

IRS COP29

COP29: GLOBAL ACTION TIME



COP29

Baku
Azerbaijan

UN CLIMATE CHANGE CONFERENCE





For two weeks in November 2024, the capital of the Republic of Azerbaijan will host the 29th session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP29). Representatives of almost 200 countries will discuss existential challenges that concern the fate of our planet. This is a great honour for Azerbaijan, one that brings tremendous responsibility given that the Earth is facing a global environmental crisis that threatens the very survival of humankind as a species.

There is a justifiable opinion that human-caused climate change is already affecting many weather and climate extremes in every region across the globe. In addition, climate change has already affected food and water security, hindering efforts to meet Sustainable Development Goals.

Global temperatures are rising at an ever-increasing rate, with scientists claiming that the past decade (2011-2020) “has been the warmest” in Earth’s history. The increasing concentration of greenhouse gases in the atmosphere, the number of hot days and periods of ab-

normal increases in heat have brought natural fires engulfing vast areas, and ever more increasingly destructive storms, cyclones, hurricanes and typhoons. In some regions, water has become scarce, and droughts trigger sand and dust storms that move billions of tonnes of sand across continents. Deserts are swallowing fertile land and glaciers are melting, causing a rise in the level of the world’s oceans.

The first alarm bells were rung by environmentalists back in the middle of the last century, and it would be wrong to say that they were not heeded. The issue of environmental protection, raised by scientists, was soon picked up by public associations and appeared on the agendas of governments and international organisations. Some countries adopted laws against polluting water, forests and the atmosphere and worked to restore the biosphere. But there was no international coordination. There were no unified programmes, environmental standards were usually only advisory and were not always observed during the launches of large industrial facilities. As a result, environmental work was



often rendered ineffective by the irresponsible actions of near and distant neighbours.

The list of problems threatening the planet's health grew year by year. Finally, in 1992, the Earth Summit adopted the UN Framework Convention on Climate Change, laying the foundation for future agreements on planetary health. In 1995, the Conference of the Parties to assess progress in combating climate change was held under UN auspices in Berlin. This marked the beginning of a process to save the biosphere. Two years later, in 1997, the Kyoto Protocol was signed, regulating greenhouse gas emissions from countries signing up to this document. The UN Climate Change Conference was held in 2011, and the Durban Platform was established to negotiate a legal instrument regulating measures to mitigate climate change. Finally, in 2015, the Paris Agreement was signed by 196 states and the EU. One of its aims was to mobilise sufficient funding to help countries to adapt to the effects of climate change.

The issue raised by the UN was certainly very complex, not least because it was not always clear how to as-

sess countries' efforts, what criteria to use and, of course, the likely costs. After all, this would involve almost a total restructuring of whole industries and changes to the vectors of economic development. According to the World Bank, by 2030 the investment required for these purposes could amount to trillions of dollars. The scale of the work ahead is so colossal that it can only be tackled by the collective action of all countries, cities, financial institutions, businesses and individuals. But the fact that such joint efforts are necessary and that the time for action has arrived is well understood in Azerbaijan, which has considerable experience of working and chairing major international organisations.

Our country has been, for several years now, on a course towards green energy. New hydroelectric power stations are being built, and solar and wind energy power plants are under construction. An active participant in international cooperation to combat climate change, the Republic of Azerbaijan aimed to set more ambitious targets to reduce greenhouse gas emissions in line with global climate goals. The territories of

Karabakh and Eastern Zangezur will be transformed into zero-emission areas by 2050. At a meeting dedicated to COP29 in Baku, President of the Republic of Azerbaijan Ilham Aliyev promised: “As an oil and gas country, Azerbaijan will assert itself in this sphere and all the world will see once more that our agenda has a green energy focus. The creation of green energy and its transportation to world markets is currently the priority for our energy policy. This is the reality and the whole world will see it again.”

At the early stage of its independence, Azerbaijan was left with old environmental problems. Contributing factors included the extensive use of natural resources in the South Caucasus and, no less damaging, the economic collapse during the final years of the Soviet Union and Armenia’s occupation of more than 20 per cent of Azerbaijan’s territory, with the ensuing predatory destruction of forests, pollution of rivers and demolition of fruit orchards. Azerbaijan not only overcame serious environmental problems but also targeted to turn them into green growth.

The UN Economic Commission for Europe, which visited Azerbaijan a few years after the country regained its independence, concluded that the environmental situation in the country was far from favourable. Of particular concern were: air quality; oil pollution of the Caspian Sea, the Absheron Peninsula and the coastal zone; poor condition of water resources and supplies; outdated industrial and municipal waste processing technology, biodiversity and land degradation and erosion. To remedy this, Azerbaijan needed to make improvements to domestic environmental legislation, join the international cooperation of environmental conservation and, of course, invest significant financial resources. All this, however, depends on the political will of Azerbaijan’s leadership. And this was a given. Both President Heydar Aliyev and President Ilham Aliyev understood the importance of nature conservation. Their efforts led to a consistent and tangible improvement in Azerbaijan’s natural environment.

In the second Environmental Performance Review of Azerbaijan, prepared by the UN Economic Commission for Europe in 2011, it was emphasised that “significant progress has been made in increasing attention to environmental issues at government level, as evidenced by increased allocations of short-term financing for plans as projects of importance for the environment and human health”. Funds for these purposes had become available thanks to the Contract of the Century,







signed in Baku in 1994, that paved the way for hundreds of millions of manats to be allocated to environmental purposes. This is underpinned by Article 39 of the Constitution of the Republic of Azerbaijan, which declares that “the state guarantees the preservation of ecological balance, the protection of wild plant and wild animal species recognised as such by law”. President Aliyev signed decrees, orders and laws in accordance with international standards, as well as state programmes to restore and conserve nature. Aware of the importance of collective action, Azerbaijan joined all relevant international conventions on environmental protection. However, the environmental situation in the occupied territories remained difficult, with the separatists not allowing any international commission to enter.

Thousands of rivers, the Kura and Araz being the largest, flow across the territory of the Republic of Azerbaijan into either the Caspian Sea or the country’s lakes. These are the country’s main sources of drinking water. However, about 70 per cent of this surface water is generated in other countries. For sustainable management

of transboundary rivers, Azerbaijan is interested in establishing cooperation with neighbouring countries.

The Framework Convention for the Protection of the Marine Environment of the Caspian Sea was signed by Azerbaijan, Iran, Russia, Kazakhstan and Turkmenistan in Tehran in 2003. This document aims not only to protect the Caspian environment from possible sources of pollution, but also to preserve, restore and protect the marine environment of the Caspian Sea. The Caspian Sea is a unique natural feature whose ecological health is important to the whole planet. The Caspian Sea is the Earth’s largest lake, covering an area of 390,000 square kilometres and 1,025 at its deepest. It is 28 metres below sea level. One of its greatest mysteries is its episodic transgressions; the sea advances on the land and then withdraws. The shallowing of the sea is one of the hotspots of the region requiring collaborative action. Inhabitants of the Caspian Sea include many fish and crustaceans whose ancestors inhabited the ancient Tethys Ocean 70 million years ago. Caspian Sea fauna includes a total of 1,809 species, with 101 species of fish, among



them the invaluable sturgeon. The Caspian Seal is also unique to this area. The Caspian's colossal oil and gas reserves also mark the Caspian out as a globally important region. The extensive extraction of these reserves from the second half of the 20th century led to significant pollution and the extinction of many species. Azerbaijan has adopted a state programme to ensure the environmental safety of the Caspian Sea. Equipment to prevent accidental oil spills has been installed on oil offshore platforms, the discharge of industrial waste into the sea has been stopped and the catching of rare species of fish has been prohibited. But, while much has already been achieved, there is still a lot more to do.

In 2006, another important document came into force in the Republic of Azerbaijan. The Forest Code was adopted to regulate economic and other activities in forested areas, some 12 per cent of the country's total area. There are 157 species of tree and 332 species of shrub in Azerbaijan. These are mainly deciduous plants, among them the most common (85 per cent of the total forested area) are the oriental beech, oak

and hornbeam. There are also many plants that are rare or endemic, some being included in the Red Book of Azerbaijan, the official state document on the status of rare and endangered species in the country. In the early 1990s, many forests suffered due to a mass felling of trees. This was the result of villagers and even townspeople having to heat their houses with the firewood due to failures of power and gas supplies. The forests of the Nakhchivan Autonomous Republic, which Armenia tried to choke with an economic blockade, were particularly badly affected. But as soon as their economic situation improved the people of Nakhchivan set about restoring the forests, planting hundreds of thousands of trees. Forests in Armenian-occupied Karabakh and Eastern Zangezur were destroyed in a predatory manner. Preliminary estimates are that the invaders totally destroyed 55,000 hectares of forests, two reserves and four nurseries in which unique plants had been grown. Relict trees were cut down and timber was sold abroad. Today, a state programme for the revival of Karabakh's forests has been adopted and is in active implementation.



Work on the use of renewable energy has been underway in Azerbaijan for several years now and 2024 has been declared a “Year of Solidarity for a Green World” in Azerbaijan.

The processes of industrialisation initiated by National Leader Heydar Aliyev to increase energy capacity for agriculture and improve living conditions for an ever-growing population increased electricity consumption by 26 per cent in the country. And this dynamic is expected to be maintained in the near future. By 2025, the demand of the economy and population of Azerbaijan’s cities and villages for electricity will amount to 26 billion kWh, and some part of that demand will now be met by renewable energy, especially given the enormous resources in the country. According to the Ministry of Energy, the potential for green energy exceeds 27,000 MW. Thus the country would have the opportunity to generate at least 50 billion kWh of electricity annually, meeting not only the demands of the domestic economy, but also making export possible. Calculations compare potential solar generation in Azerbaijan with that of southern Italy, exceeding that in Germany by almost 50 percent, whereas potential wind energy on the Absheron Peninsula is no less than that of the con-

tinental areas around the North Sea. If we take account of all the potential natural resources, the main source of renewable energy in Azerbaijan is from the Sun, at 23,000 MW, with wind potentially providing 3,000 MW, geothermal sources 800 MW and hydroelectric power plants on small rivers 520 MW.

Natural conditions in the Republic of Azerbaijan enable the use of many sources of renewable energy. Its geographical positioning gives 2,400-3,200 hours of sunshine annually and solar activity indicators are 1,500-2,000 kWh/square metres. The vast steppes of coastal central Azerbaijan, devoid of vegetation, are perfectly suitable for the construction of solar power plants, which usually cover large areas. The Absheron Peninsula, where windless days are rare, the Caspian Sea coastline, the islands in the sea to the north-west, Khizi, Kalbajar and Lachin, are all ideal for wind energy. As for hydropower, its production has been increasing in the country since 1990. Half of Azerbaijan’s territory is occupied by mountains and the energy potential of mountain rivers is far from exhaustion despite the rapid construction of small hydropower plants. These are being built, especially in Karabakh and Eastern Zangezur, now liberated from Armenian occupation. The energy econ-

omy of these vast regions was completely destroyed by the occupiers, but it is now recovering rapidly. There are also opportunities here for the development of bioenergy fuelled by flammable industrial waste, waste from forestry and wood processing, and agricultural, municipal and household waste.

To date, 81 fields have been discovered in Azerbaijan. In total, the reserves and resources of the Republic are: 2.41 billion tonnes of oil/condensate and 5.45 trillion cubic metres of gas. However, the country's leadership raised the issue of using natural energy sources in the early years of independence. This course for the development of green energy first saw the country mastering new and advanced technologies of electricity generation, then moving on to the extensive construction of hydro, solar and wind power plants. In 2014, 1,480 million kWh of electricity was generated by the country's renewable energy plants. Eight years later, in 2022, renewable energy production totalled 1.945 billion kWh. Hydroelectric power plants with a capacity of 226 MW have already been commissioned in Karabakh and Eastern Zangezur. By the end of 2024, their capacity will be 270 MW, rising within the next two to three years to 500 MW. On 26 October 2023, the Garadagh

Solar Power Plant, covering an area of 550 hectares, was put into operation; its more than 500,000 solar panels are capable of producing 500 million kWh per year. The government's efforts have already increased the share of renewable energy in Azerbaijan's installed capacity to 17 per cent (2020). Several more solar and wind power plants are to be commissioned by the end of 2026.

The design and construction of power plants using renewable energy sources is in full swing. A 445 MW solar power plant will be built in Bilasuvar district, a 315 MW solar plant will appear in Neftchala district and a 240 MW wind power plant will stand on the border of the Absheron and Garadagh districts. The 240 MW Khizi-Absheron wind farm will begin operating in 2025. Regions including Karabakh, Eastern Zangezur and the Nakhchivan Autonomous Republic have been declared a green energy zone. Not so long ago, on 14 February 2021, the head of state opened the first hydroelectric power plant on the Hakari River – with a capacity of 8 megawatts for land liberated from Armenian occupation. And now there is already a whole cascade of 226 MW-capacity hydroelectric power plants operating there. The Khudaferin and Giz Galasi hydroelectric power plants being built on the Araz River jointly with the





Islamic Republic of Iran will have the greatest potential. From them, the Azerbaijani side will receive 140 MW of generating capacity. By 2027, the share of renewables in Azerbaijan's electricity capacity will increase from 17 in 2020 to 33 percent.

The number of investors involved in the implementation of Azerbaijan's green strategy is growing year on year. The UAE company Masdar intends to launch large-scale projects in the Karabakh and Eastern Zang-ezur economic regions. A representative of the Saudi





company ACWA Power has expressed readiness to cooperate on decarbonisation and hydrogen production projects. A framework agreement has been signed with the Australian FFI company on cooperation in the study and development of renewable energy projects and the potential of green hydrogen in Azerbaijan. In 2022, memoranda were signed with China Gezhouba Group Overseas Investment on the implementation of 2 GW renewable energy projects and with TotalEnergies on cooperation in the evaluation of a 250 MW solar power plant and a 250 MW wind farm project in the Nakhchivan Autonomous Republic and Eastern Zangezur. Sites for the construction of solar power plants in Jabrayil and Fuzuli are being negotiated with Nobel Energy. In the Nakhchivan Autonomous Republic, Nobel Energy and A-Z Czech Engineering continue a process of selecting sites for the construction of solar power plants. In 2024, the British BP plans to lay the foundation stone of the Shafag solar power plant in Jabrayil district. The cooperation agreements concluded with foreign companies envisage a total generation of more than 28 GW of electricity.

On November 10, 2020, the Second Karabakh War came to an end. With the liberation of territory occupied by Armenia for almost 30 years, it seemed that the 700,000 Azerbaijanis previously expelled from their native lands could now return home. However, this was not possible. Vast areas of a once flourishing region had been transformed into a lifeless desert. The occupiers had destroyed houses and entire towns; they

had bulldozed cemeteries, razed schools and hospitals, smashed roads, ripped up railway lines, removed factory and plant equipment to Armenia, cut down forests, mutilated memorials and mausoleums, and demolished palaces, temples, and mosques – all in an effort to erase any memory of those who once lived there. The lands of Karabakh and Eastern Zangezur had not only been plundered but also rendered deadly dangerous for those wishing to return. Nearly 1.5 million of landmines lay in wait, contaminating not only the fields along the former lines of contact. As they retreated, the Armenian occupiers planted landmines on roads, paths, and passes; they planted them in streets and gardens, near springs and wells, and on the thresholds of the few buildings that had survived. These landmines were everywhere, waiting to maim and kill anyone who dreamed of returning to their ancestral lands. While the Azerbaijani government has taken measures to prevent further civilian casualties, accidents still occur. Unfortunately, more casualties are inevitable, as it will take years to completely clear Karabakh and Eastern Zangezur of landmines.

The reconstruction of the economy in the liberated territories began with the roads. Since the former highways had been completely destroyed, a decision was taken to create a new transport network. The plan proposed by President Aliyev was to create a modern transport infrastructure to link all the region's economic centres into a single network with reliable connections to the rest of Azerbaijan. This work began at the end



of 2020. The builders followed those who were clearing ways through the minefields. Highways were extended kilometre by kilometre, bridges were built over rivers, and tunnels drilled through mountains. Running 11,700 metres, the longest tunnel will be the one under the Murovdagh Ridge. In total, 39 tunnels and 90 new bridges are to be built in Karabakh and Eastern



Zangezur. Many of them are already in operation. The construction of highways with a total length of 3,138.5 kilometers is under way in the liberated territories.

Karabakh is now connected with the rest of Azerbaijan not only by modern motorways and railways on the ground, but also by routes across the skies. For a period of almost 30 years, Azerbaijan's airspace over the occupied territories was closed to international flights. The civil aviation infrastructure on this territory had been damaged or totally destroyed. In 2021, after the liberation of the occupied territories Azerbaijan, opened its airspace to international flights. On July 26, 2021, after a long silence, radio callsigns of new national navigation systems were again transmitted over the skies of Karabakh. The planes of the national air carrier of Azerbaijan, AZAL, were the first to receive these signals. The region will be served by four international airports: the two of them already in operation, Fuzuli and Zangilan, will be joined by a third one in Lachin, Eastern Zangezur, which is scheduled for 2025, as well as Khojaly. The scale of the project to bring Karabakh and Eastern Zangezur into the global air transport network is truly amazing and the pace of implementation may be unprecedented. For example, Fuzuli airport was built in a matter of nine months.

It has been many years since Azerbaijan became an active and authoritative participant in international cooperation. It has proved by its actions that its positions on the most acute problems of our time are certainly not based on current conjuncture, nor on local interests or a desire to earn political and economic dividends from the problems facing other countries, or even humanity as a whole.

The foreign policy course pursued by President Ilham Aliyev is closest in its aims to the ideology of the Non-Aligned Movement, which Azerbaijan chaired for several years. "... We are on the right path, because we have always shared, and continue to share, the fundamental principles on which this Movement was created, namely the sovereignty, territorial integrity and independence of states," President Aliyev stressed. Adding: "... It was, in fact, a movement for independence, a movement for independent politics, a movement, I believe, no longer against the so-called global players, but for our own choice, for our dignity, for the opportunity to live as the peoples see fit".

Each nation chooses its own path, but all these ways travel in the same direction, towards goals that are ultimately the same for all – peace, progress, freedom and







prosperity. However, the paradox is that they can only be achieved together, not at the expense of the weaker and poorer. And it is all the more necessary to join efforts when the world is so close to a global catastrophe that would inevitably lead to climate change on our planet. It is no coincidence that the UN Meteorological Organization (WMO) emphasizes that the lack of resolute action to combat global warming has led to new temperature records.

Of course, there are places on Earth where it will be completely unnoticeable at first – just a little hotter in the summer and a little cooler in the winter. But that will be for a very short period, and then changes in the climate will increase exponentially. Some places have already experienced this, with ensuing droughts, crop failures, shortages of drinking water, famine, mass migrations of people and social and political destabilisation. This mainly happens in countries with weak economies, poor well-being and modest financial resources. They are unable to confront nature, and the problems they face are often not their fault. But, unfortunately, no measures are taken and the situation continues to deteriorate.

Azerbaijan is ready to receive envoys from more than two hundred countries and will make every effort to ensure that COP 29 is held with maximum efficiency. This

is further confirmation that the solution to any large-scale problem of importance to the whole world begins with the political will of leadership, with an understanding that the fate of the planet today depends on the willingness of all to work together, not only to save the Earth, but also to make it even more beautiful. 🌱

