

## SUSTAINABILITY AND EQUITY

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Human beings have become a significant force for environmental change within the Earth system. Humanity's impact on the natural systems has grown increasingly with the development of civilization, gradually reaching a global dimension since industrial revolution. About half of the Earth's land surface has been transformed and about a quarter of the biomass produced there is used by humans. The oceans are today in a much worse state than they were just a few decades ago – as a result of ocean acidification, overfishing, pollution, coral-reef destruction, etc. The anthropogenic emissions, mainly by the combustion of coal, oil and natural gas, have increased the concentration of CO<sub>2</sub> in the atmosphere by 40% and caused a serious radiative forcing in the atmosphere. In consequences of the large scale transformation of nature, there is a threat of a man-made, global species extinction that could reach proportions comparable to the previous five major extinction events in the Earth's history, which were probably related to large scale changes in the Earth system (such as volcanism, climate and sea-level changes, asteroid impacts etc.).

Paul Crutzen, Nobel prize winner for chemistry and Eugene Stoermer have proposed regarding this massive anthropogenic influence as the beginning of a new geological period, which they refer to as the Anthropocene. Five thousand years ago the Earth most likely contained fewer than 20 million people; at the beginning of the common era the total was about 200 million; a millennium later it had risen to about 300 million; in 1500, at the onset of the early modern era, it was still less than 500 million, and one billion was passed shortly after 1800. In 1900 the total was about 1.6 billion, in 1950 2.5 billion, in 2000 6.1 billion, now it surpassed 7.2 billion and in 2050 (medium variant of UN World Population Prospect last report) will be 9.6 billion. It is and will become more and more difficult to provide water, food and energy to this huge number of people; beside this, inequality and increased futile and useless consumption are likely to be detrimental to the welfare of all. Population size and per capita impacts are severely undermining the ability of Earth to provide most basic needs for people. This is why the sustainable use of resources and their equitable distribution are two sides of the same coin. Moreover, extreme inequality is a threat for nature and environment, and poses harmful economic effects at the same time.

That's why GCAP Italy considers that addressing all dimensions of sustainable development is crucial: without taking into account global environmental change as the base for SDGs, poverty eradication also will become impossible.

The scientists has developed the concept of "planetary boundaries" and "planetary guard rails" to limit global environmental change ; Planetary boundaries, planetary guard-rails are defined as damage thresholds whose transgression would have intolerable consequences either today or in the future. When boundaries are transgressed, the maintenance of natural life-support systems is put at risk and with it poverty eradication and sustainable development.

The Earth system and human civilization have become a closely coupled system, with humanity using resources and services of the Earth system that are indispensable for present and future sustainable development. The beginning of the Anthropocene also marks the beginning of a new era of responsibility: human societies must limit anthropogenic changes to the Earth system for the sake of its own future, if the damage to global society is to remain tolerable. In the age of



Anthropocene sustainability is no longer possible without taking the impact of human activities on the Earth system into account.

Sustainable development in the Anthropocene is the development that meets the needs of the present while safeguarding Earth's life-support system, on which the welfare of current and future generations depends.

GCAP considers important that both Equity and Sustainability are considered in the priority goals and target and, at the same time, as transformative levers crossing all goals. Climate Change, one of the biggest challenge and risk for humanity, must be clearly stated as goal *and* a cross cutting issue

In this contest, the goals and target we see as very relevant are:

1. Increase the number of women and the number of men, indigenous peoples and local communities, who have **secure tenure of land, property and natural resources** that support their well-being and livelihoods.
2. Improve **governance and equitable sharing of natural resources** that support people's rights to a healthy, clean environment, sustainable livelihoods and livable habitats.
3. **Implement internationally agreed accounting standards for environment and social well-being** in national accounting systems and corporate reporting requirements.
4. Create the conditions for entrepreneurship and innovation to **decouple resource use and waste generation from economic development**.
5. Bring global emissions on track for staying **below 1.5-2°C global warming**, and establish and implement national plans to ensure a **just transition to climate resilient development** in all countries.
6. **Halt biodiversity loss and restore and manage ecosystems** equitably and sustainably to sustain services and assets and build resilience.
7. **Reduce loss and degradation of all natural habitats**, including **forests**, to near zero by 2020.
8. **Integrate internationally comparable indicators** in national and local development planning and reporting systems to measure the value and **status of ecosystem** goods and services.
9. Manage **large agricultural systems to sustain ecosystems services**, achieve high water, energy and land use efficiency, use low synthetic inputs and ensure resilience to climate change.
10. Increase the productivity of **smallholders and small-scale fishers** through sustainable, climate-resilient resource management including traditional practices.
11. **Reduce food loss and waste** by 50% from 2013 levels by 2020.
12. Achieve **universal access to clean, reliable and affordable energy** services in all developing countries with a strong increase in clean renewable energies.
13. Achieve an annual global rate of **improvement in energy per unit GDP** of 4.5%.
14. **Increase the share of clean renewable energy to at least 45%** of all primary energy use.
15. Implement **integrated management approaches and improved water governance systems** that safeguard and restore ecosystems in all major watersheds.
16. **Ensure freshwater withdrawals and diversions are in line** with adequate availability for people and nature.
17. Establish and fully implement **national water quality standards**.
18. **Protect ecologically critical marine habitats** to ensure full ecosystem functions including livelihood support, climate change mitigation and adaptation and disaster risk reduction.
19. **Guarantee full and equal access to ownership, property and use rights and land titles and equitable distribution of benefits, including from sustainable natural resource use**.
20. Decrease the number of deaths and illnesses from all forms of **environmental degradation**.
21. Reduce **transnational organised crime**, including human, drug, arms, and **natural resource and wildlife trafficking**.

