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SYNERGY

BİLKENT ENERGY POLICY RESEARCH CENTER NEWSLETTER

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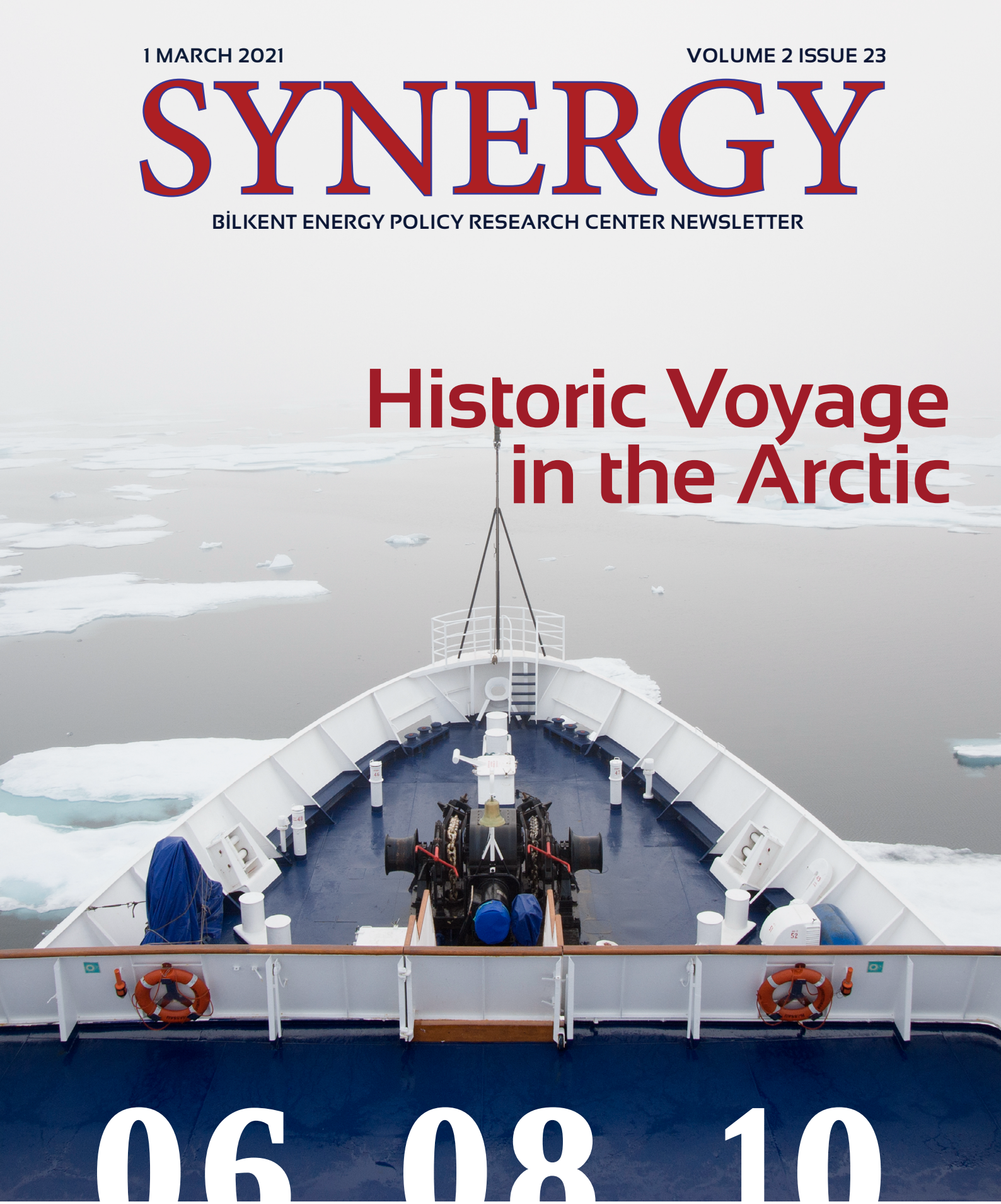

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BRENT OIL	65.27 $/BL	GASOLINE	7.31 ₺/LT
USD/TRY	7.32	DIESEL	6.68 ₺/LT
EUR/TRY	8.82	FUEL OIL	4.27 ₺

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Energy Policy Research Center

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Historic Voyage in the Arctic

Başak Bozoğlu

For the first time in February, a historic voyage took place on the Northern Sea Route. A commercial tanker that carries liquified natural gas (LNG) traveled from Russia to China through the Arctic Ocean.

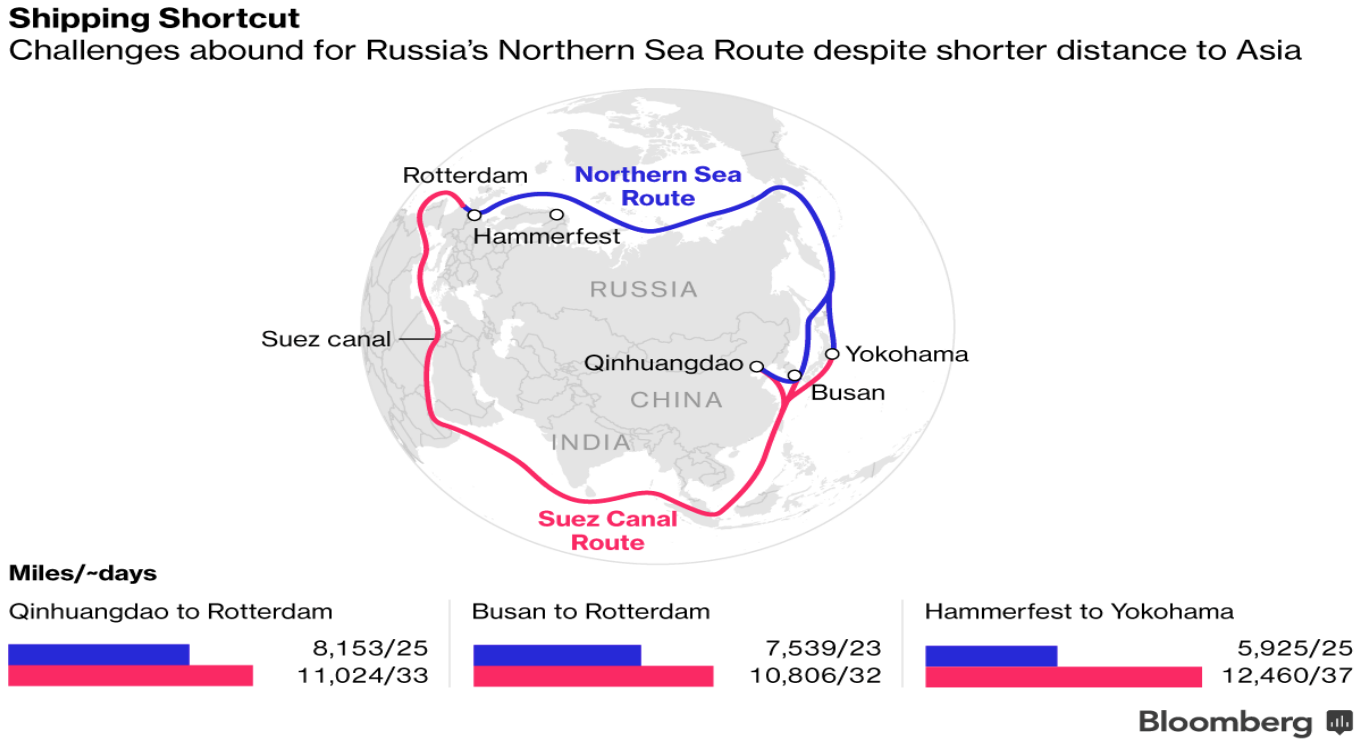
Countries with coasts to the Northern Ice Sea, such as Russia, the USA, Canada, Greenland, and Norway, could not use the Arctic Ocean for trade in the winter due to extreme freezing. Northern Sea Route (NSR) is known as a shipping route to connect the Atlantic Ocean and the Pacific Ocean through Arctic Seas; the Barents Sea, the Kara Sea, the Laptev Sea, the East Siberian Sea, and the Chukchi Sea. NSR allows many countries to travel Europe from the shortest distance without following Suez Canal Route. NSR also creates considerable opportunities in terms of political, economic, and energy consumption.

However, NSR could only be used in the summer period when the Northern Ice Sea melted. During winter circumstances, the Arctic Ocean turned into a tick ice sea and became impossible for passing through. For the first-time, this winter enormous tick ice layers melted due to climate change and made it possible to use NSR in February. Russia completed the trip to China in 11 days with their Christophe de Margerie. It creates an alternative and shortest route for Russia and other countries for shipping.

Northern Sea Route creates advantages for both companies and governments. It allows unlimited opportunities in transportation in terms of time and money for companies. For instance, Yokohama (Japan) to Rotterdam (Netherlands) through the Indian Ocean is 7.500 miles and takes 33 days, but it takes 4.500 miles and 20 days through the Northern Sea Route. Therefore, it has not an impact on not only countries with coasts to the Northern Ice Sea, but it also has an impact on world trade. The situation increases the speed of trade and brings profit to companies.

Furthermore, the Arctic Sea has a wealthy area and has 13% of the world's unexplored conventional oil resources and 30% of unexplored natural-gas resources that could not be obtained. The Arctic region has a strategic value for many countries in terms of resources. Before the impact of climate change, it was impossible to have these resources because it could not access resources and drill the gas and oil. With the melting of the glaciers, interest in the region started to increase in terms of research and access to natural resources. International oil companies have invested in exploiting the oil and aim to drilling in the Arctic Sea. It is significant to having the region's political power and accessing natural sources.

Russia is the most interested country to use the Northern Sea Route for their transportation because Russia's



economic growth depends on 60 % energy exports that include 1/3 of Russian gross domestic product. Therefore, Russia has a strategic plan for the Arctic as a Foundation of Russian Federation Policy until 2020 and beyond 2021. Russians has been transporting 18 million tons of liquified natural gas and 33 million cargo during 2020. With the use of NSR in the winter months, Russia aims to increase 80 million tons in total per year by the end of 2024. Russia also has a military plan for the Arctic for the security of trade and potential dangers in the region, and soldiers from childhood are raised to serve in this region.

Using the Northern Sea Route has various benefits, but it has also a danger in terms of climate change. The melting of the Northern Ice Sea enough to provide transportation during the winter months is actually one of the most significant consequences of global climate change. Using NSR is significant, but it also creates problems that can impacts the whole world. In the region, warming becomes faster than in the rest of the world. The reason is that when the Arctic Ocean's ice layers has been melting, the ocean absorbs the heat faster than twice because of losing reflecting the sun lights. It affects the diversity and life conditions in the ocean. The significant issue is that transportation facilities and their continuity in the winter can destroy the Arctic habitat. Drilling is a challenging condition, especially in extreme weather conditions. It takes too much time comparing the rest of the world to remote control while facing any problem. Working on extracting natural sources have a lack of infrastructure for oil spills, and oil spilling can mix with ocean water. This situation treats the ocean life and causes the reducing diversity in the Northern Ocean Sea, such as the fish, whales, monk seal in the area. Moreover, other animals such as polar bears, Arctic foxes, reindeer and caribou are in danger of extinction as the ice-covered layer of the Arctic Ocean shrinks. During the Obama administration, offshore oil drilling was limited for two years in the Arctic because of a lack of protection in the area.

The Arctic has an enormous potential in terms of natural resources. It can affect world politics, economic and military conditions, but it is also crucial to note that the Arctic has a vital role in climate change and has a massive impact on the rest of the world. Therefore, this historical voyage is an exciting event to see what will happen in the future and what should be considered while transportation and drilling process to considering climate change.

The Narrowing Options for OPEC+

Barış Sanlı

Oil creates winners and losers, erupts protests, changes governments. We sometimes personify oil like a man with evil deeds and riches. However, it may be no different than a simple power game.

OPEC may outlast the age of oil. The joy and chaos it brings to energy news streams are exceptional. The oil itself has the elements of a drama. It makes riches and wars. It creates winners and losers, erupts protests, changes governments. We sometimes personify oil like a man with evil deeds and riches. However, it may be no different than a simple power game.

This week OPEC JMMC and later OPEC+ will gather to tweak production targets. The problem lies in the data. Is the world getting back to normal, is the demand finally taking off? Or is it still too early to increase production? Or the price levels are a gift for shale producers?

The oil price volatility is generally calmed if some entity has control over oil markets. Otherwise, the normal tendency of prices is a little bit less than chaotic. Trump previously brokered or helped to broker an agreement between Russia and Saudi Arabia. OPEC+ and a US president have brought long stability to the oil prices for better or worse. Now, will it last?

One of the important elements of this equation is the stock levels. These stock levels, especially US oil stocks, were targeted by the OPEC decision-making. If stock levels are lower than average, it is obvious that demand is higher than the supply provided. But it also means that stockpiles have to be filled again at some time in the future.

This may be important for data-wise transparent US oil stockpiles. But the Chinese stock levels are not accurately known. China is estimated to have over 1 billion barrels of stocks. China has become an important balancing piece of the whole oil conundrum. Not only for what it consumes but also for what it can store.

The New US administration is also shifting the focus from oil to the energy transition. It will take time, but the ship has started maneuvering. The oil consumption itself has inertia, but the electric car frenzy has started. These kinds of policy shifts hardly happen in one go. But once it started, it will strengthen and then weaken and then strengthen further. There is no linear path.

The most curious question is related to shale production. Will there be capital discipline, or are we going to see the same drama of keep pumping. I am not sure about capital discipline, and if there is profit to be made, it will materialize, unfortunately, with a time shift.

OPEC is in a fallen angel's dilemma. It still has the control and prospects for oil markets. But it is eroding, and it can not be undone. Only a few geopolitical chaoses may turn the tide. For the March meeting, it will be a game between Saudi Arabia and Russia. If Saudi Arabia values US relations, it can not be close to Russia anymore. But it can not increase production too much to bankrupt shale. Russia has to push for more production such that the oil and gas prices should not bring new players to the already crowded game. Low prices are not desired. The options are limited and darker for everyone.

On the other side, the usual Sunday bombing of some ships in the Middle East and rocketing Saudi cities keep increasing. Geopolitical instability is the major reason for a price rise. There are limits to such tensions.

The roles of MbS and Putin are very different than the Trump era. This will certainly reshape with every step the US takes. Once, the best option for OPEC was to let everyone produce as much as possible to destroy shale. This was Ali al-Naimi's original plan which resulted in his sacking. The other option was targeting stock levels and price levels. Basically, there are not too many options.

Now OPEC is slowly guiding oil to its final endgame. There will be more drama, more exchange of words, more rockets, drones, explosions. There will be more volatility—the drama peaks toward the final curtain. The oil market is harder to control than before. Energy transition will make it more of a beast.

From Mitigation to Adaptation

Selin Kumbaracı

Last Friday, the United Nations released a report showcasing how the updated national climate plans—or nationally determined contributions (NDCs)—submitted by 75 of the 191 countries party to the Paris Agreement, will do almost nothing to lower emissions within the next ten years.

The countries that submitted their updated NDCs by the deadline that the UN set amounted to about 30% of global emissions. According to the UN report, the cumulative effect of these new pledges would result in a fall of 2.8% in emissions by 2030, compared to the previous pledges.

Based on the existing pledges, the current trajectory would result in warming of about 3°C, as opposed to Paris Agreement's goal to limit warming to 2°C, and preferably 1.5°C. If warming were to increase by 2°C, it would threaten low-lying island states given sea-level rise. To limit warming to the ideal scenario of 1.5°C, there would need to be a drop of 45% in CO2 emissions (compared to 2010 levels) by 2030, with net-zero emissions being achieved by 2050.

As the executive secretary of the United Nations Framework Convention on Climate Change (UNFCCC), Patricia Espinosa said, current national efforts, as reflected by the updated climate pledges (or lack thereof) are "simply not good enough." UN Secretary-General Antonio Guterres has also expressed his concern, calling the report "a red alert for our planet." Given the bleak outlook, there seems to be an increasing emphasis by the European Union on climate change adaptation, in addition to their already-ambitious mitigation efforts. Indeed, the EU was the only party to the Paris Agreement among the four largest CO2 emitters to submit an updated climate pledge.

This emphasis on adaptation is especially in the limelight given how countries in Europe, not just small island states, for instance, are being increasingly impacted by climate change, such as with increasing forest fires, droughts in the Mediterranean region, and hurricanes in the EU's outermost regions, according to the new EU Strategy on Adaptation to Climate Change. Indeed, in 2019—declared at the time as being Europe's warmest year on record—there were 2500 deaths resulting from the heatwave.

According to the European Commission, there is also a very concrete price tag on the impact of the level of warming predicted by the UN report given current pledges—3°C—on the EU: an annual loss of at least 170 billion euros. The above concerns combine to understand that current mitigation efforts regarding reduction in emissions are not working, or at least not working fast enough.

The Commission outlines several important points in the EU's new adaptation strategy, particularly in relation to the role of the private sector and insurance industry in the adaptation process and the role of the EU in supporting developing countries beyond its borders in adapting to the impacts of climate change.

According to the Commission, only 35% of economic losses incurred from disasters related to climate change are insured on average throughout the EU, with this figure dropping as low as 5% in some Member States.
As such, an aim is to reduce this climate protection gap, referring to the share of non-insured economic losses resulting from climate-related disasters, especially by "Using insurance as a risk-transfer mechanism

to absorb financial losses related to climate risks," characterized as a sort of, "the first step from crisis reaction towards risk management and anticipation," as stated in the adaptation strategy.

The strategy also emphasized the importance of supporting developing countries, acknowledging how external action needs to more effectively aim for adaptation, "leaving no one and no place behind." This is particularly significant due to how it is usually the measures aiming to reduce emissions—such as renewable investments— that get funds, as opposed to measures targeting adaptation.

However, under the modified strategy, such adaptation efforts are the ones that are underlined, with the report stating that "The EU will provide targeted support to partner countries to help unlock existing and new financial resources towards climate adaptation."

In a meeting convened by the Netherlands last month, such a focus was also front and center. It took place on the same day that the EU foreign ministers approved increasing finance provided to developing countries to help them cope with the effects of climate change.

As Frans Timmermans, the Commissioner responsible for the European Green Deal, acknowledged, a decisive factor in whether or not the Paris Agreement will be a success lies in if the EU is able to "put enough efforts in adaptation strategies, not just in Europe, but also especially in the developing world."

While there is some controversy over the Commission not moving forward with concrete regulation, utilizing 'soft' measures instead (like making climate insurance products better), the insurance industry warns against a "one-size-fits-all" solution imposed by Brussels.

On the other hand, there have been calls for binding measures by those such as an MEP from the Greens/EFA group, Michael Bloss, who has argued that the reason behind why billions of euros in climate damages were paid to affects farmers and foresters last year is, "our timid efforts to tackle climate change."

Overall, though, the new adaptation strategy of the EU is more or less seen as a much-needed development by both sides, especially in light of the recent UN report highlighting the difficulties in living up to climate targets. Time will tell whether or not the Commission eventually decides to roll out binding regulation on this matter—though one would hope that there would not be a need to.

Climate Change Impact on Croatia

Mihael Gubas

"Over the next 50 to 100 years, today's Adriatic coastal towns could become the sea, so apart from parts of Istria, Stradun, Diocletian's Palace, the Zadar peninsula, Pula, and many other Adriatic sites rich in life will potentially disappear under the sea."

The announced change in the weather towards re-cooling brought high tides to the North Adriatic. Hence, the sea in Rovinj threatens houses, some streets have become canals, and shots from that Istrian city are a bit reminiscent of Venice. The northern Adriatic is a particularly shallow and closed sea created by the melting of the last ice age, which turned the mainland connecting northern Dalmatia, Istria, and the Adriatic part of Italy into the seabed under the influence of rising sea levels now begins to occupy new dry soils. Over the next fifty to a hundred years, today's Adriatic coastal towns could become the sea, so apart from parts of Istria, Stradun, Diocletian's Palace, the Zadar peninsula, Pula, and many other Adriatic sites rich in life will potentially disappear under the sea.

As we have already had the opportunity to see in 2014, Excessive floods threaten the continental part of the country and the region (western Serbia, northern BiH). The 2014 floods showed that the region was not prepared or adequately equipped to deal with climate impacts' growing dangers. Although improvements in flood prevention and protection systems have been made since 2014, recent flood events in 2019 and 2020 have shown that more needs to be done to address floods and related disasters adequately.

THE REGION WAS NOT PREPARED OR ADEQUATELY EQUIPPED TO DEAL WITH CLIMATE IMPACTS' GROWING DANGERS.

The International Panel on Climate Change (IPCC) has identified the Western Balkans as one of the most vulnerable areas in Europe in its reports. According to their data, the region will face an increase in temperature higher than the European average and changes in precipitation patterns that will lead to an increased risk of floods, longer periods of drought, soil erosion, and forest fires. Climate change is likely to increase negative impacts, resulting in significant habitat losses and human, health, and socio-economic damage.

We can already experience all the IPCC announcements in person.

Although there is a social consensus that "there is no real winter here," the real consequences of these changes are difficult to see at the moment because a longer season means more tourism revenue, easier cultivation of new and tropical plant species, and even warmer weather carries smaller bills for electricity that heats much of Dalmatia. Olives have been bearing bad fruit in recent years, the vine is not what it used to be, and everything is exposed to various diseases and weather conditions. Despite this, the information obtained based on scientific indicators, that in about 50 years, olives will no longer grow in the Mediterranean, it is almost impossible to perceive because it is one of the hardiest plants in this area. But the weight of the perception of something and our refusal to come to terms with the future does not delay that future. It will certainly welcome us, and such a frequent argument "I will not be alive then anyway" does not mean that we do not bear historical responsibility for future generations.

The description is further accompanied by increasing fires often attributed to and floods to mismanagement and corruption. Although harmful social practices make it difficult to cope with changes in the ecosystem, soil, sea, and air around us, they are not their immediate cause but only contribute to a greater degree of impending climate catastrophe. According to some models of the planet's appearance in 2100, Dalmatia, southern Albania, Montenegro and Greece could become deserts.

BASED ON SCIENTIFIC INDICATORS, THAT IN ABOUT 50 YEARS, OLIVES WILL NO LONGER GROW IN THE MEDITERRANEAN

Today's tide is not an extreme that occasionally appears cyclically. On the contrary, the era of weather extremes has passed. Today these are the first indicators of a new climate regime. If we wanted to read weather extremes as symptoms of future changes, as indicators of exposed areas that need special attention, today, we would be much more prepared for the period ahead. That is, we would have a better chance of stopping extinction. Instead, we have all passively accepted the principle of "laissez-faire," indulged in inertia, and always left the responsibility to some new future generations. But these future generations are no more: changes are taking place now, and the tide that flooded Rovinj's streets will soon no longer be the exception but the rule, the sea will occupy the land for the first fifty years, and then soil erosion will take away the humus layer of the earth, and after all, only the desert will remain.

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