#WeChangeForLife Initiative (provisional name): « 100(0) scientists worry and change »

The Earth is becoming too warm and wildlife is disappearing at an alarming speed. Experts show that they act according to their concerns and would like to incentivize everybody to do so.

We are an expanding group of scientists mostly working in Belgium and willing to show that many researchers worry for the sustainability of life on Earth. For that reason, they act in their private life to reduce environmental degradation, without minimizing the fact that changes are also necessary at the societal and political levels. Our initiative has gained interest beyond our borders, but targets communication in Belgium for the time being.

Quick link to practical information: page 2

Rationale and objectives

We call on you as scientists and other experts in Climatology, Biology, Geography, Geology, Agronomy, (Bio)Engineering and Social sciences relevant to environmental degradation (Law, Sociology, Anthropology, Psychology, Economy, Political sciences, History, ...), as well as Medical and para-medical sciences, to join this initiative. The objective is to show to the public that the alarming signals that we are observing incentivize us (considered, by the public, to be part of the elite) to increase the consistency between our professional concerns and our daily life choices and/or other actions. We wish to encourage as many persons as possible to wake up, to realize the power they have as a consumer, as citizen, and as a voter, and to implement actions in their own life in ways that protect our common environment, in a spirit of social justice.

Environmental degradation is increasing to alarming proportions. Since the rise of human civilization, more than 80% of wild mammals, including marine mammals, were lost [1]. The abundance of most other animal groups, including insects in Europe, is decreasing dramatically as well (-80% in 30 years; [2]). Currently, the main drivers of biodiversity loss include land use for unsustainable agriculture and forestry [3, 4]. Climate warming poses an additional threat to the environment. At 2°C global warming above pre-industrial levels, 18% of insect and 16% of plant species are projected to lose more than half of the geographic range with suitable climate conditions [5]. Ocean acidification, which is also due to our CO_2 emissions, is a major factor explaining the massive dying of coral reefs. Various pollutions threaten further biodiversity as well as human health, both being largely interconnected (8, 9). The very foundations of our planet's habitability are threatened by this erosion of biodiversity as well as by climate change. The increasing number of heat waves and intense precipitation events, often leading to floods, the effects of climate change on agriculture, water resources, and human health all combine into severe consequences for human wellbeing. Sea-level rise alone threatens millions of people, and contributes to increase the risk of flooding in many coastal cities and deltas [5].

The alarm was raised many times, from the report *The limits to growth*, published in 1972 [6], the numerous IPCC reports published since 1990 [7], to the *World Scientists' Warning to Humanity*, published in 1992 and its follow-up in 2017 signed by more than 15000 scientists [3]. Recently, the 2018 assessments by IPBES on biodiversity and ecosystem services worsened the diagnosis (10).

Experts have documented the problems and NGOs have encouraged the transition to a sustainable lifestyle for decades. Over the last months, the reality, the emergency and the depth of environmental degradation seem to have reached the conscience of the general public in Belgium and in Europe, in particular regarding climate change. Citizens are asking for rapid and ambitious policies and measures that could fundamentally improve the situation.

With this initiative, experts jointly re-affirm the severity of the situation and show that they also contribute to the individual as well as societal changes which are urgently needed. Vigorous action now can still be effective to stop dramatic loss of wildlife, to limit climate change, and their impacts on human life sustainability. Every delay makes action more difficult or less effective.

We thus invite you to participate in the following action:

Ist step: collecting participants' details and testimonies

We would like participating experts to use the registration website, <u>www.elic.ucl.ac.be/wechangeforlife</u>, to provide:

- 1. their first name, surname, title, function, affiliation;
- 2. a recent **picture**, or a short **video** (with their response to point 3 below);
- 3. a short text (400 words max.) summarizing:
 - the main concerns they have in their field of expertise (broadly speaking);

- changes, actions, that they have implemented or plan to implement in their way of life, or contribute to implement in the society;

- **difficulties** they experienced when seeking to lower their energy consumption or ecological footprint, or to address society-level drivers of environmental degradation;

- what they regard as key changes needed in the society or at the political level to meet their concerns.

Every person having at least a master's degree (including master students in the course of their last academic year) in Climatology, Biology, Geography, Geology, Agronomy, (Bio)Engineering, Medical or Para-medical sciences, or Social sciences relevant to environmental degradation (Law, Sociology, Anthropology, Psychology, Economy, Political sciences, History, ...), is eligible to participate.

Any person with another background but willingness to participate is welcome to contact **caroline.nieberding@uclouvain.be**.

▶ 2nd step: Validation of your testimony and communication to the general public

Participants have at least four weeks to provide their testimony, which can be modified online as much as needed until at least end of February. The precise deadline will be announced to each participant by e-mail at least one week before it is reached. The testimonies of participants which will have confirmed their submission in time will then be released to a public website. Testimonies will be displayed with a turnover.

The aim is to communicate the initiative #WeChangeForLife (provisional name) to the general public during the spring 2019. When the communication strategy will be ready, we may ask you to use your network of communication (Twitter, Facebook, mail, contacts with radio, internet and TV journalists) to disseminate the initiative as broadly as possible, in addition to our own communication actions.

<u>References</u>

[1] Bar-On et al., 2018. The Biomass Distribution on Earth. PNAS 115, nº 25. https://doi.org/10/cp29.

[2] Hallmann et al., 2017. More than 75 Percent Decline over 27 Years in Total Flying Insect Biomass in Protected Areas. PLOS ONE 12, https://doi.org/10/gb4qqx.

[3] Ripple et al., 2017. *World Scientists' Warning to Humanity: A Second Notice*. BioScience 67: 102628. https://doi.org/10/cnhr.

[4] IPBES, 2018. Assessment report on land degradation and restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. <u>https://www.ipbes.net/assessment-reports/ldr</u>

[5] IPCC, 2018. Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above preindustrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. https://www.ipcc.ch/sr15/

[6] Meadows et al., 1972. The Limits to Growth; A Report for the Club of Rome's Project on the Predicament of Mankind. New York: Universe Books. ISBN 0876631650. <u>http://www.donellameadows.org/wp-content/userfiles/Limits-to-Growth-digital-scan-version.pdf</u>

[7] <u>ipcc.ch</u>

8) UNEP/CBD/WHO, 2015. Connecting Global Priorities: Biodiversity and Human Health – A State of Knowledge Review. https://www.cbd.int/health/stateofknowledge/default.shtml

9) CBD, 2014 (COP-12, decision XII/21 on *Biodiversity and human health*), 2016 (COP-13, decision XII/6 on *Biodiversity and human health*), 2018 (COP14, draft decision on *Health and Biodiversity*). <u>https://www.cbd.int/health/cop-desicions/default.shtml</u>

10) CBD, 2018. Key findings from the four IPBES regional assessments on biodiversity and ecosystem services. <u>https://www.cbd.int/doc/c/c25e/2274/3c7ea710e0442730174c4216/cop-14-inf-24-en.pdf</u>