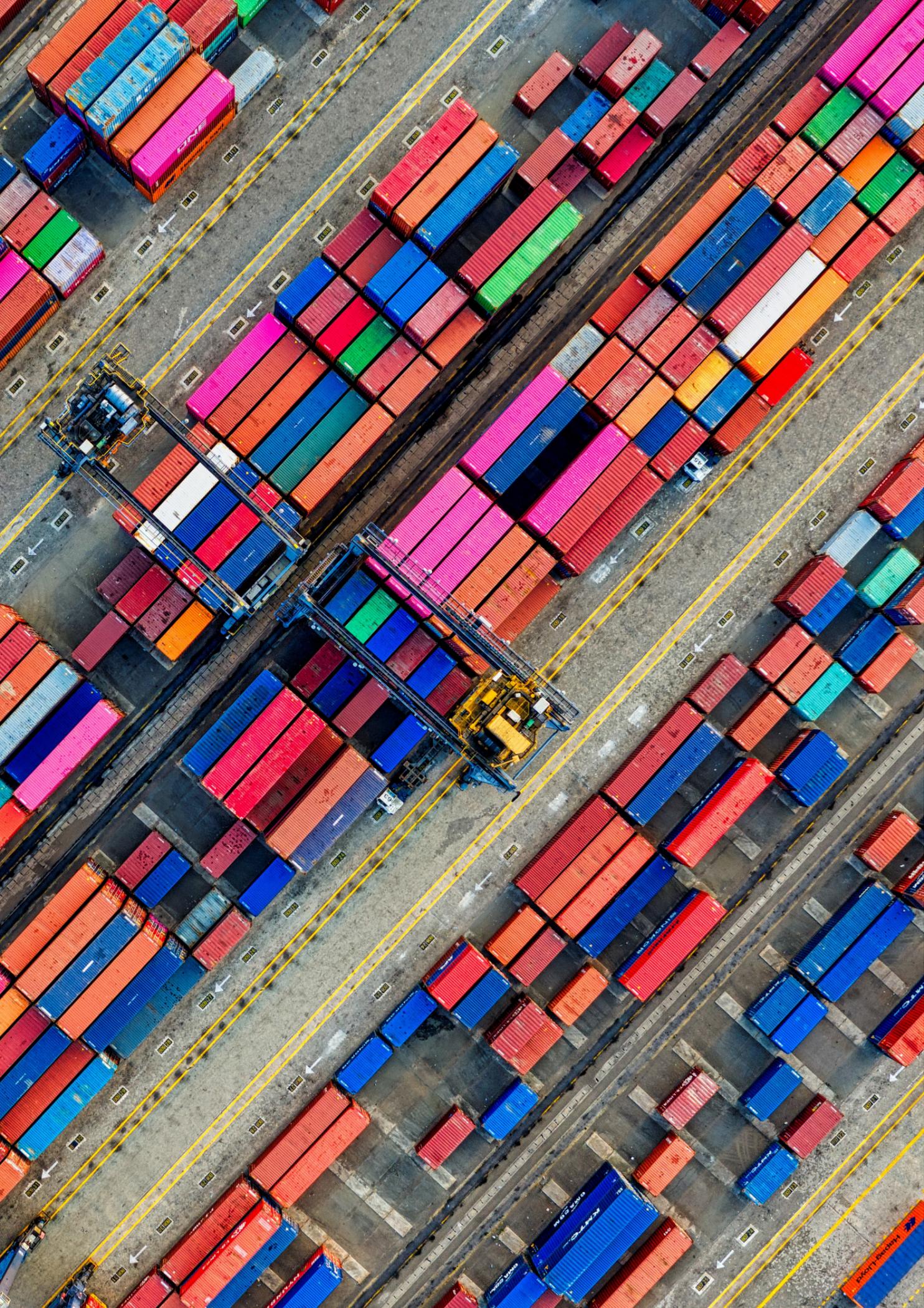




Assessing the nature-related issues of investees' clients as a Colombian investment management consortium





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Name of participating organisations: Grupo SURA piloted the TNFD v0.4 beta recommendations and guidance with technical support from Frontierra - an environmental geospatial consultancy that utilises geospatial data and satellite monitoring to analyze and evaluate nature-related risks - as well Global Canopy who provided additional capacity building and project management support.

Overview

Scope

The case study explores the application of TNFDs LEAP approach for a Colombian investment management consortium, with specific focus on the assessment of nature-related issues associated with investees' key clients. Technical and capacity building support was funded by Norway's International Climate and Forest Initiative's (NICFI) Funding Scheme and therefore the scope of the pilot has a specific focus on deforestation.

- **Geography:** Brazil and Colombia
- **Sector:** Food and Beverage (Agricultural Products) and Renewable Resources & Alternative Energy (Forestry & Paper)
- **Biome:** Tropical and subtropical forests (T1), Intensive Land Use Systems (T7)
- **Impacts and dependencies:** Land-use change

Pilot timeframe

April to October 2023

Business summary

Grupo SURA is an investment management consortium headquartered in Medellin that operates across Latin America with revenues of 7.8 Billion USD across their investment portfolio. With a strong presence across the region, it specialises in insurance, pension management, and asset management services and is listed on the Colombian stock exchange. The group operates through various subsidiaries, including SURA Asset Management, Suramericana (Insurance), and

Bancolombia. Its comprehensive financial services have made it a significant player in the Latin American financial sector.

Key finding(s)

- **Small sample sizes create significant value**
Even if the data is not available or resources are not available to assess all operations and the complete value chain, there is still significant value in undertaking the LEAP approach on a small sub sector as the lessons learned, processes developed, and the measures implemented are typically widely applicable and will benefit the organisation as a whole. For example, in instances where potential exposure to a nature-related risk such as deforestation is identified, the mitigation measures put in place to respond to that risk (e.g. increased due diligence requirements and reporting) can be applied across portfolios and will reduce risk to the organisation as a whole.
- **Bespoke approaches are required for unique relationships**
The process for obtaining the inputs and managing the outputs for the LEAP approach must be tailored to the relationship the organisation has to the entity in their value chain to be assessed. This means that in many cases, a number of different processes and flexibility in approaches will be required for organisations to undertake the assessment and to action the results of the assessment.
- **Location data can often be sourced from publicly available sources**
Whilst complete and fully verified location data can be difficult to locate through public sources, there is often some level of location data publicly accessible, particularly for larger companies. Although there are clear and obvious shortcomings of not having complete and verified location data such as a high level of uncertainty in the results, publicly available information can provide a good starting point for an assessment which then allows and enables engagement and discussion with the entity being assessed.

- **Diverse stakeholders are required for a comprehensive assessment of risks and opportunities**

Within organisations, different personnel and teams all have important responsibilities and roles to play in managing nature-related risks and opportunities, but they are likely to have different views on the materiality of risk or opportunity an issue presents, and the actions required to address that issue. For example, senior leaders, investment managers, legal representatives, ESG teams and communications teams all have responsibilities associated with nature-related risks and opportunities, but they will view them and act differently based on their experiences and expertise. It is critical to ensure a diverse range of stakeholders are included within the risk and opportunity process so that robust and comprehensive assessment is undertaken, and so that the decisions made that will be actionable and acted upon.

- **Existing mechanisms can evolve to address new challenges and opportunities**

Many organisations are likely to already have structures and mechanisms in place that can be built-on to manage their nature-related issues, so completely new work streams or a significant uplift in resources are not always required.

- **Nature-related risks and opportunities have clear alignment with decarbonisation strategies**

Organisations with existing decarbonisation strategies will find alignment between actions associated with nature-related issues and climate-related issues. This means that the actions identified to address nature-related issues can be incorporated into, build on and strengthen, the existing processes developed in order to achieve their climate goals.

About this case study: This case study forms part of a series of six case studies run as part of Global Canopy's TNFD piloting program. The pilots tested the v0.4 beta version of the TNFD recommendations and its accompanying 'LEAP' (Locate, Evaluate, Assess, Prepare) approach.





Business case

The UN FAO states in their 'The state of the world's forests 2020' report that "Agricultural expansion continues to be the main driver of deforestation and forest degradation and the associated loss of forest biodiversity. Large-scale commercial agriculture (primarily cattle ranching and cultivation of soya bean and palm oil) accounted for 40 percent of tropical deforestation between 2000 and 2010, and local subsistence agriculture for another 33 percent."¹ As such, investments within agriculture companies may represent potentially significant deforestation risks if not managed and monitored appropriately. Those financial institutions that have financed, facilitated, investment and insured activities and assets associated with agriculture should consider it as a priority focus in order to assist in understanding their exposure to nature-related issues.

¹ FAO and UNEP (2020) [The State of the World's Forests: Forests, Biodiversity and People](#).

Pilot scope

Process taken to determine pilot scope:

- Workshops were undertaken which involved a screening exercise to identify industries with high exposure to nature-related issues
- Within those identified industries, specific assets to be assessed were selected. Selection based on the unique structure and goals of the Financial Institutions

Within the majority of their subsidiary companies, Grupo SURA has exposure to agricultural companies in the food and beverage sector across the whole of North, Central and South America. This sector was selected in order to align with the funding requirements, associated with technical support, which focused on deforestation – noting the expansion of agriculture is one of the leading causes of deforestation and biodiversity loss globally and therefore, investments within agricultural companies may represent potentially significant deforestation risks if not managed and monitored appropriately.

Grupo SURA, with support from Frontierra, selected two agricultural/food and beverage companies that they were indirectly exposed to via their subsidiary companies. They were able to identify the companies within their value chain through reporting requirements from the subsidiary companies and selected those companies which represented the highest aggregated financial exposure. Due to challenges with accessing detailed location information for each company, the assessment relied primarily on publicly available company information.

The Pilot Projects were executed through a series of five workshops with Grupo SURA which were hosted and led by Frontierra, and which aligned with phases of the LEAP approach:

- **Introduction and Scoping**
- **Locate:** Geospatial data and nature-related risks - Using GIS software and satellite data to understand nature-related issues
- **Evaluate:** Approaching the Evaluate stage and demonstration of supporting tools
- **Assess:** Risks and opportunities
- **Prepare:** Responding, reporting and next steps

Determining sensitive locations

Process used to identify sensitive locations:

1. Business footprint location data for the assessed companies were obtained through open-source data
2. Key-state of nature datasets were obtained through open-source data
3. An analysis was undertaken using GIS software to determine those business footprint locations that interface with ecologically sensitive locations

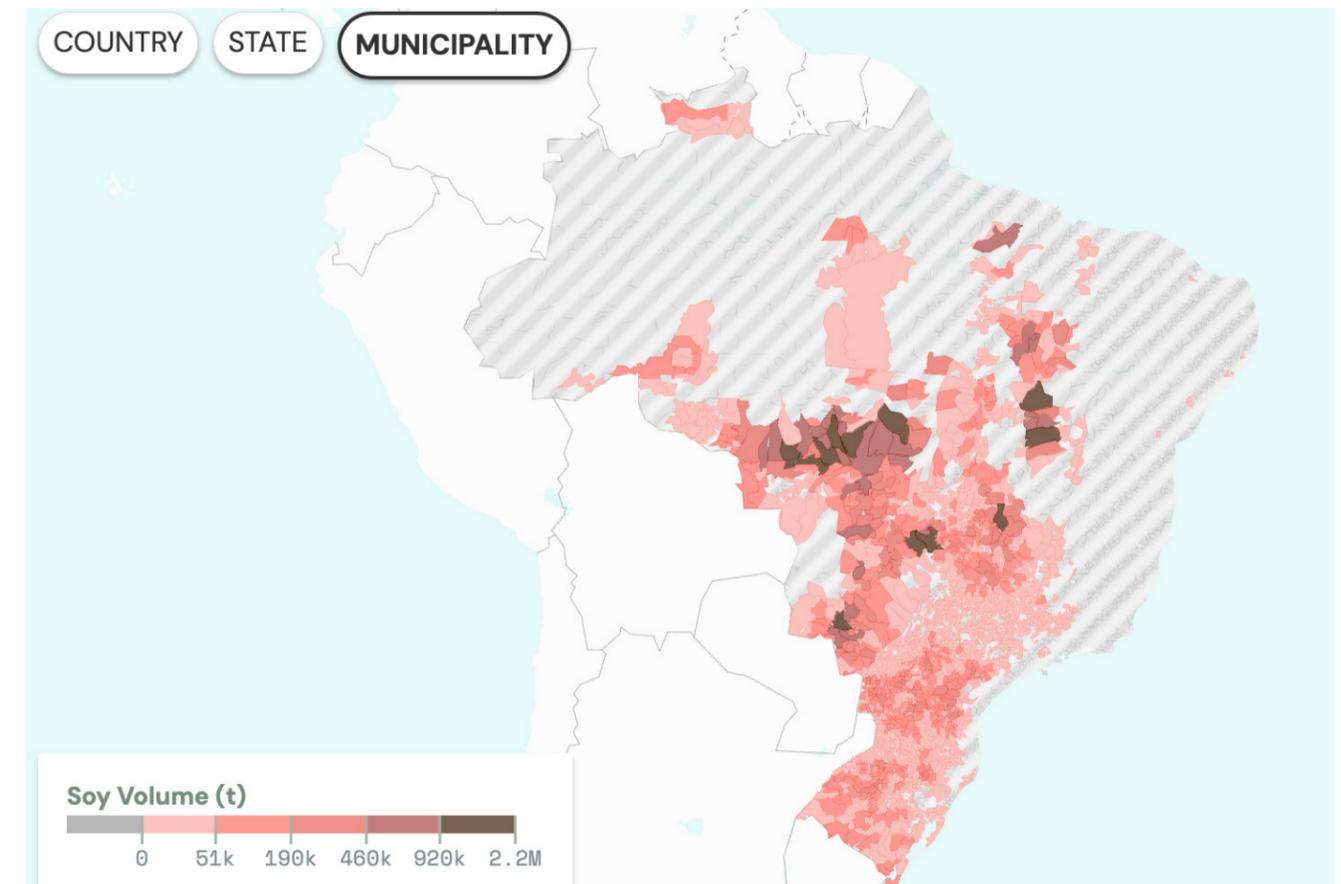
For nature-related issues, location is particularly important in that the same activity can have very different impacts and dependencies based on the surrounding environment and how the activity interfaces with nature. For example, an irrigated agricultural farm located in a water stressed area poses greater nature-related risks in regard to water when compared to a similar farm located in an area where water is abundant.

For the assessment of sensitive locations in line with the TNFDs LEAP Locate phase, no information was readily accessible internally and therefore Frontierra undertook research of publicly available information to identify the business footprint. For one of the Assessed Companies, the locations of the business footprint was publicly available on their website – the accuracy of this data was later verified through information subsequently provided by Grupo SURA which they requested from the subsidiary. The subsidiary provided information aligned well with the publicly available information and therefore it was assumed with relatively

good confidence that the information accurately reflected the company's business footprint.

For the second company Grupo SURA and Frontierra utilised the [TRASE](#) platform, a tool which focuses on agricultural products and the food and beverage sector and “systematically links individual supply chain actors to specific, subnational production regions, and the sustainability risks and investment opportunities associated with those regions”. The exact location and boundaries of their sourcing locations were not available but the municipalities from which the agricultural company sourced from were available (Figure 1) and therefore, these were used as proxy business footprint for the purposes of the assessment. It is important to note that the data available for the sourcing locations were limited to one specific crop type and only those in Latin America despite the assessed company sourcing multiple crop types globally. Further, it is important to note that the accessibility of location and production volume data is not publicly available for all companies.

Figure 1: Illustrative example of sourcing locations identified by municipality extracted from the Trase Platform (This does not represent the sourcing locations of the assessed companies in this pilot)



Whilst location data was able to be obtained for the assessed companies, it was not known what percentage of their business footprint the data represented or the specific activities undertaken at each site. Without knowing the percentage of the business footprint the locations represent, it is not possible to understand if the assessment is covering the majority of their operations, a small randomly selected portion or a specific selection of their operations (e.g. potentially a selection of low risk assets). As such, the level of materiality of the impacts, dependencies and risk cannot be properly understood in the context of their wider operations. Further, in instances where proxy business footprints are used, the level of robustness and confidence in the results of the assessment is reduced in comparison.

Using GIS software, Frontierra undertook an intersectional analysis (Figure 2) to compare each of the business footprint locations for the assessed companies with the location of a range of key nature-related datasets to determine if any intersected ecologically sensitive locations.

Figure 2: Example of an intersectional analysis undertaken through GIS in which an agricultural business footprint (blue polygons) is overlaid with key state of nature datasets to determine if they interface with sensitive locations. In the example, some of the business footprint is inside and intersecting with national parks (shown in green) and indigenous areas (shown in orange). (NOTE: this is a randomised sample and does not represent the Assessed Companies)



The key state of nature datasets which were used in the assessment were selected:

- based on their relevance to the industry and its potential impacts and dependencies (i.e. those associated specifically with agricultural operations were used)
- as they are considered the most up-to-date, accurate and refined for the countries and regions analysed.

All datasets are open-source with key datasets described in Table 1.

Table 1: Examples of the datasets used to determine key aspects of the nature interface at each location

Dataset	Description
Biome	Global-scale zones, generally defined by the type of plant life that they support in response to average rainfall and temperature patterns e.g., tundra, coral reefs or savannas.
Biodiversity Hotspots	Identified as being key zones of biodiversity in need of protection. Used to identify areas of high biodiversity importance.
Protected Areas	Protection status indicates a higher level of intact biodiversity, a potential for the impacts of business operations on intact ecosystems and typically higher levels of regulation. Government produced data was utilised in this project.
Indigenous Areas	The identification of Indigenous Areas within a sourcing zone indicates a strong correlation with intact biodiversity. 80% of the world's biodiversity is located in Indigenous Peoples' lands. Indigenous Peoples often play a vital role in safeguarding nature and are highly dependent on nature for their livelihoods. Government produced data was used in this project.
Deforestation Exposure	Deforestation exposure derived from production volume and deforestation rates within each sourcing region (administrative area). Used to identify significant impacts at each business footprint. Trase Supply Chain Explorer: https://explore.trase.earth A partnership between the Stockholm Environment Institute, Global Canopy and Neural Alpha.
Deforestation	Analysis of deforestation within the previous five years according to tree cover loss data produced by Global Forest Watch. Additional verification of data was undertaken using Norway's International Climate and Forests Initiative Satellite Data Program with imagery by Planet.
Water Risk	Indicates the level of water stress in a region due to water use and availability. Globally produced data from the World Resources Institute was used in this project.
Biodiversity Intactness Metric	The Biodiversity Intactness Index produced by Vizzuality was used to evaluate ecosystem integrity. The index indicates the change in ecological communities in response to human pressures. Higher values indicate a higher probability of varied species and pristine ecosystems free from human influence. Used to identify high integrity ecosystems.

The intersectional analysis highlighted that business footprint areas intersected with at least one or more of the key datasets listed. Locations were then prioritized based on TNFD sensitive locations criteria:

- Any location that intersects with a biodiversity hotspot, protected area or indigenous area (i.e. high integrity ecosystems and areas of high biodiversity importance)
- Any location that intersects with recently deforested land (i.e. areas of rapid decline in integrity)
- Any location that intersects with areas of water stress
- Any location that is likely to have significant potential dependencies and/or impacts on nature should be considered a priority location

The process highlighted that a large number of locations could be considered a priority based on the criteria above. Whilst this was important to acknowledge, it did not provide a practical method for prioritising locations for further assessment and management. As such, Frontierra applied the following additional criteria to determine a practical subset of locations that are considered comparatively higher impact and should be prioritised for further activities:

- Each dataset was assigned an impact value (e.g. locations with extreme water stress were assigned a value of 5, whilst locations with negligible water stress were assigned a value of 0). These impact values were combined to provide an Overall Biodiversity Impact Rating (“OBIR”). Any location that scored an overall risk rating above 70 was considered a priority location for this assessment.
- Any sourcing location that was found to have deforestation within the previous five years, or the highest deforestation exposure (for sourcing regions) was automatically considered a priority location given the scope of the pilot project and the specific interest in deforestation.

This utilisation of GIS, TRASE, open-source data for key state of nature datasets, and OBIR scoring led to the identification of priority locations that were then taken forward for further analysis.



Evaluating nature-related impacts and dependencies

Process used to evaluate nature-related impacts and dependencies:

1. Activities and processes at business footprint locations determined
2. Environmental assets, ecosystem services, dependencies and impacts determined through expert knowledge and variety of tools including [ENCORE](#) and [SBTN Materiality Matrix](#)
3. Dependency analysis undertaken based on size of location and production output
4. Impact analysis undertaken based on nature interface and sensitivity of baseline conditions at business footprint locations

In order to determine the dependencies and impacts of each assessed company, the processes and activities were identified for the business footprint locations assessed. Those activities are predominately with agricultural, agroforestry and forestry activities, the associated processes primarily consist of:

- Ground preparation (e.g. land clearing, tilling)
- Seed treatment and planting
- Fertiliser application
- Weed, pest and disease control
- General maintenance of crops and plantations (e.g. pruning)
- Irrigation
- Harvesting.

Understanding the processes and activities then allowed for the material environmental assets (e.g. land, water, minerals, materials) and ecosystem services (e.g. pollination, water purification, biological controls) to be determined. Regarding the assessed companies, the key environmental assets and ecosystem services are identified using expert knowledge and informed by ENCORE and SBTN Materiality Matrix. Impacts considered potentially material for the assessed companies are summarised in Table 2 below.

Table 2: Potential environmental impacts that could be relevant for the assessed companies

Environmental impacts	Description
Terrestrial ecosystem damage and/or destruction	Terrestrial ecosystems are cleared and deforested in order to provide land required for farming and farming infrastructure such as access to the farm. This removes the biodiversity in the area through habitat destruction.
Water use depletion	Water required for irrigation depletes the availability of water resources for natural ecosystems and biodiversity.
Freshwater ecosystem damage and/or destruction	Erosion, sedimentation and water pollutants from farms and forest stands can cause significant impacts on surrounding freshwater ecosystems such as algal blooms.
Soil pollution	Pesticides and fertilisers leach into soils which can impact biodiversity health through killing insects and microbes required for healthy ecosystems.
Water pollution	Pesticides and fertilisers leach into surrounding water bodies such as streams, rivers, lakes and groundwater which can impact biodiversity health.
Climate change	Indirect impact caused by land clearing and use of heavy machinery. Land clearing and deforestation adds GHG emissions to the atmosphere as the vegetation decomposes and also reduces the environment's ability to sequester carbon leading to human induced climate change.

Detailed information and data regarding dependencies was out of scope for the pilot project due to the preliminary nature of the assessment. As such, a proxy approach was adopted utilising:

- the area (i.e. hectares) of the locations as an indicator of the comparative size of the nature-related dependencies for those assessed companies' where the area was known
- the volume of product (i.e. metric ton) sourced from each location for the assessed companies' where available – this information was extracted from the Trase platform for one of the assessed companies (Table 3).

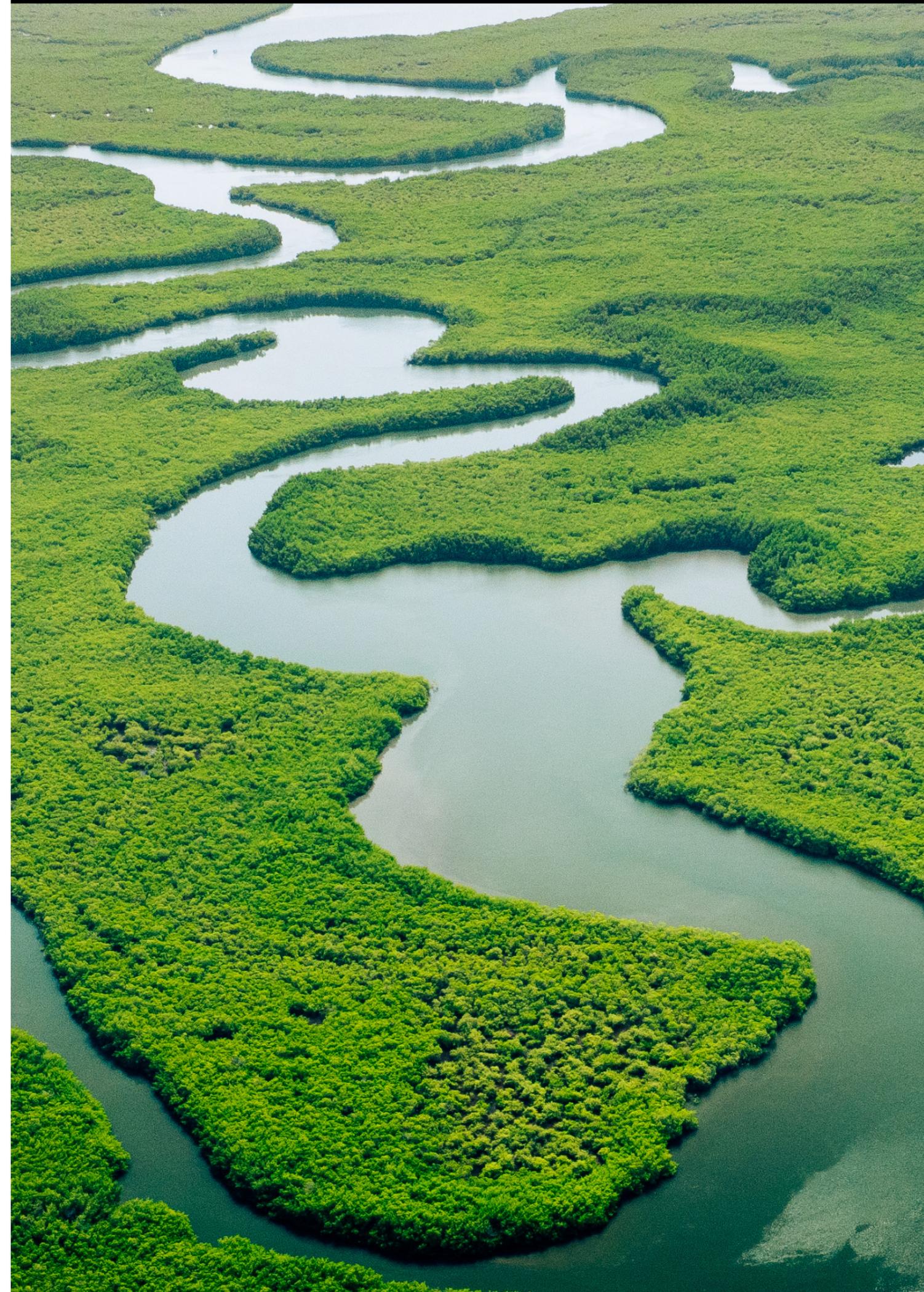
Table 3: Example categorisation of dependency based on volume of product sourced

Dependency	Definition
Very high	Volume above 30,000 t
High	Volume between 9,000 and 30,000 t
Medium	Volume between 3,000 and 9,000 t
Low	Volume between 600 and 3,000 t
Very low	Volume between 0 and 600 t

This approach was used on the basis that a larger farm or a farm with volume of production would likely have a greater reliance on environmental assets (e.g. land and water) and ecosystem services than a smaller farm. Whilst it is acknowledged that this is not always the case (particularly when comparing agroforestry farms to monoculture crops of soy), this method was used as a simple proxy to allow for further prioritisation of sensitive locations.

When considering impacts, each of the environmental impacts described in Table 2 have the potential to occur at each location. However, some locations are more sensitive and vulnerable to impacts due to the state of the surrounding environment and baseline conditions. For example, protected areas and critical locations of habitat for endangered or endemic species are considered more susceptible to impacts than an agriculture or industrial area that has already been significantly disturbed and are unlikely to host valuable biodiversity. Further, environmental impacts such as water use depletion are more of a concern in areas where there is limited water supply.

As such, in order to undertake an impact analysis, the nature interfaces (e.g. Protected Areas, Deforestation, etc) determined when considering sensitive locations, were used to indicate the vulnerability of each location to impact and consequently the relative size of the likely impact. This was done by calculating 'Impact Rating' scores by assigning a value (e.g. locations with extreme water stress were assigned a value of 5, whilst locations with negligible water stress were assigned a value of 0). These impact values were combined to provide an overall rating for potential impacts. The Impact Rating enables prioritisation of the locations that require actions in response to their potential nature-related impact or further assessment.



Assessing material nature-related risks and opportunities

Process undertaken to assess material nature-related risks and opportunities:

1. Development of a longlist of the nature-related risks and opportunities based on findings of Locate and Evaluate testing
2. Collaborative workshop to review risks and opportunities, identify existing management and mitigation measures, identify areas for strengthening of existing measures, assess the materiality of the risks and opportunities identified

Nature-related risks and opportunities are important to consider due to the possible financial implications through changes to revenue streams, cost base and potentially cost of capital (e.g. re-ratings of its credit risk or insurance premiums). Additionally, it is critical for businesses to also consider the possible nature-related implications their operations pose to nature.

For the purposes of determining nature-related risks and opportunities associated with the assessed companies in this pilot, Grupo SURA and Frontierra adopted an approach which aligns closely with the 'Asset tagging' method identified in the TNFD LEAP guidance, which considered risks and opportunities related to the regions in which the assets were located. The level of granularity differed slightly depending on the level of geolocation information available for each assessed company.

A longlist of nature-related risks and opportunities was developed by

Frontierra, in collaboration with Grupo SURA, and was informed by the findings of the Locate and Evaluate testing. The risks and opportunities (Table 4) identified took into account aspects such as the specific location, the type of activities undertaken at those locations, the interface with nature (e.g. protected areas, water risk, exposure to deforestation), the relationship between the Financial Institutions and the assessed companies.

Table 4: Illustrative example of the identification of nature-related risk

Opportunity	Company	Description	Nature-related implication	Financial implication
O1	Company 1	Operating in areas of degraded biodiversity, therefore potential to implement actions to significantly improve biodiversity	<ul style="list-style-type: none"> • Nature enhancement and increase in natural protection • Increase in species numbers • Ecosystem improvements 	<ul style="list-style-type: none"> • Access to new markets (e.g. carbon market) • Increased sales because of reputational benefits

Through this process and collaborative discussions with wider internal teams at Grupo SURA, an initial assessment of the materiality of each risk and opportunity was determined taking into account the diverse perspectives. Grupo SURA also undertook a mapping exercise that identified a multitude of existing strategies and processes in place to manage and monitor nature-related risks and opportunities. These included processes and policies that apply across all operations and investments within the organisations (e.g. ESG Policies), and those that apply to specific components of operations. The initial assessment of the materiality of the risk and opportunity can be further developed through engagement with the other stakeholders and senior management. It should be noted that, due to scope of the pilot and focus on company level assessments it was not possible to determine whether Grupo SURA or its subsidiaries actually had any nature-related issues that could be deemed material as a result of the pilot.

Grupo SURA then discussed specific actions for each risk and opportunity which had been identified in the assessment, and discussed the resources, strategies and mechanisms required to implement the identified actions.

Preparing for disclosure and next steps

Process undertaken to prepare to respond and report:

1. Collaborative workshop to determine to respond to and report on the findings of the Locate, Evaluate and Assess
2. Actions identified which will be embedded into existing management structures and reporting processes

Having completed the Locate, Evaluate and Assess phases of the LEAP approach, Grupo SURA reviewed and considered the actions and disclosures required in response to the findings. Specific actions for each risk and opportunity had been identified in the Assess phase, and therefore this phase focused on identifying the resources, strategies and mechanisms required at the organisational level to implement the identified actions, monitor implementation and disclose in line with the TNFD recommendations.

Grupo SURA recognised the need to engage with the assessed companies to discuss the outcomes, either directly or via the subsidiary entities. They determined that it was necessary to review current due diligence processes in the subsidiary, in order to identify if nature related risks are being considered. Additionally, it was recognised that increased awareness and training was required across the business, along with more tools and software. It was also determined that there are existing mechanisms and structures within the business that could be utilised and leveraged to manage the additional nature-related actions identified. For example, Grupo SURA has a Sustainability Committee which oversees environment and climate-related issues and would be able to provide oversight of the implementation of the nature-related actions identified.

In regard to reporting, Grupo SURA has a defined structure in which they report and disclose material issues to stakeholders which consists of a variety of internal mechanisms of communication (e.g. updates to investors) and also public disclosure. As part of this, Grupo SURA discloses nature-related issues through their Annual Report and will use this same approach for disclosing in line with the TNFD recommendations.

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