



WE ARE FACING DOWN A 6TH MASS EXTINCTION EVENT

by Dr Andrew Muir, CEO | Wilderness Foundation Africa

Life has existed on Earth for roughly 3.7 billion years. During that time we know of five mass extinction level events – dramatic episodes when many, if not most of life forms have vanished in a geological flash of the eye – once gone never to come back - extinction is forever.

The most recent of these was the **fifth** mass extinction event that claimed the dinosaurs and many other species around 66 million years ago.

Recent articles in the Ecologist by respected scientists Bill Laurence and Paul Ehrlich and journalist Alexandra Simon-Lewis of WIRED confirm that there is now undeniable growing scientific evidence that we are on the brink of a sixth mass extinction event. This event, unlike all previous extinction events, is driven largely by the increasing impacts of humanity on this earth.

These authors claim that the beginning of this extinction event is mainly focused on **Wildlife and Invertebrates** – (animals without backbones), making up about 99% of all animal species, most of which are insects. Invertebrates include crabs, snails, worms, corals, as well as insects such as bees; beetles and flies. These

species fill many vital roles in ecosystems (and our agriculture industry) as pollinators, recyclers of nutrients, scavengers and food for others. The current rate of extinction of these species is at least **1 000 times higher** than at any time in human history.

Simon Lewis argues that the sixth great extinction is playing out in other ways too, especially in the widespread destruction of millions of animal and plant populations. Just as species can go extinct, so can their individual populations. This locally can affect humans through agriculture production; tourism and other ecological services like water.

Environmental disasters are on the increase due to climate change and biodiversity loss. As an example, the recent war in Syria, which has caused great loss of human life and mass migration of people around the middle East and to Europe, with all the strife and displacement that has gone with it, started as a result of severe drought and repeated crop failures.

Three quarters of the world's largest carnivores including big cats, bears, otters and wolves, are declining in number. These species on average have lost at least 50% of their former range i.e. their natural habitat.

- There were 400 000 lion in the wild in 1950. Today there are less than 25 000
- Giraffe numbers have dropped over the past 30 years by 40% from 157 000 to 97 500 today
- Ancient trees which survived for over a thousand years such

as Baobabs and Lebanese Cedars (known as the tree of god), are now dying off.

Most of us can identify with the **rhino**; a remnant of the dinosaur era; a charismatic and flagship species that acts as a symbol or icon of modern day conservation efforts. In many of our lifetimes two sub species of rhino (western black and northern white) have already become extinct and as South Africans we are now custodians of more than 80% of what is left of this rhino in the World.

Can one of our fastest economic growth industries in Southern Africa – eco and nature based tourism – survive without the rhino and lion in the wild?

Mass extinctions by definition involve a dramatic loss of biodiversity. We are one of more than thirteen million species that make up our planet. It is commonly accepted that by the year 2050 (32 years' time), over 20% of the species that currently inhabits the earth (2 600 000 separate species), will either be extinct or on the brink of extinction.

This is due in part to the perfect storm of population growth, unsustainable resource utilization and the human impact on climate change. Another way of seeing this is that our life support system, which is everything that makes up our living ecosystem, is going to be 20% depleted.

Can we survive as a human species in the same way that we are

now, with 20% less; and what will this mean for our everyday living and our dependency on the ecological services of nature for survival? Some will say that we as humans will find solutions to our problems through technology and innovation – the 4th Industrial Revolution is upon us – technology has advanced more in the past 15 years than the previous 200 years.

Whilst this does have an element of truth to it; what about the millions of other species we share this planet with? Can artificial intelligence; 3D printing; nano technology and virtual reality recreate eco systems and natural processes? Are we as humans prepared to take that risk of losing what we have now in the chance we may get it back later?

The sixth mass extinction is already here and the window for effective action is very short. Many experts such as Bill Laurence and Paul Ehrlich feel we have two or three decades at most. I don't want to spell out doom and gloom, far from it – but what we are all saying is that life on Earth is ultimately **a zero-sum game**. Humans cannot keep growing in numbers and consuming ever more land, water and natural resources and expect all to be well.

Clearly the answers to these questions cannot come from one discipline or sector alone, but are reliant on multi-sectoral collaboration and individuals; businesses and communities making a meaningful commitment to sustainable living.

We can do something about this by keeping this issue relevant and in the public domain. This call to action by all people and

businesses is well illustrated in the words of the American poet William Stafford:

*“ well, it is time for all the heroes to go home
It is time for us to give up these hopes and expectations that only
breed dependency and passivity, and that do not give us solutions
to the challenges we face.
It is time to stop waiting for someone to save us.
It is time to face the truth of our situation—that we’re all in this
together, that we all have a voice—and figure out how to mobilize
the hearts and minds of everyone in our work places and
communities.”*

There is hope. We can stop the sixth mass extinction if we protect approximately 50% of what is left of each the 846 eco-regions that provide habitat for all of Earth's biodiversity. That means finding leaders and organizations around the world willing to align existing efforts around **protecting and interconnecting** nature in their region.

Nature Needs Half is an example of international coalitions / growing global movements of scientists, conservationists, nonprofits, and public officials defending nature at the scale she needs to continue to function for the benefit of all life.

As Wilderness Foundation Global, a founding member of this movement, we've got a global ground game in place that will protect 50% of the planet by 2050, turning the tide in favor of

Earth's life support systems and transforming society's relationship with nature, one Eco region and country at a time.

The 6th Mass Extinction has been a focus area at the last 3 events of the World Economic Forum that I have attended, which illustrates the seriousness of this issue on a global stage. Let's keep the conversation alive.