UN environment WCMC

UN Environment
World Conservation Monitoring Centre

ADVANCING ENVIRONMENTAL RISK MANAGEMENT

The UN Environment World Conservation Monitoring Centre is working with the Natural Capital Finance Alliance to enable financial institutions to better understand, assess, and integrate natural capital-related risks and opportunities into financial decision-making.

DECLINING NATURAL CAPITAL IS A HIDDEN FINANCIAL RISK

Natural capital[1] underpins all economic activities. Businesses depend on it for direct inputs, such as water and materials. They also have an indirect dependence on it for production processes, such as through erosion control and flood protection. Environmental degradation puts at risk the capacity of natural capital assets to continue to generate the ecosystem service benefits upon which businesses depend. A failure to make this link, especially in the final step of understanding the potential financial ramifications for businesses remains limited, exposing businesses and financial institutions to 'hidden' risks.

The Advancing Environmental Risk Management project (www.naturalcapitaldeclaration.org/projects) aims to address this issue by identifying and structuring the information on ecosystem services and natural capital assets that financial institutions need to assess their exposure to natural capital-related risks and embedding these considerations within existing risk management processes.

The Natural Capital Finance Alliance is a collaboration with the finance sector to lead the integration of natural capital considerations into financial decision-making. It is a joint initiative of UN Environment's Finance Initiative and Global Canopy Programme, led by 45 financial institution signatories and supported by a wide range of other stakeholders.

NATURAL CAPITAL FINANCE ALLIANCE
Finance sector leadership on natural capital

DEPENDENCE VARIES ACROSS SECTORS

A comprehensive inventory of business dependencies on ecosystem services has been collated for 160 sectors. This shows a varying level of dependence on natural capital across different sectors and will enable

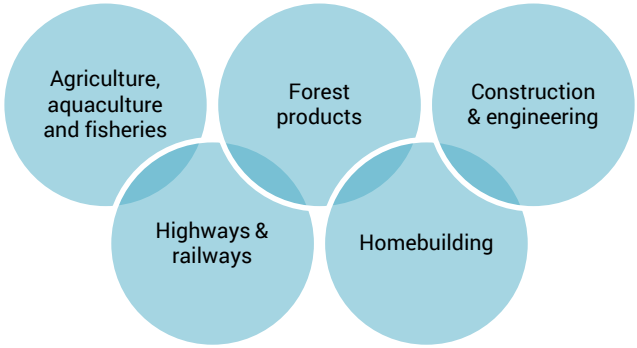
[1] The stock of renewable natural resources that combine to yield a flow of benefits to people (Natural Capital Finance Alliance definition).

CASE STUDY: INDIRECT RISK FROM LENDING TO AN AGRICULTURAL COMPANY

The agricultural sector is highly dependent on a range of ecosystem services, including: water provision, climate regulation, genetic and other materials, hazard protection, healthy soils, pest and disease control and pollination.

75% of global food crops depend on pollination and it is worth up to USD577 billion annually. Half of that value comes from wild pollinators, many of which are in decline as a result of loss of food and nesting resources due to anthropogenic habitat loss. Animal pollination is responsible for 5-8% of global crop production – for crops such as Robusta coffee, yields can increase by 40% as a result of effective pollination. Changes in pollinator populations could therefore substantially impact on the performance of agriculture companies. Data on past, present and potential future land use change, and the spatial distribution of pollinators, can be used to assess risk.

financial institutions to identify the main dependencies for the businesses they invest in or lend to. Information on impacts will be added in 2018.



Top 5 sectors with the highest number of dependencies on natural capital

LINKING BUSINESS RISK AND NATURAL CAPITAL

Identifying which natural capital assets underpin key ecosystem services, and how and why they are changing, can provide valuable information on potential risks to businesses from environmental degradation.

As part of this project, factsheets for each ecosystem service have been produced which describe the importance of each natural capital asset for service provision and the factors that are influencing them (drivers of change such as habitat modification or natural hazards). This enables financial institutions to understand how the businesses in their portfolio may be impacted by changes in natural capital.

DATA TO INFORM RISK MODELS

Global and national-level (for four target countries: Colombia, Indonesia, Peru and South Africa) data inventories on natural capital assets and drivers of change have been compiled. Alongside information on dependencies, these enable financial institutions to perform their own assessment of where environmental degradation poses the greatest risk to their portfolio. Each data source in the inventories is screened against a number of criteria, such as update frequency, to highlight robustness for decision-making.

This stock-taking exercise has highlighted a number of gaps in knowledge and data that require further research before more precise risk analysis can be undertaken.

INTEGRATION WITHIN FINANCIAL RISK ASSESSMENTS

The comprehensive knowledge base produced as part of this project will be used by the Natural Capital Finance Alliance to develop a step-by-step methodology for financial institutions to assess their exposure to natural capital risk, as well as a visualisation tool to make all of the outputs publicly available. This is a key first step in a project that ultimately aims to embed the systematic consideration of natural capital risks and opportunities within models of financial risk.

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