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AGROBIODIVERSITY INDEX

The challenge: Today's food systems are failing on both the consumption and production sides:

- Malnutrition affects one in three people on the planet.
- Production of fruit and vegetables provides only 78% of the world population's nutritional needs and we rely on just three crops species to provide more than 50% of the world's calories derived from plants.
- Planetary boundaries are being pushed beyond safe limits – agriculture contributes around 24% of the world's greenhouse gas emissions and is the single largest user of fresh water on the planet. It is also the largest single contributor to biodiversity loss.
- Agricultural supply chains and agribusiness are encountering serious operational risks from climate change and are facing reputational risks from resource-intensive production and low nutrition production lines.
- Simplification of farming and food systems leaves producers with fewer options for dealing with risks of crop failure due to pests and diseases, declining soil fertility, and increasingly variable weather.

Agricultural biodiversity (agrobiodiversity) "includes the variety and variability of animals, plants and micro-organisms that are used directly or indirectly for food and agriculture, including crops, livestock, forestry and fisheries." (FAO, 2005)

The solution: Increase agrobiodiversity in supply chains and land management to transform food and agriculture systems.

Agrobiodiversity – the diversity of crops and their wild relatives, trees, livestock, fish, pollinators, soil bacteria and landscapes – is a key component of the sustainable food systems needed to meet current and future food and nutrition needs. Agrobiodiversity can boost productivity and nutritional quality and in ways that improve resilience, soil health and water quality, while reducing water and input needs and greenhouse gas emissions.

Agrobiodiversity is critical to the attainment of nine **Sustainable Development Goals**: zero hunger, healthy lives and wellbeing for all, sustainable consumption and production patterns, combatting climate change and halting biodiversity loss.

Agrobiodiversity is vital to meeting the **United Nations Convention on Biological Diversity's Biodiversity Targets** which promote the sustainable management of agriculture for biodiversity conservation and the conservation of genetic diversity of cultivated plants, farmed and domesticated animals, and crop wild relatives. It is equally relevant to the Framework Convention on Climate Change, the Convention to Combat Desertification and the Convention on World Cultural and Natural Heritage.

Agrobiodiversity is the basis for a transformed food system. Without agrobiodiversity a food system cannot be sustainable.

What is the Agrobiodiversity Index?

The Agrobiodiversity Index is a consistent, long-term monitoring tool to measure and manage agrobiodiversity across three dimensions: diets, production and genetic resources.

The Agrobiodiversity Index will guide governments, investors and companies to make decisions and investments that ensure our food systems are more diverse and sustainable.

The Agrobiodiversity Index will measure and guide investments in food system diversity and sustainability.

Currently, there is no way for governments, private sector and other decision-makers to assess agrobiodiversity across food systems, or track change, in both food production and consumption. There is also no way to measure how agrobiodiversity contributes to meeting multiple interconnected global targets.

To manage agrobiodiversity, we need to measure it

How will the Agrobiodiversity Index work?

- It will be used for geographic area and country level measurement and tracking for governments and their public good development partner investors. The results could be relevant for design of investment criteria and government-issued green bonds.
- For inputs into the design, appraisal, monitoring and impact review of projects and to identify priority interventions and structure development bank and corporate bonds.
- Rating of food and agriculture companies' policies and actions to inform investor decisions and provide criteria for listed equities and fixed income funds.
- A dashboard will allow comparison across countries and companies with a live feed on actions taken to integrate use of agrobiodiversity, and highlighting and learning of good practices and policies.

The Agrobiodiversity Index is comprised of a simple set of measures to:

- Apply across three inter-connected dimensions of diets, production and genetic resources.
- Use in different locations by different actors to provide insights into agrobiodiversity trends.
- Provide key data for allocation of financial resources.
- Measure progress towards relevant targets in the Sustainable Development Goals and relevant United Nations Conventions.

Bioversity International is developing the Agrobiodiversity Index for public and private investors and practitioners to optimize the capacity of agrobiodiversity to improve food and nutrition security, human health and environmentally-friendly farming systems, now and in the future.

The Agrobiodiversity Index is critical for decision-makers to measure and manage actions towards developing sustainable food systems:

Companies implementing sustainable business practices that increase long-term shareholder value both by reducing risks in the supply chain and enhancing attractiveness to consumers.

Governments pursuing sustainable development by investing in progressive food, agriculture and conservation actions and monitoring country progress towards global goals.

Investors in Green Bonds contributing capital to sustainable environmental and climate-focused development projects.

Farmers, consumer groups and local organizations wanting evidence to inform their decisions about sustainable practices and purchases.



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