



## Transformative changes<sup>1</sup>

“Biological diversity – biodiversity – is the key to maintenance of the world as we know it.”<sup>2</sup>

It is the rich and wild diversity of animal and plant species that sustains life on the Earth. But in our hubris humanity has forgotten that every living creature on the Earth depends on every other. It is our activities that are eroding this essential biodiversity and are now slowly but surely killing life on the Earth. The consequences will be dire:

“Eliminate a great many species and the local ecosystem starts to decay.”<sup>2</sup>

A recent report by the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) makes for depressing reading. It warns that Nature is declining globally at unprecedented rates. Of the estimated eight million species on Earth around one million are threatened with extinction in the next few decades unless transformative changes are urgently undertaken.<sup>1</sup>



“The overwhelming evidence... presents an ominous picture. The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever.”<sup>3</sup>

The average abundance of native species in most major land-based habitats has already fallen by at least 20% since 1900. What’s worse - it is estimated that in the near future human activity threatens an additional 25% of species with extinction across terrestrial, freshwater and marine vertebrate, invertebrate and plant groups. Including some 40%: amphibians and 33% of marine mammals.<sup>1</sup>

“Ecosystems, species...are shrinking...or vanishing. This loss is a direct result of human activity.”<sup>4</sup>

The report ranks the five direct drivers of this destruction of Nature: changes in land and sea use; direct exploitation of organisms; climate change; pollution and invasive alien species.<sup>1</sup>

Humanity is degrading the Earth. It is estimated that 75% terrestrial environment has been severely altered by human actions. For example 85% of wetlands were lost between 1700 and 2000 and 32% of global forest cut down since the Industrial Revolution. Similarly about 66% of the marine environment has been significantly altered by human actions.<sup>1</sup>

Humanity is also poisoning the Earth. The agricultural industry deliberately applies some 2 million tonnes per year of pesticides worldwide.<sup>5</sup> Some 300-400 million tons of heavy metals, solvents, toxic sludge and other industrial wastes are dumped every year into the world's waters.<sup>1</sup>

**“The diversity within species...and of ecosystems...[is] declining fast... although we still have the means to ensure a sustainable future for...the planet.”<sup>6</sup>**

We can still stop this ecocide. But we have to start now by making transformative changes at every level of society from individuals up to inter-governmental organisations. We need fundamental reorganizations of industrial and social systems. Crucially major changes to the global financial and economic systems are required to move away from the current destructive paradigm of economic growth towards more sustainable policies.

Worldwide policies are required to raise public awareness and stimulate actions to promote sustainable local economies, care for local environments, to eliminate pollution, and restore degraded areas. Legislation is also required to establish extensive natural reserves, both terrestrial and maritime, and implement a wide range of other effective conservation measures.<sup>1</sup>



Investment is required for a global transition to good agricultural and agro-ecological practices combined with local food production and supply chains. This should include international agreements to eliminate the use of pesticides and herbicides and greatly reduce the application of synthetic fertilizers.

In the oceans new approaches to fisheries management should include: effective quotas, marine protected areas and reducing run-off pollution.<sup>1</sup>

**“Present generations have the responsibility to bequeath to future generations a planet that is not irreversibly damaged by human activity”<sup>7</sup>**

It will only be through such transformative changes across economic, social, political and technological sectors that Nature can be conserved and restored. Certainly there will be opposition from those with vested interests. Vast amounts of money will be invested in advertising and lobbyists and in an attempt to maintain “business as usual.”

But we should not abandon our efforts - even such wealthy opposition can be overcome.

“We have already seen the first stirrings of actions and initiatives for transformative change.”<sup>3</sup>



Thankfully there are already innovative policies to preserve biodiversity by many responsible countries.

But real hope lies in the powerful voice of young people worldwide that understand the desperation of the situation and are now passionately calling for urgent action to secure a sustainable future for themselves and all life on Earth.

“So no more excuses -  
We must live on Earth differently.”<sup>7</sup>

*Dean*

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