

PRE-READ FOR ONLINE STAKEHOLDER WORKSHOP  
“NATURAL CAPITAL VALUATION ASSESSMENT FOR THE ARAL SEA REGION IN KAZAKHSTAN”

*With support of the European Bank for Reconstruction and Development (EBRD)  
in cooperation with [ARCADIS](#), [IDEEA Group](#) and [RWA Group](#)*

Dear Madam/Sir,

Following the invitation to the online stakeholder workshop 'Natural Capital Valuation Assessment for the Aral Sea Region in Kazakhstan', we are sharing more detailed information about the project. The workshop aims to (1) **inform the participants** about the context of the project and the related findings of the NCV model and (2) **validate these findings** during a moderated discussion with all participants. The event also provides a platform for exchanging ideas on possible future collaborations on nature-positive activities.

Your insights are very valuable to our project. **The workshop will be a truly participatory event**; feel free to write down any initial thoughts, feedback and questions as you read the information in this document. It would be very interesting to discuss:

- If you **agree with the analysis/results** described on the following pages.
- If you believe that the analysis performed so far is **in line with reality on the ground**.
- Whether there are **aspects that are missing or need further refinement**.
- **Any additional comments and suggestions** you might have.

We look forward to the discussion and welcome your feedback.

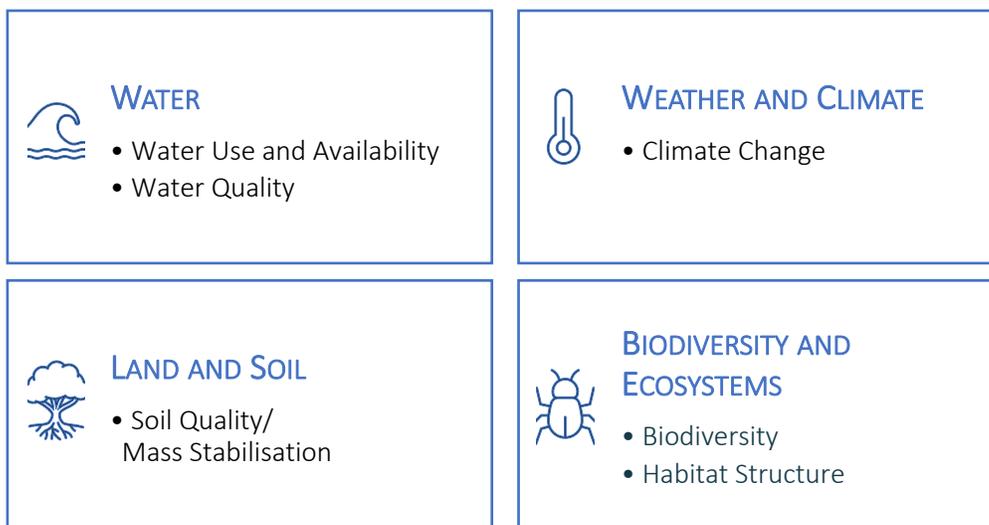
Johan Lammerant  
Lead Expert Natural Capital and Biodiversity – Arcadis, Belgium

**Natural capital** can be defined as the stock of renewable and non-renewable resources (e.g. species, air, water, soil, minerals) that combine to yield a flow of benefits to people. Natural capital valuation is the process of assigning a monetary value to natural capital. Investors and financial institutions are exposed to natural capital risks, due to unsustainable land use, over-exploitation, climate change, etc. The EBRD, in collaboration with other multilateral development banks (MDBs), has developed the **Natural Capital Valuation (NCV) Model**, which is based on the UN System of Environmental-Economic Accounting (SEEA) and supplemented with additional nature-related risk assessments. **The main objective of the model is to identify priority areas and actions to invest in at landscape level, to make progress towards Nature positive and to enable more informed decision making and risk management at project level.**

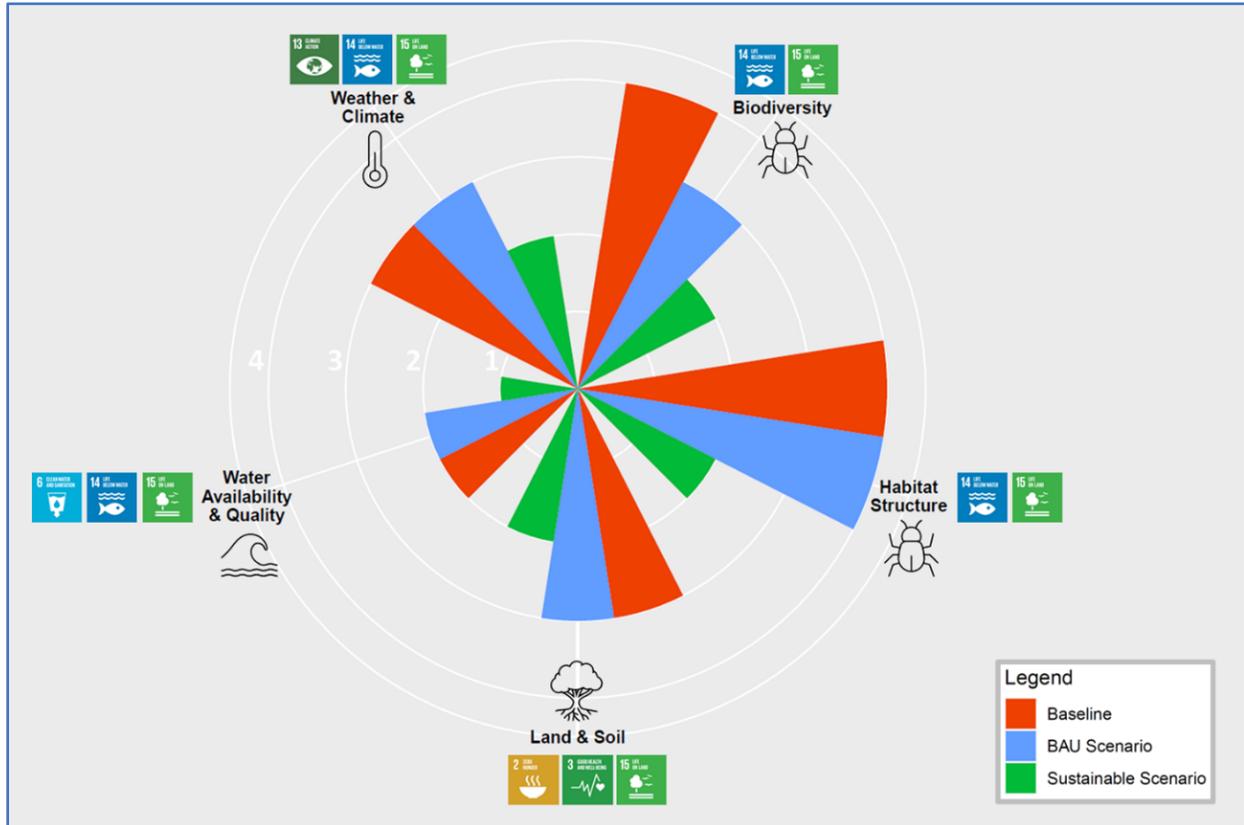
The NCV model evaluates:

- **Changes in extent and condition of ecosystem types.**
- **Key dependencies on natural capital** and how this relates to the local economy in terms of **monetary ecosystem services flows.**
- **Key threats to natural capital** and related socio-economic risks.
- **The current and evolving state of natural capital in a business-as-usual scenario and a sustainable scenario**, including qualitative outcomes for ecosystem services, the economy, human health and progress towards Sustainable Development Goals.
- **Investment opportunities** and how they can contribute to environmental, social and economic benefits.

Based on previous steps in the NCV Model, i.e. stakeholder dependencies/impacts assessment, assessment of changes in ecosystem extent/condition (stocks), and assessment of changes in ecosystem services (physical and monetary flows), six **risk areas** were defined and grouped into four overarching **scenario themes**, which form the basis for the model's **risk assessment**.



In the next step of the NCV Model, the scenario analysis, the results of the **risk assessment lead to the allocation of sustainability categories between 1 (high sustainability) and 4 (low sustainability) to five scenario themes**. The figure below shows the scenario themes and the corresponding sustainability category for the current ‘**baseline**’ situation, the **Business-as-usual** scenario and the **sustainable** scenario. Symbols for associated risk themes and key Sustainable Development Goals are indicated per scenario theme.



Based on the above, the main issues to be addressed with targeted Nature Positive investments are:

- **Water management**

While restoration efforts such as the Kokaral Dam ensured that the water level and water quality in the Northern Aral Sea remained stable, the substandard water quality due to salt/fertilizer/pesticide/(industrial) waste pollution still impacts human health, agricultural productivity, food security and endangers the provision of ecosystem services. Investments are needed in research and implementation of sustainable land and water management, such as water-saving irrigation/drainage infrastructure, water treatment infrastructure, raising the walls of the Kokaral Dam, the use of various drought and salt-resistant crops/vegetation, and general vegetation restoration.

- **Land management**

There is an increase in the average temperature and the risk of natural disasters. Ecosystems are replaced by barren soils and are affected by desiccation, salinization, desertification, erosion, invasive species and pollution. This has resulted in an increasing number and intensity of toxic (salt, agrochemicals) sand and dust storms, affecting human health, agricultural yields, livestock, infrastructure and ecosystems in general. Sustainable land management to build resilience to drought, afforestation, climate-smart agriculture (reduced use of fertilizers/pesticides, agroforestry, no monocultures, sustainable livestock farming) are needed.

- **Biodiversity management**

Ecosystems have collapsed and biodiversity has declined. In addition to the investments described above, efforts such as the implementation of biodiversity monitoring systems, improving habitat connectivity through protected areas and building capacity for sustainable fisheries and aquaculture solutions can help restore species populations and improve monetary ecosystem services flows from e.g. fishing.