

## Why we scientists support the Climate Protection Law

**For us, for everyone, for the planet:** We are already affected by climate damages today, and they will increase. With the Climate Protection Law, we reduce the risks, make our contribution, and increase energy security at the same time.

**Every ton counts, every year counts:** Switzerland must reduce its CO<sub>2</sub> emissions faster and bring them to net zero by 2050 at the latest.

**Binding targets benefit Switzerland:** Climate and energy policy require a clear political framework. The broadly supported Climate Protection Law defines the reduction path to net zero, promotes innovation, creates planning security and strengthens Switzerland.

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**Science clearly shows that Switzerland is already severely affected by climate change. To make its contribution to the Paris climate target, it must massively reduce its CO<sub>2</sub> emissions and bring them to net zero by 2050 at the latest. We must act now. The broadly supported Climate Protection Law (indirect counter-proposal to the Glacier Initiative) sets the reduction path for net zero, increases energy security, promotes innovation and strengthens Switzerland. That is why we scientists say YES to the Climate Protection Law.**

Climate change is happening here and now, and society is already strongly affected by its impacts today. We scientists are concerned about these developments and are committed to ensuring that climate policy decisions are made based on the best available information [1].

### Climate change and impacts are clear

Through the burning of fossil fuels and land use, humans have increased the concentration of CO<sub>2</sub> in the air by over 50 percent since the start of the industrialization. Comparable values date back several million years. Switzerland has warmed by about 2.5°C compared to preindustrial values. The direct climatic consequences are that heat waves, heavy precipitation and droughts are increasing, snow cover is decreasing and the melting of glaciers is accelerating [2]. This has major impacts on agriculture, energy supply, health, labor productivity, tourism, the water cycle, forests and biodiversity. And most importantly, all these effects will intensify in the future [3].

As a small but internationally strongly interconnected country, Switzerland is both partly responsible for global change and affected by the impacts outside its borders: Among others, by the pressure on global food production, extreme weather events, the severe impacts in developing countries and the resulting migration pressure, as well as possible tipping points in climate and ecosystems [4]. In addition to direct climatic risks, there are indirect economic risks through stranded assets, pressure to adapt in the market, regulation, lawsuits, or public pressure.

The war in the Ukraine shows how dangerous our direct dependence on fossil fuels is. By reducing fossil energy demand and transforming our energy system (electrification, scaling up renewables, increasing efficiency, sufficiency), we strengthen energy security [5].

### **The net zero CO2 target**

Switzerland has ratified the UN Paris agreement. This treaty aims to limit man-made global warming to well below 2°C compared to pre-industrial levels, and pursuing efforts to limit it to 1.5°C. This would significantly reduce the risks and consequences of future climate change, also in and for Switzerland [6]. In order not to exceed the 1.5°C limit, we need to halve CO2 emissions globally by 2030 and reach net zero by 2050 (best estimate). The Climate Protection Law adopts this net zero target. Switzerland has reduced its domestic emissions by 19% in 30 years (1990-2020); in less than 30 years, net emissions must be zero. This means a virtually complete shift away from fossil fuels before 2050. Residual emissions that are difficult to avoid, e.g. from agriculture, would have to be offset by artificial sinks. The Climate Protection Law obliges the federal government and the cantons to provide the necessary sinks at home or abroad. These technologies must be further developed, but their contribution is small for the time being and they are expensive. The decisive contribution to the net-zero target must thus be made mainly (about 90 percent) by avoiding emissions.

Rapid action is essential. Every ton of CO2 emitted increases the risk of climate damage, reduces the scope for future decisions and contributes to the need for more artificial sinks later on.

### **The role of Switzerland**

The Paris Agreement emphasizes the principle of "common but differentiated responsibilities" of the 1992 UN Framework Convention on Climate Change (UNFCCC). Every country, large and small, must contribute, and those that can contribute more to the solution should do so. Switzerland, as one of the most prosperous and technically advanced countries, is sending important signals for global mitigation through ambitious and consistently pursued goals. The high and increasing share of imported consumption-based emissions [7] and Switzerland's capabilities would even justify an earlier net zero target in line with the Paris principles.

The rejection of the total revision of the CO2 law in June 2021 has weakened Swiss climate policy. While our neighbors and the USA are implementing large infrastructure programs and finance packages for climate and energy policy, Switzerland has fallen behind the European Union in the climate protection rankings [8]. With an effective climate policy, Switzerland stands by its promise to implement the goal of the Paris Agreement together with all countries while maintaining its international competitiveness.

### **The Climate Protection Law as an important step**

The world, like Switzerland, is not on track with regard to the Paris climate targets: with today's global measures, we are heading for a warming of just under 3°C globally by 2100 [9]. Switzerland must therefore significantly step up its climate policy efforts and assume its responsibilities.

Sustainable development, a circular economy and sound climate and energy policies require a clear political framework. A stable political framework promotes the avoidance of emissions and accelerates the implementation of climate protection [10]. Innovation policy packages have contributed to a continuous decrease in the cost of many low-emission technologies since 2010. The effectiveness of various climate and energy policy instruments has been extensively documented by the Swiss Academies of Science [11].

The Climate Protection Law specifies the net-zero 2050 target for Switzerland, sets binding interim targets and benchmarks for buildings, industry and transport, promotes innovation and heating system replacement with a stimulus program. This will not yet be enough to achieve the targets agreed in Paris. Nevertheless, it is a decisive step, as it provides the economy and the population with a clear framework within which the best solutions will prevail and be implemented. It gives the economy binding force and planning certainty, and supports the competitiveness of Swiss companies. In many areas, the Climate Protection Law continues the path that internationally active Swiss companies are already successfully following today [12].

Effective instruments for an ambitious and achievable climate goal also make economic sense and are forward-looking: the investments are sustainable and beneficial in terms of avoided damage from climate change and the benefits of cleaner air, biodiversity, innovation and contribution to sustainable development [13]. The vast majority of leading economists who have studied these questions now believe that "immediate and drastic action is necessary" and that the benefits of ambitious climate action outweigh the costs [14].

The urgency justifies decisive action. The Climate Protection Law is well-balanced: it sets the course for a climate-neutral future, sets binding targets, strengthens Switzerland's energy security, and enjoys broad support among politicians, businesses and associations.

For the planet and a common future, for an innovative, strong Switzerland - that is why we scientists also clearly say YES.

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- [1] [Scientists for Future, GAIA, 2019](#)
- [2] [Klimaszenarien für die Schweiz CH2018](#)
- [3] [Brennpunkt Klima Schweiz; Hydrologische Szenarien Hydro-CH2018](#)
- [4] IPCC Berichte: [IPCC Working Group 2, Global Warming of 1.5°C, Climate Change and Land, The Ocean and Cryosphere in a Changing Climate](#)
- [5] [IPCC Special Report Global Warming of 1.5°C, Klimaszenarien für die Schweiz CH2018](#)
- [6] [IEA World Energy Outlook 2022, ETH CSS Policy Perspective](#)
- [7] [Umwelt-Fussabdrücke der Schweiz, BAFU, 2018](#)
- [8] [Climate Change Performance Index](#)
- [9] [Climate Action Tracker](#)
- [10] [IPCC Working Group 3](#)
- [11] [Klima- und Energiepolitik, Häufige Fragen – Antworten aus der Wissenschaft, SCNAT, 2018; Instrumente für eine wirksame und effiziente Klima- und Energiepolitik, SCNAT, 2019; Chancen und Auswirkungen einer CO<sub>2</sub>-Lenkungsabgabe auf Treibstoffe, SCNAT, 2019; Fortschritte und Defizite des revidierten CO<sub>2</sub>-Gesetzes, SCNAT 2020](#)
- [12] [PWC](#)
- [13] [Hänsel et al., Nature Climate Change, 2020, Swiss Banking/BCG](#)
- [14] [Gauging Economic Consensus on Climate Change, New York University School of Law, 2021](#)