



# BIODIVERSITY IS LIFE

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"Biodiversity is life.

Biodiversity weaves the web of life.

It is not corporate 'intellectual property'.

It is not a financial asset of those whose greed drives biodiversity extinction and loss."

— Dr Vandana Shiva

# BIODIVERSITY IS A CONTINUUM

THE HEALTH OF THE PLANET  
AND THE HEALTH OF PEOPLE  
ARE ONE.

EVERYTHING IS  
INTERCONNECTED.



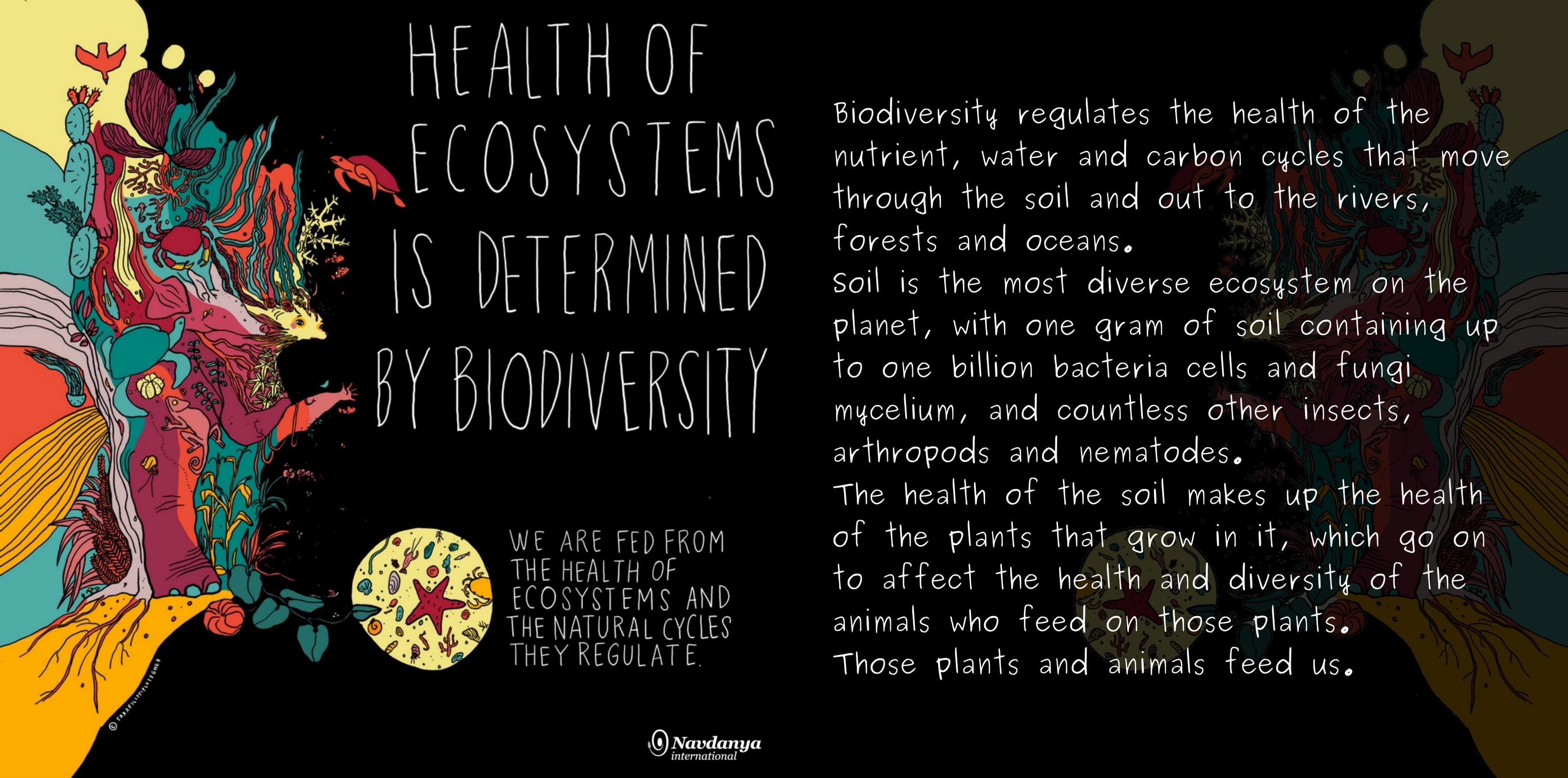
There is an intimate connection between all levels of biodiversity, and the health of every being on the planet.

Biodiversity determines the health of an ecosystem as it creates and maintains niches for a variety of different beings as well as rejuvenating ecological functions.

The greater complexity an ecosystem has, the greater the resilience and health of that system.

All of these processes have a direct and tangible tie to human health, as an intimate connection exists between the biodiversity of the soil, microorganisms, plants and their seed, wild as well as crop varieties and species, and animals, to the biodiversity of our diets and gut.

Biodiversity is, hence, needed at every level of the food system.



# HEALTH OF ECOSYSTEMS IS DETERMINED BY BIODIVERSITY

WE ARE FED FROM  
THE HEALTH OF  
ECOSYSTEMS AND  
THE NATURAL CYCLES  
THEY REGULATE.

Biodiversity regulates the health of the nutrient, water and carbon cycles that move through the soil and out to the rivers, forests and oceans.

Soil is the most diverse ecosystem on the planet, with one gram of soil containing up to one billion bacteria cells and fungi mycelium, and countless other insects, arthropods and nematodes.

The health of the soil makes up the health of the plants that grow in it, which go on to affect the health and diversity of the animals who feed on those plants. Those plants and animals feed us.

# WE ARE SOIL



# WE ARE BIODIVERSITY

The biodiversity of the soil microorganisms are intimately tied to the health and diversity of our human microbiome, through the soil we have contact with, and the food that we eat.

The soil microbiome and the human microbiome are one super-organism, as the soil acts as a reservoir of the diversity of microbiota.

Our microbiome holds the key roles of regulating our metabolism, enhancing our immune system, regulating hormones and the circadian rhythm, and contributing to nutrient generation and absorption.

This means any depletion in the diversity of the soil microbiome caused by industrial agriculture, has a direct effect on human health.



BIODIVERSITY IS DIVERSITY IN LIFE



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Working in direct relationship with Nature and centering the care of biodiversity and ecosystem health, has historically produced knowledge systems that recognize how all forms of life interact and influence each other to form a complex web of life.

The biodiversity of soils, and the interrelationships of plants and animals, have over millennia given rise and co-evolved into diverse cultures and knowledge systems based on health, resilience and care for the land. These relationships have gifted us the huge diversity of seeds, crops and foods that have made up traditional diets and traditional cultivation systems.



9 CROPS =  
66% OF TOTAL  
CROPS PRODUCTION



75% OF GENETIC DIVERSITY  
DISAPPEARED IN 100 YEARS  
DUE TO MONOCULTURE CROPPING

But with the rise of industrial agriculture, the health of agroecosystems is no longer considered under the myth of higher productivity and yield per acre. The globalized, industrialized agrifood system has caused unprecedented destruction thanks to the use of agrotoxins, heavy tilling, GMO monocultures, and mass land use change. All causing animals and plants to be under threat of extinction, the soil microbiome to become exhausted, and the degradation of entire ecosystems.

In one century, 75% of genetic diversity disappeared & due to monoculture cropping, and uniformity plant breeding. Today, maize, wheat and rice provide 60% of our daily calories, while only 9 crops make up 66% of total crop production.

# THE LOSS OF BIODIVERSITY IN OUR DIET



TRADITIONALLY, FARMERS BRED SEED FOR CONSISTENCY AND RESILIENCE THROUGH TIME TO ENSURE SUCCESSFUL HARVEST THROUGHOUT THE GENERATIONS.

Modern-day industrial seed breeding seeks for plant varieties to produce a totally uniform crop through identical genetics. This type of industrial seed breeding has led to the replacement of local varieties evolved over centuries with homogeneous, hybrid or genetically modified varieties. The reduction of biodiversity in diets has led us to consume just over 200 species out of the over 6,000 varieties identified, and the great majority of people are now living off of no more than twelve plant species and five animal species.

# WE ARE WHAT WE EAT



## HARMING BIODIVERSITY HARMS OUR HEALTH

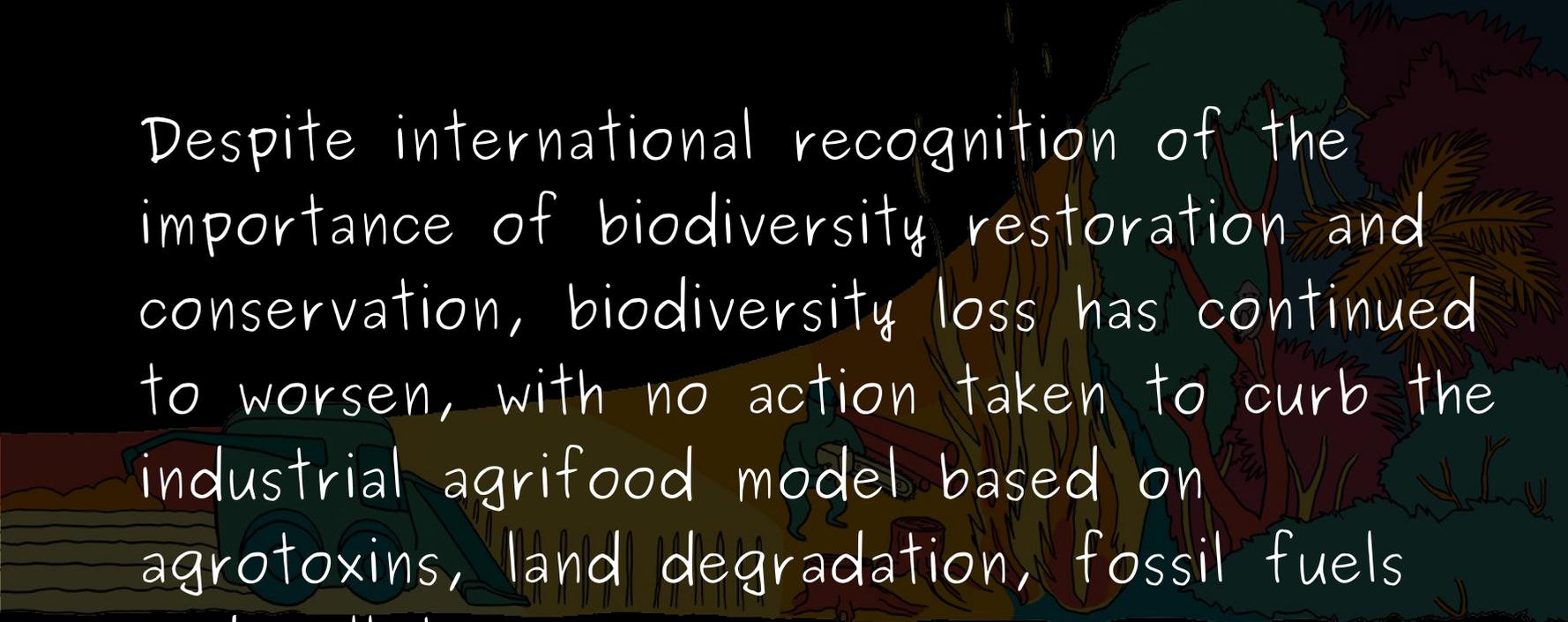


Therefore, the combination of diets based on industrial processed-food and the degradation of biodiversity at all levels of the food systems have resulted in the depletion of the human microbiome, a lack of basic nutrients, and food being potentially contaminated with carcinogenic and endocrine disrupting chemicals from agrochemicals, artificial growth hormones, and antibiotic resistant strains of bacteria. The huge explosion of noncommunicable diseases is directly related to these shifts.





MANY FALSE SOLUTIONS ARE ACTIVELY BEING PROMOTED IN THE NAME OF BIODIVERSITY PRESERVATION...

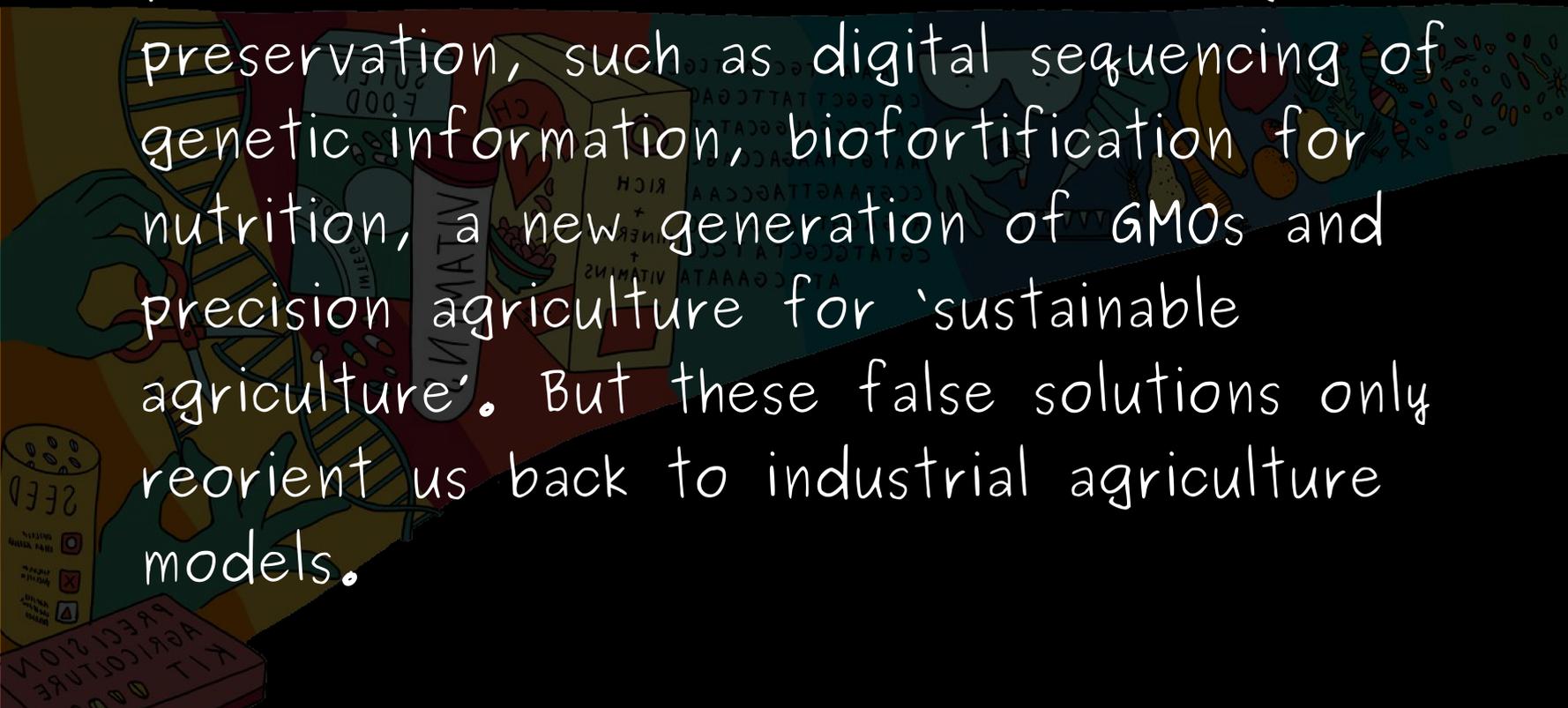


Despite international recognition of the importance of biodiversity restoration and conservation, biodiversity loss has continued to worsen, with no action taken to curb the industrial agrifood model based on agrotoxins, land degradation, fossil fuels and pollution.

# FALSE SOLUTIONS ARE NOT THE ANSWER



BUT THEY RELY ON THE SAME SYSTEMS THAT DEVASTATE ECOLOGICAL HEALTH, AND HUMAN HEALTH



Many false solutions are actively being promoted in the name of biodiversity preservation, such as digital sequencing of genetic information, biofortification for nutrition, a new generation of GMOs and precision agriculture for 'sustainable agriculture'. But these false solutions only reorient us back to industrial agriculture models.

# WE CAN CULTIVATE HEALTH THROUGH AGROECOLOGY



A biodiversity-based, agroecological food systems transformation, in opposition to the ecologically destructive, globalized food systems, is being advocated for by movements throughout the world in the name of food sovereignty.

Embodying a different vision of what food systems can be, these movements are preserving seeds, soils, biodiversity, agroecosystems and nutrition.

Farmers are stewards of diversity to be passed on through the generations to ensure the long-term resilience of different crops, knowledge, culture and community through recognizing the sanctity of all beings to maintain the web of life.

Humans are part of the food web— as custodians, as co-creators, as eaters, as growers. Food makes us members of the Earth Family.

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# BIODIVERSITY IS HEALTH



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