CHORNOBYL 35 years later. Reclaimed by nature

Every spring, in April, when nature wakes up, we remember the accident at the Chernobyl nuclear power plant on 26 April 1986. This year, 35 years after the greatest catastrophe of the mankind, we look back and see that despite the negative effect of the disaster on human life, many scientists see its likely beneficial effect to the ecosystem.

The next day after the explosion, on April 27, the city of Pripyat (47 thousand 500 people) was evacuated, and in the following days - the population of the 10-kilometer zone around the Chernobyl nuclear power plant.

Watch Chernobyl / Prypiat, Ukraine – by Drone Snap.

In total, during May 1986, about 116 thousand people were resettled from 188 settlements in the 30-kilometer exclusion zone around the station. The total 350 000 people were resettled from areas of Ukraine, Belarus and Russia. An area of 100 000 km2 was contaminated.

Watch video with English subtitles: Return to exclusion zone

The Exclusion Zone covers an area of approximately 2,600 km2 in Ukraine surrounding the Chernobyl Nuclear Power Plant where radioactive contamination from nuclear fallout is highest and public access and inhabitation are restricted. Other areas of compulsory resettlement and voluntary relocation not part of the restricted exclusion zone exist in the surrounding areas and throughout Ukraine.

In 2007-2020 the New Safe Confinement above the destroyed 4th reactor was built. The project of total more than 2 bln EUR was financed through the Chernobyl Shelter Fund (CSF). The CSF is funded by 45 donors including The EU, The USA, Canada, The UK, Japan, Germany, Italy, France and Ukraine. The EBRD is the single largest donor to the project. It is a unique engineering idea and example of international cooperation. The Dutch company Mammoet joined the international team with the solution on lifting and skidding the arch of the Confinement from the assembly site to its destination. For this skidding system the company won the award of the European Association of Abnormal Road Transport and Mobile Cranes (ESTA) in 2014. This ESTA Innovation (Manufacturer) award recognizes the input of Mammoet, global leader in engineered heavy lifting and transport, in the one of the outstanding projects like New Safe Confinement in Chernobyl.

Watch the EBRD The story of Chernobyl's New Safe Confinement

Now approximately 2 000 people work in shifts in the Exclusion Zone on various tasks, such as the operation of the New Safe Confinement, the on-going decommissioning of the reactors, and assessment and monitoring of the conditions in the zone.

About 100 people live in the exclusion zone permanently. These are mostly the old people, who refused to move.

Read:https://www.bbc.co.uk/news/resources/idt-sh/moving_to_Chernobyl

Watch with English subtitles: Meet the 85-year-old living in the Chernobyl exclusion zone


Monique de Groot

Despite the negative effect of the disaster on human life, many scientists see a likely beneficial effect to the ecosystem. Though the immediate and subsequent effects were devastating, the area quickly recovered and is today seen as very healthy. The lack of people in the area is another factor that has been named as helping to increase the biodiversity of the Exclusion Zone in the years since the disaster.

About 15 years after the accident, it became clear that nature was much more powerful than humans could have imagined. The area of hundreds of thousands of hectares began to fill itself with life. Scientists have recorded an increase in the number of Red Book animals also returned to the area and their population started to grow.

The first step in the transformation of the Chornobyl territory was the establishment in 2016 of Chernobyl Radiation and Ecological Biosphere Reserve throughout the exclusion zone - an open air lab. This has created an unprecedented opportunity for scientists to observe and study how natural ecosystems are changing.

Denys Vyshnevskyi


Stanislav Gumeniuk

One of the symbols of the restoration of Chernobyl nature was the introduction of a herd of Przewalski's horses.

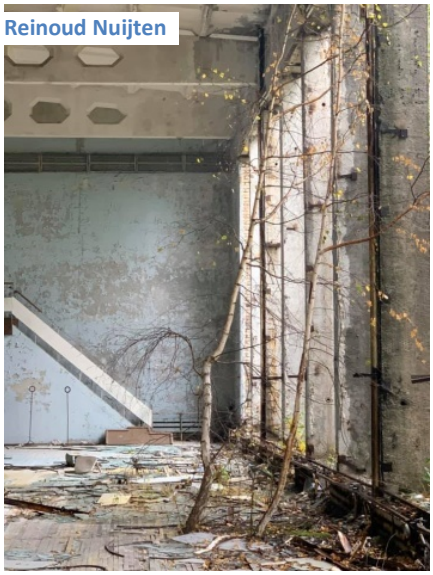
More than 20 horses were moved to Polissya in the late 1990s with an important mission - to maintain ecological balance. They trample the growth of young trees, thus preventing the transformation of meadows into forests. This means that meadows will remain, as will the rare species that inhabit them. To date, the herd has grown about seven times. Typical photos for the outskirts of Chernobyl are Przewalski's horses running in open spaces. This is what the former agricultural lands look like today, which have turned into open meadow-steppe landscapes that are not typical for this area called Polissya.

https://phys.org/news/2021-04-wild-horses-flourish-chernobyl-years.html
https://theconversation.com/the-mystery-of-chernobyls-wild-horses-137270
https://ilovehorses.net/history-2/the-wild-horses-of-chernobyl/

The beaver population, which has grown significantly during this time, has been able beavers were able to return to the formerly inhabited territories their original natural landscape. They create dams and thus regulate the redistribution of water in local reservoirs and even in the former reclamation canals.

Several years ago the brown bears have been found in the Chernobyl forests and since 2010 they regularly spotted by photo traps. A century ago, bears were permanent residents of these forests, but disappeared as a result of photo traps uncontrolled hunting.

Scientists from the Chernobyl Biosphere Reserve also have the opportunity to study populations of Eurasian lynx, wolf, elk, deer, and roe deer, the number of which has increased significantly in recent years. And they dream of the return of another former local resident - a bison, who disappeared from this area long before the Chernobyl accident due to mass poaching.



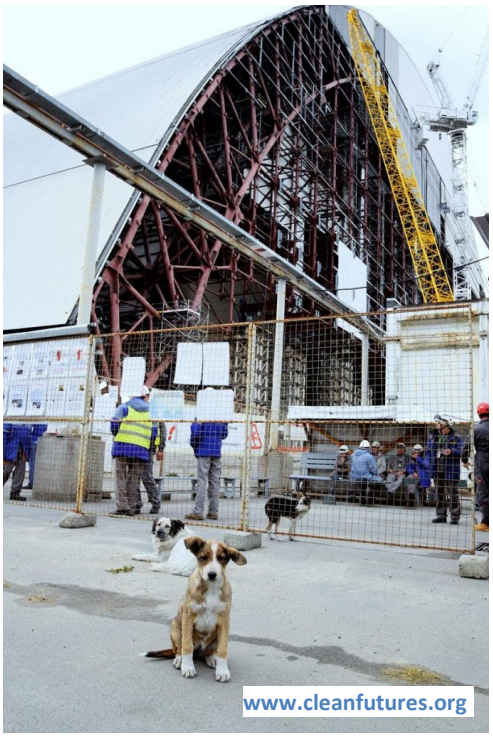
The forest is constantly increasing its area, occupying the territory of former agricultural lands and fields, entering the town. This expansion allows the existence of more forest species of flora and fauna. In addition, the forest itself is undergoing natural transformations. Monocultural, vulnerable to disease and fire artificial pine forests, which were planted in the last century, are gradually falling apart. More resistant to climate change and fire deciduous trees with shrubs take their place.

The biodiversity of the reserve is impressive:

- More than 300 vertebrates were recorded (with a total of 410 found in the region). 77 of them are listed in the Red Book of Ukraine
- Over 1200 species of vascular plants
- 120 species of lichens
- 20 species of mosses

The species like rats and pigeons which live close to the humans disappeared from the zone in the first several years after the accident. The wild species come closer to the town and often use the buildings of former cattle farms and houses as shelters.

Near the Nuclear Power Plant and in other places where people work and stay there is a concentration of the stay dogs - the descendants of those who were abandoned during the emergency evacuation. Back in 1986 people were not allowed to take pets with them. The major part of those animals was killed by special military units in the months following the accident. But many managed to survive and their number is growing now. The dogs moved from the abandoned villages to the nuclear power plant very soon after the accident in search of food and shelter. The workers of the power plant take care of them however their population is constantly growing and they are under the risk of getting infected by rabies from the wild wolfs and foxes.



In order to control the growing population of stay dogs the international organization and volunteers run the programs for sterilization and vaccination. Some of Chernobyl dogs successfully found their homes all around Ukraine and abroad. According to the American Clean Futures Fund (CFF), which owns the Chernobyl Dogs project, there are now about 750 dogs in the exclusion zone. In 2017, when the project began, there were about 1,000 of them, according to the fund. Ideally, they want to reduce their number naturally by at least half more, so that they are easy to care for. Watch more about CFF program in Chernobyl

In the village Lubyanka near Chernobyl there is a unique phenomenon for the exclusion area - the herd of wild cows. For many decades the cattle of the local people grazed in semi-wild way in the neighborhood meadows. After the last inhabitant of the village passed away several years ago, the cows became wild. The herd, led by the bull, spends days in the forest and return to an old building of the cattle farm for the nights. The walls provide them with necessary protection from wolfs and weather conditions.
Watch with subtitles Wild cows of Chernobyl.

Today, it is nature that protects people from the effects of the disaster. In fact, it has become a filter barrier between the radiation-contaminated area around the station and the populated areas of Ukraine and other countries. The lack of pressure on nature has strengthened its ability to purify air and water, stabilize the microclimate and give life to tens of thousands of species of fungi, plants and animals. It is a living laboratory that allows us to study natural reproduction in the conditions of inhomogeneous radiation pollution of territories, and also provides answers to the question of how we can restore natural territories that have been destroyed.

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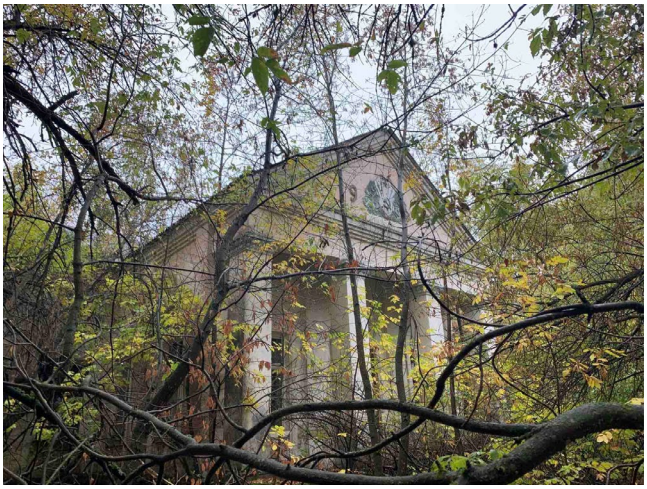
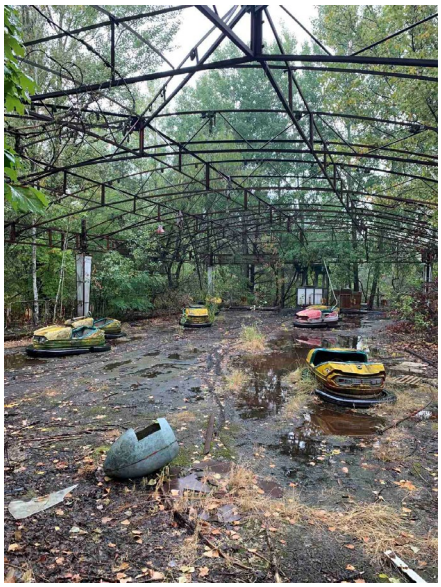
Based on the materials:
Special project by the World Wide Fund for Nature WWF-Ukraine with the participation of the Chornobyl Radiation and Ecological Biosphere Reserve and the Chernobyl Ark project.
Wildlife Takeover: How Animals Reclaimed Chernobyl | Free Documentary Nature
Wild life of Exclusion Zone
The rare videos of animals of Chernobyl zone





Photos by Reinoud Nuijten, Agricultural Counsellor in Ukraine