

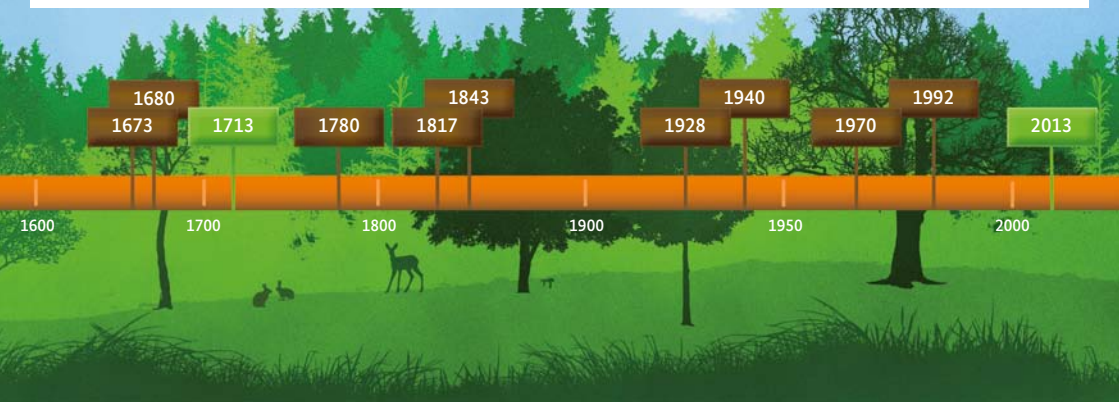


Federal Ministry
of Food
and Agriculture



The Forest in World History

Discover what would be missing from our lives without forests



GREETING



Dear Readers,

our forests are quite versatile. They provide space for our recreation and leisure. They are guarantors of our climate, they produce wood, a renewable resource, and they are habitats for numerous plant and animal species. This is common knowledge.

Their role in history, however, has a few surprises in store. We invite you to discover how forests have influenced our political and our cultural development!

Sustainable forest management is key to securing our forests' versatility in the future.

I hope you enjoy discovering our forests' cultural heritage.

Christian Schmidt
Member of the German Bundestag
Federal Minister of Food and Agriculture



Discover the Cultural Heritage of Our Forests!

*Browse
through time*



A Fight to the Death on a Glacier

A hunter dies in the Ötztal Alps of South Tyrol, presumably killed in a fight. A good 5,300 years later, his mummified corpse is freed from the glacial ice and becomes a scientific sensation: Ötzi is not only the oldest mummy ever found, his clothing and equipment are almost completely preserved, thus revealing how humans knew how to use the forest even in those days. Essential components of it are made of wood, resin and bark from a total of 17 different types of wood, all of them used in accordance with their own special properties. Without the forest, the history of civilisation would have taken a different course.

ca. 3000 BC



Excavations at the discovery site of Ötzi, the man from the ice, in the Ötztal Alps, Italy



Ötzi's axe — made from yew wood, birch bark and other materials

Hi-Tech Juice from the Forest

Central America: eight athletes are competing against one another as they fight over a small ball. They call the game pok-ta-pok after the sound the ball makes when struck. The little ball weighs one and a half to three kilos and is made of caoutchouc which is derived from latex, the juice of the rubber tree. The peoples of Central America didn't only use latex to make balls, however, they found many different uses for it, even though people in Europe would hear nothing about this unique raw material for another 3,000 years. Charles Goodyear made the decisive breakthrough in 1839 by converting caoutchouc into rubber, a material which is indispensable today. Without the forest, many things today would not be elastic.

ca. 1600 BC



Resin being collected from a rubber tree



Wellington boots made of rubber

Mystical Sweat of the Gods — The Gold of the Forest

A scholar sits down in Egypt to record on parchment the effects of frankincense. The therapeutic value of trees has been known to medicine for thousands of years. The “Sweat of the Gods” is the name the ancient Egyptians gave to the resin pearls of the frankincense tree which grows in arid areas of Africa, Arabia and India. Together with myrrh, the resin of the myrrh tree, frankincense was used among other things as a fumigant to restore spiritual equilibrium, as well as an active ingredient in ointments for the treatment of wounds. The smoke, aroma and effects of frankincense have filtered through the centuries to the present day where frankincense is used in particular in natural medicine as a treatment for rheumatism. Without the forest, we would have to do without the therapeutic power of many plants.

ca. 1500 BC



Priest with incense burner during an Easter procession



Dried resin beads of the Olibanum tree

Superior Wooden Boats Bring Fear and Terror

An attack on a monastery on the north-eastern coast of England marks the beginning of an era of terror in Europe during which the Vikings were to control the trade routes of northern Europe for almost 300 years. On their numerous trading and pillaging voyages, their dragon boats carry them from the Caspian Sea to the coast of North America. The combination of many innovations and a seafaring and ship-building tradition stretching back for more than 1,000 years made these ships unbeatable: seaworthy with a low draught and because the masts could be taken down easily, they were able to move quickly from the sea into the rivers without getting snagged on bridges or barriers. It was also possible to row the boats when there was not enough wind. Viking ships have left their mark on seafaring to this day through terms such as starboard, which translates literally as steering side, because the helmsman always stood on the right-hand side. Without the forest, the transport system would have had a completely different development.



Longboat Oseberg at the Oslo Viking Ship Museum



Carved animal head from the discovery site of a Viking ship at Oseberg

What Columbus Didn't Discover

Near the island of Guanaja off the coast of Honduras, a fully laden Maya trading boat falls into the hands of the explorer Christopher Columbus. The canoe is boarded and its crew and cargo are taken aboard the ship. The cargo includes a lot of brown beans which Columbus doesn't know what to do with. While the Mayas and Aztecs have long since come to appreciate the beans of the cacao tree, the Europeans take a somewhat sceptical view of them to begin with. They use them as currency, but their taste is too bitter for the new settlers. Only in combination with cane sugar do they make their way to Europe in the 17th century, where they begin a triumphal march which continues to this day in the form of chocolate. Without the forest, we would have to do without this delicacy.

1502



Fruits of the cocoa tree whose seed is used for making chocolate



Melted chocolate

Splendid Buildings, Timber-framed

A mature technology with future potential: Over the centuries, the principles of timber house construction have been steadily perfected and are state of the art today. A number of sophisticated timber houses, built back in the Middle Ages, have lasted until today. The Hildesheim Butchers' Guild Hall (Knochenhaueramtshaus), for instance, built in 1529, is still considered one of the most beautiful timber-framed houses worldwide. It is 26 metres high, decorated with wood carvings across the entire facade – and a replica by now because the original burned down after an air raid in 1945. The house was faithfully rebuilt in the 1980s: 400 cubic metres of oak wood were interconnected by way of 4,300 joints and 7,500 wooden nails or pegs. As a renewable construction material, wood has again become a trend in recent years. In Germany, about 15 per cent of all new residential housing is built with wood.

1529



Interior of the Butchers' Guild Hall with a picture of the Hall dating from around 1900



Berlin's highest residential building made from wood

1673

A Drink from the Forest, Black as Ink

Coffee comes to Germany as the first coffee house opens in Bremen. After Arabia and Turkey, the little brown beans, which are actually the seeds of the red fruit of the coffee plant, quickly conquer Europe too. Originally from the highlands of Ethiopia, coffee is soon grown throughout the colonies in the 18th century – traditionally in the forest, in the shade of large trees. Today, Germany is the third largest coffee market in the world after the USA and Brazil, with each German consuming an average of up to four cups per day. Without the forest, this special treat would never have existed.



Roasted coffee beans and a cup of freshly brewed coffee



Fair trade coffee farmer picking coffee beans



1680

Sound Check by Moonlight

Antonio Stradivari opens up his workshop in the Italian town of Cremona. The man, who remains the most famous violin maker of all time to this day, starts to experiment with different wood thicknesses and various varnishes in order to improve the sound of his instruments. Legend has it that he wandered through the forest at full moon to find the right trees with the desired sound characteristics. Whether this is fact or fiction – without the forest, the inimitable sound of his instruments would not be with us today.



Violinists in the orchestra: instruments made from wood have a unique sound



Full moon behind trees

1713

A Book from Saxony Changes the World

“Sylvicultura oeconomica” is the title of this tome published by a senior mining administrator in baroque Saxony. The “Instructions for the Natural Cultivation of Wild Trees”, to use the book’s subtitle, is regarded as a standard reference work to this day, and not only because Hans Carl von Carlowitz summarized everything then known about forestry for the first time. In view of an increasing shortage of wood, he also criticizes industries that are geared purely towards short-term profit. His key finding is that only a carefully balanced relationship with nature can maintain it for future generations. The principle of sustainability is born, because humans cannot survive without the forest.



Front page of Sylvicultura oeconomica
“Instructions for the Cultivation of Wild Trees”, 1713



Hans Carl von Carlowitz



1780

Kissed by a Muse in the Forest

One September evening, Johann Wolfgang von Goethe casts an eye over the gloomy spruce forest near Ilmenau. The poet prince often goes for a walk in the woods and on this particular evening, he sets the forest a lasting memorial in a hunting lodge on Kickelhahn Hill: “O’er all the hilltops is quiet now...”, Goethe writes in pencil on the boarded wall of the lodge. “Ein Gleiches” (Wanderer’s Nightsong) went on to become one of the best known German poems, translated into 50 languages. Goethe’s ode to the forest paved the way for the German Romantic movement and it still inspires composers, musicians, poets and cabaret artists to this day. Without the forest, art would be lacking a strong source of inspiration.



Johann Wolfgang von Goethe,
painting by Joseph Karl Stieler, 1828



“O’er all the hilltops is quiet now...”

Mythical German — The Forest in our Soul

The brothers Jacob and Wilhelm Grimm publish the first volume of their “Children’s and Household Tales”, and others follow later. Overall, the philologists from Hanau compile more than 200 fairytales. The collection is regarded as the best known book of German cultural history in the world and it has shaped our view of the forest to this day, because it is the source of inspiration and setting of almost all of the fairytales. From the myths of the Germanic tribes through the paintings of the Romantic artists to the present day, the forest is inseparably linked with our culture. Without the forest, our fairytale characters and mythical creatures would be homeless.

1812



Little Red Riding Hood and the Wolf,
illustration by Gustav Dore, 1883



Hansel and Gretel,
illustration by Alexander Zick (1845-1907)

1817

Heading Into the Industrial Age on Two Wheels

The situation is serious. The effects of the eruption of Mount Tambora in 1815 are still devastating; after the year without a summer, starvation and food shortages are still claiming victims among humans and animals. Many horses are dying too when the trained forester Freiherr Karl von Drais makes an invention which will eventually move the entire human race. With the development of a running machine made of wood, he discovers the principle of the bicycle and produces the very first mechanical individual mode of transport: the bike is born. Still without pedals, “draisine riders” are nevertheless able to reach speeds of up to 15 km/h on level pathways. Roughly 170 years after Drais’s invention, wooden running machines started to experience a child-size renaissance. Today, kiddies’ striders enable small children to learn how to balance from an early age, thus making it easier for them to learn to ride a proper bicycle. Without wood, there would be no raw material for the realization of many great ideas.



Original draft of the draisine by Baron Karl von Drais, 1817, illustration by Wilhelm Siegrist

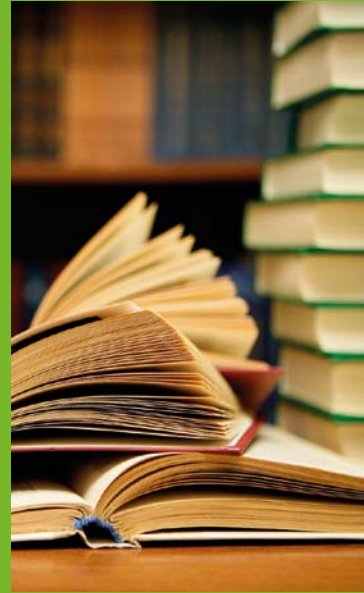


Child on a trainer bike made from wood

An Emphatic Start into the Age of Education

More and more people are thirsting for knowledge and information, and the demand for books and magazines is on the rise. The paper manufacturers are in a bit of a jam, however, because although they've got fast machines to make paper, they don't have the raw materials. Previous methods using flax fibres and rags have failed due to their low availability. Gottlob Friedrich Keller, a weaver from Saxony, then finds the solution that is to change everything: he grinds down chips of wood on a rotating grinding stone, adds some water and compresses them to form a fibrous mush. He then uses this pulp to make paper from a cheap and abundant raw material: wood. The invention of wood pulp triggers an unparalleled distribution of information, knowledge and education. Unthinkable without the forest.

1843



Books: without paper made from wood the dissemination of knowledge would be inconceivable



At the State Library, painting by Emanuel Spitzer, 1885

Willow Bark as a Life Saver

Chemists in the Rhineland make a breakthrough: the biosynthesis of acetylsalicylic acid, or ASA for short. Two years later, Aspirin is registered as a trademark of the Bayer company and production begins. Even in ancient Greece, willow bark containing the active ingredient salicin was known as an effective medicine. Used to relieve pain and reduce fever, knowledge of the bark and its extracts was passed down from the Greeks to the Romans and then on to the Germanic tribes and Celts. Since 1977, acetylsalicylic acid has been included on the WHO list of essential medicines. Without the active ingredients from the forest, many remedies and pharmaceuticals would not exist today.

1897



Pussy willow (*Salix caprea*)



Pharmacist

1928

What the Smallest Room in the House and the Forest Have in Common

Hans Klenk from Ludwigsburg establishes the first German toilet paper factory and brings the first roll with a guaranteed number of sheets onto the market: it consists of 444 sheets of coarse crepe paper. It would only become softer and more skin-friendly some 30 years later. With the development of toilet paper made of soft tissue, Klenk came up with another important innovation to the extent that everyday life is now inconceivable without a roll. Per capita consumption in Germany currently lies at roughly 20,000 sheets a year, or 2.5 km. Another important aspect today is that products made of waste paper are helping to save forests and resources. Without cellulose made from wood, hygiene would be difficult.



Privy



Toilet paper roll

1940

Ersatz Coffee and Co.— Saviours in Times of Need

During and after World War 2, there are numerous shortages in all areas of life. There isn't enough food, raw materials and fuel to meet demands. In this time of need, the people turn to one of their most important resources: the forest. Wood gasifiers serve as a substitute for petrol and diesel, and the fruits of the forest find their way into the kitchen in many places. Accordingly, dried and ground beechnuts are mixed with flour to make bread; acorns and beechnuts are boiled together to make coffee, and young beech leaves end up in salads as a replacement for lettuce. Many of the things we only turn to in times of need are still standard fare in many countries of the world. Without the forest, we would not have this important food source.



Engine powered by wood combustion instead of fuel

1949

The Oak Planter: a Monument for 50 Pfennigs

It's not the first time that Gerda Johanna Werner poses for her husband in his studio. On this occasion, the sculptor is taking part in a competition sponsored by what would later become the Deutsche Bundesbank. They are looking for a motif for a coin which symbolizes the rebuilding of Germany after the war. Werner's draft of a young woman kneeling down to plant an oak tree convinces the judges right from the start. Thereafter, the 50-Pfennig coin with the oak planter motif was minted for over 50 years with a circulation of two billion. It served as a monument to honour all of the women who set about the task of rebuilding the bombed cities and reforesting the plundered woodland in Germany. To this day, the forest is still a source of income for 1.1 million people in Germany. Without it, our rural areas would not have as much perspective.



50 Pfennig coin from 1950, front and back; felling trees for reparation: Germany had to pay part of her war reparations in wood. Women helped with reforestation.

No Room for Chainsaws and Poachers

There has been concern over the Bavarian Forest for many decades. The wild high forest landscape with its gigantic trees is under threat. It is zoologist Bernhard Grzimek who first uses his celebrity status to gather support for the conservation of the region. With success: Germany's first national park is established. Together with the adjacent Bohemian Forest, it forms the largest uninterrupted forest area in Central Europe. Threatened flora and rare animals, such as lynx, wildcats, bats and even elks, have found a habitat and protection here. Without the forest, they would all be homeless and our natural heritage all the poorer.

1970



Sign at the entrance to the Bavarian Forest National Park

1979

The Sick Forest: Germany Worries

The inexplicable death of many fir trees causes concern among the experts in the early 1970s. It gradually spreads to other tree species too. The first scientist to warn about the impending death of the forests through air pollution is soil researcher Bernhard Ulrich from Göttingen. Soon referred to simply as Waldsterben, the concern among Germans is ridiculed abroad initially. The French even call it “le waldsterben”. Whether an exaggerated fear or a justified alarm, the discussion has one positive result: the forest becomes the vanguard of the environment movement. Industrial filter systems, catalytic convertors and unleaded petrol are then introduced throughout the EU. Protection of the forests and other natural resources gains more and more significance. Without the forest, environmental policy would still be waiting to be discovered.



Stamp from 1985 with the Black Forest in the background

1990

A Walk in the Forest Makes World History

Two statesmen meet in a hunting lodge in the Caucasus. It is not immediately apparent that they are about to write a chapter of world history: one of them, Helmut Kohl, is wearing a woollen cardigan, the other, Mikhail Gorbachev, a pullover. They go for walks in the forest and hold discussions sitting on tree stumps. In this relaxed atmosphere, they negotiate no lesser matter than the fundamental conditions for German reunification. The breakthrough is made. The pictures from the Caucasian forests make their way around the world. Without the forest, where would we build our trust in the future?



Helmut Kohl, Mikhail Gorbachev, Hans-Dietrich Genscher and companions sitting at a wooden table in the Caucasian forest, 1990

1992

A Wake-up Call Goes Around the World

In the Brazilian city of Rio de Janeiro, more than 17,000 delegates, including high-ranking representatives of 178 countries and more than 1,400 non-government organizations, meet for the very first time to discuss environmental and climate protection issues within a global framework. The United Nations Conference on Environment and Development, to give it its official name, would go down in history as the Earth Summit. The conservation and sustainable development of forests all over the world also become the focus of global attention for the first time. This was to no small extent an achievement of former German Environment Minister Prof. Dr. Klaus Töpfer, who showed great commitment in attempting to implement the goals of the conference, particularly in his subsequent role as Executive Director of the United Nations Environment Programme (UNEP). Gentle treatment of the environment and sustainable development are the most urgent challenges of the 21st century because without forests, we would all run out of breath.



Slash-and-burn in the rain forest

2013

Pointing the Way Forward, for the Past 300 Years

In 1713, Hans Carl von Carlowitz laid the cornerstone for sustainable forestry. 300 years on, this principle is firmly rooted in forest management and forest policy. Forest laws at federal and Laender level provide for the sustainable management of forests in Germany because today, more than ever, forests play a vital role – for both nature and society: Timber from our forests is an important raw material and employer. Timber provides the economic basis for about 1.1 million jobs and over 127,000 businesses. In combination, forests as CO₂ stores and the use of sustainably produced wood reduce CO₂ emissions by about 128 million tonnes per year. This impressive performance in terms of climate protection results from CO₂ storage in forest trees and soil and from the substitution of energy-intensive raw materials and fossil energy with timber products. Sustainable forest management is its prerequisite.



A forester at work



A campaign by the German forestry industry during the anniversary year of “*Sylvicultura oeconomica*” by Hans Carl von Carlowitz

A symbol of life
and nature



An important
economic factor



A popular space
for recreation



OUR FORESTS, TODAY AND TOMORROW:

Sustainable Forest Management is the Key

Forests in Germany remain as important as ever: They clean our air, they produce vital oxygen, they provide our drinking water and are a habitat for numerous animal and plant species. Also, in densely populated Germany, they offer space for recreation and opportunities to explore nature. Not least, our forests provide us with wood, a renewable resource, and contribute substantially to the creation of employment and to enhancing value in rural areas.

German forestry has been rejuvenating, caring for and managing our forests for generations. Sound Forest Management assures that forests are maintained, shaped and kept so as to be able to provide their wide variety of benefits to society sustainably. Today, contrary to 1713, German forests are protected by law against over-exploitation and clearing. Germany's forest sector looks upon 300 years of experience in sustainable forest management. It is supported by forest research institutions. For good reason, the German forest sector and its ideas and concepts have achieved worldwide recognition.

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