



Strategic roadmap of the CBK on the Management and Supervision of Climate-Related and Environmental Risk in the financial sector for 2025-2027

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Acronyms

ACPR: Autorité de Contrôle Prudentiel et de Résolution
AWC: Arab Water Council
BCBS: Basel Committee on Banking Supervision
BCPs: Core Principles for Effective Banking Supervision
BoE: Bank of England
BPF: Brown Penalizing Factors
CBK: Central Bank of the Republic of Kosovo
CDS: Credit Default Swap
CEDARE: Center for Environment and Development for the Arab Region and Europe
CEO: Chief Executive Officer
CH₄: Methane
CO₂: Carbon dioxide
CPRS: Climate Policy Relevant Sectors
CRD: Capital Requirements Directive
CRR: Capital Requirements Regulation
DNB: De Nederlandsche Bank
EBA: European Banking Authority
EBRD: European Bank for Reconstruction and Development
ECB: European Central Bank
EGD: European Green Deal
ESG: Environmental, social and governance
EU: European Union
EUR: Euro
FSB: Financial Stability Board
GAWB: Green Agenda for the Western Balkans
GDP: Gross Domestic Product
GHG: Green House Gases
GSF: Green Supporting Factor
H₂O: Water vapor
ICAAP: Internal Capital Adequacy Assessment Process
ILAAP: Internal Liquidity Adequacy Assessment Process
IFD: Investment Firms Directive
IMF: International Monetary Forum
IPCC: Intergovernmental Panel on Climate Change
IPSF: International Platform on Sustainable Finance
KAS: Kosovo Agency of Statistics
KCGF: Kosovo Credit Guarantee Fund
M³: Cubic meters
MESP: Ministry of Environment and Spatial Planning
Mt: Metric tons
N₂O: Nitrous oxide
NACE: Nomenclature of Economic Activities
NDC: National Determined Contributions
NGFS: Network for Greening the Financial System
O₃: Ozone
OeNB: Oesterreichische Nationalbank
OSCE: Organization for Security and Co-operation in Europe
SMEs: Small and Medium Enterprises
SREP: Supervisory Review and Evaluation Process
TCFD: Task Force on Climate-Related Finance Disclosures

TEG: Technical Expert Group on sustainable finance

UN: United Nations

UNDP: UN Development Programme

UNFCCC: United Nations Framework Convention on Climate Change

USAID: United States Agency for International Development

WMO: World Meteorological Organization

Glossary

This Strategy on climate-related and environmental risks in the financial sector for 2025-2027 (hereinafter, “the Strategy”) includes number of terms related to climate change and environmental risks, as well as sustainable finance. Their meaning is as follows¹:

- 1) **Carbon intensity² / Emission intensity** is the amount of carbon dioxide (CO₂) emissions released per unit of another variable such as gross domestic product (GDP), output energy use or transport. An activity or process is carbon-intensive if it has a high carbon intensity relative to a given benchmark.
- 2) **Carbon taxation (carbon tax)** generally refers to a tax levied on the carbon content of some goods and services, typically in the transport and/or energy sectors. The purpose is to reduce CO₂ emissions by increasing the price of these goods and services. It is one of the main types of tools used in climate change policies around the world.
- 3) **Climate** in a narrow sense is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization. The relevant quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.
- 4) **Climate projection** is the simulated response of the climate system to a scenario of future emission or concentration of GHGs and aerosols, generally derived using climate models. Climate projections are distinguished from climate predictions by their dependence on the emission/concentration/radiative forcing scenario used, which is in turn based on assumptions concerning, for example, future socioeconomic and technological developments that may or may not be realized.
- 5) **Climate-related financial risks** are potential risks that may arise from climate change or from efforts to mitigate climate change, their related impacts and their economic and financial consequences.
- 6) **Climate sensitivity** is the change in the annual global mean surface temperature in response to a change in the atmospheric CO₂ concentration or other radiative forcing.
- 7) **Climate vulnerability** is the propensity or predisposition to be adversely affected. It encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. In the context of climate risk drivers, vulnerability refers to the level of damage which can be expected at different levels of intensity of a hazard. For example, when a storm surge hits an area with weak building regulations and few flood mitigation measures, it is more vulnerable to loss compared to an area that has strong flood control infrastructure and strong building regulations. Vulnerability assessments may include secondary impacts such as business interruption.
- 8) **Closed-loop economy, or circular economy**, means a model of economic development based on the recycling and rational consumption of resources. As such, a closed-loop economy is an alternative to the traditional, linear economy. A closed-loop economy is characterized by the creation of new alternative economic approaches that aim to minimize the negative human impact on the environment.
- 9) **ESG** (environmental, social and governance) refers to a set of criteria that play a role in the investment decision-making process or in a company’s operations. Environmental factors consider how an investment, or a company contributes to environmental issues such as climate change and sustainability. Social factors examine the social impacts of an investment or a company on communities. Governance relates to transparency and

¹ Definitions of used terms are included from BCBS Climate-related risk drivers and their transmission channels.

² Also seen as “carbon-intense”.

legal compliance of an investment or a company's operations, for instance in terms of accounting and shareholders' rights.

- 10) **Environmental, social and Governance (ESG) risks** means the probability of losses or additional expenses, or loss of planned income, or loss of reputation of a financial institution due to the negative financial impact of current or future ESG factors on counterparties and their assets.
- 11) **Global mean surface temperature** is estimated global average of near-surface air temperatures over land and sea-ice, and sea surface temperatures over ice-free ocean regions, with changes normally expressed as departures from a value over a specified reference period. When estimating changes in global mean surface temperature, near-surface air temperatures over both land and oceans are also used.
- 12) **Global warming** is the estimated increase in global mean surface temperature averaged over a 30-year period, or the 30-year period centered on a particular year or decade, expressed relative to preindustrial levels unless otherwise specified. For 30-year periods that span past and future years, the current multi-decadal warming trend is assumed to continue.
- 13) **Greenhouse gases (GHGs)** are those gaseous constituents of the atmosphere, both natural and anthropogenic (human-related), that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapor (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and ozone (O₃) are the primary greenhouse gases in the Earth's atmosphere.
- 14) **Green economy (low-carbon economy)** means an economy with low carbon emissions that uses resources efficiently and is in the public interest.
- 15) **Greenwashing** means misleading creditors, investor and other economic agents about the use of borrowed or invested funds about the financial institution's intentions to achieve sustainable development goals considering ESG factors in order to seek more investor, borrower or consumer preferred treatment or financial conditions.
- 16) **Macro (or macroeconomic) transmission channels** are the mechanisms by which climate risk drivers affect macroeconomic factors, such as labor productivity and economic growth, and how these, in turn, may have an impact on banks through an effect on the economy in which banks operate. Macroeconomic transmission channels also capture the effects on macroeconomic market variables such as risk-free interest rates, inflation, commodities and foreign exchange rates.
- 17) **Micro (or microeconomic) transmission channel** is a mechanism through which climate risk drivers affect banks' individual counterparties, potentially resulting in climate-related financial risk to banks and to the financial system. This includes the direct effects on banks themselves, arising from impacts on their operations and their ability to fund themselves. Microeconomic transmission channels also capture the indirect effects on name-specific financial assets held by banks (e.g., bonds, single name CDS and equities).
- 18) **Physical hazard (or hazard)** is the potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. In this report, the term hazard refers to climate-related physical events or trends or their physical impacts.
- 19) **Physical risks** are economic costs and financial losses resulting from the increasing severity and frequency of:
 - i. Extreme climate change-related weather events (or extreme weather events) such as heatwaves, landslides, floods, wildfires and storms (i.e., acute physical risks).

- ii. Longer-term gradual shifts of the climate such as changes in precipitation, extreme weather variability, ocean acidification, and rising sea levels and average temperatures (i.e., chronic physical risks or chronic risks).
 - iii. Indirect effects of climate change such as loss of ecosystem services (e.g., desertification, water shortage, degradation of soil quality or marine ecology).
- 20) **Physical risk drivers** are the changes in weather and climate mentioned above that lead to heightened physical risks and impacts on economies and banks (e.g., a flood).
- 21) **Stranded asset** is an asset that at some time prior to the end of its economic life is no longer able to earn an economic return as a result of changes associated with the transition to a low-carbon economy.
- 22) **Sustainable development** means a long-lasting economic prosperity that is less dependent on using limited resources and exploiting the environment, is more socially inclusive, and includes closely interrelated ESG aspects.
- 23) **Tipping point** is a level of change in system properties beyond which a system reorganizes, often abruptly, and does not return to the initial state even if the drivers of the change are abated. For the climate system, it refers to a critical threshold when the global or regional climate changes from one stable state to another stable state.
- 24) **Transition risk** (risks of transition to the low-carbon economy model) refers to an institution's financial loss that can result, directly or indirectly, from the process of adjustment towards a lower-carbon and more environmentally sustainable economy.
- 25) **Transition risk drivers** represent climate-related changes that could generate, increase or reduce transition risks. They include changes in public sector (generally government) policies, legislation and regulation, changes in technology and changes in market and customer sentiment, each of which has the potential to generate, accelerate, slow or disrupt the transition towards a low-carbon economy.
- 26) **Transmission channels** are causal chains that explain how climate risk drivers give rise to financial risks that impact banks directly or indirectly through their counterparties, the assets, off-balance sheet they hold, their funding sources and the economy in which they operate.
- 27) **Taxonomy** of economic activities means a classification system that establishes a list of environmentally sustainable economic activities and thresholds (technical screening criteria) that can clearly determine which economic activity is in line with sustainable development, environmental goals, and principles of sustainable economic activity. Such a taxonomy helps investors, issuers, and project promoters focus on the transition to a low-carbon, risk-resistant, and resource efficient economy, and facilitates a climate disclosure system.

Introduction

Climate change and the transition to a greener, less carbon-intensive economy is a process that is already underway at the global level and will affect not only the planet and the economies but the financial systems as well. In this development, the financial system regulators and supervisors are receiving a new role. They are taking a proactive role in building banks' resilience to the emerging financial risks that stem from climate change, and banks' ability to support the economy-wide transition to net-zero emissions. The Central Bank of the Republic of Kosovo (hereinafter, the CBK) will not be different in this respect to the CBK's role laid down in the Law on Banks, Microfinance Institutions and non-Bank Financial Institutions or the law the follows it and the Law on CBK, it will have to actively engage in guiding banks regarding the climate-related risks and supervising their compliance with the corresponding regulations. The strategic framework contained in this document reflects the effort to kickstart the required activities on establishing regulatory and supervisory expectations for identifying, assessing, governing, managing, and controlling the climate-related risks they are exposed to.

The international community has taken unprecedented steps in designing and implementing the strategies, actions and roadmaps that are expected to lead to the Paris Agreement objectives. Despite that the Republic of Kosovo is not a party to the United Nations Framework Convention on Climate Change and the Paris Agreement, the Republic of Kosovo launched in 2021 a discussion with international stakeholders to prepare a voluntary NDC (only mandatory for those being part of the Paris Agreement), showing its commitment with the objectives. The implementation of the country's commitments from the Sofia Declaration and other international initiatives that the Republic of Kosovo may signed or may be part of, are not under the direct or indirect responsibility of the CBK. Therefore, this Strategy reflects that the role of the CBK should not be to encourage the financial flows towards greener investments, rather to ensure that banks properly identify, manage, govern, control, and report the climate related risks they are exposed to. Nonetheless, this does not oppose the fact that greener investments may decrease the exposure of the financial sector to transition risks.

The purpose of the Strategy is fivefold. It firstly provides an overview of the international commitments by the Republic of Kosovo for climate change mitigation and working towards a more sustainable economy to describe the general environment in the country related to the climate change. Second, the document briefly reviews the most relevant international and European developments in the regulatory and supervisory framework of climate-related and environmental risks, including by European (EBA, ECB, etc.) and international (i.e., BCBS) institutions, to provide a benchmark for the scope of work done by the other supervisors. Third, the Strategy focuses on the Republic of Kosovo and seeks to provide a preliminary, high-level analysis the financial sector exposure towards climate physical and transition risks to explain the potential magnitude of these risks. Fourth, the document presents the current practices of the banking sector in managing climate risks, as evidenced by the Survey conducted by the CBK during the first quarter of 2023 on a limited number of banks to better understand current state of the sector. Finally, the Strategy sets out the principles that underpin the roadmap and identifies the specific actions that, in five areas (Regulation, Supervision, Financial Stability, National / International Engagement and Culture / Knowledge) will be conducted during the 2025-2027 period. The CBK expects that the actions foreseen in the Strategy will have a dramatic enhancement in banks' understanding and management of climate-related risks.

Executive summary

There is a clear international consensus over the need to minimize the negative impact of climate change through both mitigation and adaptation actions, and the Republic of Kosovo has shown its commitment to this goal. Although Kosovo has not participated in or signed the UN Framework Convention on Climate Change (UNFCCC) nor Kyoto Protocol or Paris Agreement (because of not being member of the United Nations organization), the Republic of Kosovo's environmental commitments are aligned with the EU strategy, as the Republic of Kosovo was granted potential candidate status for EU membership. The Republic of Kosovo was one of the 6 Western Balkan countries that signed the Sofia Declaration (November 2020), where the countries acknowledged the European Green Deal³, as a cornerstone for the Green Agenda for the Western Balkans (GAWB). This Agenda includes several commitments that go well beyond climate change mitigation and adaptation on: (i) climate, energy and mobility, (ii) circular economy, (iii) depollution, (iv) sustainable agriculture and food production and (v) biodiversity.

Apart from all commitments arising from the international and EU agenda, the Republic of Kosovo is devoted to the climate agenda as it is significantly exposed to the negative impact of climate change. In meeting this agenda, the financial sector will play an important role in facilitating the transition to the new sustainable growth model embedded in the European Green Deal (EGD) (and the voluntary NDC to be developed) but also in minimizing the effects of physical hazards by the proper identification and implementation in their risk framework. Private capital is likely to be paramount to cover the huge financial needs that the Kosovar economy will need in order to meet their international commitments across its different economic sectors. Considering the dominant role played by the Kosovar banking sector in financial intermediation, banks are the key for greening the financial sector. The EU authorities have recognized the predominant role of the financial sector in the Renewed Sustainable Finance Strategy (on 6 July 2021), that seeks to reform the financial sector and make it a key part of the solution towards a greener and more sustainable economy⁴.

A fair question relates to definition of the role that the Central Bank of the Republic of Kosovo should play in the transition to a less-carbon-intensive economy. Setting a transition path towards more sustainable economy and aligning with European Green Deal is not a task for banking supervisors, nor defining a classification system (taxonomy) of the economic activities that should be identified as green or sustainable. National goals and strategies are to be set by other state and entity institutions. However, climate change risks may result in physical and transition risks that could affect the safety and soundness of individual banks and have broader financial stability implications for the banking system. To address climate-related financial risks within the financial sector, the main goal of the CBK is to ensure that banks, NBFIs and insurance companies properly identify, govern, measure, manage and control the climate-related risks. At the same time, the CBK should be able to understand the impact that these risks may have in the bank's risk profile through sensitivity or scenario analysis or stress tests, among others. In other words, the role of the CBK should not be the active encouragement of

³ The European Green Deal (EGD) launched in December 2019 presents a concerted strategy for climate-neutral, resource-efficient and competitive economy for Europe. The EGD aims to transform the EU's economy into a more sustainable one and to tackle climate and environmental challenges. The EGD is also an integral part of the European Commission's strategy to implement the United Nations' 2030 Agenda and the Sustainable Development Goals. Within this context, through the EGD, the EU countries committed to achieve zero net GHG emissions by 2050 and to reduce them by at least 55% by 2030 relative to 1990 levels. The EGD is not only an EU-level strategy to respond to climate change, but also a roadmap to a new sustainable economic growth model, where growth is less dependent on the intensive use of natural resources. The EGD is built around a set of policy areas, priority sectors and cross-cutting themes.

⁴ The renewed strategy builds on the European Commission's initial 2018 Action Plan on Financing Sustainable Growth, which laid down the foundations for channeling private capital towards sustainable investments. The Action Plan aims to: (i) reorient capital flows towards sustainable investment, (ii) manage financial risks stemming from climate change, resource depletion, environmental degradation and social issues and (iii) foster transparency and long-termism in financial and economic activity.

financial flows towards more sustainable investments, but to create a regulatory and supervisory framework to ensure that climate risks are properly addressed by the financial system.

Nonetheless, the Central Bank of the Republic of Kosovo as only one body in the set of competent state and entity bodies, institutions and authorities, cannot contribute to the adopted industrial transition and industrial policy priorities without a comprehensive legal framework.

The Central Bank of the Republic of Kosovo has examined and reviewed the most relevant regulatory and supervisory international developments on this area with the goal of identifying the current best practices. Mindful of the commitment to EGD, special focus has been paid to European regulatory and supervisory practices. This Strategy is a first step of the Central Bank of the Republic of Kosovo to tackle a question of the relevance of climate-related risks for the financial sector. It also considers the need for domestic coordination and cooperation with other state and entity institutions as certain key elements of the climate-related issues (the green taxonomy or requirements on corporate non-financial disclosures), are not under the remit of the Central Bank of the Republic of Kosovo.

The Strategy also seeks to provide a first overview of the exposure of the Republic of Kosovo's banking sector towards climate-related risks. Although ultimately a more comprehensive, forward-looking approach, based on multiple scenario analysis will be required, a preliminary, high-level understanding of the exposure towards these risks has been undertaken.

The preliminary analysis of the exposure of the banking sector to the transition risk shows that less than half of the total loans to the private sector (between 41.7% and 43.9% in the last 5 years) have been provided to climate-sensitive economic sectors, particularly to "buildings" sector (total exposure is between 14% and 18.4% with an decreasing trend in the last two years), "energy-intensive" (between 7.6% and 9.6% over the last 5 years), "transportation" (between 7.3% and 8.0% with slight oscillations over observed period) and to a lesser extent "fossil fuel industries", "agriculture" and "utilities" (with a combined weight between 10.0% and 11.1% over the period). Here exposure is expressed toward the economic sectors that are perceived as more sensitive to the transition risks that the new policies, technological developments, or socioeconomic changes may bring. As preliminary results, they should be understood as limited and therefore carefully considered. A first overview of the banks' exposure towards the most sensitive sectors.

The transition risk offers just one dimension of the climate-related risks to which the financial sector is exposed to, as physical risks are also relevant. In this regard, according to the IMF⁵, projections for the Western Balkans region show higher regional warming than the world average, especially for mountainous areas, resulting in a decrease in overall annual precipitation, but with contrasting increases in winter precipitation. In Kosovo, this could lead to a decline of 50 days per year of snow cover by 2050⁶, and more frequent spring flooding. Based on projections of higher temperatures, population growth, and decreases in annual precipitation, four out of five water basins in Kosovo may become water-stressed or water-scarce by 2050. These physical risks will indirectly, through households and companies, affect the banking sector's risk profile⁷.

⁵ Request for stand-by arrangement and an arrangement under the resilience and sustainable facility – World Bank assessment letter for the resilience and sustainability facility, May 10, 2023.

⁶ USAID (2017). Climate Change Risk Profile for Kosovo.

⁷ More information on physical risks along geographic areas of the Republic of Kosovo will be needed to perform a deeper analysis.

Exposure of the financial sector to climate-related risks is one element relevant for the financial stability of the financial sector. The other one is preparedness of the banks to recognize, incorporate and manage these risks and exposures. As part of the Strategy preparation the Central Bank of the Republic of Kosovo has also conducted a stocktaking of the Republic of Kosovo's current management practices for climate-related and environmental risks. To this end, the Central Bank of the Republic of Kosovo prepared and sent to several banks a comprehensive survey for a thorough understanding of their practices. From the analysis of the answers, it was evidenced that, while still in a nascent stage, banks have made an unequal progress in this area. Those that have taken more actions in the field are mainly subsidiaries from EU banking groups, adopting group policies. More than half of respondents have developed green products both for corporates and individuals, in some cases influenced by either the international financial institutions or national financing programs. Finally, surveyed banks also underlined the need for significantly stepping up their efforts in upgrading their governance and management practices, for what they encourage the CBK to provide them guidelines and / or regulations on how banks should manage their climate-related risks.

Against this backdrop, the Central Bank of the Republic of Kosovo has prepared, with the support of FinSAC, a multi-year Strategy (2025-2027) that is based on 10 principles (presented in Figure 1) for dealing with climate risks, across four groups of activities.

Figure 1: List of principles that the Strategy is based on



All activities envisaged by this strategy for the period 2025-2027 and included in the roadmap are classified into following groups (see Figure 2):

- **Regulatory actions**, including the issuance of recommendations / guidelines (advisory letter) or regulations for the governance, assessment, management and control of climate-related risks, or other regulatory actions (amendments of the corporate governance, disclosure, ICAAP regulations, etc.).
- **Supervisory actions**. Once the recommendations / guidelines (advisory letter) have been put in place, the CBK will undertake the actions required to assess banks' compliance with the new requirements, update the Risk-based Supervision and other assessment methodologies that are used by supervisors in their day-to-day work.

- **Financial stability actions.** Assessment by the CBK of the potential impact of climate-related risks in the financial stability of the Republic of Kosovo. The CBK's activities will also encompass the assessment and full understanding of the banks' exposure to climate risks using scenario analysis and, where applicable, stress testing.
- **National and International Engagement.** The CBK will participate in regional and international fora for broadening the expertise and knowledge in these areas. The CBK engage with other local authorities responsible for climate change (particularly relevant for Green Taxonomies).
- **Culture / knowledge.** Under this workstream, the CBK will be expected to develop an assessment of the sustainability of the activities developed by the CBK itself and Research activities. The CBK shall also regularly engage with universities.

Figure 2: Roadmap 2025-2027



1. Relevance in the context of the Republic of Kosovo

In November 2020, the Republic of Kosovo was one of the six countries of the Western Balkans⁸ that adopted the Green Agenda for the Western Balkans⁹ at the Sofia Summit in November 2020, committing itself to ambitious environmental and climate goals, structured in five pillars: (1) climate, energy, and mobility; (2) circular economy; (3) depollution; (4) sustainable agriculture and food production; and (5) biodiversity. However, implementation is often lacking due to the (perceived) financial, economic, and social costs of the transformation processes, diverging interests of societal actors, information gaps among decision-makers, and opposition from vested interests.

Some of the key components from the Western Balkans commitments on climate change include¹⁰:

- Align with the EU Climate Law once it is adopted with a vision of achieving climate neutrality by 2050.
- Set forward-looking 2030 climate targets in line with the EU acquis, as well as develop and implement integrated Climate Plans with clear measures designed to reduce greenhouse gas emissions in the Western Balkans economies by integrating climate action into all relevant sectoral policies.
- Prepare and implement climate adaptation strategies to increase resilience through climate-proofing of investments and to ensure greater integration of climate change adaptation with disaster risk reduction.
- Continue alignment with the EU Emissions Trading Scheme, as well as work towards introducing other carbon pricing instruments to promote decarbonization in the region.
- Increase opportunities for the deployment of nature-based solutions to mitigate and adapt to climate change.
- Strive to decrease and gradually phase-out of coal subsidies, strictly respecting state aid rules.

In addition to the above commitments, and regardless of it is not a requirement as the Republic of Kosovo is not part of the UN Framework Convention on Climate Change nor Kyoto Protocol or Paris Agreement, the Republic of Kosovo launched in 2021 a discussion with international stakeholders to prepare a voluntary NDC, that will be based on Kosovo's target to reduce greenhouse gas emissions by 8.95 Mt CO₂e by 2030. This is a reduction of approximately 16.3% compared to 2016 levels. In addition, Kosovo is planning to increase the share of renewable energy in the energy mix to 32% by 2030. Finally, the voluntary NDC will also include adaptation measures in other relevant sectors in fighting the climate change, namely: water; agriculture, forestry, and other land use the water; biodiversity; and health.

Despite the relatively small area of the Republic of Kosovo, the country has a diverse climate, with three differentiated regions¹¹:

- On the one hand, the north of Kosova is influenced by continental air masses, thus presenting cold winters, with medium temperatures above -10 °C, but sometimes down to -26 °C. On the other side, summers are extremely warm with average temperatures of 20 °C, sometimes up to 37 °C. Dry climate and approximate precipitation of 600 mm per year characterizes this region.

⁸ Republic of Kosovo, Republic of North Macedonia, Republic of Albania, Bosnia and Herzegovina, Montenegro and Republic of Serbia.

⁹ <https://www.rcc.int/docs/596/action-plan-for-the-implementation-of-the-sofia-declaration-on-the-green-agenda-for-the-western-balkans-2021-2030>.

¹⁰ <https://www.rcc.int/docs/546/sofia-declaration-on-the-green-agenda-for-the-western-balkans-rn>

¹¹ <http://www.kosovo-mining.org/kosovoweb/en/kosovo/climate.html>

- On the other hand, the Dukagjini region, is influenced by the hot air masses coming from the Adriatic Sea. Medium temperatures during winter range from 0.5 °C to sometimes 22.8 °C. The average annual precipitation is near to 700 mm per year, and the winter is characterized by heavy snowfalls.
- Finally, the mountains and forest areas are characterized by heavy rainfalls, between 900 and 1,300 mm per year, short and cold summers, and cold and snowy winters.

Despite the reduction in relative importance in the agriculture sector in terms of GDP since the 1980s and early 1990s (with an approximate 25% of country's GDP), it still represents a relatively high share of the GDP in Kosovo, at 7.4% in 2020. Agricultural sector also accounts for 16.4% (2020¹²) of total export value and remains an important economic sector. In the other side, Kosovo still depends a lot on imported agricultural products, which accounted for 23.2% of overall imports. Total area of agricultural land is assessed to be about 43,7% or (470,400 ha). Based on the latest information of the Agricultural Household Survey 2014 around 80.8% (413,635 ha) of this land is arable land and around 14% or (65,856 ha) is accounted as pasture. Agricultural Sector, Forestry and Land Use is accounted for about 13% of total emissions of GHGs in Kosovo. This sector consists of three distinctive sub-sectors. The livestock, as first subsector, generates annually around 600 thousand tons of CO₂ eq. Land use subsector is dominated by forestry, which could be a powerful sink of atmospheric carbon. But in terms of carbon that annually flows through this sub-sector is the second largest sector in the country with about 2,750 thousand of tons of CO₂. Good forest inventory and sustainable management of forests could contribute greatly to decreasing emissions. And the third sub-sector emissions of this category relate to manure management and fertilization of crops, which in total emits about 800 thousand tons of CO₂ eq.

Kosovo has relatively small and limited amounts of freshwater resources. Furthermore, available water resources are unevenly distributed throughout the territory, divided into four river basins / watersheds. The average annual renewable water supply per person in Kosovo is about 1.987 m³/person/year and is classified as no stress according to Falkenmark indicator, which is significantly low compared to the world average of 7.243 m³¹³. Main user categories of freshwater resources are: Drinking Water Supply for households, Water Supply for Industry and Energy (for hydropower and for cooling power plants) and for Irrigation purposes. Based on the Annual Performance Report of Water Service Providers in Kosovo for the year 2012, the water industry in Kosovo is still weak; showing deficiencies in most of performance indicators such as service coverage which is at the level of 78%. A lot of rural villages are not covered by the regional water supply schemes and some villages are still using ground water from shallow wells of deteriorated quality.

Kosovar electricity is predominantly generated by fossil fuel, predominantly lignite coal, used to generate more than 90 percent of Kosovo's electricity, with the rest produced by wind farms, hydro-generation and to a small extent, solar farms. Natural gas use is virtually inexistent, with no distribution network for residential or commercial consumers. There are also no local oil refining facilities; thus, petroleum related imports are mostly of refined products. Thus, the 2019 GHG inventory identified the energy sector as the source of most emissions with 86% of the total GHG estimated emissions at 9,613 Gg of CO₂ eq.

¹² According to Kosovo Agency of Statistics (KAS)

¹³ CEDARE AWC, 2006

Nevertheless, when compared with other countries in Europe, Kosovo has relatively low emissions per capita (5 tons of CO₂ equivalent per capita per annum), while GHG emissions per unit of GDP (0.5 kg CO₂ equivalent per EUR) are higher¹⁴.

According to the National Climate Change Strategy 2018-2027, developed in 2018 by the Ministry of Environment and Spatial Planning (MESP) in Kosovo, some of the main impacts of climate change in Kosovo include the following¹⁵:

- Exposure to hazards such as droughts, floods, and forest fires will become greater with climate change. Climate variability has already increased in Kosovo.
- Rising intensity and frequency of precipitation extremes like heavy rain events, as well as more severe drought, particularly since the 1980s. Flash floods are getting more common in mountain areas, while river floods occur more often in plains and lowlands.
- Higher temperatures will make heat waves and forest fires more likely. Since 2000 there have been an increasing number of forest fires in Kosovo.
- Kosovo has been struck by drought several times in the last two decades (1993, 2000, 2007, 2009 and 2012).
- Increased temperatures, more uncertain rainfall, and reduced runoff combined with socio-economic developments and increased use of water resources will heighten exposure to drought.
- Exposure to floods, as in January 2021, caused by heavy rainfall and increased snow melt due to sudden temperature increases.
- Ecosystem degradation and reduction of ecosystem services.

Taking the above into account, the Central Bank of the Republic of Kosovo intensified its work in this area, and this multi-year strategy is one of the steps in incorporating climate-related financial risks into the banking sectors.

2. Climate-related financial risks in the international arena

2.1. Regulatory initiatives for climate-related financial risks in the financial sector

Climate change is a global problem that the world is trying to resolve through the reduction of CO₂ emissions and other GHG, primarily in the energy sector, by consuming less fossil fuel (thermal coal, oil, and gas) or by replacing it with renewable/alternative energy sources. The policy actions taken worldwide result in physical and transition risks for banks and other financial institutions. Nevertheless, climate change is not the only environmental risk that the banks are directly or indirectly exposed to, there are also air pollution, especially in cities, water pollution, lack of recycling, loss of biodiversity due to irreversible damage to ecosystems and other risks. Banks are therefore exposed to physical losses related to the more frequent acute (droughts, heatwaves, cyclones, storms, etc.) or chronic extreme weather events (rising sea levels, increase in average temperatures, decrease in rainfall, etc.) that may result in direct or indirect losses for the bank. Strict policy actions, technological developments or rapidly changing consumer preferences may also result in the loss of value of certain assets (stranded assets) affecting the bank's activities (transition risks).

Against this backdrop, prudential regulators and supervisors across the world have been undertaking decisive actions with a twofold aim: (i) ensuring that banks properly understand, govern, identify, manage and control the climate-related risks to which they are exposed and

¹⁴ Request for stand-by arrangement and an arrangement under the resilience and sustainable facility – World Bank assessment letter for the resilience and sustainability facility, May 10, 2023

¹⁵ IPCC, 2007, 2013, UN-Habitat 2009, OSCE 2008, UNDP/WMO 2009, and others.

(ii) that the supervisors are able to properly measure the climate risk profile, particularly on climate scenarios where climate pathways are projected. The debate about the impact that climate change can have in the balance sheet of financial institutions was firstly identified by Mark Carney, former Bank of England governor, back in September, 2015¹⁶.

Regulatory and supervisory authorities have taken multiple actions in this area. European institutions have acted as trailblazers in comprehensively fleshing out the supervisory expectations that banks are expected to meet when managing climate-related risks. In this regard, the Bank of England was the first institution in April 2019 to issue Guidelines on Bank's Management of Risks from Climate Change¹⁷. A very important milestone came with the publication by the ECB of a comprehensive Guide on Climate-Related and Environmental Risks in November 2020¹⁸ (see Figure 3 below with the expectations for banks listed in the Guide). Other EU supervisors have also issued their expectations and/or recommendations on the management of these risks¹⁹.

¹⁶ The speech can be found in the following link <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>.

¹⁷ <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change-ss>. The Bank of England followed up with a Dear CEO letter addressed to banks where it demanded more action from banks in this field.

¹⁸ <https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202011finalguideonclimate-relatedandenvironmentalrisks~58213f6564.en.pdf>. The Guide was issued for public consultation first in May 2020.

¹⁹ See for example the National Bank of Hungary "Recommendation 47/2021 (IV.14) of the Magyar Nemzeti Bank on climate-related and environmental risks and the integration of environmental sustainability considerations into the activities of credit institutions". The Recommendation was updated during the summer of 2022: "Recommendation No 10/2022 (VIII.2) of the Magyar Nemzeti Bank on climate-related and environmental risks and the integration of environmental sustainability considerations into the activities of credit institutions".

Figure 3: ECB's expectations for banks²⁰

Expectations	
1	Institutions are expected to understand the impact of climate-related and environmental risks on the business environment in which they operate , in the short, medium and long term, in order to be able to make informed strategic and business decisions
2	When determining and implementing their business strategy , institutions are expected to integrate climate-related and environmental risks that impact their business environment in the short, medium or long term
3	The management body is expected to consider climate-related and environmental risks when developing the institution's overall business strategy, business objectives and risk management framework and to exercise effective oversight of climate-related and environmental risks
4	Institutions are expected to explicitly include climate-related and environmental risks in their risk appetite framework
5	Institutions are expected to assign responsibility for the management of climate-related and environmental risks within the organizational structure in accordance with the three lines of defense model
6	For the purposes of internal reporting, institutions are expected to report aggregated risk data that reflect their exposures to climate-related and environmental risks with a view to enabling the management body and relevant sub-committees to make informed decisions
7	Institutions are expected to incorporate climate-related and environmental risks as drivers of existing risk categories into their risk management framework, with a view to managing, monitoring and mitigating these over a sufficiently long-term horizon, and to review their arrangements on a regular basis. Institutions are expected to identify and quantify these risks within their overall process of ensuring capital adequacy
8	In their credit risk management, institutions are expected to consider climate-related and environmental risks at all relevant stages of the credit-granting process and to monitor the risks in their portfolios
9	Institutions are expected to consider how climate-related and environmental events could have an adverse impact on business continuity and the extent to which the nature of their activities could increase reputational and/or liability risks
10	Institutions are expected to monitor on an ongoing basis the effect of climate-related and environmental factors on their current market risk positions and future investments, and to develop stress tests that incorporate climate-related and environmental risks
11	Institutions with material climate-related and environmental risks are expected to evaluate the appropriateness of their stress testing , with a view to incorporating them into their baseline and adverse scenarios
12	Institutions are expected to assess whether material climate-related and environmental risks could cause net cash outflows or depletion of liquidity buffers and, if so, incorporate these factors into their liquidity risk management and liquidity buffer calibration
13	For the purposes of their regulatory disclosures , institutions are expected to publish meaningful information and key metrics on climate-related and environmental risks that they deem to be material , with due regard to the European Commission's Guidelines on non-financial reporting: Supplement on reporting climate-related information

Crucially, the BCBS issued in June 2022 the final version of its Principles for the Effective Management and Supervision of Climate-Related Risks²¹, as presented in Box 1 below.

²⁰ *Guide on climate-related and environmental risks: Supervisory expectations relating to risk management and disclosure, November 2020.*

²¹ <https://www.bis.org/bcbs/publ/d532.htm>. The draft version was issued for consultation in November 2021.

Box 1: BCBS's Principles of the effective management and supervision of climate-related financial risks

As climate change may result in physical and transition risks that could affect the safety and soundness of individual banking institutions and have broader financial stability implications for the banking system, the BCBS established in 2020 a high-level group to contribute to the strengthening regulation, supervision and practices of banks worldwide on climate risks with the purpose of enhancing financial stability.

The BCBS conducted an analysis of potential gaps in the Basel Framework and consider possible measures for addressing these gaps. The analysis showed that the Core Principles for Effective Banking Supervision (BCPs) and the Supervisory Review Process (SREP) are sufficiently broad and flexible to accommodate additional supervisory responses to climate-related financial risks. However, the BCBS prepared and published in June 2022 the Principles for the Effective Management and Supervision of climate-related financial risks in order to promote a principles-based approach to improving risk management and supervisory practices related to climate-related financial risks.

The document includes 18 high-level principles, 12 of which provide banks with guidance on effective management of climate-related financial risks, and 6 of them lay out recommendations for prudential supervisors. The principles seek to strike a balance in improving practices related to the management of climate-related financial risks and providing a common baseline for internationally active banks and supervisors, while maintaining sufficient flexibility given the degree of heterogeneity and evolving practices in this area.

Principles for the management of climate-related financial risks cover:

- Corporate governance (3 principles).
- Internal control framework (1 principle).
- Capital and liquidity adequacy (1 principle).
- Risk management process (1 principle).
- Management monitoring and reporting (1 principle).
- Comprehensive management of credit risk (1 principle).
- Comprehensive management of market, liquidity, operational and other risks (3 principles).
- Scenario analysis (1 principle).

Principles for the supervision of climate-related financial risks include:

- Prudential regulatory and supervisory requirements for banks (3 principles).
- Responsibilities, powers and functions of supervisors (3 principles).

Authorities have also been advancing in incorporating climate-related risks and, more broadly, ESG risks in the SREP assessment system. EBA's "Report on ESG Risk Management and supervision under art. 98(8) CRD and art. 35 IFD" has been a key development. In this document, the EBA outlines how ESG should be integrated into banks' business strategy, governance arrangements, and risk management²². The EBA is also expected to update the SREP Guidelines to include ESG risks. Moreover, the EBA had also implemented a regulation that request banks to integrate sustainability in all their loan underwriting and loan monitoring decisions for their corporate and SME clients²³. The work by European authorities on SREP is

²² Although currently the EBA is still planning the preparation and issuance of EBA Guidelines on ESG Risk Management.

²³ These obligations are included in the EBA Guidelines on Loan Origination and Monitoring, that came into force in 2022 for aspects related to ESG. See <https://www.eba.europa.eu/regulation-and-policy/credit-risk/guidelines-on-loan-origination-and-monitoring>


key for the Republic of Kosovo, as the supervisory framework largely mirrors the European one.

Central Banks and supervisors around the world have also been enhancing its toolbox to measure the exposure of financial institutions to climate risks. Scenario analysis and stress tests are increasingly popular among authorities.

Nonetheless, climate stress tests are not traditional exercises. First, the time horizon is usually much longer, as the deepest negative impacts of climate risks are expected to occur in the medium to long term. Second, authorities use a higher number of scenarios, reflecting the uncertainties surrounding climate risks. For example, the DNB conducted its first macroprudential scenario on climate risks in 2018, using a 5-year horizon within 4 different scenarios (climate pathways) for transition risks. The ACPR (Banque de France) undertook in 2020 a voluntary climate stress test with a 30-year time horizon in 4 scenarios, 3 for transition risks and 1 for physical risks. In 2022, both the BoE and the ECB performed bottom-up climate stress tests, to assess the capital adequacy of banks under different scenarios. The ECB used different time horizons, 1 and 3 years and 30 years in 6 scenarios, 4 for transition risks and 2 for physical risks. Meanwhile, the BoE defined 2 scenarios for transition risks and 1 for physical risks up to a 30-year horizon for assessing transition risks. The authorities typically used the scenarios defined by the NGFS (see Box 2 below).

Figure 4: Benchmark on climate-related stress testing²⁴

	BANQUE DE FRANCE	De Nederlandsche Bank	BANK OF ENGLAND	EUROPEAN CENTRAL BANK
Are firms involved in the exercise?	Yes	No	Yes	Yes
Physical / Transition risk	Y / Y	N / Y	Y / Y	Y / Y
Time horizon	30 years	5 years	30 years	3 & 30 years
Static / dynamic balance sheet	Static for first 5 years, then reassessed every 5 years	Static	Static, with impact assessment every 5 years	Static – 3 years; Dynamic – 30 years (assessment in 2030/40/50)
Number of scenarios	3 for transition risk and 1 for physical risk	4 for transition risk	2 for transition risk and 1 for physical risk	4 for transition risk and 2 for physical risk
Sectoral breakdown	WIOD classification	NACE classification – 56 sectors	SIC codes	NACE classification – 22 sectors and other industries aggregated
Target Variable	Asset side losses (credit, counterparty credit and market risks)	Asset-side losses	Credit book impairments	Credit impairments, asset side losses (market, operational) alongside potential impacts arising from reputational issues
Output breakdown	Geographical, sectoral, key counterparties (top 15)	Range of losses in banks, insurers, pension funds – CET1 impact for banks	Geographical, sectoral, key exposures (top 100)	Geographical, sectoral, key counterparties (top 20)
Reconciliation exercise	Yes	No	Yes, in a separate qualitative questionnaire	No
Communication of results	BdF / ACPR disclose system-wide results and providing feedback to individual firms	DNB published estimate of impact (aggregate CET1 changes) on Dutch financial sector	BoE discloses system-wide results and providing feedback to individual firms	SSM will disclose aggregated results and providing feedback to individual firms

 Best practice (if applicable)

The overview of NGFS scenarios that authorities worldwide are using as part of their stress tests are defined in Box 2. The NGFS has fundamentally defined 4 types of scenarios: “orderly transition”, “disorderly transition”, “too little, too late” and “a hot house world”.

²⁴ Sources: (i) extracted from BIS/FSI, “Stress-testing banks for climate change – a comparison of practices”, July 2021; (ii) internally elaborated from ECB’s Climate Stress Test Methodology, October 2021.

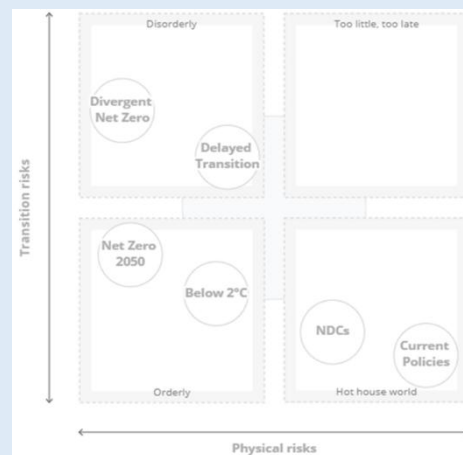
Box 2: NGFS Scenarios²⁵

NGFS developed four types of climate-related scenarios:

1. **Orderly** scenarios assume climate policies are introduced early and become gradually more stringent. Both physical and transition risks are relatively subdued.
2. **Disorderly** scenarios explore higher transition risk due to policies being delayed or divergent across countries and sectors. Carbon prices are typically higher for a given temperature outcome.
3. **Hot house world** scenarios assume that some climate policies are implemented in some jurisdictions, but global efforts are insufficient to halt significant global warming. Critical temperature thresholds are exceeded leading to severe physical risks and irreversible impacts like sea-level rise.
4. **Too little, too late** it is possible that a late transition would fail to contain physical risks. While no scenarios have been specifically designed for this purpose, this space can be explored by assuming higher physical risk outcomes for the disorderly scenarios.

Above four types of scenarios, are currently broken down into six different scenarios:

1. **Net Zero 2050** is an ambitious scenario that limits global warming to 1.5 °C through stringent climate policies and innovation, reaching net zero CO₂ emissions around 2050. Some jurisdictions such as the US, EU and Japan reach net zero for all greenhouse gases by this point.
2. **Below 2 °C** gradually increases the stringency of climate policies, giving a 67 % chance of limiting global warming to below 2 °C.
3. **Divergent Net Zero** reaches net-zero by 2050 but with higher costs due to divergent policies introduced across sectors and a quicker phase out of fossil fuels.
4. **Delayed Transition** assumes global annual emissions do not decrease until 2030. Strong policies are then needed to limit warming to below 2 °C. Negative emissions are limited.
5. **Nationally Determined Contributions (NDCs)** includes all pledged policies even if not yet implemented.
6. **Current Policies** assumes that only currently implemented policies are preserved, leading to high physical risks.



Regulations are requesting banks to make prudential disclosures on sustainability. In the EU, the Capital Requirements Regulation (CRR) has required banks to make quantitative and qualitative Pillar 3 climate risk disclosures, for enabling investors to assess the exposure and

²⁵ Source: <https://www.ngfs.net/ngfs-scenarios-portal/>

management practices of banks to climate risks²⁶. In 2017, the Task Force on Climate-Related Finance Disclosures (TCFD) issued a recommendations report, where it identified the main disclosures that financial and non-financial companies should be prepared, later updated in October 2021²⁷.

Less progress has been made, however, in the integration of climate risks into the prudential framework for capital requirements. The debate is still largely nascent and currently there is little agreement on how these risks should be integrated into the prudential regime for capital requirements. Therefore, it is still too early to consider how the treatment of these risk may flow to a more standardized approach on the capital requirements²⁸.

2.2. Taxonomies and other regulatory initiatives

For implementing climate risk sound governance and management practices, banks may rely, at least partially, on the work of other Kosovar competent bodies and authorities. Critically, the economic agents, including but not limited to banks, should have a clear and common framework to set the criteria upon which an economic activity is defined as green or sustainable (green taxonomy). A rigorously defined green taxonomy can also be the basis for other regulatory actions that will be of the utmost relevance for managing climate-related risks, e.g., non-financial corporates may be required to disclose how their activities are consistent with the green taxonomy.

In the absence of a common framework, banks will need to use their own definitions of sustainable/green activities, undermining comparisons across them and potentially resulting in greenwashing practices, where banks may have incentives to overestimate the sustainability of their portfolios.

The definition of a green taxonomy will be well beyond the mandate of the Central Bank of the Republic of Kosovo, as a national classification of the sustainability of the economic activities will not only affect supervised banks, but many other economic agents, including non-financial corporations and public sector entities. Nevertheless, the Central Bank can engage with the country's competent authorities and bodies that are responsible for the development of a green taxonomy and its associated disclosure requirements²⁹.

In the context of the 2020 Sofia Declaration, and the quick emergence of the EU's Green Taxonomy as a gold standard for classifying economic activities, the European Taxonomy is rapidly becoming the main reference in the Western Balkan countries. The EU's Green Taxonomy was developed by the EC as part of the EU Sustainable Action Plan, which supports

²⁶ The article 449a of the CRR imposed new prudential disclosure requirements to banks. The disclosures cover: (i) information on climate transition risks, including exposures to high carbon sectors and their counterparties GHG emissions (ii) information on the energy efficiency of the real estate in loans collateralized with immovable property, (iii) climate physical risks, bank exposures that are subject to physical risks, (iv) information on the green asset ratio, (v) metric on the bank alignment towards international sustainability goals, and (vi) other mitigating actions. The disclosures apply to 2023, with information of December 2022, although there are some waivers (i.e., for the green asset ratio).

²⁷ The National Bank of Hungary was the first authority to implement these disclosures in 2022.

²⁸ The EBA published in May 2022 a Discussion Paper on the role of environmental risks in the prudential framework, outlining its view on how the climate-related risks may be embedded in the current framework for credit risk, market risk and operational risks, both for standardized and advanced approaches, and also considering the upcoming changes from Basel IV. Moreover, the paper also discusses the possibility of introducing Green Supporting Factors (GSF) and Brown Penalizing Factors (BPF) to either encourage or discourage certain investments in green or brown sectors of the economy.

²⁹ There will be other areas that are likely to be key in enabling the sound management of climate risks by the banking sector that do not directly depend on the work by the Central Bank, such as, for example, the implementation of a label system for assessing the energy efficiency of buildings. Such a system will be key to identify, for example, the green mortgages, as they can be defined as those mortgage loans provided to clients to purchase energy-efficient buildings or to renovate buildings with the goal of improving the energy efficiency of those buildings. A labelling system, mirroring that in the EU, can also be implemented for assessing the energy efficiency of vehicles.

the EU's ambitious climate and energy targets to reduce greenhouse gas emissions to net zero carbon by 2050 and halve emissions by 2030. This was a two-stage process consisting of a proposal for a regulation ("the Taxonomy Regulation") in May 2018, followed by the establishment of the Technical Expert Group (TEG) on sustainable finance in July 2018 to make recommendations regarding the "taxonomy-eligible" activities and their associated technical criteria. The Regulation was finally adopted in 2020³⁰, and outlines six environmental objectives and four principles of sustainable economic activity. These objectives and goals are presented in Box 3.

Box 3: EU's six environmental objectives and four principles for sustainable economic activity³¹

EU environmental objectives:

- 1) Climate change mitigation.
- 2) Adaptation to climate change.
- 3) Sustainable use and protection of water and marine resources.
- 4) Transition to a circular (closed-loop) economy.
- 5) Pollution prevention and control.
- 6) Protection and restoration of biodiversity and ecosystems.

EU principles of sustainable economic activity:

- a) Contributes substantially to one or more of the six environmental objectives. Whether a contribution is qualified as substantial depends on achieving a specific environmental objective.
- b) Does not significantly harm any of the environmental objectives, meaning that the substantial contribution to the environmental objective should not be achieved by causing significant harm to another environmental objective.
- c) Is carried out in compliance with the minimum social safeguards.
- d) Adheres to technical criteria.

It is important to note that under the EU Taxonomy Regulation, the European Commission had to come up with the actual list of environmentally sustainable activities by defining technical screening criteria for each environmental objective through delegated acts. A first delegated act on sustainable activities for climate change adaptation and mitigation objectives was published on 9 December 2021 and is applicable since January 2022³². A second delegated act for the remaining objectives, also amending the previous first delegated act to add economic activities to the list of those substantially contributing to the objectives of climate change mitigation and adaptation, and to clarify the reporting obligations for the additional activities, were approved in principle on 13 June 2023 and adopted on 27 June 2023³³.

The overarching objective of this Taxonomy is to help investors, companies, issuers, and project promoters navigate the transition to a low-carbon, resilient, and resource-efficient economy and to serve as the reporting framework for the new EU regulation on climate-related disclosures by investors, corporations, and banks. Currently it is applicable only to companies with more than 500 employees, listed corporations, and banks. It also applies to EU member states as they set up labels or standards regarding financial products or corporate bonds presented as "environmentally sustainable." It represents a common language for all parties affected by climate-related and environmental risks.

³⁰ Regulation 2020/852 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852&from=EN>

³¹ Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020.

³² Commission Delegated Regulation 2021/2139 - <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R2139>

³³ https://finance.ec.europa.eu/publications/sustainable-finance-package-2023_en

2.3. International cooperation

There are several global institutions seeking to issue global principles and best practices, institutional knowledge sharing, and cross-border coordination and cooperation between national authorities in banking regulation and supervision. Besides from the well-established European (i.e., EBA) and global (i.e., BCBS, FSB) institutions, new, specialized fora were set up for identifying best practices on the measurement and management of climate-related risks across central banks and banking supervisors.

Perhaps the most relevant one is the Network for Greening the Financial System (NGFS), created in 2017 and currently including 127 members and 20 observers³⁴ supervisory institutions and central banks, to which the Central Bank of the Republic of Kosovo has already applied to join.

The Network's purpose is to help strengthening the global response required to meet the goals of the Paris Agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development. To this end, the Network defines and promotes best practices to be implemented within and outside of the Membership of the NGFS and conducts or commissions analytical work on green finance³⁵.

Another initiative, International Platform on Sustainable Finance (IPSF), was established at the regular annual meeting of the IMF and the World Bank in October 2019, by the representatives from the EU and other countries³⁶. The ultimate objective of the IPSF is to scale up the mobilization of private capital towards environmentally sustainable investments. The IPSF therefore offers a multilateral forum of dialogue between policymakers that are in charge of developing sustainable finance regulatory measures to help investors identify and seize sustainable investment opportunities that truly contribute to climate and environmental objectives. Through the IPSF, members can exchange and disseminate information to promote best practices, compare their different initiatives and identify barriers and opportunities of sustainable finance, while respecting national and regional contexts³⁷.

³⁴ Data as of June 13th, 2023. <https://www.ngfs.net/en/about-us/membership>

³⁵ Quoted from: <https://www.ngfs.net/en/about-us/governance/origin-and-purpose>

³⁶ Relevant authorities of Argentina, Canada, Chile, China, India, Kenya and Morocco.

³⁷ International Platform on Sustainable Finance: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en#documents

3. Climate risks exposure and management in the banking sector in the Republic of Kosovo

3.1. Overview of the financial sector³⁸

The financial sector in the Republic of Kosovo is a bank-dominated financial sector, as the banking sector accounts for 67.9% or EUR 7.5 billion of the EUR 11.1 billion financial assets by the end of 2023. The rest of the financial system represents a smaller proportion of the financial sector in terms of financial assets and consists of pension funds' management companies (24.4%), insurance companies, microcredit organizations and non-banks institutions (4.1%). In terms of number of institutions, by the end of 2023 there were 136 active institutions in the Republic of Kosovo, as distributed in Table 1 below.

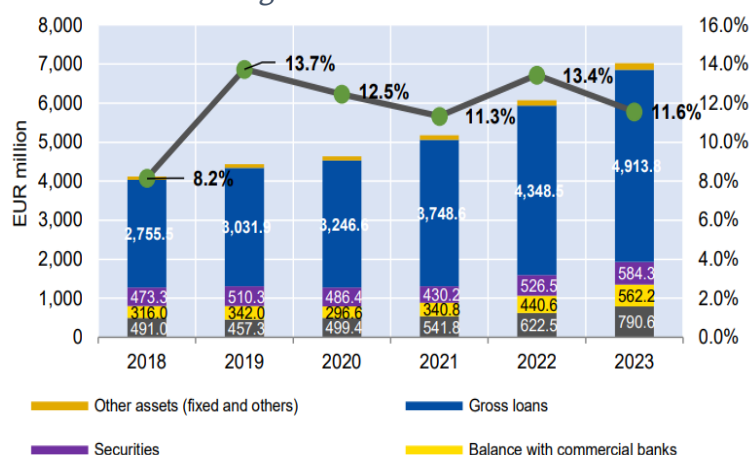
Table 1: Number of financial institutions and share in Kosovo

Type of financial institution	2023		
	Total	O/w foreign owned	Share (% of total assets)
Commercial banks	12	9	67.9%
Insurers	12	6	2.7%
Pension funds	2	1	24.4%
Insurance intermediaries	16	7	Footnote ³⁹
Microfinance institutions and non-bank financial institutions	32	13	4.9%
Currency exchange offices	62	0	0.1%

Source: CBK's monthly information of the financial system for December 2023

In terms of the balance sheet structure, the financial system in Kosovo has a simple structure, in relation to the traditional model of activities, with low degree of complexity and interconnection of activities between sectors within the system. On the asset side, loans to customers (both households and non-financial corporations) represent 65.2%; cash and balance with the CBK 12.1%, investment in securities (both government and private sector) 11.9% and balance with other commercial banks (mainly inter-bank deposits) 8% totaling more than 97% of total assets in the banking sector.

Figure 5: Balance sheet of the banking sector - assets



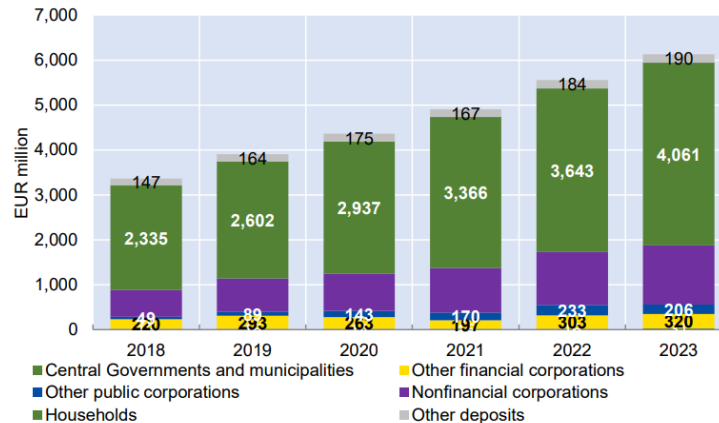
Source: CBK's Quarterly Assessment of the Economy, No.41

³⁸ This section is prepared based on the CBK's Annual Report for the year 2023: [BQK RV 2023.pdf \(bqk-kos.org\)](#); and CBK's Quarterly Assessment of the Economy, No.45: [CBK_QAE_Q42023.pdf \(bqk-kos.org\)](#);

³⁹ Data included in "insurers" section.

On the liabilities side, deposits represented 81.3% of the financing sources of the banking sector (predominantly from households), followed by own resources (capital). In this sense, it is important to note that some major banks in the country partially rely, or may rely in case they need it, on funding from their foreign parent companies, in terms of deposits, claims or other source of funding.

Figure 6: Stock of total deposits



Source: CBK's Quarterly Assessment of the Economy, No.41

In addition to a well-balanced balance sheet, where deposit amounts largely exceed the volume in loans (thus ensuring lending activity to customers is financed with funds from customers), it is important to note that banks in the Republic of Kosovo rely on:

- High Capital Adequacy Ratios, with a level of 16.5% at the end of 2023, showing a large buffer with the minimum capital requirements for banks.
- Liquid assets to total short-term liabilities ratio of 34.7%.
- Non-performing loans to total gross loans of 2.0%, complemented with a loan loss provisions to NPL ratio of 147.1%.

Finally, when watching at the financial performance of banks in the Republic of Kosovo, the following aspects may be highlighted:

- The banking sector realized an annual profit with a value of EUR 155.3 million in 2023, representing the highest value registered since the foundation of the banking sector (at constant prices).
- There is a considerable difference between the cost of funding, e.g., an average 3.1% paid in deposits vs. 6.3% charged to non-financial corporations and households, respectively.

3.2. Exposure of the banking sector to climate related risks (FinSAC)

3.2.1. Identification of main climate-related risks

Banks are exposed to climate-related financial risks through two key channels, physical risks and transition risks. Physical risks emanate from climate change directly, while transition risks arise from the response – by policymakers, innovators, or consumers – to prevent and/or combat climate change.

Physical risks refer to the effects of both rising temperatures and extreme weather events, which are becoming ever more frequent. They can be broken down into acute and chronic risks: acute risks are sudden short and severe events that have a significant negative impact,

e.g., heavy rainfall causing a flood. Chronic risks reflect continuously deteriorating ecological conditions, e.g., rising sea levels.

Physical risks, which can damage material infrastructure and fixed investments, tend to vary from region to region, affecting, for instance, coastal areas differently than glacier regions. Climate-related physical risks fall into more traditional categories in financial risk management. Once physical risks materialize, they can destroy assets either immediately or gradually, for example by causing the depreciation rate of capital to accelerate through corrosion. If the affected assets have been pledged as collateral for a loan, the loan originator's credit risk rises. Many physical risks are spatially correlated: if, for example, severe flooding destroys a significant proportion of real estate collateral in a particular area, lenders in that region might face higher concentration risk. If priced in accordingly, the rising uncertainty due to climate change might also lead to higher risk premiums on interest rates, which, in turn, increases market risk.

Transition risks are related to efforts to mitigate the effects of climate change as part of the transition from current modes of production to more a climate-friendly economy. Decreasing CO₂ emissions, in line with Paris Agreement objectives, requires targeted climate policies (e.g., carbon taxes), changes in laws and regulations, as well as technical innovation and changes in consumer behavior. However, if the transition is disorderly, because climate policies are introduced too late and/or in an uncoordinated way across countries and their impact cannot be fully anticipated by investors, new sources of financial risks could manifest themselves. A disorderly transition could give rise to asset price volatility (both negative for high-carbon activities and positive for low-carbon activities) with implications for financial instability if large and correlated asset classes are involved⁴⁰.

Regulatory changes can alter the relative prices of low-carbon and gray modes of production. Policies that internalize negative climate externalities include carbon pricing and emissions trading schemes. Charges may be imposed for emitting greenhouse gases (GHGs), but these risk reducing revenues from the underlying economic activity, thereby lowering the emitter's debt-servicing capacity; shares and bonds of GHG-emitting companies will be discounted accordingly.

Further, the diffusion of climate-neutral technologies can act as a tipping point for markets and transform previously valuable investments into stranded assets whose value is no longer certain, as they cannot be used due to regulatory, social, or technical barriers. Technological innovation can reduce the costs of renewable energy sources and make the latter more competitive vis-à-vis fossil fuels, which are a major source of GHG emissions. On the other hand, coal or oil companies accounting for unextracted reserves in their balance sheets face significant downside risks regarding those assets' future prices in case technological breakthroughs turn the reserves into stranded assets. The accelerated diffusion of low-cost solar panels or e-mobility devices has disruptive potential, namely by crowding out traditional GHG-emitting machines.

Finally, increased awareness of global warming might change consumer preferences and thus reduce demand for carbon-intensive goods, rapidly turning high-yielding assets into stranded assets. A severe devaluation of carbon-based assets and lower revenues for debtors due to demand shifts mean that banks face a higher probability of default on some of their loans. Depending on the timing of behavioral changes by governments, companies, and consumers,

⁴⁰ Monasterolo, I., S. Battiston, A.C. Janetos and Z. Zheng. 2017. Vulnerable yet relevant: the two dimensions of climate-related financial disclosure. In: *Climatic Change* 145. 495–507.

the transition could result in a “soft landing” or a “hard landing.” The latter would yield assets at a time when more and more physical risks are likely to materialize.

There are also **liability (litigation) risks** that can arise from people or businesses seeking compensation for losses they may have suffered from the physical or transition risks from climate change outlined above or legal challenges taken to require a particular course of action. Whilst litigation risks were previously identified as a separate channel, they are increasingly considered as a sub-category of physical and transition risks.

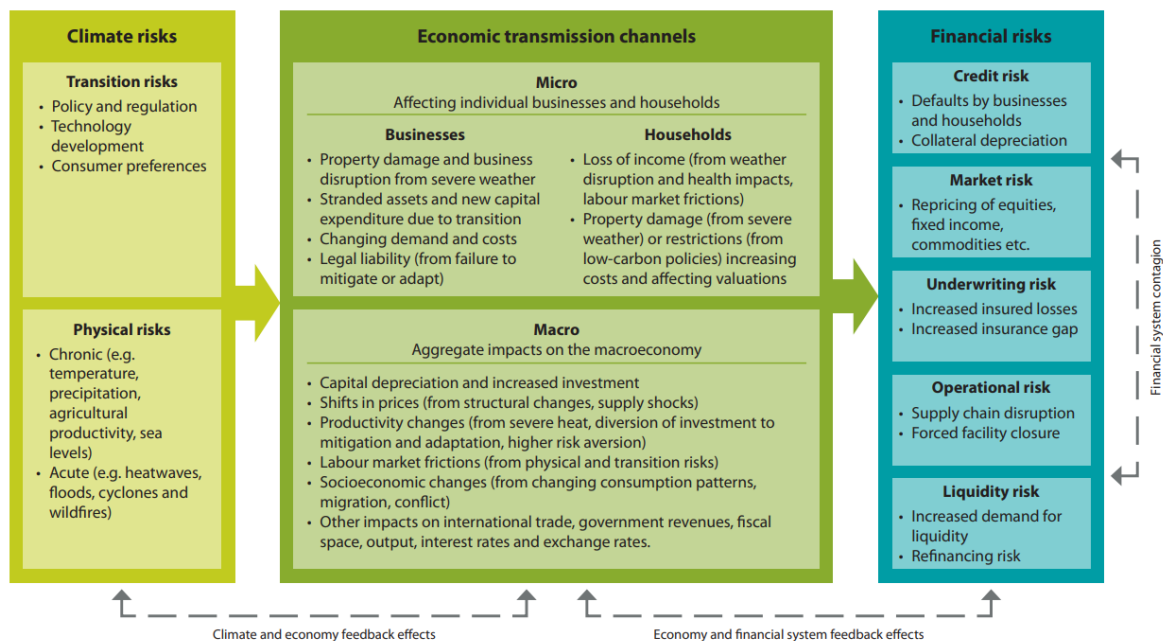
The main features of climate-related risks are:

- a) They are **systemic** and will affect every consumer and every corporate in all sectors and across all geographies. Their impact will likely be correlated, non-linear, irreversible, and subject to tipping points. They will therefore occur on a much greater scale than the other risks that firms are used to modelling and managing.
- b) They are **simultaneously uncertain and yet totally foreseeable**. Risks are inevitable, but decisions about reducing emissions will influence the combination of physical and transition risks that emerge.
- c) **Early action** can help mitigate the size and balance of future risks. Once physical risks begin to manifest in a systemic way it may be too late to reverse many effects through emissions reductions.

3.2.2. Transmission channels

The sound integration of climate-related financial risks into banks’ risk management frameworks requires a deep and comprehensive understanding of the existing and potential transmission channels between climate change and banks’ risks. This path is not direct and involves second and third order effects from economic activities on banks, which adds complexity when modelling the impacts. The most relevant transmission channels are summarized in Figure 7.

Figure 7: Key climate-change transmission channels



Source: Network for Greening the Financial System

3.2.3. Banking sector exposure to transition risks

Banks are exposed to climate-related financial risks through their business activities and operations. For example, these risks may impact the probability of default for a loan, resulting in greater than expected financial losses. In addition, firms may suffer from business interruption due to physical risks leading to property damage on their own premises or affect the service provision of third parties they rely on.

Bank lending continues to be a very important and stable source of private sector financing in the Republic of Kosovo, and bank intermediation continues to increase on a yearly basis. Those banks are exposed to climate risks. In this regard, climate risks can impair the value of financial assets, which in an extreme scenario can affect the solvency of the financial intermediaries holding them. If risks from climate change are not sufficiently assessed, lending and investments decisions may be based on incomplete information, resulting in a biased expected risk-adjusted return on investment. This is the reason why banks will be progressively required to adequately assess, measure, and manage their climate related risks, particularly how climate related risks are integrated into a bank's credit risk management framework.

The quantification of climate-related financial risks (both physical and transition) requires reliable data on banks' credit risk exposures, mainly to non-financial corporates (including small and medium sized enterprises) and households. This data is currently not fully available⁴¹.

Nevertheless, a first assessment of the exposure of the banking sector to transition risks stemming from climate risks can be gauged by breaking down the banks' loan portfolio of non-financial companies by economic sector; by identifying the current exposure to the most sensitive sectors to transition risks. Climate-relevant sectors are classified using a 4-digit NACE classification (the industry standard classification system used in the European Union). Although this classification is not perfectly designed to cover all climate-related sectors and may not be as granular as desirable, it is widely used by other authorities and markets to gauge the banking exposures to transition risks.

The classification of economic activities that are climate-policy related is based on Battiston et al. (2017)⁴² where they are called Climate Policy Relevant Sectors (CPRS) and defined as economic activities that could be affected positively or negatively (including being transformed into stranded assets) in a disorderly transition, i.e., they are relevant for assessing climate transition risk. Using NACE level 4 classification and transforming the exposures to NACE sectors to exposures to CPRS, six sectors are determined as climate-policy relevant: (i) fossil fuels, (ii) utilities, (iii) energy-intensive, (iv) buildings, (v) transportation and (vi) agriculture. Sector classification is presented in Table 2.

Table 2: Sector classification according to NACE

CPRS	Role in the greenhouse gas emission	Transition risk	NACE (4-digit code)
Fossil fuels	Production of primary energy based on fossil fuel; indirectly responsible for GHG emissions from fossil fuels	Revenues primarily from fossil fuels (e.g., extraction, refinement); diversification/use of different resources not possible	Extraction of coal, gas and oil (e.g., 05.20), manufacturing related to the refinement of coal, gas and oil (e.g., 19.10) electricity and gas (e.g.,

⁴¹ An alternative classification is used because Kosovo does not count on an own Green Taxonomy defining relevant sectors and this one is widely used by other authorities (ECB and OeNB among others) and academia.

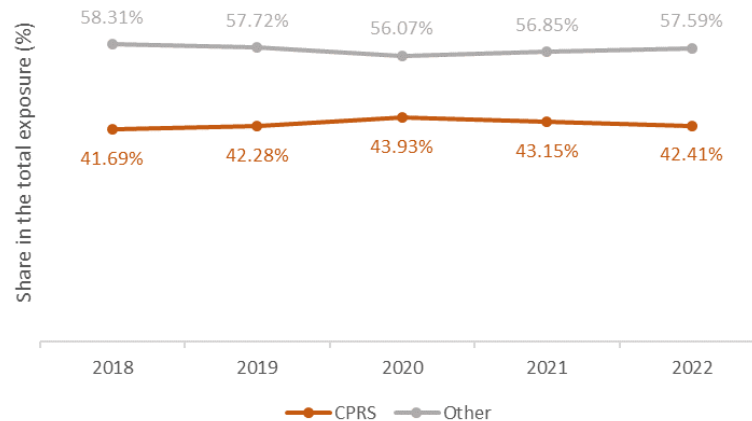
⁴² Battiston, S., A. Mandel, I. Monasterolo, F. Schütze and G. Visentin. 2017. A climate stress-test of the EU financial system. In: *Nature Climate Change* 7. 283–88.

CPRS	Role in the greenhouse gas emission	Transition risk	NACE (4-digit code)
			35.21), retail sales of automotive fuels (e.g., 47.30)
Utilities	Production of secondary energy; responsible for GHG emissions relative to type of fuel used	Revenues from generation, transmission, or distribution of electricity; diversification possible (e.g., solar, wind)	Electricity production (e.g., 35.11)
Energy-intensive	Activities with intensive energy use as input	Affected by price changes of energy or restrictions on use of GHG-intensive sources	Mining and quarrying (e.g., 07.10), various manufacturing sectors (e.g., 11.01, 13.10, 23.51) based on the EU carbon leakage list
Buildings	Provision of building services from construction to renting	Energy-intensive, but diversification possible	Residential and commercial construction (e.g., 41.10), accommodation (e.g., 55.10), real estate (e.g., 68.20)
Transportation	Provision of and support for transportation services	Fossil fuel-intensive, but no strict dependence on GHG emissions; diversification possible	Manufacturing of motor vehicles, ships, and trains (e.g., 29.10), construction of roadways (e.g., 42.11), sale of vehicles (e.g., 45.32), transportation (e.g., 49.10)
Agriculture	Agriculture, forestry and related services	Energy-intensive, but diversification possible	Agriculture, forestry and fishery (e.g., 1.10)

Source: [OeNB Financial Stability Report 40 – November 2020](#)

Seven banks in the Republic of Kosovo participated in the Questionnaire on “Climate-related risks in the banking sector”, which constitute about 86% of the total assets of the banking sector in the Republic of Kosovo. The purpose of the survey was to gain an illustrative overview of the banks’ internal preparedness, capability and capacity to include climate-related risks in their strategy, governance and risk management practices. The seventy questions in the survey concerned qualitative information on the banks’ current practices in a number of critical areas. The share of CPRS sectors and of other sectors in the Republic of Kosovo total banks’ exposure in recent years following this methodology is shown in Figure 8.

Figure 8: Share of CPRS and of other sectors in the Republic of Kosovo banks' exposure 2018-2022⁴³



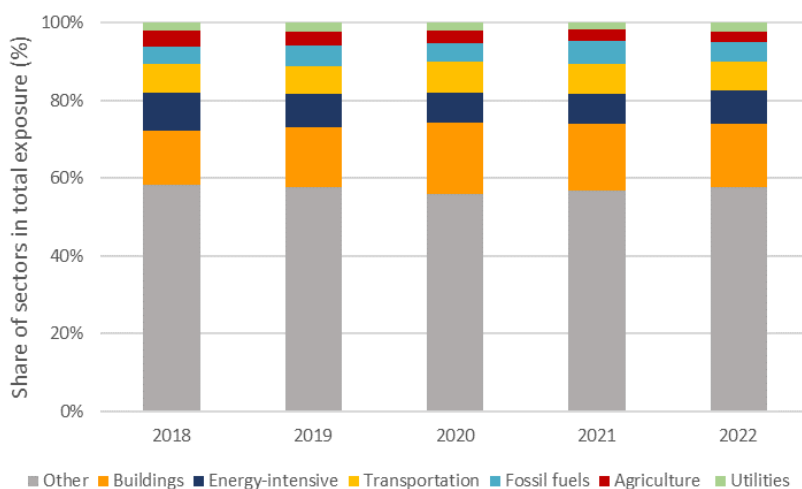
Source: Internal calculations based on data provided by banks in the Republic of Kosovo by September 2023

Less than half of total banks' exposure in the Republic of Kosovo is attributed to Climate Policy Relevant Sectors (CPRS). The share of CPRS in banks' exposure in the last five years is between 41.7% and 43.9%, and between 56.1% and 58.3% to other sectors, showing a relatively stable level over the five years. It is, though, a good sign for the banking sector that the share of CPRS is not dominant compared to other sectors that are not climate policy relevant. It suggests banks do not invest predominantly in climate sensitive sectors that could cause them huge transition risks. Yet, based on the analyzed data it is not possible to determine the magnitude of risks, only to determine the exposure to them.

The exposure of the banking sector to each of the six CPRS relevant for transition risk is presented in Figure 9. It shows that the share in each sector has remained fairly constant over the observed period of time. More detailed analysis of specific debtors would show if exposure were associated with a few creditors with big loans or to many smaller companies.

⁴³ The assessment takes into account information directly provided by banks in Kosovo. For the sake of more reliable results, data from 5 banks out of 8 banks participating in the exercise has been considered (representing 71.57% of outstanding amount by December 2022). The 3 banks not taking part in the assessment either provided information broken down by NACE-1 (it is important to note that there are NACE-1 classifications that contain multiple different CPRS and aggregating all of them in only one CPRS [e.g., within the predominant in that NACE-1 would bias the assessment]) or by internal classifications.

Figure 9: Breakdown of banks' exposure to the climate policy related sectors for period 2018-2022



Source: Internal calculations based on data provided by banks in the Republic of Kosovo by September 2023

The single sector with the most significant exposure for banks in the Republic of Kosovo to transition risk is the “Buildings” sector, that includes residential and commercial construction, rental activities, and real estate. The share in the total exposure in the 5-year period analyzed is between 14.0% and 18.4%, showing an increasing trend between 2018 and 2020, and decreasing subsequently.

The second largest exposure that banks in the Republic of Kosovo hold in CPRS is to “Energy-intensive”. This includes activities that require significant use of energy, such as mining and quarrying, and various manufacturing sectors that are determined to be energy-intensive based on the EU carbon leakage list. The share for this sector is between 7.6% and 9.6%.

The third largest exposure is to the “Transportation” sector, that includes manufacturing of transportation vehicles, construction of roadways, sale of vehicles, and transportation services. This sector is materially exposed to transition risks, for example through the introduction of new regulations to improve the energy efficiency of vehicles, higher prices of fossil fuels due to carbon taxes, or other environmental regulations that may increase the costs of production or maintenance. Furthermore, there might be decreased demand for certain services or products. Movement towards greater use of electric vehicles and imposition of carbon taxes would represent significant risks to these activities. The sector shows slight variations over the observed period, weighting between 7.3% and 8.0% along the observed period.

The last sector showing a weight around or above 5% is “Fossil fuels”, that mainly includes the mining of lignite (the most relevant in the Republic of Kosovo), but also de mining, extraction, manufacturing, distribution and transport via pipeline of other fossil fuels like petroleum and natural gas.

Finally, among the remaining sectors it is worth mentioning the exposure to “Agriculture”, considered to be very sensitive to climate, shows a decreasing trend over the period, from a weight of 4% in 2018 and less than 2.9% in 2022. One reason for such a low exposure may be that agricultural workers finance their production from other sources (their own) rather than from banks. Agriculture as a sector is associated with a much higher physical risk than transition risk.

3.2.4. Banking sector exposure to physical risks

The exposure of the banking sector to physical risks must not be neglected, as it could result in sizable losses to the banking sector. Nevertheless, according to lack of modeled data of hazard risks in the country the assessment will be implemented during the first stages of the implementation of the strategy.

4. Strategic Roadmap for climate-related and environmental risks in the financial sector

4.1. Principles

The Central Bank of the Republic of Kosovo's Strategic Roadmap for dealing with climate-related risks has been defined based on the following principles:

- **The Strategy has the combined goal** of increasing the understanding of climate risks from the CBK, ensuring that: (i) banks properly measure, assess, manage and control the climate-related and environmental risks and (ii) the CBK can comprehensively measure the exposure of banks to climate-related risks.
- **The Strategy is mindful of the role of the CBK.** The planned activities in the Strategy consider the competences and, more broadly, the legal mandate of the CBK. The role of the CBK should be related to the sound assessment and management of the climate risks by the financial sector. The current mandate of the CBK does not cover other important legal measures, such as the introduction of a green taxonomy, even when these elements can play a significant role for the management of these risks within the financial sector.
- **The CBK will not directly or indirectly target the channeling of financial flows to green investments, as it will be inconsistent with its prudential mandate.** The activities of the CBK should target supervised banks safely identify, measure, govern, manage, report and control the climate risks that are or may be exposed to. The CBK should not directly or indirectly encourage banks to increase their green investments. Such measures may introduce market distortions and potentially be against the CBK's prudential mandate.
- **The need for a gradual and iterative approach.** The introduction of recommendations, guidelines and regulations should be consistent with the progress made by the country as a whole in this area. Moreover, ensuring that banks implement a fully-fledged system for the management of climate risks will likely require a multi-year period, as banks will need to close significant data, methodological and human resource gaps.
- **The incorporation of the regulatory regime will be progressive and be at first principle-based.** First, the CBK will develop recommendations / guidelines in the form of an advisory letter whereby it sets the standards for the sound management of these risks. The principle-based approach can enable the CBK to dynamically adjust its expectations to the progress effectively made by the financial sector. The CBK intends to enforce rule-based (binding) requirements when further progress is achieved.
- **The CBK will follow the work by European and international organizations.** Even when the Republic of Kosovo is not part of the EU, there are two reasons that advice to follow the regulatory and supervisory initiatives by European authorities. First, because the Republic of Kosovo has committed (mainly, through the Sofia Summit Declaration in 2020) to align with the objectives of the European Green Deal. Second, the current regulatory and supervisory framework in the Republic of Kosovo is EU-based. Moreover, the CBK will consider the recommendations from international organizations, such as the BCBS or the FSB and other best international and European standards and practices.

- **Continuous engagement with international and regional organizations.** The CBK considers that continuous capacity building on climate related aspects will be key for progressively building a climate risk regulatory and supervisory framework. Prudential supervisors can benefit from exchanging views and transfer knowledge across similar and more advanced supervisors. On an international basis, the CBK has already applied to join the Network for Greening the Financial Sector, and the Sustainable Banking Network will be considered. Regionally, the CBK foresees its engagement in relevant fora, such as the Vienna Initiative.
- **Engagement with other country authorities.** The CBK will communicate and coordinate with other authorities in the country. This means the CBK should also actively engage with the relevant Ministries currently in charge of climate and environmental matters.
- **Socialization of the Strategy.** The CBK will organize regular conferences, first to explain its approach to climate related risks, but afterwards to discuss the latest developments on this area.
- **The need to integrate the assessment of climate risks into the current mechanisms, tools and supervisory procedures.** There is a clear consensus that the climate-related risks are not individual risk categories but mainly risk drivers for other risks (credit, operational or market risks). The goal of the Strategy should be first to ensure that banks under the CBK's remit integrate the climate risk into their credit, market, liquidity and operational risk management frameworks. Likewise, the CBK will intend to integrate the exposure to climate risks when performing the assessment of the business model, of corporate governance and the risks to the bank's capital position during the Risk-based Bank Supervision assessment.

4.2. Activities of the Central Bank of the Republic of Kosovo

The CBK has decided to break down the activities foreseen in the roadmap into five different categories:

- **Regulatory actions,** including the issuance of recommendations / guidelines (advisory letter) or regulations for the governance, assessment, management and control of climate-related risks, or other regulatory actions (amendments of the corporate governance, disclosure, ICAAP regulations, etc.). In a later stage, the CBK may consider, if agreed at European and/or international level, to embed the climate risks into the regulatory framework.
- **Supervisory actions.** Once the recommendations / guidelines (advisory letter) have been put in place, the CBK will undertake the actions required to assess banks' compliance with the new requirements, update the Risk-based Supervision and other assessment methodologies that are used by supervisors in their day-to-day work.
- **Financial stability actions.** Assessment by the CBK of the potential impact of climate-related risks in the financial stability of the Republic of Kosovo. The CBK's activities will also encompass the assessment and full understanding of the banks' exposure to climate risks using scenario analysis and, where applicable, stress testing.
- **National and International Engagement.** The CBK will participate in regional and international fora for broadening the expertise and knowledge in these areas. The CBK engage with other local authorities responsible for climate change (particularly relevant for Green Taxonomies).
- **Culture / knowledge.** Under this workstream, the CBK will be expected to develop an assessment of the sustainability of the activities developed by the CBK itself and Research activities. The CBK shall also regularly engage with universities.

Figure 10: Categories of activities of the Central Bank of Kosovo

