

The History of Sustainability

As long as stock lasts – this is the reckless attitude with which humans exploited European forests in times gone by. They cut wood wherever and whenever they were able and felt the need. And they needed plenty of it: wood for building, for heating and for making basic commodities. Wood was the principal raw material well into the eighteenth and nineteenth centuries. However, agriculture had also been causing problems for forests ever since the Middle Ages. Crop cultivation was spreading and huge forest areas were cleared to accommodate it.

This thoughtless depletion of wood did not fail to have consequences. Clear-cutting and the destruction of large areas heralded in an alarming scarcity of wood which threatened the very existence of society at the time. Something had to be done. Without radical reforestation, continuing to use wood for securing people's livelihood and enabling social progress would hardly be conceivable. The task was to reforest the denuded areas – sustainably.

A Three-Hundred-Year-Old Idea

Immediately reforesting every logged forest area in order to keep the overall proportion of forest constant – this so-called area sustainability strategy marks the beginning of the development of fundamental laws governing forest management. Sustainability literally means continuity, permanence, restoration, consistency or uninterrupted effect. The concept is around three hundred years old and originated with Hans Carl von Carlowitz, an inspector of mines in Saxony at the time of Augustus the Strong. His book, "Sylvicultura Oeconomica" ("Silviculture and Economics") of 1713 – which is considered to be the first work on forest management – takes up the idea of the term "sustainability".

At his official residence in Freiberg, von Carlowitz was directly confronted with the greatest problem of the then flourishing Saxon mines and smelting works: lack of wood. The smelting furnaces in the Saxon mining areas were devouring enormous quantities of charcoal, and wood prices were rising to dizzying heights. At the same time, more and more forest was being converted to farmland because this promised quick profits. Hans Carl von Carlowitz saw that this was the wrong track. Although it was indeed possible to "raise rather a lot of money" by selling wood, once the forests were cleared, "the earnings therefrom then remain depressed for years ... so that the apparent profit merely conceals irreplaceable damage." His solution was therefore, "that wood be treated with circumspection."

Von Carlowitz developed a concept intended to ensure a lasting supply of wood for the mining industry. In his book, he suggested many measures that are still key elements of sustainable management today, such as improving the insulation on houses, using energy-saving smelting furnaces or continuously replanting cleared forest areas. Only as much wood should be logged as could grow back in the same time.

A Science Attracts the World's Interest

Nearly one hundred years later, Georg Ludwig Hartig wrote the following definition of sustainability in his "Anweisung zur Taxation und Beschreibung der Forste": "Every wise forest directorate must therefore have the wooded areas ... assayed, without losing time, and give them the highest priority possible, while seeking to make use of them in such a way that succeeding generations will be able to glean at least as much benefit as those now alive."

German foresters turned the idea of sustainability into a new science in the eighteenth and nineteenth centuries. Forestry academies such as those in Tharandt, Saxony and Eberswalde, Prussia further refined the concept. The graduates of these colleges were highly sought after – in India as well as in Scandinavia and the U.S.A. Thus the concept attracted interest around the world. Sustainability remained a technical term in the science of forestry until the Club of Rome pointed out the "Limits to Growth" in the 1970's and the term increasingly became a key concept of our times.

Today, the principle of sustainable forest management means that only as much wood is logged as can permanently grow back and at the same time that forests are managed so as to allow the soil, animals and plants to remain intact. Thus the forest's function for purposes of protection and recreation are taken into consideration as well as its utility. This ensures that the forest remains a place of living nature and at the same time can be utilized for the general good – with a view to the future and to fairness between the generations.