

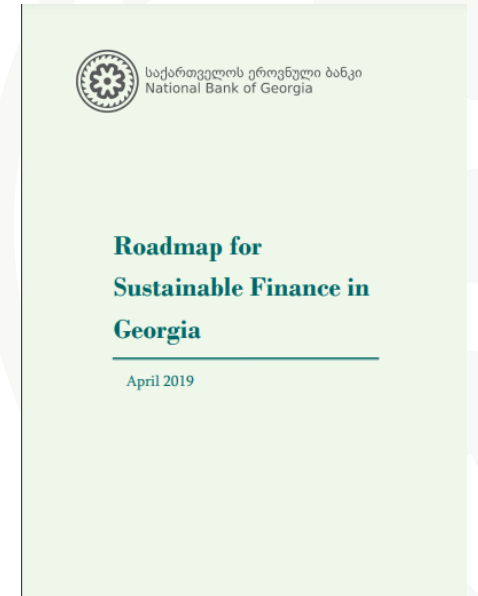
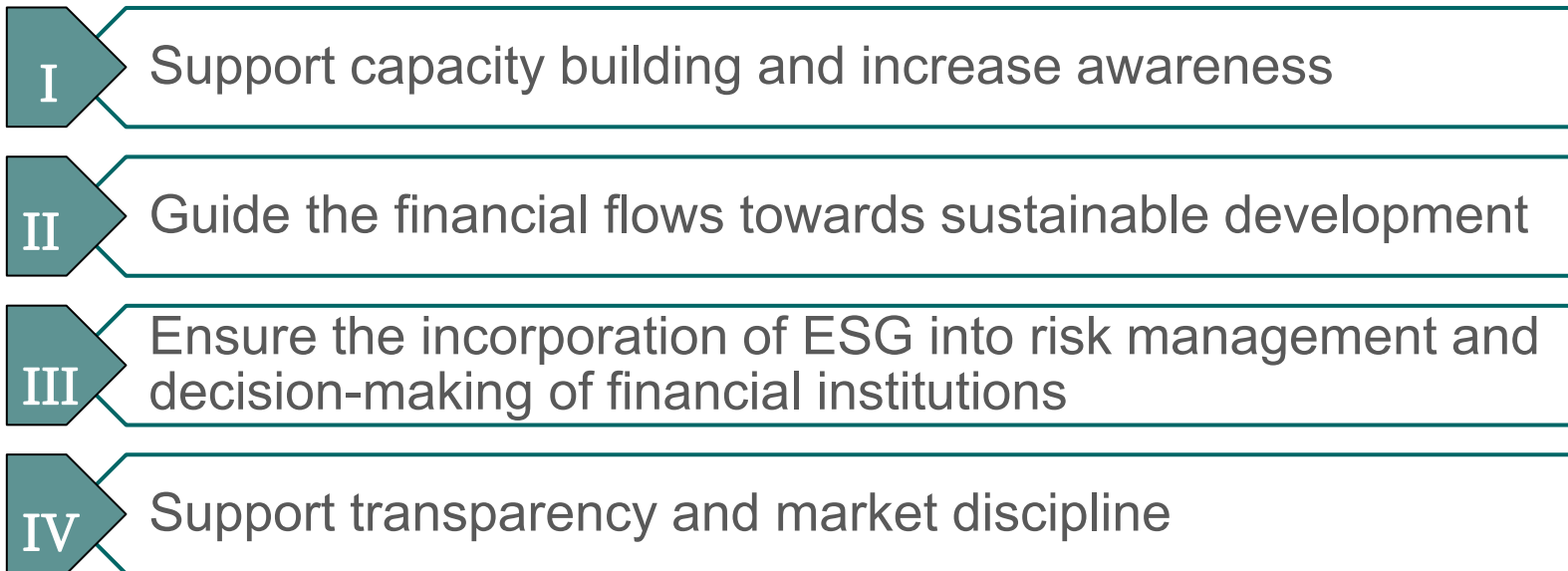


Biodiversity-related Financial Risks – why it matters and how can we measure them? Case study of Georgia

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NBG's Sustainable Finance Framework

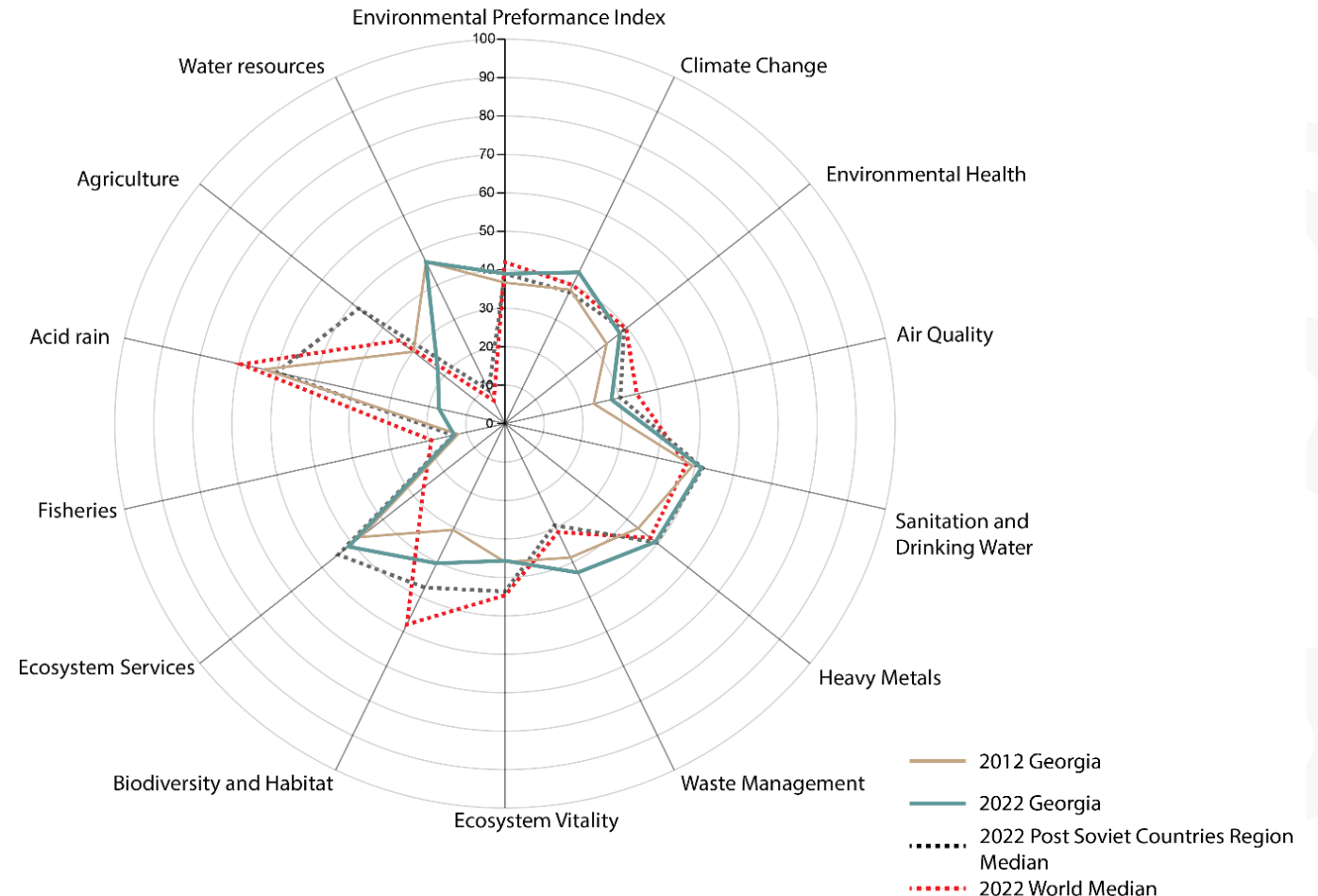
- ❑ The NBG started developing Sustainable Finance Framework in 2017.
- ❑ In 2019, the NBG launched the **Roadmap for Sustainable Finance in Georgia**:
 - ❑ The **ultimate goal of this roadmap** is to provide a credible, predictable, and stable regulatory framework and prepare the market for transitioning to sustainable finance.
- ❑ Pillars of the Roadmap:



Biodiversity Profile of Georgia

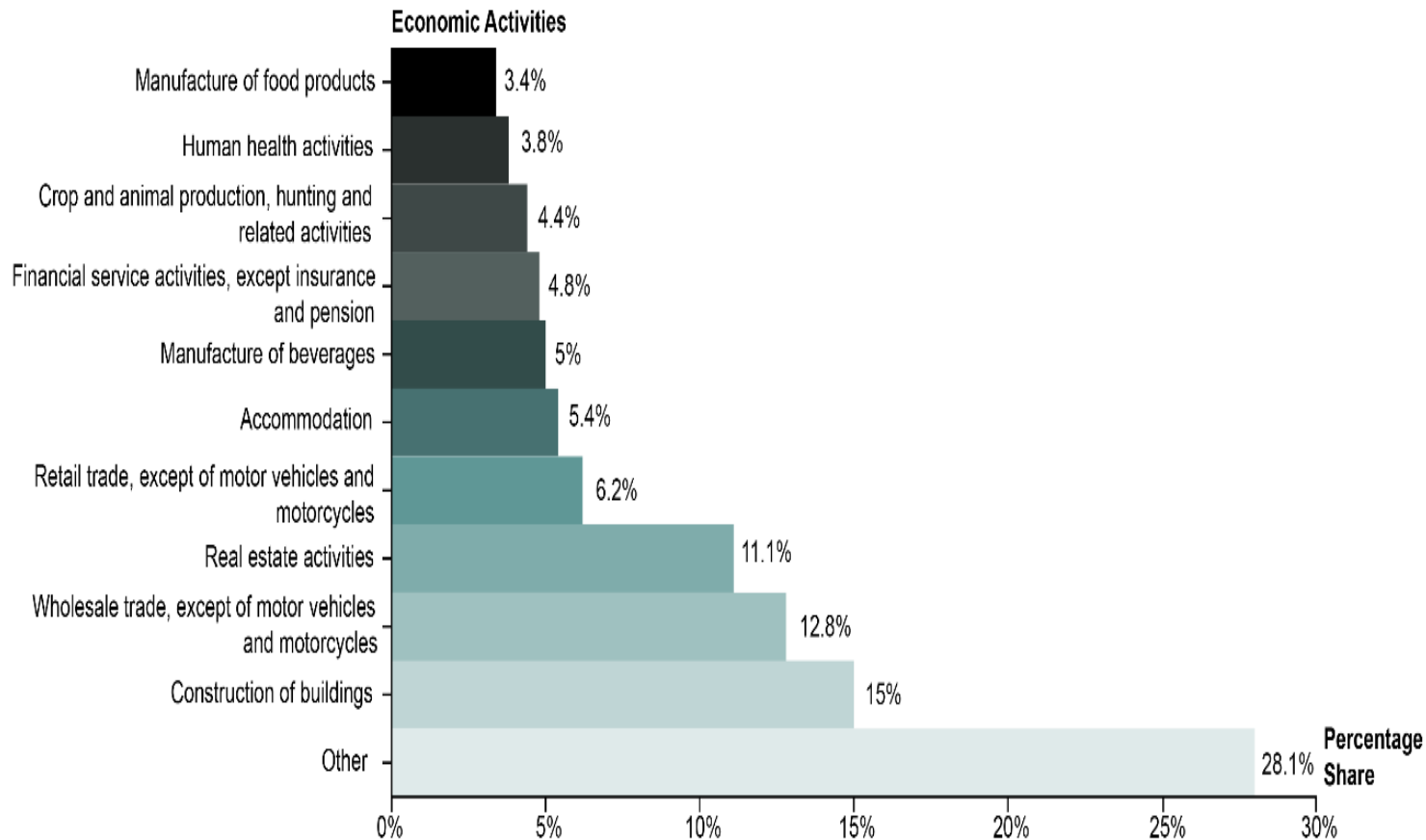
- Georgia belongs to the 35 "priority ecoregions" identified by the World Wide Fund for Nature (WWF);
- Georgia is located in two of the 36 biodiversity hotspots recognized by Conservation International;
- Forests cover around 40 percent of the country's territory and 95–98 percent of them are of natural origin;
- About 400 different species of trees and plants are represented
- The protected area (PA) system consists of 94 PAs

Environmental Performance Index



Assessment of BRFR in Georgia - Methodology

Georgian commercial banks lending portfolio



Source: Author's own elaboration of NBG data (2022)

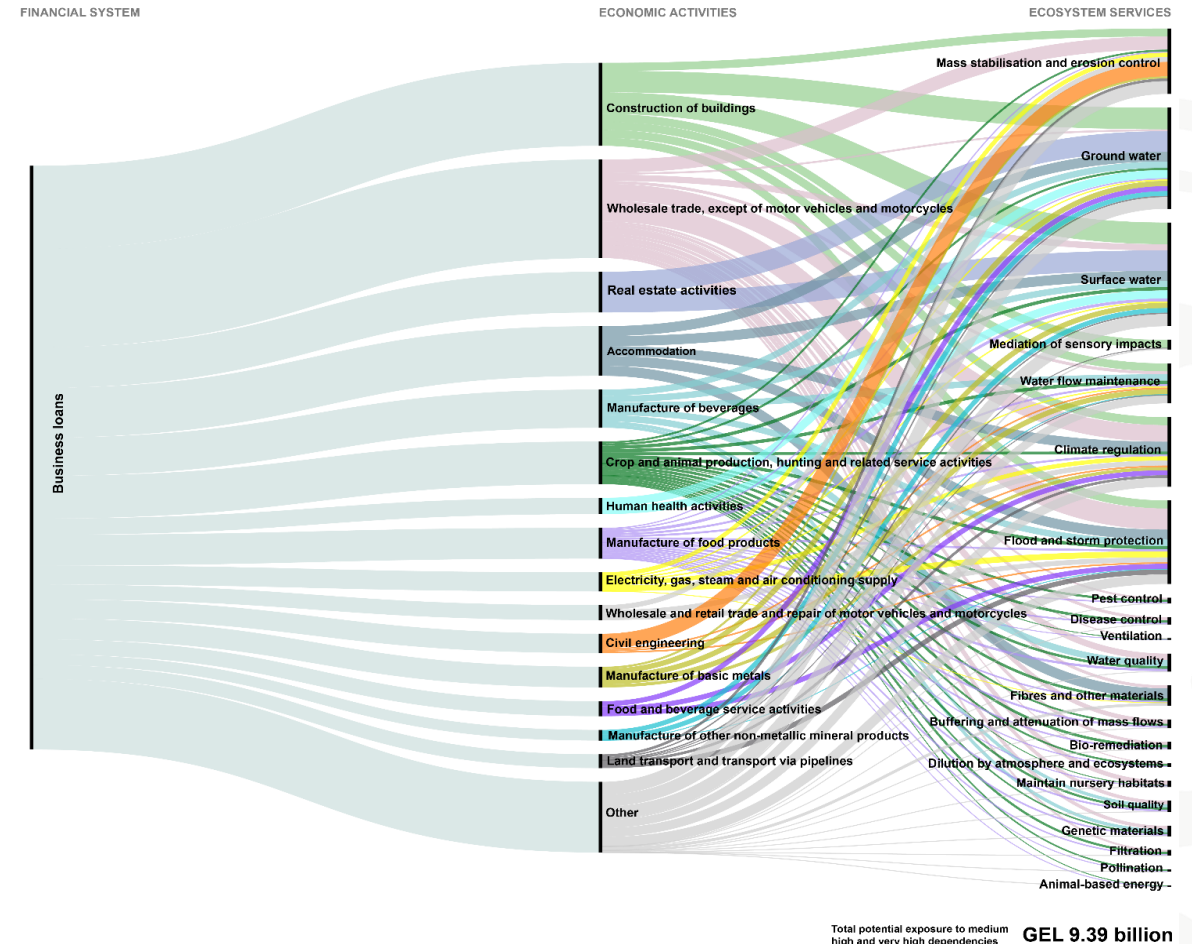
- ❑ The exposure of the financial sector to the economic sectors were determined on the basis of commercial banks' lending data to legal entities obtained from the NBG.
- ❑ In order to link ENCORE to financial data, GICS business activities were manually re-classified to match the two-digit NACE REV 2 nomenclature.
- ❑ The analysis excluded economically irrelevant activities for the Georgian economy by manually filtering them out.

Assessment of BRFR in Georgia - Dependencies

Approximately, 46 percent of Georgian commercial banks' lending portfolio to legal entities could be exposed to biodiversity-related physical risk.

Ecosystem Service	Percent of portfolio	
Direct physical input	Animal based energy	0.10%
	Fibres and other materials	1.59%
	Genetic materials	0.81%
	Ground water	7.9%
	Surface water	8.12%
Enabling production	Maintain nursery habitats	0.49%
	Pollination	0.20%
	Soil quality	0.89%
	Ventilation	0.13%
	Water flow maintenance	3.13%
Mitigating direct impacts	Water quality	1.42%
	Bio-remediation	0.57%
	Dilution by atmosphere and ecosystems	0.32%
	Filtration	0.44%
	Mediation of sensory impacts	0.77%
Protecting from disruption	Buffering and attenuation of mass flows	0.68%
	Climate Regulation	5.45%
	Disease control	0.57%
	Flood and storm protection	6.54%
	Mass stabilisation and erosion control	5.13%
Total medium, high, and very high dependencies	45.71%	

The financial sector and ecosystem services dependencies

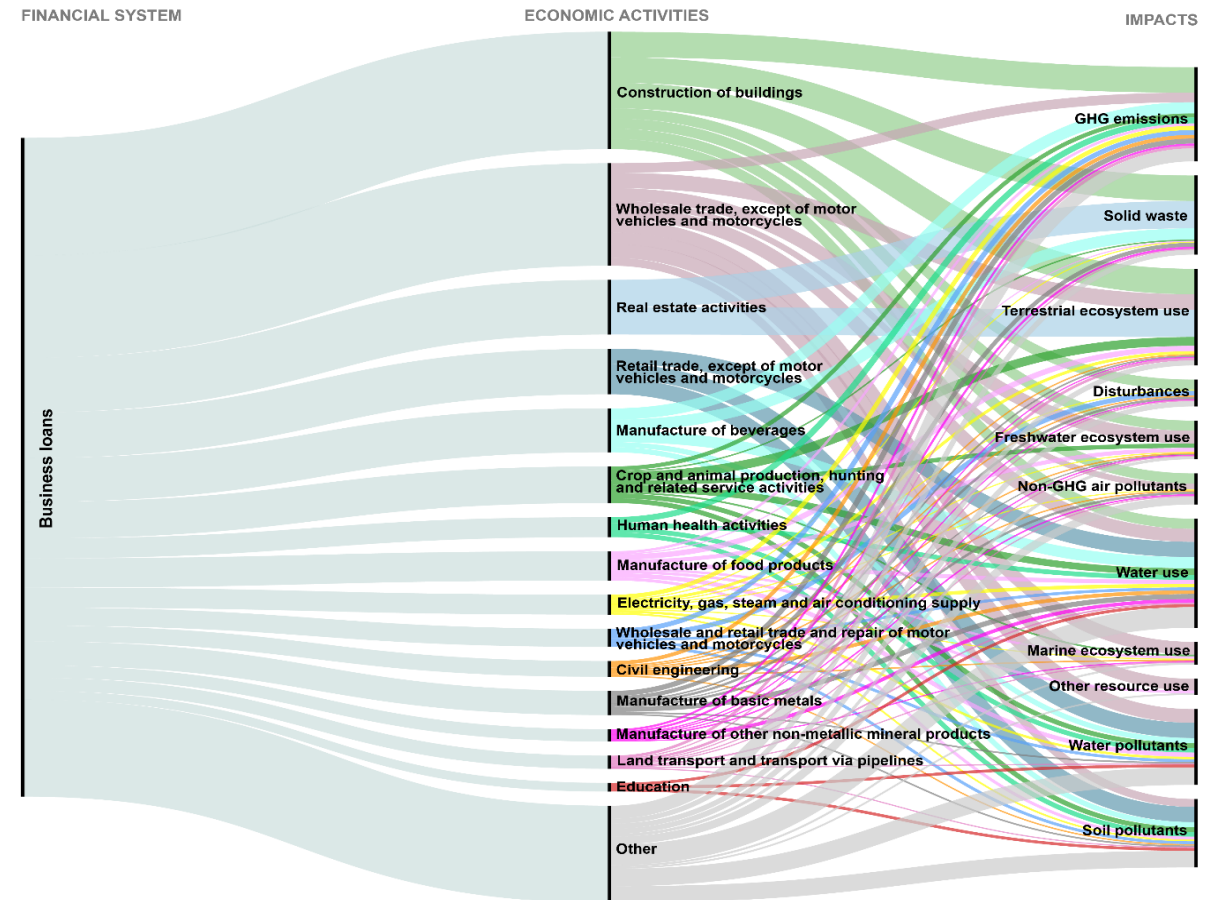


Assessment of Biodiversity-related Financial Risks in Georgia - Impacts

Approximately, 54 percent of Georgian banks' business lending portfolio could be exposed to sectors that strongly impact ecosystem services and, thus, may face a high transition risk.

The impact on the biodiversity of financial business sector lending

Natural assets	Percent of portfolio
Disturbances	2.19%
Freshwater ecosystem use	3.15%
GHG emissions	7.67%
Marine ecosystem use	1.85%
Non-GHG air pollutants	2.54%
Other resource use	1.32%
Soil pollutants	5.57%
Solid waste	6.45%
Terrestrial ecosystem use	7.87%
Water pollutants	6.17%
Water use	8.88%
Sum	53.66%
Total portfolio	100%



Total potential high and very high impacts on natural capital **GEL 11.03 billion**



საქართველოს ეროვნული ბანკი
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Thank You!

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<https://nbg.gov.ge/en/page/sustainable-finance>