the United Nations Kofi Annan insightfully stated: "There is no policy more effective in promoting development, health and education than the empowerment of women and girls and no policy is more important in preventing conflict or in achieving reconciliation after a conflict has ended."

Gender equality is not only a fundamental human right, it is also a necessary foundation for a peaceful, prosperous and sustainable world. Peace and the security of nations are powerfully linked with the equality of women. Researchers found that the degree of equality of women within countries predicts best how peaceful or conflict-ridden their countries are. Similarly, democracies with higher levels of women's equality are more stable and more likely to choose diplomacy rather than aggression to resolve conflict.

The evolutionary role of women in shaping a world where justice, health, sharing, harmony, and social equity prevail over individualist actions and short-term profits must be reflected globally in governmental and policy making bodies as a matter of priority.

Abya Yala, the oldest known name given to the totality of the American continent, envisaged as an inherited perspective of indigenous peoples, emphasizes the notion of Mother Nature or Mother Earth, the re-emergence of Nature as the leading force in all fields, above all in the world of politics.

Peace with the Earth begins with cultivating non-violent ways of knowing and living, of listening to Nature and learning from species who have been here long before us. Nonviolent economies are based on recognizing and respecting the creative contributions by the Earth, women, indigenous cultures, farmers and workers.

A shift from violence to non-violence has become a survival imperative. It is also an ethical and ecological imperative. The word ahimsa or nonviolence does not mean just the absence of war but is a whole new way of living in harmony with each other, with all of creation, with mother Earth and with the universe. Gandhi wrote, "The principle of nonviolence necessitates complete abstention from exploitation in any form". If we are able to live together without exploitation of the Earth and its resources and without exploitation of each other, peace and harmony will prevail in the world.

The time has come to reclaim the stolen harvest and celebrate the growing and giving of good food as the highest gift and most revolutionary act.

We must embrace and promote the concept of Buen Vivir/Living well - to counter the crisis of the modern world. It encourages citizens to practice a politic of life and discard modern dogmas of development, progress and growth. Buen Vivir refers to the ethics of the collective and of communality in which the behavior of the individual is defined by harmony with itself, with others, with Nature and with immanence or a cosmic essence. It also seeks to restore humanity's collective memory and behavior that tends towards coexistence and the common good.

We need to reinstate the eco-friendly ceremonies that transmit the values of treating non-human life with thanksgiving rituals to ensure moderation and balance in our lifeways.

The next step of our evolution is shedding anthropocentrism and the mechanical view of the world, living together in the democracy of life.

In the democracy of the Earth, there are no privileged species. The Earth is intelligent, every being on the Earth is self-organized and intelligent.

Seeds are not machines. Plants are not machines. Animals are not machines. We are not machines. We are biological beings, ecological beings, Earth beings, inter beings, spiritual beings.

We are one Earth Family.

Intelligence is not exclusive to humans, nor is it exclusive to men. Life is intelligent. As conscious, intelligent and caring beings we envision and cultivate a future of peace and nonviolence, of abundance and wellbeing for all humanity.

We do this by consciously shifting our mindset to one of diversity, mutuality, non-violence and care.

The fight for truth is not just our right as free citizens of free societies. It is our duty as citizens of the Earth.

In this evolutionary moment, we commit ourselves to reclaiming our future in caring relationships with the biodiversity of life on Earth and the cultural diversity of humanity, based on the pillars of living intelligence, mutuality, non-violence and care. It is The Art of Living.

As the ancient Yajurveda says:

"Relating to all living beings through love and compassion is the purpose of life"

'मित्रस्याहं चक्षुसा सर्वाणि भूतानि समीक्षे'- (यजुर्वेद- 36/18)



Call to Action to Make Peace with the Earth

Seed Freedom

Seed is the source of life. It is the self urge of life to express itself, to renew itself, to multiply, to evolve in perpetuity in freedom. Seed is the embodiment of biocultural diversity. It contains millions of years of biological and cultural evolution of the past, and the potential of millennia of a future unfolding. Farmers rights to save, exchange, evolve, breed, sell seed is at the heart of Seed Freedom. Seed sovereignty is threatened by the deliberate transformation of the seed from a renewable, self generative resource to a nonrenewable patented commodity. Sharing and not appropriation should apply to biodiversity and genetic resources as well as to their associated knowledge.

We shall continue promoting participatory breeding, seed saving, and seed sharing, in the name of Seed Freedom. The only option to develop resilience in the face of climate change, is to cultivate diversity. Modern-day industrial seed breeding seeks consistency of plant production, meaning the same plant variety must produce a uniform crop. Farmers, and local and small breeders, especially women, have been plant breeders and seed producers throughout agricultural history. And have bred for consistency through time to build resilience to ensure successful harvest throughout the generations. Therefore, agrobiodiversity for seeds must remain in the hands of small farmers, free to exchange, grow, revitalize and evolve living seed.

Seed Freedom and Biodiversity is the foundation of Food Freedom and Climate Resilience. We commit ourselves to defending seed freedom as the freedom of diverse species to evolve, in integrity, self-organization and diversity.

Climate Resilience

The climate crisis we are facing today is being exacerbated by the industrial food system which is both very vulnerable to climate change and a significant contributor to it. We are witnessing today the attempt by agri-corporations, in conjunction with the World Economic Forum, to hijack the narrative of transition, by manipulating the vocabulary, and propose greenwashed or techno "silver bullet" solutions. We do not accept Industrial Agriculture as a solution to the climate crisis and hunger. We do not recognize false solutions to climate change such as geo engineering, "climate smart" agriculture, genetic engineered "improved" seeds, or "biodiversity offsets".

A global transition to biodiverse and local food and farming systems is key both for mitigating and adapting to climate change and for ensuring food sovereignty, the overall health of ecosystems and people, the generation of livelihoods and healthy economies, the creation of equity and justice. Millions of farmers, seed savers, gardeners, and local communities are already building this alternative rejuvenating the planet, one seed at a time, building the health of ecosystems, generating livelihoods and healthy economies and creating equity and justice.

Health

The Earth is an interconnected web of life. The health emergency we face as a global community is connected to the health emergency the Earth is facing through its steady degradation, the extinction of species and the climate emergency. We call for a holistic and integrated response to the current health emergency. Biodiversity richness in our forests, our farms, our food, our gut microbiome make the planet, her diverse species, including humans, healthier and more resilient to pests and diseases. This means making a transition away from the fossil fuel intensive, chemical intensive, industrialized and now digitized paradigm of agriculture and globalized trade. Such a vision stands as the root cause of our current health crisis and only serves to increase our separation from the Earth. Instead we call for the imperative transition to local, biodiverse, ecological systems of producing and distributing food in order to heal ourselves through healing the Earth.

Food

Food is the source of nourishment and life, not a list of isolated nutrients. Many of us know our food only through numbers: how many calories, how many grams of cholesterol, protein, and fat. But food is more than this. Grown organically, in living soils, with methods that support biodiversity and the health of our environment, nutrient-rich, chemical-free food is the basis for our health, and the basis of our food cultures. Food is not just fuel for our machine-like body. Living food nourishes our minds, connects us to our ancestors, and brings meaning to our lives. We use four of our senses before we lift a utensil. Flavor has the power to remind us of our histories and our relationships. Everyone should be able to be proud of their roots, of their regional specialties, of their unique tastes. We shall work to change the way we think about food in order to put an end to the uniformity of taste. Food is a pillar of our diverse identities, part of our cultures and relationships with Nature. Eating is political. Eating is an ecological act.

Earth Democracy

We commit ourselves to creating participatory living democracies and resist all attempts to hijack our democracies through powerful interests. We will organize on the principles of sharing, inclusion, diversity and the duty to care for the Planet and each other. We make a pact to live consciously as Earth Citizens recognizing that the Earth Community includes all species and all peoples in their rich and vibrant diversity. We will plant gardens of hope everywhere, and sow the seeds of change towards a new Planetary Citizenship and for a new Earth Democracy based on justice, dignity, sustainability and peace.



Diversification and Intergenerational Responsibility

We embrace traditional practices which will allow us to diversify our foods and our production systems without raising energy inputs. We will continue to encourage animal husbandry practices and seasonal foods, we can look to examples like “kacchi ghanis” cold pressed oils and the four ways to produce jaggery, respectively. Working within seasonal parameters and working in partnership with animals will allow us to diversify. We will endeavor to transmit intergenerational knowledge around food preparation by inviting our children, partners, friends, and elders into the kitchen. It is in this space that lessons on food seasonality, medicinal spices, and the delicate flavor balances home-made remedies and recipes are passed from grandmother to mother to daughter.

Youth

Youth are valuable contributors to diversity. We recognize the need for alternative flows of information and communication. Our mission to self-organize requires that we are able to communicate our values not just within an echochamber, but to a new generation of women, farmers, climate activists, and citizens of the world. Another way to facilitate the intergenerational sharing of food wisdom is by developing institutions of ecological teaching and learning. From creating a food garden of hope, to cooking a meal, to cultivating a diversity of seeds across and within species. It is important to get young students of all ages involved in learning about food and agroecosystems from seed-to-table.

Festivals

We will collect and communicate our traditional knowledge and stories of creation. Storytelling and celebrations are valuable means of re-embedding ourselves in Nature. In India, many traditions or festivals occur at a seasonal turning-point, which allows us to locate our daily work, in a sacred and cosmic context. In other parts of the world there are ecologically-rooted traditions as well, such as the many agricultural folk festivals in Italy, and these are the stories we are committed to continue telling. Youth can be inspired and excited through the revival of songs, celebrations and festivals having to do with agriculture, and part of welcoming youth into the conversation is encouraging them to sing their songs and dance their dances as well.

Biocultural Stewards

Women and farmers keep systems of biodiversity alive. It is necessary to preserve the communities that allow biodiversity to thrive by recognizing and supporting these stewards. Farming communities must be recognized as collaborative guardians and managers of ecosystems. Through the use of holistic, agro-ecological technologies we may bring about a more equitable, more sustainable, and healthier Planet. To fight hunger, we need a fair distribution of food, land, and wealth. There is enough food in the world for everyone; unfair ownership, competitive conditions, monopolies, man-made conflicts, lack of infrastructure and education, are the root causes of world hunger.

In order to begin to reverse the urgent biodiversity extinction crisis, it is fundamental to recognize that the biodiversity of our planet is inextricably linked to the traditional knowledge and regional practices that make up our bio-cultural heritage. Once biodiversity is recognized as the biocultural heritage of indigenous peoples, women and small farmers we will understand that it is only through the perseverance of these peoples, their languages, their knowledge and wisdom, and their practices that the degradation of biodiversity can be avoided. We as a collective gathering of women see sharing, cooperation, non-violence, and holistic education as the path to a hunger-free and abundant world.

Economy of Care

Local living economies of Care protect the Earth, create meaningful work and provide for our needs and wellbeing. Care of the Earth regenerates Nature's resources, biodiversity and economy that provide us with life and sustenance. Economies of care are based on circular economies, of giving, reciprocity, sharing and mutuality – the Law of Return. Economies of care are based on reclaiming the commons and public goods – care of the Earth and sharing of the Earth's common resources: the commons of seed and biodiversity, of water and land, of food and nourishment; and the public goods and services that societies have evolved through common responsibilities and common rights: knowledge, democracy, health, education, energy, transport, and shelter. Privatization, patents and enclosures of the commons are a failed system of a colonial process based on extraction and greed and have no place in economies of care. We endeavor to create producer-consumer networks that localize food systems and encourage coexistence, self-sufficiency, loving care, and enable rural economies to thrive. We look up to our Japanese sisters with the Seikatsu club who, every day, organize the purchasing of diverse, clean and GMO-free produce for 420,000 households. Local living economies of care are based on reclaiming, recovery, and rejuvenating through localisation and decentralization to reduce the ecological footprints, increase economic opportunities and wellbeing of people and communities, and enhance community cohesion. We will not participate in production and consumption systems, including industrial food and agriculture, that destroy the Earth's ecological processes, her soils and biodiversity and displace and uproot millions from the land.

Rights of Nature

Mother Earth intrinsically has rights. We have to recognise and live according to her laws. The denial of Nature's rights has led to destruction of Nature and now threatens the very conditions of human survival. In an ecologically interconnected world, denial of the rights of Nature translates into denial of human rights, as the same constructs that lead to violence against Nature and her destruction, are the basis of violence against fellow human beings. One of the most destructive allowances of extraction based economies is for man to treat Nature like a storehouse of resources. We must recognize that Nature's rights are People's rights, and we have a duty to protect both.



Oneness vs Separation

There are two ways to see the human relationship to the Earth. Through a vision of interconnection that recognizes that all humans are part of Nature, not separate. That sees that Nature and women are not objects to be exploited or used by hierarchies of power, and that no human is superior to any other, irrespective of their gender, culture, work and livelihood. We are one interconnected and interdependent humanity living on planet Earth. Or we can fall into the trap of separation and domination, as is the basis of capitalist and mechanistic thinking which rules us today. Mechanistic knowledge sees the world as a machine, not as a self-organized living system. Machines are assembled and controlled externally. Their function is given from outside, such as the production of a specific output. Acting as if the world were a machine leads to a world in which living processes and systems are undermined and destroyed. We must instead recognize that we are a single Earth Family, united in diversity, oneness and the duty to care for the Earth.



Image credit: *Enclosures and Recovery of the Commons*, Navdanya



Letter from the Co-Founders of Diverse Women for Diversity

Dear Diverse Women,

Many years ago, at an early meeting of the Convention on Biological Diversity, Canadian journalist Holly Dressel and Canadian scientist David Suzuki noticed that those who were there, fighting for biodiversity, were — in Holly's words, “Africa and a thin line of women.”

Most who stood in that thin line of women would later be the initial members of Diverse Women for Diversity.

Long ago, in Greece, in what was then the city state of Athens, men were required to take an oath of citizenship. In that patriarchal time, women were not required to take the oath. Perhaps it was because the women were already doing what the oath demanded or perhaps it was because women were not as preoccupied with fighting the tribal wars of Athens as they were with mourning the victims.

Here is the Athenian oath. We have altered just one word — replacing the word “city” with the word “Earth.” To us, the improved oath is thus transformed into a joyful promise from Diverse Women for Diversity:

“We will never bring disgrace on this our Earth by an act of dishonesty or cowardice.

We will fight for the ideals and Sacred Things of the Earth both alone and with many.

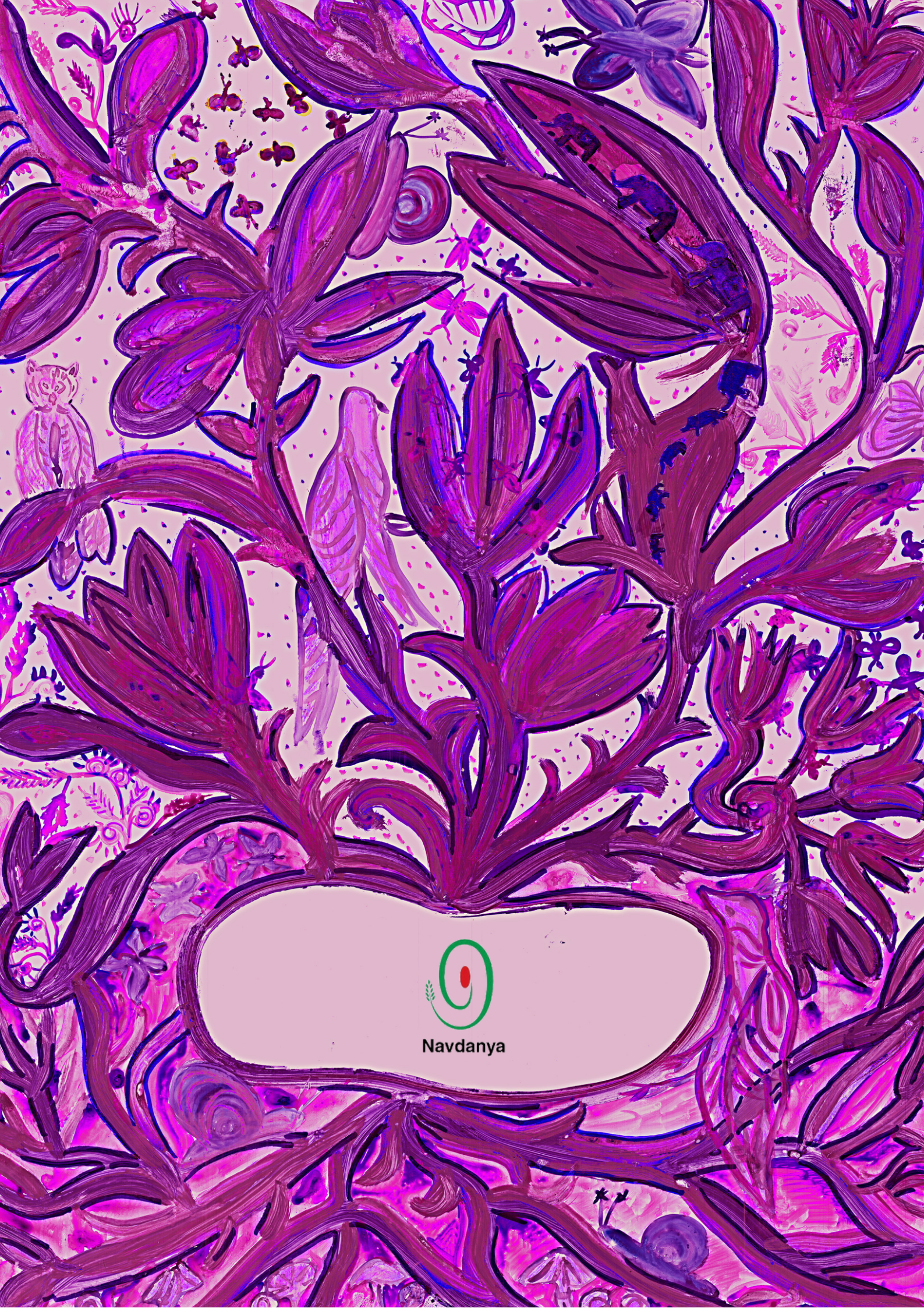
We will revere and obey the Earth's laws, and will do our best to incite a like reverence and respect in those who may be prone to annul them or set them at naught.

We will strive unceasingly to quicken the public's sense of duty.

Thus, in all these ways, we will transmit this Earth not only, not less, but greater and more beautiful than it was transmitted to us.”

In gratitude,

Beth Burrows and Christine von Weizsaecker



Navdanya