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RWANDA GREEN TAXONOMY

EXECUTIVE SUMMARY

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1 - Background

Rwanda has set a green growth agenda for development that requires an estimated USD 11 billion to achieve its 2030 Climate Action Plan goals, known as National Determined Contributions (NDCs) under the Paris Agreement. Attracting this level of investment, from both the public and private sectors, requires a clear definition of “sustainable”.

A taxonomy, in the context of sustainable finance, is an essential domestic framework and classification system that enables the identification and classification of sustainable economic activities. Taxonomies are used globally to create a uniform standard for sustainability in the financial sector and to establish transparency and comparability of sustainable investments. This helps prevent greenwashing and channels capital into sustainable economic activities. It also creates a direct link between the economy and the financial market on the one hand and climate effects on the other, which can help a country attract money

from climate-conscious international investors, achieve its NDC goals, and adapt its economy to the inevitable impacts of climate change.

The development of Rwanda Green Taxonomy is a crucial step in laying a solid foundation for the country's green transformation, developing new industries, and becoming the financial hub of East Africa. It is the second taxonomy in Africa (after South Africa) and the first in Africa to include the agricultural sector. It is also an innovative framework for the inclusion of activities that contribute to climate change adaptation and resilience.

Rwanda Green Taxonomy is a framework that aims to define sustainability criteria, foster shared understanding and trust on what constitutes a green investment, and prevent greenwashing. The taxonomy abides by internationally recognized core principles, and has defined the following climate and environmental objectives based on the highest relevance to Rwanda:

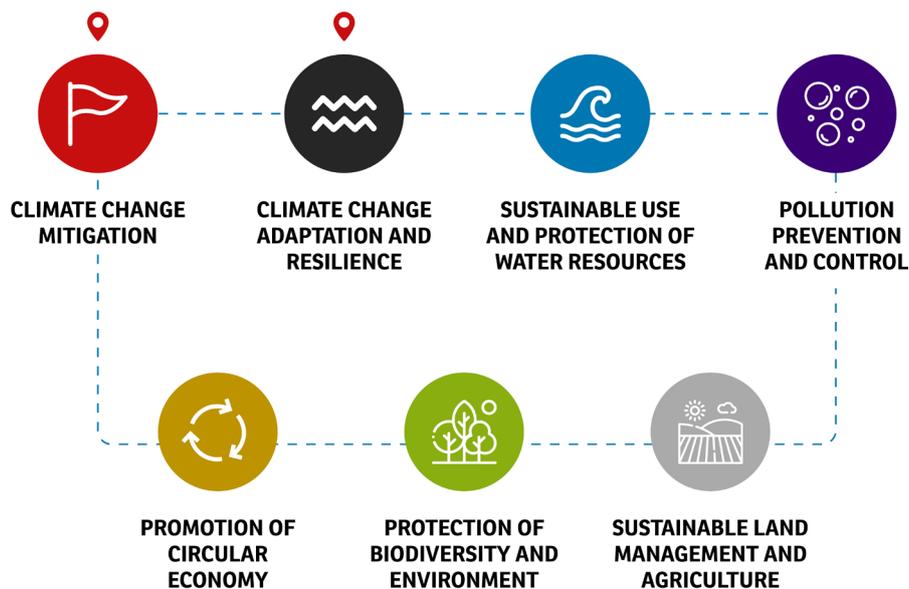


Figure 1. Objectives of Rwanda Green Taxonomy ¹

1.1. Rationale for the development of Rwanda Green taxonomy

A robust Green taxonomy has significant advantages for different groups in Rwanda, including investors, issuers of green bonds, regulators, policymakers, bankers, and society.

- **Policymakers** can use the taxonomy to modulate their policy, using government or central bank-led support measures to support certain private market players and demonstrate their commitment to decarbonization to international partners.
- **Regulators** can also benefit from the taxonomy. It helps ensure compliance with environmental regulations and serves as a foundation for measuring progress towards sustainability goals.
- For **banks and financial institutions**, the taxonomy allows for faster identification of sustainability-aligned investments, which

reduces transaction costs. The taxonomy further allows financial companies to restructure their product offering and appeal to sustainability-conscious investors.

- **Investors** benefit from the taxonomy by receiving transparent and standardized information about their investments. This reduces information disparities and enables better decision-making. Additionally, the taxonomy helps to mitigate the risks associated with climate change and promotes sustainable long-term investments.
- For **issuers of green bonds**, the taxonomy provides credibility and legitimacy. This makes it easier for them to attract green investments and gain investors' trust.
- **Society** benefits from the taxonomy as it supports the transition towards a low-carbon, sustainable and more resilient economy. This fosters green economic growth, job creation and reduces environmental impact.

¹ As of Phase II of Rwanda Green Taxonomy development, two objectives – climate change mitigation and adaptation and resilience are addressed regarding substantial contribution. Sectors and activities that substantially contribute to climate change mitigation are noted in Annex I, whereas sectors and activities that contribute to climate change adaptation are indicated in Annex II. Given the nature of the land use sectors (agriculture, livestock, and forestry), a practice-based approach was developed that considers substantial contributions to several environmental objectives in a cross-cutting manner. The respective practices are noted in Annex III. Other sectors and activities contributing to the rest of the objectives shall be incorporated in further updates to the taxonomy.

1.2. Development Process and Governance Structure

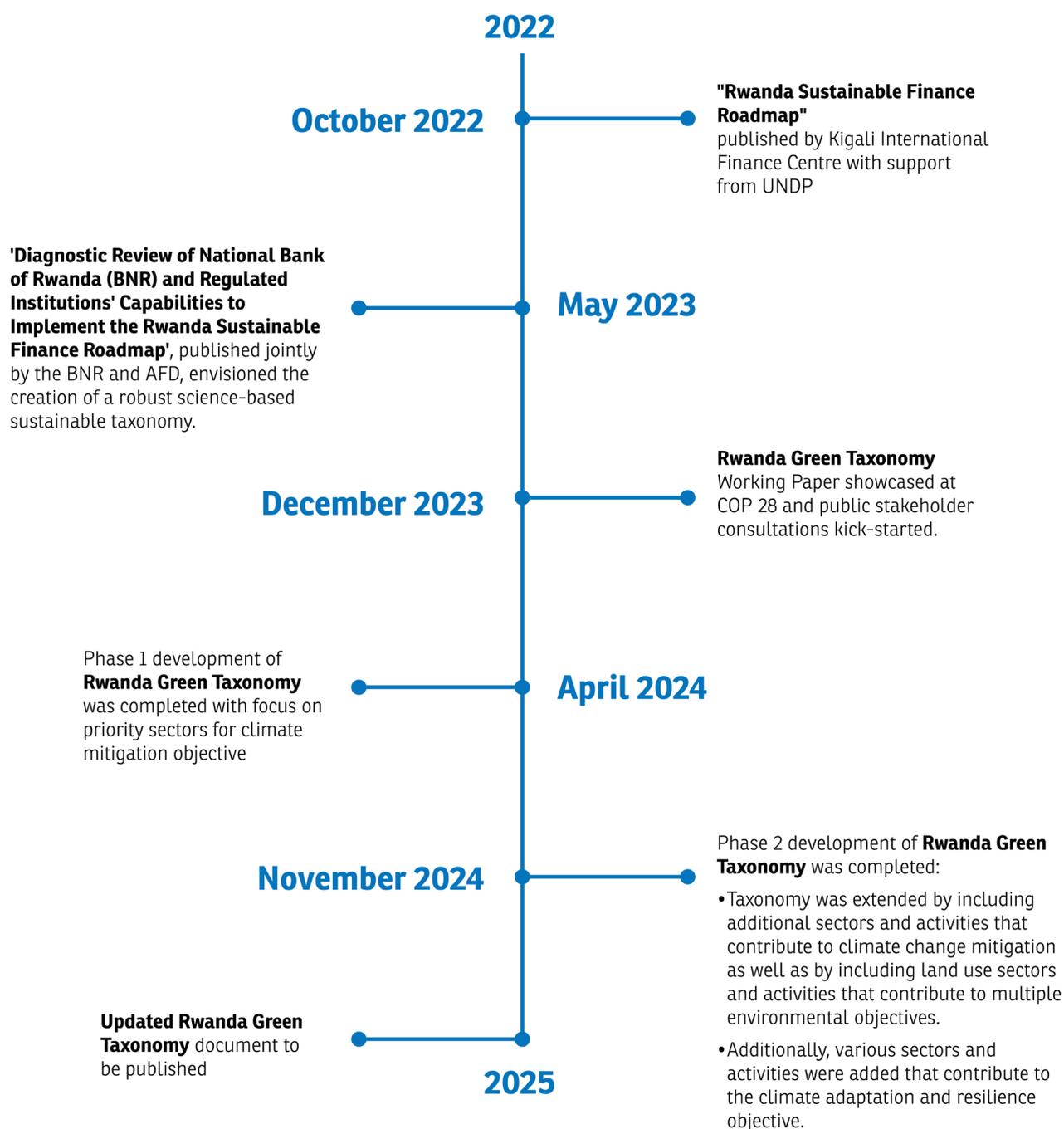


Figure 2. Development process of Rwanda Green Taxonomy

The need for the taxonomy to meet Rwanda's development objectives was first identified in the Rwanda Sustainable Finance Roadmap published in October 2022 for Rwanda's financial centre (the Kigali International Finance Centre) with support from UNDP. The roadmap² highlighted that the taxonomy document must be 'suitable to the local context and interoperable with major international frameworks'. The paper 'Diagnostic Review of National Bank of Rwanda (BNR) and Regulated Institutions' Capabilities to Implement the Rwanda Sustainable Finance Roadmap', prepared and published in May 2023 jointly by the BNR and the French Development Agency (AFD), followed suit, envisioning the creation of a robust science-based sustainable taxonomy.

The taxonomy development process was co-chaired by the Ministry of Finance and Economic Planning (MINECOFIN) and the Ministry of Environment (MoE), facilitated and coordinated by Rwanda Finance Limited (RFL). The process involved collaboration with regulators and other public sector entities such as the BNR, Rwanda Environment Management Authority (REMA), Rwanda Development Board (RDB), Capital Market Authority (CMA), Rwanda Stock Exchange (RSE), Development Bank of Rwanda (BRD), Rwanda Green Fund (FONERWA), Institute of Certified Public Accountants of Rwanda (ICPAR) and Private Sector Federation (PSF).

A preliminary governance framework was established (refer to Figure 3), comprising a taxonomy Steering Committee of the institutions mentioned above, a taxonomy Working Group, Technical Expert Groups, and Industry Working Groups. Private sector entities were primarily involved through in the Industry Working Groups. In the long run, it is recommended to agree on a governance structure for the implementation of the Rwandan Green taxonomy and to determine where the institutional home of the taxonomy will be.

² <https://kifc.rw/wp-content/uploads/2023/01/KIFCSustainableFinanceRoadmap.pdf>

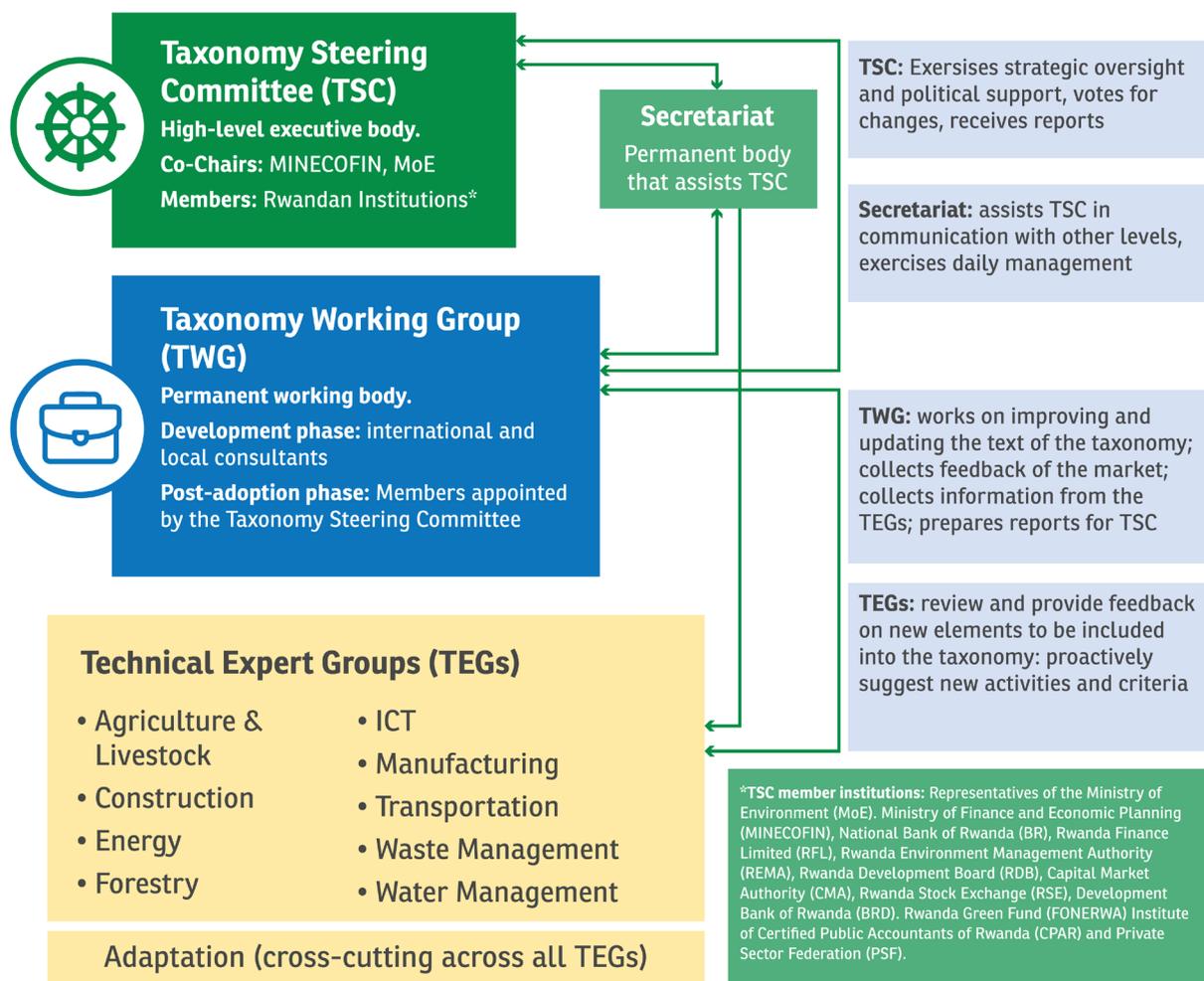


Figure 3. Governance of Rwanda Green Taxonomy

The development of Rwanda Green Taxonomy is supported by the German development agency Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and co-financed by the European Union. A consortium of the Climate Bonds Initiative (CBI) and Ambire Global was commissioned to provide technical assistance for the project, building on their extensive experience in developing national and international taxonomies.



2 - Development Approach and Methodology

Like other national taxonomies, Rwanda Green Taxonomy was developed in phases, with the first phase completed in April 2024 and the second phase in November 2024. Currently, Phase II includes

activities and criteria across various economic sectors relevant to Rwanda, primarily contributing to the environmental objectives of climate change mitigation and adaptation. Additionally, the activities in the land-use sectors of Agriculture & livestock and Forestry are heterogeneous in terms of their impact and contribute to multiple objectives of the taxonomy.

Substantial contribution to climate change mitigation	Substantial contribution to climate change adaptation and resilience	Substantial contribution to various taxonomy objectives
<ol style="list-style-type: none"> 1. Energy 2. Transport 3. Construction 4. Manufacturing 5. ICT 6. Waste management and remediation 7. Water supply and sanitation 	<ol style="list-style-type: none"> 1. Energy 2. Transport 3. Construction 4. Water Management 5. Environmental protection and restoration 6. Community services 7. Agriculture and livestock 	<ol style="list-style-type: none"> 1. Agriculture and livestock 2. Forestry
Do-no-significant harm to other objectives + Minimum Social Safeguards		

Figure 4. Rwanda Green Taxonomy coverage of economic sectors and objectives

Phase I of taxonomy development took place from June 2023 – April 2024 and aimed to clarify the economic activities needed to achieve **climate change mitigation** in three sectors: **energy, transport and construction**.

Climate change mitigation was selected as a key objective within the first phase of development for three reasons:

- Mitigation is the primary and most elaborated objective within most accepted taxonomies, which will ensure interoperability of the Rwandan and international taxonomies.
- International climate-aware investors are looking for ways to best invest in activities that will stop global warming, so a focus on mitigation has the potential to facilitate the flow of foreign capital.
- The activities included in Rwanda Green Taxonomy under mitigation objective (e. g., solar generation, hydrogen production, electric transportation etc.) are also the most likely to contribute to economic development while reducing emissions.

Furthermore, **Rwanda Green Taxonomy** also provided a **more specific approach** for the **agriculture and livestock sectors** in the first phase, delivering a list of basic, intermediate and advanced **sustainable practices** that contribute to various environmental and climate objectives, including **climate change adaptation, water, and biodiversity protection, among others**.

The Phase II of taxonomy development took place between April 2024 and November 2024. Considering the comments received from different stakeholders during the consultation process of

Phase I, Rwanda Green Taxonomy was expanded to include additional sectors (Manufacturing, Waste, Water, ICT, Forestry) that substantially contribute to climate change mitigation and to evaluate and include additional economic activities for sectors already included in Phase I (Agriculture & Livestock, Energy, Transport, Construction) and develop corresponding technical criteria.

Given Rwanda's vulnerability to the consequences of climate change as described by Rwanda's Third National Communication on Climate Change³, Phase II also focused more firmly on including **climate change adaptation and resilience sectors and activities**. As such, Rwanda Green Taxonomy was updated to include the following sectors that significantly contribute to climate change adaptation and resilience: **Energy, Transport, Construction, Water Management, Environmental protection and restoration, Community services, Agriculture and livestock**.

2.1. Alignment with Rwanda Green Taxonomy

In order for an activity, measure or practice to be aligned with the taxonomy, the following criteria need to be adhered to:

Point 1: It must be listed in the taxonomy;

Point 2: It must significantly contribute to at least one of the taxonomy's environmental objectives⁴;

Point 3: It must comply with the Do No Significant Harm (DNSH) requirements (generic and specific ones where applicable);

Point 4: It must adhere to Minimum Social Safeguards (MSS).

³ https://rema.gov.rw/fileadmin/templates/Documents/rema_doc/TNC/The%20Third%20National%20Communication%20Report%20on%20Climate%20Change,%20Sept%202018.pdf

⁴ To comply with the taxonomy, the entity within which the evaluated activity sits must first comply with all laws, regulations and requirements established by the law of Rwanda.

There are three distinct approaches to assess the substantial contribution criteria (point 2) as outlined below.

Substantial contribution to climate change mitigation

To meet the criteria for activities in the construction, transport, manufacturing, ICT, water, waste and energy sectors, the owner of an activity must demonstrate that they fulfill the substantial contribution criteria for that activity.

Substantial contribution to climate change adaption and resilience

In Rwanda Green Taxonomy Adaptation framework, the taxonomy user must first identify the hazards facing the activity or facility and the list of activities and measures most appropriate to address the identified hazards. Regarding substantial contribution, each adaptation activity or measure has defined criteria to be adhered to. These can either be quantitative/qualitative criteria, process-based criteria or a whitelist of investments that substantially contribute across a broad range of contexts with no risk of maladaptation.

Substantial contribution to various taxonomy objectives for land use sectors

It is to be noted that the methodology for substantial contribution within the land use sectors of Agriculture & livestock and Forestry, is different compared to other sectors, as the practices' impact is considered heterogeneous and may contribute to multiple environmental objectives of the taxonomy. In this approach, compliance with

national laws and regulations regarding land use must also be demonstrated, including the coverage of Do Not Do Significant Harm requirements through implementing an Integrated Environmental Management Plan or Integrated Forestry Management Plan, as appropriate. Also, the alignment of the activity to be financed with any sustainable practices set out in the taxonomy (basic, intermediate and advanced practices) must be demonstrated.

As mentioned above and to be considered taxonomy-aligned, further criteria need to be abided by: Under the DNSH criteria (Point 3), an activity that substantially contributes to one of the taxonomy's environmental objectives must not harm any other objective (e.g. a solar power plant may not be situated in or near biodiversity-sensitive areas). Each activity must review compliance with the generic and specific DNSH requirements that apply to the activity to ensure no adverse effects occur because of the activity execution.

Additionally, MSS requirements are intended to confirm that the activity's owner fulfils the main international and national conventions regarding protecting the rights of workers and the community in which the activity takes place (Point 4).

An activity can be accepted as limitedly compliant with the DNSH and MSS requirements even if its owner cannot yet prove compliance with the criteria. In this case, the activity owner must provide a remediation plan to achieve full compliance within three years.



3 - Structure of Rwanda Green taxonomy

Rwanda Green Taxonomy is structured as follows. The Technical Annexes thereby reflect the three different approaches to substantial contribution as outlined above:

- **Introduction and User Guide:**

- Provides background information on the taxonomy's principles, governance, framework, and methodology for taxonomy alignment. It further provides recommendations on how to foster the implementation of the taxonomy.

- **Annex I - Climate change mitigation:**

- Provides sector-wise technical details on activities contributing to the climate change mitigation objective, with the corresponding substantial contribution criteria, DNSH and MSS criteria.

- **Annex II - Climate change adaptation and resilience:**

- Provides the methodological framework for the climate change adaptation objective and application of the adaptation framework for Rwanda Green Taxonomy. This includes a detailed list of adaptation activities and measures per sector and based on hazards, and a user guidance showcasing how the methodology can be applied by the user of the taxonomy.

- **Annex III - Various taxonomy objectives:**

- Provides the methodological framework for taxonomy alignment for the land-use sectors of Agriculture and livestock as well as Forestry and provides details on eligible practices and inputs, including DNSH and additional positive contributions that should be part of the Integrated Environmental Management Plan (IEMP) or Integrated Forestry Management Plan (IFMP). Ineligible practices are also included.



4 - Summary of taxonomy's activities

Rwanda's taxonomy contains a vast variety of economic activities, measures and practices that can make a substantial contribution to the taxonomy's environmental objectives. Below you will find a short summary of the respective activities, measures and practices contained in the three Annexes.

Annex I (climate change mitigation): Includes a total of 60 activities across all major sectors of the economy that have the largest potential to decrease the emission of greenhouse gases into the atmosphere.

Construction

1. Construction of new buildings
2. Building renovation
3. Individual measures and professional services
4. Acquisition or ownership of buildings
5. Research and development- professional services

Energy

1. Electricity generation using solar photovoltaic energy
2. Electricity generation using concentrated solar power technology
3. Electricity generation from wind energy
4. Electricity generation from ocean energy
5. Electricity generation from hydropower
6. Electricity generation from geothermal energy
7. Electricity generation from bioenergy (biomass, biogas and biofuels)
8. Energy generation using biomass cookstoves
9. Electricity transmission and distribution
10. Energy storage
11. Low carbon hydrogen production
12. Low carbon hydrogen storage
13. Biomass, biogas and biofuel production
14. Urban heating facilities
15. Transmission and distribution network for renewable or low-carbon gases

-
16. Cogeneration of heat/cool and power from solar energy
 17. Cogeneration of heat/cool and power from geothermal energy
 18. Cogeneration of heat/cool and power from bioenergy
 19. Generation of heat/cool from waste heat
 20. Research and development – professional services

Transportation

1. Urban public transport
2. Micromobility
3. Transport infrastructure
4. Interurban transport (freight and passenger)
5. Passenger cars and light commercial vehicles
6. Research and development – professional services
7. Low-carbon airport infrastructure
8. Air transport

Manufacturing

1. Manufacture of basic chemicals
2. Manufacture of cement
3. Manufacturing of basic iron and steel
4. Manufacturing of aluminium
5. Manufacturing of plastics in primary form
6. Manufacture of batteries
7. Manufacture of renewable energy technologies
8. Manufacture of low-carbon technologies for transport
9. Manufacturing of energy efficiency equipment for buildings

10. Manufacture of other low-carbon technologies
11. Manufacture of building materials from secondary raw materials
12. Retrofitting of internal combustion engine vehicles for the use of electric engines

Waste Management

1. Collection and transport of non-hazardous waste in source segregated fractions
2. Material recovery from non-hazardous waste
3. Composting of bio-waste
4. Anaerobic digestion of biowaste
5. Landfill gas capture and utilisation
6. Biochar production
7. Research and development and professional services

Water Management

8. Construction, extension and operation of water collection, treatment and supply systems
9. Construction and renewal of sanitary sewer systems
10. Construction, extension and operation of wastewater treatment systems
11. Investments in the efficient use of water
12. Research and development - professional services

Information And Communication Technology (ICT)

1. Data processing, storage, transmission and management
2. Data-driven solutions for ghg emissions reductions
3. Wired and wireless telecommunication infrastructure

Annex II (climate change adaptation and resilience): Includes various tables, which outline hazards that Rwandan communities face as the result of climate change effects and addresses them through a variety of engineering and nature-based solutions. These solutions are grouped into thematic sectors; each of which includes a large number of different activities and measures. Over 400 measures and activities are listed in Annex II, which will not be individually mentioned here. Rather, a summary of the economic sectors and corresponding hazards that feature in Annex II is included.

Sector	Hazard Category
Agriculture, Livestock and Forestry	Multi-hazard
	Flood damage
	Water stress (including drought)
Construction	Flood damage
	Storm damage
	Mass movement damage (including landslides)
Community services	Flood damage
	Multi-hazard
	Mass movement damage (including landslides)
Energy	Heat stress
	Flood damage
Transportation	Flood damage
	Heat stress
Water	Flood damage
	Water stress (including draught)
Environmental protection and restoration	Multi-hazard
	Water stress (including draught)
	Heat stress

Annex III (various taxonomy objectives): Includes various tables that outline sustainable practices in the agricultural, livestock and forestry sectors. Seven economic activities and over 90 practices are included in Annex III. For the sake of brevity, only a summary of the agricultural activities is outlined below.

Agriculture	Livestock	Forestry
<ol style="list-style-type: none"> 1. Eligible practices for sustainable crop production (general perennial and non-perennial crops), tea and coffee 2. Eligible practices for sustainable coffee production 3. Eligible practices for sustainable tea production 	<ol style="list-style-type: none"> 1. Eligible practices for sustainable livestock production 	<ol style="list-style-type: none"> 1. Eligible practices for sustainable forest management 2. Eligible practices for forestry plantation 3. Eligible practices for conservation, restoration and maintenance of natural, pristine forests



5 - Conclusion

Taxonomies can be the engine and core of a country's journey towards sustainability, but they cannot be applied independently. Successful application requires additional initiatives, such as incentives, regulations, promotion and capacity building, among others.

Once Phase II of Rwanda Green Taxonomy has been published, the next step is to widely implement it within the market, which will require the achievement of different steps and processes that allow for its integration into the country's existing and future regulatory frameworks. In principle, several policy measures such as, amongst others, tagging of public expenditures related to environment and climate change objectives, policies for improving capital flows for green debt instruments, investment policies, disclosure requirements for financial products and companies, alignment of national strategies and expanding sectoral strategy can be linked to the taxonomy.

As part of the taxonomy development, a prioritisation matrix of actions was developed along two main dimensions to foster the implementation of Rwanda Green Taxonomy:

- A. Policies and regulations embeddedness that include actions aimed at integrating the taxonomy into national policies and regulations to ensure its operability in the country and
- B. The potential for capacity building and testing, amongst others, including the creation of guideline documents and tools to promote the understanding and appropriation of Rwanda Green Taxonomy by various actors, both governmental and non-governmental.

This prioritisation matrix can guide Rwandan policymakers in understanding and orientating the actions that should be prioritised in the country to foster the implementation of the taxonomy and its practical application in the market.

What actions should be prioritised to promote the taxonomy's implementation?

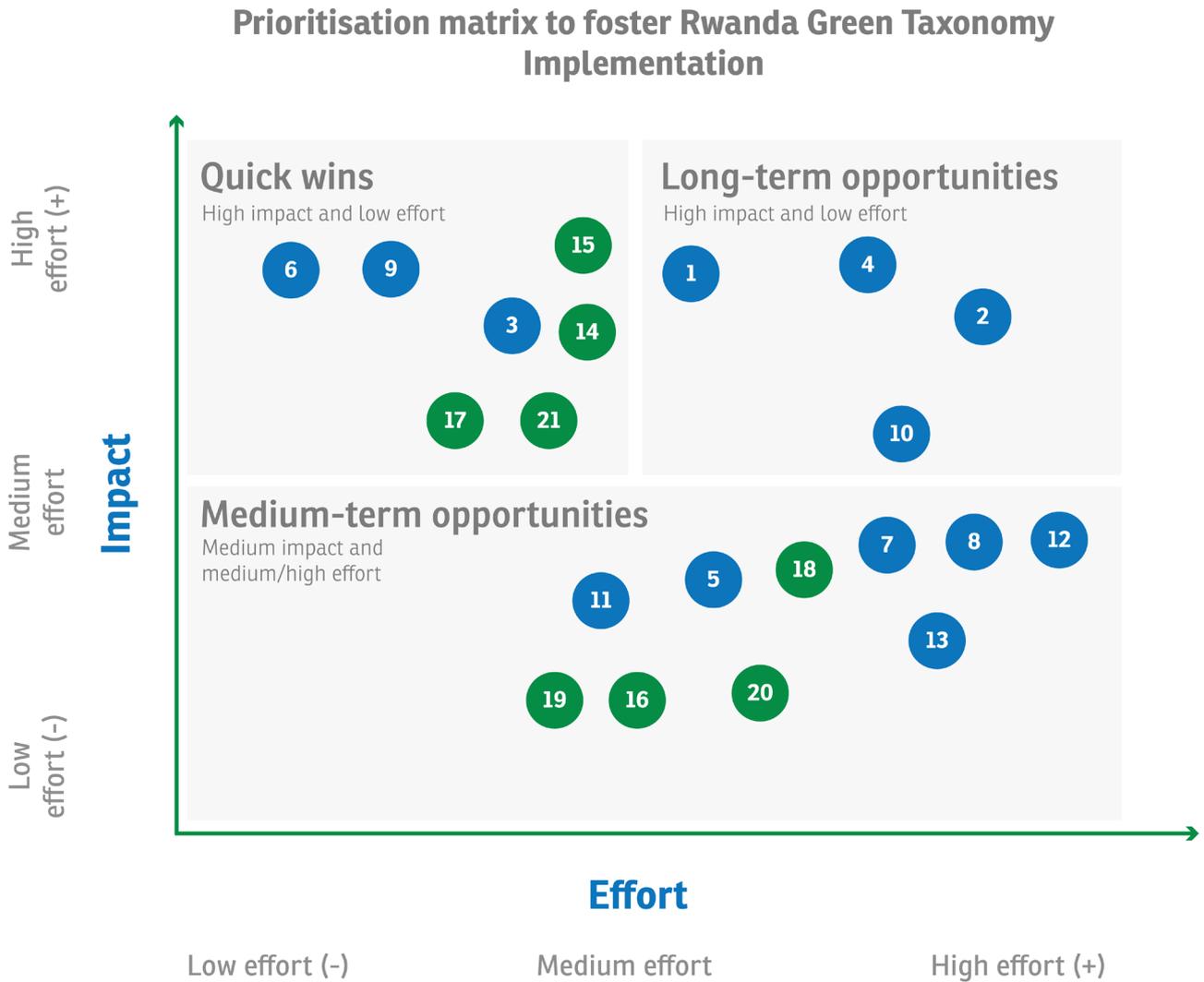


Figure 5. Prioritisation matrix to foster the implementation of Rwanda Green Taxonomy.

Policy and regulations

Regulations

1. Develop disclosure resultions using the taxonomy
2. Develop regulations for aligning green financial products in the market with the taxonomy

Financial instruments

3. Guidelines for issuance of green bonds using international frameworks and the taxonomy criteria
4. Guidelines for development of other green debt instruments using taxonomy criteria(eg: loans, microfinance)
5. Guidelines for insurance products and services using taxonomy criteria

Investment funds

6. Alignment between IREME Invest and Rwanda Green Fund (FONERWA) irvestment methodologies with the Rwanda Green Taxonomy
7. Development of guidelines for labeling of ESG, green and sustainable funds based on taxonomy

Monitoring and tracking of taxonomy-aligned finance flows

8. Development of an MRV system for tracking sustainable investments based on taxonomy
9. Alignment between Rwanda Green Taxonomy and Rwanda's Guidelines on Climate Budget Tagging

National environmental and climate strategies

10. Alignment and expansion of national and sectoral strategies based on Rwanda Green Taxonomy

Subsidies and incentives

11. Develop green guarantees, subsidies and benefits for implementing activities covered in the taxonomy
12. Develop incentives for green products aligned with the taxonomy
13. Integrate taxonomy into the public procurement system

Capacity building and testing

14. taxonomy implementation pilots for different market users
15. Capacity building sessions about taxonomy
16. Development of proxies and other implementation guidelines
17. Development of digital tools for easy use of taxonomy
18. Development of self-evaluation tools
19. Comparison of Rwanda Green Taxonomy with other international taxonomies
20. Development of training programmes and MOOC courses
21. Translation of Rwanda Green Taxonomy into Kinyarwanda