



# Draft Green Finance Taxonomy

## Listing of Technical Criteria and other Taxonomy aspects requiring further domestication review and/or development

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**IN PARTNERSHIP WITH**

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## Purpose of this document

This document serves to highlight the constituents of the draft South African Green Finance Taxonomy (GFT) that are identified as requiring additional technical development, technical review and/or further stakeholder engagement.

The process for doing so and for finalising, approving and incorporating changes to taxonomy constituents is to be dictated by the South African Green Finance Taxonomy governance process, to be established.

This listing of developmental aspects may be supplemented in future, as taxonomy development and maintenance processes identify further changes, additions and removals, per the South African Green Finance Taxonomy governance process, to be established.

The constituents for additional work are identified on the following basis.

## Updates to international green finance taxonomy foundations

The foundation of the draft GFT document is the detail and guidance provided by the final report on EU Sustainable Finance Taxonomy, developed by the Technical Expert Group (TEG) on Sustainable Finance.

The European Commission has since released an update to the EU Taxonomy in November 2020, the Taxonomy Delegated Regulation (DR) ([Link to Taxonomy Delegated Regulation of Nov 2020](#)) and a further update, the EU Taxonomy Climate Delegated Act (DA) in April 2021 ([Link to EU Taxonomy Climate Delegated Act of April 2021](#)), updating EU Sustainable Finance Taxonomy of March 2020 upon which the GFT document was initially adopted and adapted. The updated changes include:

- Addition of new economic activities and associated criteria
- Removal of economic activities
- Renaming economic activities
- Wording updates
- Adjustments to technical screening criteria

The project team is in the process of processing these changes as follows:

- Identifying the updates made in the latest April update.
- Evaluating the appropriateness of new economic activities identified in the DA, for the South African draft. By-and-large, these have been identified as relevant. The process has not yet been undertaken to incorporate these additional activities into the Draft, and make domestication adjustments. These new economic activities are listed in this document in **Table 2**.
- Evaluating the basis for removal of economic activities. Particular economic activities have been removed from the Draft and are identified as requiring input to consider whether these should be retained. These removed economic activities are listed in this document in **Table 1**.
- Renamed economic activities have been reviewed and adjustments made to enhance alignment and user accessibility.
- Wording adjustments and editorial details have been incorporated.
- Updating the draft criteria contained in this document to the DA, where the DA has seen structural, technical and editorial changes from the TEG.
- Researching, evaluating and incorporating adjustments to domesticate the changed DA criteria for South African application and regulation. This latter process is underway at present

and the status is indicated in **Table 1**. Therefore, this Draft Version (June 2021) is a hybrid presentation of TEG, DR and DA criteria, as the merits of each change are evaluated and the change to DA is considered for domestication requirements.

Critical to note, the following economic activities have been removed from the latest release of the DA:

- Growing of perennial crops and growing of non-perennial crops (collectively called ‘Crop Production’ in the GFT)
- Livestock Production (retains the same name in the GFT)
- Electricity generation from gaseous and liquid fuels (called ‘Production of electricity, heating and cooling from gas’ in the GFT)

### **Challenges with Gas and Agricultural Management Practices, in international green finance taxonomy development**

After further consideration and review, the project team has decided to relocate certain economic activities and/or technical standards from this version of the GFT (effectively removing them for the time being) to the **‘Economic activities relocated from Draft Version GFT requiring further consideration’** section of this document. These economic activities and/or technical standards are temporarily placed on this listing, and are for further consideration and stakeholder engagement concerning their inclusion or exclusion in future versions of the GFT, as well as the details of associated technical specifications. Specifically:

- Economic activity ‘Production of electricity, heating and cooling from gas’ has been removed and relocated from this version of the GFT, given challenges associated with this economic activity. Natural gas is a fossil fuel and may have a role to play as a transition fuel, as it is considered to play a role in achieving South Africa’s decarbonisation objectives. As such, it is considered appropriate to include it for consideration in the development of a future transition taxonomy. The transition taxonomy is to be developed under a follow-on project planned for March 2021 – February 2022 (the project is detailed in the **‘Expanding the South African Green Finance Taxonomy and embedding its use’** section of this document.)
- Economic activity ‘crop production and livestock production’ has been retained in this version of the GFT, however its technical standard has been relocated from the GFT for future development. Therefore this economic activity is identified in this version of the GFT as ‘for future development’. Challenges regarding agricultural management practices, impact on climate, biodiversity and land use specifically related to ‘crop production and livestock production’, have emerged and illustrate the need to further consider the technical screening criteria of these economic activities, so that they can be further developed and refined in future.

Stakeholders are specifically called to provide feedback regarding the decisions to remove these from the draft pending further consideration, and to provide their views on the details of the DR/DA-derived drafts contained in this document.

### **Economic activities identified in the Draft Green Finance Taxonomy, without international example to domesticate**

As part of the first phase of the South African Green Finance Taxonomy project, a process was undertaken to identify economic activities aligned to a definition of a Green Economy vision for South Africa according to a framework evaluating compatibility, or pathways to compatibility. This process identified a number of economic activities consistent with the vision that did not have comparable

economic activities in the EU Sustainable Finance Taxonomy, developed by the Technical Expert Group (TEG) on Sustainable Finance.

These economic activities have been identified in the Draft Green Finance Taxonomy. The development of technical criteria for these economic activities has not yet been undertaken. These identified but undeveloped economic activities are listed in **Table 3**.

### **Transition taxonomic components**

As part of the first phase of the South African Green Finance Taxonomy development process, it is established that principles and standards for Transition Finance are needed. However, at this time, necessary underpinning tools and data are in process of development but not yet suitable for pre-emptive integration. In addition, the project has focused on the establishment of the foundational focus areas, with the ambition to expand the Taxonomy for further coverage, given necessary and appropriate resourcing, time, design, development, engagement, testing and coordination.

The initial considerations are identified in Section '**Taxonomy coverage developmental constituents**'.

### **Future developments of social, transition and incompatible taxonomic chapters**

In the Section '**Expanding the South African Green Finance Taxonomy and embedding its use**', is detailed a follow-on project for which funding has been secured for further development from the SA UK PACT (Partnering for Accelerated Climate Transitions) programme.

The development of the prospective elements of the expanded GFT detailed there will be subject to the South African Green Finance Taxonomy governance process, to be established.



## Technical criteria developmental constituents

**Table1: Economic activities indicating updates and inputs required**

Taxonomy Macro-Sector	Taxonomy Economic activity	Status	Inputs required	Other adjustments to consider
3.1 Agriculture, Forestry and Fisheries	3.1.1 Forestry and Land Rehabilitation	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Forestry and Land Rehabilitation.
3.1 Agriculture, Forestry and Fisheries	3.1.2 Crop Production	Removed	<ul style="list-style-type: none"> <li>Consider whether Crop Production should be excluded from the South African Green Finance Taxonomy</li> <li>Refer to Section '<b>Crop production</b>' for details regarding the economic activity and its associated screening criteria</li> </ul>	Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Crop production.
3.1 Agriculture, Forestry and Fisheries	3.1.3 Livestock Production	Removed	<ul style="list-style-type: none"> <li>Consider whether Livestock Production should be excluded from the South African Green Finance Taxonomy</li> <li>Refer to Section '<b>Livestock production</b>' for details regarding the economic activity and its associated screening criteria</li> </ul>	
3.2 Industry	3.2.1 Manufacture of low carbon and resource efficiency technologies	Requires update from TEG to DA and further domestication	<ul style="list-style-type: none"> <li>Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context</li> <li>Consider SA water performance benchmarks for hot water fittings</li> </ul>	Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Manufacture of low carbon and resource efficiency technologies.

3.2 Industry	3.2.2 Manufacture of Cement	Updated/unchanged. Requires further technical consideration	Consider metrics and thresholds associated with economic activity – this includes thresholds related to GHGs that reflect the average value of the 10% most efficient installations in 2016 and 2017 (t CO <sub>2</sub> equivalents/t) as set out in the Annex to the Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances for the period from 2021 to 2025 pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of the Council. This includes emissions associated with clinker and cement or alternative binder production that reflect the average value of the 10% most efficient installations in 2016 and 2017 (t CO <sub>2</sub> equivalents/t) for grey cement clinker as set out in the Annex to the Implementing Regulation (EU) 2021/447, multiplied by the clinker to cement ratio of 0,65.	
3.2 Industry	3.2.3 Manufacture of Aluminium	Updated/unchanged. Requires further technical consideration	Consider metrics and thresholds associated with economic activity – this includes thresholds related to the production of primary aluminium where the sum of direct GHG emissions and indirect GHG emissions (tCO <sub>2</sub> e per tonne of product) that reflect emissions performance in alignment with the average value of the 10% most efficient installations in 2016 and 2017 (t CO <sub>2</sub> equivalents/t) as set out in the Annex to the Implementing Regulation (EU) 2021/447.	
3.2 Industry	3.2.4 Manufacture of Iron, Steel and Ferroalloys	Updated/unchanged not requiring update	Consider metrics and thresholds associated with economic activity – this includes: <ul style="list-style-type: none"> <li>i. hot metal (tCO<sub>2</sub>e/t product)</li> <li>ii. sintered ore (tCO<sub>2</sub>e/t product)</li> <li>iii. coke (excluding lignite coke) (tCO<sub>2</sub>e/t product)</li> <li>iv. iron casting (tCO<sub>2</sub>e/t product)</li> <li>v. electric Arc Furnace (EAF) high alloy steel (tCO<sub>2</sub>e/t product)</li> </ul>	

			vi. electric Arc Furnace (EAF) carbon steel (tCO <sub>2</sub> e/t product) which refers that threshold performances reflect the average value of the 10% most efficient installations in 2016 and 2017 (t CO <sub>2</sub> equivalents/t) as set out in the Annex to the Implementing Regulation (EU) 2021/447	
3.2 Industry	3.2.5 Manufacture of Hydrogen	Updated/unchanged not requiring update		
3.2 Industry	3.2.6 Manufacture of other inorganic basic chemicals	Updated/unchanged. Requires further technical consideration	Consider metrics and thresholds associated with economic activity – this includes thresholds related to the production of carbon black and disodium carbonate where GHG emissions performance reflects the average value of the 10% most efficient installations in 2016 and 2017 (t CO <sub>2</sub> equivalents/t) as set out in the Annex to the Implementing Regulation (EU) 2021/447.	
3.2 Industry	3.2.7 Manufacture of other organic basic chemicals	Updated/unchanged. Requires further technical consideration	Consider metrics and thresholds associated with economic activity – this includes: vii. for HVC (tCO <sub>2</sub> e/t of HVC); viii. for aromatics (tCO <sub>2</sub> e/t of aromatic) ix. for vinyl chloride (tCO <sub>2</sub> e/t of vinyl chloride); x. for styrene (tCO <sub>2</sub> e/t of styrene); xi. for ethylene oxide/ethylene glycols (tCO <sub>2</sub> e/t of ethylene oxide/glycol) which refers that threshold performances reflect the average value of the 10% most efficient installations in 2016 and 2017 (t CO <sub>2</sub> equivalents/t) as set out in the Annex to the Implementing Regulation (EU) 2021/447	
3.2 Industry	3.2.8 Manufacture of fertilizers and nitrogen compounds	Updated/unchanged. Requires further technical consideration	Consider metrics and thresholds associated with economic activity – particularly GHG emissions from the manufacture of ammonia and nitric acid reflect performance with the average value of the 10% most efficient installations in 2016	



			and 2017 (t CO2 equivalents/t) as set out in the Annex to the Implementing Regulation (EU) 2021/447.	
3.2 Industry	3.2.9 Manufacture of plastics in primary form	Updated/unchanged not requiring update		
3.3 Energy	3.3.1 Production of electricity, heating and cooling from Solar PV, Concentrated Solar Power, Wind Power and Ocean Energy	Updated/unchanged not requiring update		Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Production of electricity, heating and cooling from Solar PV, Concentrated Solar Power, Wind Power and Ocean Energy.
3.3 Energy	3.3.2 Production of electricity, heating and cooling from Hydropower	Updated/unchanged not requiring update		
3.3 Energy	3.3.3 Production of electricity, heating and cooling from Geothermal	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.3 Energy	3.3.4 Production of electricity, heating and cooling from Gas	Removed	<ul style="list-style-type: none"> <li>Consider whether production of electricity, heating and cooling from gas should be excluded from the South African Green Finance Taxonomy and whether this economic activity should be instead included in a Transition Taxonomy</li> </ul>	

			<ul style="list-style-type: none"> <li>Refer to Section '<b>Production of electricity, heating and cooling from gas</b>' for details regarding the economic activity and its associated screening criteria</li> </ul>	
3.3 Energy	3.3.4 Production of electricity, heating and cooling from Bioenergy	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.3 Energy	3.3.5 Manufacture of Biomass, Biogas or Biofuels	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.3 Energy	3.3.6 Transmission and distribution of Electricity	Requires update from TEG to DA and further consideration	<ul style="list-style-type: none"> <li>Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context</li> <li>Consider metrics and thresholds associated with economic activity – Installation of T&amp;D transformers that comply with the Tier 2 (2021) requirements from Regulation 548/2014 on the eco-design of small, medium and large power transformers and, for medium power transformers with highest voltage for equipment not exceeding 36 kV, with AAA0 level requirements on no-load losses set out in standard EN 50588-1. Reference is made to EU regulations which needs to be contextualised for South Africa. This particular criterion has been retained in the DA update.</li> </ul>	
3.3 Energy	3.3.7 Storage of Electricity	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	

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3.3 Energy	3.3.8 Storage of Thermal Energy	Updated/unchanged not requiring update		
3.3 Energy	3.3.9 Storage of Hydrogen	Updated/unchanged not requiring update		
3.3 Energy	3.3.10 Transmission and distribution networks for renewable and low-carbon gases	Updated/unchanged not requiring update		
3.3 Energy	3.3.11 District Heating/Cooling Distribution	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.3 Energy	3.3.12 Installation and operation of Electric Heat Pumps	Updated/unchanged not requiring update		
3.3 Energy	3.3.13 Production of Heating/Cooling using Waste Heat	Updated/unchanged not requiring update		
3.4 Water and Waste	3.4.1 Water collection, storage, distribution treatment and supply	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Economic activity has been renamed in Taxonomy Delegated Act

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3.4 Water and Waste	3.4.2 Centralized wastewater treatment	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Economic activity has been renamed in Taxonomy Delegated Act
3.4 Water and Waste	3.4.3 Anaerobic digestion of sewage sludge	Updated/unchanged not requiring update		
3.4 Water and Waste	3.4.4 Separate collection and transport of non-hazardous waste in source segregated fractions	Updated/unchanged not requiring update		
3.4 Water and Waste	3.4.5 Anaerobic digestion of bio-waste	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.4 Water and Waste	3.4.6 Composting of bio-waste	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.4 Water and Waste	3.4.7 Material recovery from non-hazardous waste	Updated/unchanged not requiring update		
3.4 Water and Waste	3.4.8 Landfill gas capture and utilization	Updated/unchanged not requiring update		
3.4 Water and Waste	3.4.9 Direct Air Capture of CO <sub>2</sub>	Economic activity removed from Taxonomy Delegated Act	To consider continued applicability of Draft entry	

3.4 Water and Waste	3.4.10 Capture of Anthropogenic Emissions	Economic activity removed from Taxonomy Delegated Act	To consider continued applicability of Draft entry	
3.4 Water and Waste	3.4.11 Transport of CO <sub>2</sub>	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.4 Water and Waste	3.4.12 Permanent Sequestration of Captured CO <sub>2</sub>	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Economic activity has been renamed in DA
3.5 Transportation	3.5.1 Commuter road, passenger rail and freight rail transport	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Commuter road, passenger rail and freight rail transport.
3.5 Transportation	3.5.2 Infrastructure for low carbon transport	Updated/unchanged not requiring update		Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Infrastructure for low carbon transport
3.5 Transportation	3.5.3 Passenger cars, road commercial vehicles and road freight transport	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these activities into one section under Passenger cars, commercial vehicles and freight transport
3.5 Transportation	3.5.4 Inland passenger and	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	Separating economic activities as per DA into standalone sections. The Green Finance Taxonomy has included these

	freight water transport			activities into one section under Inland passenger and freight water transport
3.6 ICT	3.6.1 Data processing, hosting and related activities	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.6 ICT	3.6.2 Data-driven solutions for GHG emission reductions	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	
3.7 Construction	3.7.1 Construction of new buildings	Updated/unchanged not requiring update	<ul style="list-style-type: none"> <li>Consider metrics and thresholds associated with economic activity – particularly – the threshold concerned with - The Primary Energy Demand (PED) , defining the energy performance of the building resulting from the construction, is at least 20 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council. The energy performance is certified using an as built Energy Performance Certificate (EPC). Require SA alternative to nearly zero-energy building requirements of the EU/ appropriate standards for building emissions aligned with the Paris Agreement</li> <li>Consider DNSH criteria related to pollution prevention associated with economic activity - the criteria are concerned with - ensuring that building components and materials do not contain asbestos nor substances of very high concern as such as those identified on the basis of the “Authorisation List” of the EU REACH Regulation.</li> </ul>	



			Require SA alternative/ contextualisation to EU Reach regulation	
3.7 Construction	3.7.2 Building renovation	Requires update from TEG to DA and further consideration	<ul style="list-style-type: none"> <li>Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context</li> <li>Consider DNSH criteria related to pollution prevention associated with economic activity - the criteria is concerned with - ensuring that building components and materials do not contain asbestos nor substances of very high concern as such as those identified on the basis of the "Authorisation List" of the EU REACH Regulation. Require SA alternative/ contextualisation to EU Reach regulation</li> </ul>	
3.7 Construction	3.7.3 Individual measures and professional services		Consider DNSH criteria related to pollution prevention associated with economic activity - the criteria is concerned with - ensuring that building components and materials do not contain asbestos nor substances of very high concern as such as those identified on the basis of the "Authorisation List" of the EU REACH Regulation. Require SA alternative/contextualisation to EU Reach regulation	
3.7 Construction	3.7.4 Acquisition and ownership	Updated/unchanged not requiring update	Consider metrics and thresholds associated with economic activity – particularly – the threshold concerned with - For buildings built before 31 December 2020, the building has at least Energy Performance Certificate (EPC) class A. Assess alternative for EPC due to their absence in SA.	
3.8 Enabling activities, system resilience & innovation	3.8.1 Non-life insurance	Requires update from TEG to DA and further consideration	Refer to economic activity as illustrated in Taxonomy Delegated Act and consider suitability and domestication of current economic activity to South African context	

**Table 2: Economic activities adjusted and added to the EU Taxonomy Climate Delegated Act and not yet contained in the Draft Green Finance Taxonomy**

The details of the below economic activities have not been evaluated in the context of South Africa and on that basis have not been included in GFT at this stage. Stakeholders are asked to consider the suitability and domestication of these economic activities to the South African context for inclusion into the GFT.

Taxonomy Delegated Act Macro-Sector	Taxonomy Economic activity	Input required
Environmental protection and restoration activities	Restoration of Wetlands	Refer to economic activity as illustrated in EU Taxonomy Climate Delegated Act and consider suitability and domestication of current economic activity to South African context ( <a href="#">Link to EU Taxonomy Climate Delegated Act of April 2021</a> )
Manufacturing	Manufacture of Renewable Energy technologies	
Manufacturing	Manufacture of equipment for the production of hydrogen and use of hydrogen	
Manufacturing	Manufacture of batteries	
Water supply, sewerage, waste management and remediation	Construction, extension and operation of waste water collection and treatment	
Water supply, sewerage, waste management and remediation	Renewal of waste water collection and treatment	
Energy	Electricity generation from renewable non-fossil gaseous and liquid fuels	
Transport	Operation of personal mobility devices	
Transport	Retrofitting of inland water passenger and freight transport	
Transport	Sea and coastal freight water transport	
Transport	Sea and coastal passenger water transport	
Transport	Retrofitting of sea and coastal freight and passenger water transport	
Construction and real estate activities	Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	
Construction and real estate activities	Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	
Construction and real estate activities	Installation, maintenance and repair of renewable energy technologies	
Professional, scientific and technical activities	Close to market research, development and innovation	
Professional, scientific and technical activities	Research, development and innovation for direct air capture of CO <sub>2</sub>	
Professional, scientific and technical activities	Professional services related to energy performance of buildings	
Professional, scientific and technical activities	Research, development and innovation related to nature based solutions for adaptation	
Financial and insurance activities	Reinsurance	
Education	Education	

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Human health and social work activities	Residential care activities	
Arts, entertainment and recreation	Creative, arts and entertainment activities	
Arts, entertainment and recreation	Libraries, archives, museums and cultural activities	
Arts, entertainment and recreation	Motion picture, video and television programme production, sound recording and music publishing activities	

**Table 3: Economic activities identified for the South African Green Finance Taxonomy without technical criteria developed to date**

Taxonomy Segment	Taxonomy Economic activity	Status	Inputs required
Agriculture, forestry, fisheries and land use	Ecosystem Conservation	No technical criteria	Technical criteria development process, per South African Green Finance Taxonomy governance process
Agriculture, forestry, fisheries and land use	Fisheries and Aquaculture	No technical criteria	
Agriculture, forestry, fisheries and land use	Wildlife management	No technical criteria	
Agriculture, forestry, fisheries and land use	Eco-Tourism	No technical criteria	
Industry	Manufacture of Glass	No technical criteria	
Industry	Manufacture of low carbon resources	No technical criteria	
Industry	Pollution prevention and control	No technical criteria	
Industry	Reuse, redistribution, refurbishment and recycling facilities	No technical criteria	
Industry	Environmental services	No technical criteria	
Industry	Remanufacturing of electromechanical products	No technical criteria	
Industry	Eco-efficient products and processes	No technical criteria	
Industry	Biodegradables	No technical criteria	
Industry	Mining Platinum	No technical criteria	
Industry	Mining Gold	No technical criteria	
Industry	Manufacture of Paper	No technical criteria	
Energy	Production of electricity, heating and cooling from gravity potential energy	No technical criteria	
Water and Waste	Water monitoring	No technical criteria	
Water and Waste	Flood defence	No technical criteria	
Water and Waste	Nature based solutions	No technical criteria	

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Water and Waste	Reuse, redistribution, refurbishment, recycling storage and handling infrastructure	No technical criteria	
Water and Waste	Water saving, recycling and reuse technologies	No technical criteria	
Water and Waste	Pollution prevention and control	No technical criteria	
Water and Waste	Handling and Preparation	No technical criteria	
Water and Waste	Water treatment	No technical criteria	
Transportation	Aviation	No technical criteria	
Construction	Spatial Planning	No technical criteria	
Enabling activities, system resilience & innovation	R&D and innovation	No technical criteria	
Enabling activities, system resilience & innovation	Early warning systems	No technical criteria	
Enabling activities, system resilience & innovation	Disaster risk prevention	No technical criteria	
Enabling activities, system resilience & innovation	Sustainability certifications	No technical criteria	
Enabling activities, system resilience & innovation	Value chain activities	No technical criteria	
Enabling activities, system resilience & innovation	Capacity building	No technical criteria	
Enabling activities, system resilience & innovation	Technological solutions	No technical criteria	
Enabling activities, system resilience & innovation	Public events	No technical criteria	
Social Resilience	Education	No technical criteria	
Social Resilience	Skill development	No technical criteria	
Social Resilience	Knowledge management	No technical criteria	

## Economic activities relocated from Draft Version GFT requiring further consideration

### Crop production

Sector classification and activity											
Macro-Sector	Agriculture, forestry and fishing										
SIC Code	01 011 Growing of non-perennial crops 012 growing of perennial crops										
Description	Crop Production										
Make Significant Contribution criteria											
Climate Change Mitigation											
Principle	Both of the principles set out here must be fulfilled: 1. Demonstrate substantial avoidance or reduction of GHG emissions from production and related practices; and 2. Maintain existing sinks and increase sequestration (up to saturation point) in above- and below-ground carbon stocks.										
Metric and Threshold	<p><b>1) Avoid or reduce GHG emissions (including those from inputs used on the farm) through the application of appropriate management practices.</b></p> <p>This can be demonstrated in either of the following ways:</p> <ul style="list-style-type: none"> <li>The essential management practices are deployed consistently over the applicable crop production area each year</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Reduction in GHG emissions (gCO<sub>2</sub>e) in line with the following trajectory</li> </ul> <div data-bbox="331 1064 1197 1601"> <p style="text-align: center;"><b>Emissions reductions trajectory</b></p> <table border="1"> <caption>Emissions reductions trajectory data</caption> <thead> <tr> <th>Year</th> <th>Reduction (%)</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>0%</td> </tr> <tr> <td>2030</td> <td>20%</td> </tr> <tr> <td>2040</td> <td>30%</td> </tr> <tr> <td>2050</td> <td>40%</td> </tr> </tbody> </table> </div> <p>For example, a 20% reduction in GHG emissions would be required by 2030 compared to emissions in 2020, and a 30% emissions reduction would be required by 2040 compared to 2020</p> <p><b>2) Maintain and increase existing carbon stocks for a period of not less than 20 years through the application of appropriate management practices.</b></p> <p>This can be demonstrated in either of the following ways:</p> <ul style="list-style-type: none"> <li>The essential management practices are deployed consistently over the applicable crop area each year</li> </ul> <p>OR</p>	Year	Reduction (%)	2020	0%	2030	20%	2040	30%	2050	40%
Year	Reduction (%)										
2020	0%										
2030	20%										
2040	30%										
2050	40%										



	<ul style="list-style-type: none"> <li>• Above and below ground carbon stocks (tC/ha) to be increased progressively over a minimum 20-year period</li> </ul> <p>* Noting the following exception: For soils specifically, where it can be demonstrated that saturation levels have been reached, no further increase in carbon content is expected. In this case, existing levels should be maintained.</p> <p><b>3) Production is not undertaken on land that had any of the following status in or after 2010<sup>1</sup> and no longer has that status:</b></p> <ul style="list-style-type: none"> <li>a) Wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;</li> <li>b) Continuously forested areas, namely land spanning more than 0.1 hectares with trees higher than 2 metres and a canopy cover of between 10 and 30 %, or trees able to reach those thresholds in situ;</li> <li>c) Peatland, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.</li> </ul> <p><b>Methodological notes:</b></p> <p>For those demonstrating compliance with the essential management practices:</p> <ul style="list-style-type: none"> <li>• The essential management practices are described in the table below. All essential practices will need to be deployed, except where particular practices can be demonstrated to be not applicable to that farm holding given the particular biophysical conditions at that farm holding.</li> <li>• In respect of the essential practice relating to the GHG assessment, this assessment should be done using tools that cover all relevant emissions on the farm associated with production, as well as emissions associated with energy and fuel use (see below for relevant GHG categories). If it can be demonstrated that no carbon assessment tool is currently accessible to farmers in a given location (either because of language or lack of access to farm advisory support), this practice may be omitted in the first instance. The assessment, however, becomes mandatory within a five year period. The assessment is a self-assessment using an appropriate tool, no independent audit or verification of the GHG assessment is required.</li> <li>• To demonstrate compliance with all other essential practices, it will be necessary to establish a farm sustainability management plan which describes the management practices being deployed - taking into account crop husbandry requirements, farm pedo-climatic conditions - and their coverage on the farm. To prepare the farm sustainability management plan a carbon calculator can be used, or the plan can also be prepared using other nutrient decision-support tools.</li> </ul> <p>For those demonstrating compliance with GHG thresholds:</p> <ul style="list-style-type: none"> <li>• To demonstrate compliance with the quantitative GHG thresholds it will be necessary to establish a Carbon stock and GHG emission baseline for the farm (see below for relevant GHG categories). It will be against such baseline data that emission reductions of Carbon increases can be measured. A carbon audit is necessary in order to also assess where action is needed, and this must be accompanied by a carbon management plan to set out the management practices that will deliver the GHG emissions reduction/ carbon sequestration. This carbon management plan is part of the broader farm sustainability plan.</li> <li>• Assurance should be sought on the likely replanting of crops to promote the permanence of carbon sequestration trends. It is recognised stage crops with a potential fallow/ restoration period between will lead to a reduction in carbon stocks and some emissions. With this in mind, the objective is to ensure overall maintenance of carbon stocks and/ or upward trends in sequestration are sought over multiple rotations.</li> </ul>
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<sup>1</sup> January 2010 was selected as a cutoff date as this accommodates most major certification or standards requirements for “no deforestation.”

	<p>For all users:</p> <ul style="list-style-type: none"> <li>• Calculations of carbon stocks and GHG emissions levels should include the following, though it is recognised that in practice, the scope of GHG counted will be subject to the technical capabilities of the GHG accounting tools being used: <ul style="list-style-type: none"> <li>- CO<sub>2</sub> emissions and removals in above ground biomass</li> <li>- CO<sub>2</sub> emissions and removals in below ground biomass and soils</li> <li>- N<sub>2</sub>O emissions from exposed soils, fertiliser application, and those embedded in fertiliser production and fertiliser application</li> <li>- CH<sub>4</sub> emissions from livestock (enteric fermentation and manure management) and some soils (e.g. wetlands)</li> <li>- CO<sub>2</sub> emissions from fuel and electricity use</li> </ul> </li> <li>• Emissions, sinks and management practices are all to be audited at 3-year intervals to confirm ongoing compliance with these requirements.</li> <li>• In the case of force majeure: emissions resulting from natural disturbance can be excluded from impacting on the achievement of the thresholds and will not affect the application of these requirements or result in non-compliance with these criteria.</li> </ul>
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Management category	Essential management practice	GHG ↓	C-Seq ↑	Co-benefits
Farm GHG assessment	Undertake a GHG assessment of sources of emissions and sinks on the farm. Existing and verified tools should be used. No auditing of the GHG assessment is required.	✓	✓	✓
Crop choice and cover (to increase carbon sequestration in soil, reduce fertilizer need, and N <sub>2</sub> O emissions)	Sowing of cover/catch crops using a locally appropriate species mixture with at least 1 legume and reducing bare soil to the point of having a living plant coverage index of at least 75% at farm level per year.	✓	✓	✓
Soil management (in order to prevent soil erosion and carbon losses from soils)	Prevent soil compaction (frequency and timing of field operations should be planned to avoid traffic on wet soil; tillage operation should be avoided or strongly reduced on wet soils; stock density should be reduced on wet soils; stock density should be reduced to avoid compaction, especially on wet soils).	✓		✓
	Management of carbon-rich soils <ul style="list-style-type: none"> <li>• Avoiding deep ploughing on carbon-rich soils</li> <li>• Avoiding row crops</li> <li>• Maintaining a shallower water table – peat</li> <li>• Maintaining a shallower water table – arable</li> </ul>	✓		✓
	Avoid water logging and compaction where land is drained	✓	✓	✓
	Maintain and preserve permanent grassland	✓		
	No burning of arable stubble except where authority has granted an exemption for plant health reasons.	✓	✓	✓
Nutrient management (in order to reduce N <sub>2</sub> O emissions)	Nutrient management plan to optimize fertilization and improve nitrogen use efficiency. The plan should be based on soil testing, estimating of crops nutrient requirements, recording of nutrient applications, considering field characteristics and soil type, estimating soil nitrogen supply, and where applicable analysis of			

	manure nutrient content prior to application. In addition, it is required that a low emission N-application technology is used (e.g. slurry injection, incorporating manure in the soil within 2 hours of spreading) and fertilizer spreaders which have low coefficient of variation (synthetic fertilizer and farmyard manure (e.g. placing N in the soil via injection), combined with calibration of spreaders.			
Structural elements with mitigation benefit (in order to increase C sequestration)	Conversion of low productivity land (e.g. along field edges) into woodland to increase C sequestration and protect against soil erosion		✓	✓
Waste management	Minimize post-harvest loss	✓		
Energy use	Where energy emissions represent greater than 20% of total emissions from non-perennial crop production activity, these emissions should be reduced appropriately for the term of the investment, in line with the trajectory outlined in the above section i.e. by at least 10% compared to a 2020 baseline for a 5 year investment period, 20% compared to a 2020 baseline for a 10 year investment period to 2030, and 30% compared to a 2020 baseline for a 20 year investment period – with pro-rata adjustments for investments of intermediate durations	✓		
Climate Change adaptation				
Depending on the primary objective of the activity, refer to the Draft Green Finance Taxonomy Annex. Users of the Taxonomy should identify and explain which criteria they are responding to.				
Do No Significant Harm assessment				
<p>Key environmental aspects to be considered for investments in growing of perennial crops span across all other five objectives and are summarized as follows:</p> <ul style="list-style-type: none"> <li>• Ability of farming systems to adapt to a changing climate;</li> <li>• Impact on water quantity, water quality and water ecosystems;</li> <li>• Impacts on air quality;</li> <li>• Inefficiencies in the production system including nutrient management;</li> <li>• Pollutant and nutrient run-off and leaching;</li> <li>• Impacts on habitats and species, e.g. through conversion of areas, intensification of existing arable land, and invasive alien species.</li> </ul> <p>Note that areas of environmental risk are highly geographically variable. Guidance should be sought from the relevant competent national or regional authority to identify areas or issues of importance and relevance within the area or project concerned.</p>				
Climate Change Mitigation	<p>For adaptation projects</p> <ul style="list-style-type: none"> <li>• The preservation and sustainable development of agricultural land as a natural resource</li> <li>• No burning of arable stubble except where authority has granted an exemption for plant health reasons.</li> <li>• Appropriate protection of wetland or peatland and no conversion of continuously forested areas or land spanning more than 0.1 hectares with trees higher than 2m and a canopy cover of between 10 &amp; 30% or able to reach those thresholds in situ</li> </ul>			

	<ul style="list-style-type: none"> <li>• Fulfil the requirements of; National Environmental Management Act (No.107 of 1998) as amended, the Conservation of Agricultural Resources Act (No 43 of 1983), the National Environmental Management Biodiversity Act (No 10 of 2004), National Environmental Management Protected Areas Act (No 57 of 2003) and National Water Act (No 36 of 1998).</li> <li>• Minimum land management under tillage to reduce risk of soil degradation including on slopes.</li> <li>• No bare soil in most sensitive period of the year to prevent erosion and loss of soils.</li> </ul>
Climate Change Adaptation	<p>For mitigation projects</p> <p>The activity complies with the criteria set out in the Draft Green Finance Taxonomy Annex.</p>
Sustainable use of water and marine resources	Fulfil the requirements of South African water legislation such as the National Water Act (No.36 of 1998), Mountain Catchment Areas Act (No. 63 of 1970) and the Water Services Act (No.108 of 1997) where applicable. Identify and manage risks related to water quality and/or water consumption at the appropriate level. Where water use/conservation management plans are required by South African legislation, these plans are to be developed in consultation with relevant stakeholders.
Ecosystem protection and restoration	<ul style="list-style-type: none"> <li>• Activities ensure the protection of soils to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter.</li> <li>• Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other areas of high-biodiversity value<sup>2</sup>. This includes highly biodiverse grassland spanning more than one hectare that is: <ul style="list-style-type: none"> <li>i. natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes; or</li> <li>ii. non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority.</li> </ul> </li> <li>• Activities should not<sup>3</sup>: <ul style="list-style-type: none"> <li>- result in a decrease in the diversity or abundance of species and habitats of conservation importance or concern;</li> <li>- contravene existing management plans or conservation objectives.</li> </ul> </li> <li>• Where activities involve the production of novel non-native or invasive alien species, their cultivation should be subject to an initial risk assessment and on-going monitoring in order to ensure that sufficient safeguards are in place to prevent escape to the environment.</li> <li>• The prevention and control of alien invasive species must be managed in accordance with the National Environmental Management Act, 1998 (Act No.107 of 1998) and the National Environmental Management: Biodiversity (Act 10 of 2004) and the Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983) (CARA).</li> </ul>
Pollution prevention	<ul style="list-style-type: none"> <li>• Activities ensure that nutrients (fertilisers) and plant protection products (e.g. pesticides and herbicides) are targeted in their application (in time and area treated) and are delivered at appropriate levels (with preference to sustainable biological, physical or other non-chemical methods if possible) and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment (e.g. water and air pollution) and the loss of excess nutrients<sup>4</sup>.</li> </ul>

<sup>2</sup> Areas of high-biodiversity-value can be defined in National Environmental Management: Biodiversity Act 10 of 2004 and are set out in the National Biodiversity Assessment 2018

<sup>3</sup> Consistent with the National Environmental Management: Biodiversity Act 10 of 2004

<sup>4</sup> See the sustainable use of pesticides within the Pesticide Management Policy for South Africa

	<ul style="list-style-type: none"> <li>The use only of plant protection products with active substances that ensure high protection of human and animal health and the environment. Use must adhere to the National Environmental Management Act (No.107 of 1998) as amended, the Hazardous Substances Act, 1973 (Act No.15 of 1973) and the Occupational Health and Safety Act No.85 of 1993.</li> </ul>
Sustainable resource use and circularity	<ul style="list-style-type: none"> <li>Activities should minimise raw material use per unit of output, including energy through increased resource use efficiency<sup>5</sup>.</li> <li>Activities should minimise the loss of nutrients (in particular nitrogen and phosphate) leaching out from the production system into the environment.</li> <li>Activities should use residues and by-products the production or harvesting of crops to reduce demand for primary resources, in line with good agricultural practice</li> </ul>
<b>Comply with Minimum Social Safeguards</b>	
Companies and other issuers disclosing against the Taxonomy must comply with the criteria set out in the Draft Green Finance Taxonomy Annex.	

## Livestock production

Sector classification and activity	
Macro-Sector	Agriculture, forestry and fishing
SIC Code	014
Description	Livestock production
Make Significant Contribution criteria	
Climate Change Mitigation	
Principle	<ol style="list-style-type: none"> <li>Demonstrate substantial avoidance or reduction of GHG emissions from livestock production (including animal management, storage and processing of manure and slurry, and management of permanent grasslands)</li> <li>Maintain existing sinks and increase sequestration (up to saturation point) of carbon in permanent grassland. Where livestock production does not include permanent grassland, only principle 1 applies.</li> </ol> <p>Permanent grassland is land used to grow grasses or other herbaceous forage, either naturally (self-seeded including 'rough grazing') or through cultivation (sown), and which is more than five years old.</p>
Metric and Threshold	<p><b>1) Avoid or reduce GHG emissions (including those from inputs used on the farm) through the application of appropriate management practices.</b></p> <p>This can be demonstrated in either of the following ways:</p> <ul style="list-style-type: none"> <li>The essential management practices are deployed consistently over the applicable livestock crop production area each year</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Reduction in GHG emissions (gCO<sub>2</sub>e) in line with the following trajectory</li> <li>Reduction in GHG emissions (gCO<sub>2</sub>e) in line with the following trajectory</li> </ul>

<sup>5</sup> The criterion refers to "unit of output" to allow for production efficiency increases where raw material use may not decline

	<p style="text-align: center;"><b>Emissions reductions trajectory</b></p> <table border="1"> <caption>Emissions reductions trajectory data</caption> <thead> <tr> <th>Year</th> <th>Reduction (%)</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>0%</td> </tr> <tr> <td>2030</td> <td>20%</td> </tr> <tr> <td>2040</td> <td>30%</td> </tr> <tr> <td>2050</td> <td>40%</td> </tr> </tbody> </table> <p>For example, a 20% reduction in GHG emissions would be required by 2030 compared to emissions in 2020, and a 30% emissions reduction would be required by 2040 compared to 2020</p> <p><b>2) Maintain and increase existing carbon stocks for a period of not less than 20 years through the application of appropriate management practices.</b></p> <p>This can be demonstrated in either of the following ways:</p> <ul style="list-style-type: none"> <li>• The essential management practices are consistently deployed over the applicable permanent grassland area each year</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• Above and below ground carbon stocks (tC/ha) to be increased progressively over a 20-year period</li> </ul> <p>* Noting the following exception: For soils specifically, where it can be demonstrated that saturation levels have been reached, no further increase in carbon content is expected. In this case, existing levels should be maintained.</p> <p><b>3) Production is not undertaken on land that had any of the following status in or after 2010<sup>6</sup> and no longer has that status:</b></p> <ol style="list-style-type: none"> <li>Wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;</li> <li>Continuously forested areas, namely land spanning more than 0.1 with trees higher than 2 metres and a canopy cover of between 10 and 30 %, or trees able to reach those thresholds in situ;</li> <li>Peatland, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.</li> </ol> <p><b>Methodological notes:</b></p> <p>For those demonstrating compliance with the essential management practices:</p> <ul style="list-style-type: none"> <li>• The essential management practices are described in the table below. All essential practices will need to be deployed, except where particular practices can be demonstrated to be not applicable to that farm holding given the particular biophysical conditions at that farm holding.</li> </ul>	Year	Reduction (%)	2020	0%	2030	20%	2040	30%	2050	40%
Year	Reduction (%)										
2020	0%										
2030	20%										
2040	30%										
2050	40%										

<sup>6</sup> January 2010 was selected as a cutoff date as this accommodates most major certification or standards requirements for “no deforestation.”



	<ul style="list-style-type: none"> <li>In respect of the essential practice relating to the GHG assessment, this assessment should be done using tools that cover all relevant emissions on the farm associated with production, as well as emissions associated with energy and fuel use (see below for relevant GHG categories). If it can be demonstrated that no carbon assessment tool is currently accessible to farmers in a given location (either because of language or lack of access to farm advisory support), this practice may be omitted in the first instance. The assessment, however, becomes mandatory within a five year period. The assessment is a self-assessment using an appropriate tool, no independent audit or verification of the GHG assessment is required.</li> <li>To demonstrate compliance with all other essential practices, it will be necessary to establish a farm sustainability management plan which describes the management practices being deployed - taking into account crop husbandry requirements, farm pedo-climatic conditions - and their coverage on the farm. To prepare the farm sustainability management plan a carbon calculator can be used, or the plan can also be prepared using other nutrient decision-support tools.</li> </ul> <p>For those demonstrating compliance with GHG thresholds:</p> <ul style="list-style-type: none"> <li>To demonstrate compliance with the quantitative GHG thresholds it will be necessary to establish a Carbon stock and GHG emission baseline for the farm (see below for relevant GHG categories). It will be against such baseline data that emission reductions of Carbon increases can be measured. A carbon audit is necessary in order to also assess where action is needed, and this must be accompanied by a carbon management plan to set out the management practices that will deliver the GHG emissions reduction/ carbon sequestration. This carbon management plan is part of the broader farm sustainability plan.</li> </ul> <p>For all users:</p> <ul style="list-style-type: none"> <li>Calculations of carbon stocks and GHG emissions levels should include the following, though it is recognised that in practice, the scope of GHG counted will be subject to the technical capabilities of the GHG accounting tools being used: <ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions and removals in above ground biomass</li> <li>CO<sub>2</sub> emissions and removals in below ground biomass and soils</li> <li>N<sub>2</sub>O emissions from exposed soils, fertiliser application, and those embedded in fertiliser production and fertiliser application</li> <li>CH<sub>4</sub> emissions from livestock (enteric fermentation and manure management) and some soils (e.g. wetlands)</li> <li>CO<sub>2</sub> emissions from fuel and electricity use</li> </ul> </li> <li>Emissions, sinks and management practices are all to be audited at 3-year intervals to confirm ongoing compliance with these requirements.</li> <li>In the case of force majeure: emissions resulting from natural disturbance can be excluded from impacting on the achievement of the thresholds and will not affect the application of these requirements or result in non-compliance with these criteria.</li> </ul>
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Management category	Essential management practice	GHG	C-Seq	Co-benefits
Farm GHG assessment	Undertake a GHG assessment of sources of emissions and sinks on the farm. Existing and verified tools should be used. No auditing of the GHG assessment is required.	✓	✓	✓
Animal Health Planning	Better health planning and management (develop a health management plan, improve hygiene & supervision at parturition, improve maternal nutrition in late gestation to increase offspring survival, improve fertility management, selection for improving both methane and ammonia emission efficiency).	✓		
Animal Feeding	Feed additives: certain compounds, such as dietary fats, nitrate, 3-NOP, can reduce enteric	✓		

	CH <sub>4</sub> emissions of ruminants. They need to be administered by mixed into the feed, and the dosage needs to be set accurately in order to avoid some potential negative health effects on the livestock. It is usually not feasible to apply these for the periods when the livestock is grazing.			
	Precision and multi-phase feeding techniques, where the nutrient requirements of groups of animals (or individual animals) are targeted in feed formulation. This can reduce nitrogen excretion and subsequent N <sub>2</sub> O emissions from manure, and also increase feed efficiency in general (reducing the feed related upstream emissions).	✓		
	Feed imported to the farm must be sourced responsibly and must demonstrate that the production of feed did not take place in deforested areas with high carbon stock or high biodiversity value <sup>7</sup> .	✓ *	✓ *	
Manure Management	Cooling of liquid manure. CH <sub>4</sub> emissions from liquid manure increase with temperature. The slurry can be stored at a lower (ambient) temperature by using animal houses where the manure is collected in an outside pit rather than in the house.  Note: Bundle all manure storage measures with low emission spreading	✓		
	Covering and sealing slurry and farm-yard manure storage to reduce gaseous losses of ammonia (and related indirect N <sub>2</sub> O) and also CH <sub>4</sub> emissions. A wide choice of technological solutions is available from short lifetime plastic film covers to retrofitted or purpose built rigid covers.	✓		✓
	Separating solids from slurry: via mechanical or chemical ways the liquid part (rich in N) of the slurry (and also digestate from AD) can be separated from the solid part (rich in phosphorous and volatile solids).	✓		
	Composting and applying solid manure	✓	✓	
	Slurry acidification is achieved by adding strong acids to the slurry to achieve a pH of 4.5-6.8 – this reduces CH <sub>4</sub> and NH <sub>3</sub> emissions considerably. There are three main types of technology based on the stage at which the acid is added to the slurry: in the livestock house, in the storage tank, or before field application. The slurry tank and the spreading equipment needs to be designed to withstand the acidic liquid, and precautions particularly while handling the strong acids are needed to minimize the risk of accidents. A better monitoring of the storage is also advisable	✓		

<sup>7</sup> This would require that where imported or 'bought-in' from outside the region, that it is drawn from certified feed supply chains. For example, the Round Table on Responsible Soy (RTRS) provides certification for production and for chain of custody (traceability through the supply chain). Other certification for other crops/ feedstocks standards exists.

	to reduce the risk of slurry spillage to a minimum.			
	Apply low-emission application technology for slurry and manure	✓	✓	
Permanent grassland management	Pasture renovation (when productivity declines, reseed the pasture)	✓	✓	
	Remove animals from very wet fields to reduce compaction	✓		✓
	Maintain and preserve permanent grassland	✓	✓	✓
	No ploughing of permanent grassland	✓	✓	✓
Soil management	No burning of arable stubble except where authority has granted an exemption for plant health reasons.	✓		
Energy use	Where energy emissions represent more than 20% of total emissions from livestock production activity, these emissions should be reduced appropriately for the term of the investment, in line with the trajectory outlined in the above section i.e. by at least 10% compared to a 2020 baseline for a 5 year investment period, 20% compared to a 2020 baseline for a 10 year investment period to 2030, and 30% compared to a 2020 baseline for a 20 year investment period – with pro-rata adjustments for investments of intermediate durations	✓		

Note: \* benefits also delivered to other sectors, e.g. forest where deforestation has been avoided.

#### Climate Change adaptation

Depending on the primary objective of the activity, refer to the Draft Green Finance Taxonomy Annex. Users of the Taxonomy should identify and explain which criteria they are responding to.

#### Do No Significant Harm assessment

The activity livestock production captures a distinct set of sub-activities that would include intensive and extensive forms of livestock rearing, as well as the management of permanent grassland. These come with different key environmental aspects that need to be considered for investments in this sector, summarised as follows:

- Ability of farming systems to adapt to a changing climate;
- Impact on water quantity, water quality and water ecosystems, incl. waste water treatment from intensive rearing;
- Manure treatment;
- Emissions of pollutants (such as methane, ammonia, dust, odour, noise) to air, water and soil, in particular in the case of intensive rearing;
- Impact on habitats and species.

To note that areas of environmental risk are highly geographically variable. Guidance should be sought from the relevant competent national or regional authority to identify areas or issues of importance and relevance within the area or project concerned.

Climate change mitigation	<p>For adaptation projects</p> <ul style="list-style-type: none"> <li>• Maintain and preserve permanent grassland</li> <li>• No burning of arable stubble except where authority has granted an exemption for plant health reasons.</li> <li>• Appropriate protection of wetland or peatland and no conversion of continuously forested areas or land spanning more than 0.1 hectares with trees higher than 2m and a canopy cover of between 10 &amp; 30% or able to reach those thresholds in situ</li> </ul>
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	<ul style="list-style-type: none"> <li>• Fulfil the requirements of; National Environmental Management Act (No.107 of 1998) as amended, the Conservation of Agricultural Resources Act (No 43 of 1983), the National Environmental Management Biodiversity Act (No 10 of 2004), National Environmental Management Protected Areas Act (No 57 of 2003) and National Water Act (No 36 of 1998).</li> <li>• Minimum land management under tillage to reduce risk of soil degradation including on slopes.</li> <li>• No bare soil in most sensitive period of the year to prevent erosion and loss of soils.</li> </ul>
Climate change Adaptation	<p>For mitigation projects</p> <p>The activity complies with the criteria set out in the Draft Green Finance Taxonomy Annex.</p>
Sustainable use of water and marine resources	<p>Fulfil the requirements of South African water legislation such as the National Water Act (No.36 of 1998), Mountain Catchment Areas Act (No. 63 of 1970) and the Water Services Act (No.108 of 1997) where applicable. Identify and manage risks related to water quality and/or water consumption at the appropriate level. Where water use/conservation management plans are required by South African legislation, these plans are to be developed in consultation with relevant stakeholders.</p>
Ecosystem protection and restoration	<ul style="list-style-type: none"> <li>• Activities ensure the protection of soils to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter.</li> <li>• Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other areas of high-biodiversity value<sup>8</sup>. This includes highly biodiverse grassland spanning more than one hectare that is: <ul style="list-style-type: none"> <li>iii. natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes; or</li> <li>iv. non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority.</li> </ul> </li> <li>• Activities should not<sup>9</sup>: <ul style="list-style-type: none"> <li>- result in a decrease in the diversity or abundance of species and habitats of conservation importance or concern;</li> <li>- contravene existing management plans or conservation objectives.</li> <li>- lead to overgrazing other forms of degradation of grasslands.</li> </ul> </li> </ul>
Pollution prevention	<ul style="list-style-type: none"> <li>• Activities ensure that nutrients (fertilisers) and plant protection products (e.g. pesticides and herbicides) are targeted in their application (in time and area treated) and are delivered at appropriate levels (with preference to sustainable biological, physical or other non-chemical methods if possible) to reduce risk and impacts of pesticide use on human health and the environment (e.g. water and air pollution) and the loss of excess nutrients through leaching, volatilisation or oxidation<sup>10</sup>.</li> <li>• The use only of plant protection products with active substances that ensure high protection of human and animal health and the environment. Use of chemicals must adhere to the National Environmental Management Act, 1998 (Act No.107 of 1998), the Hazardous Substances Act, 1973 (Act No.15 of 1973) and the Occupational Health and Safety Act No.85 of 1993. Ensure emissions to air, water and soil are based on the application of the Best Practicable Environmental Option (BPEO) principle informed by the Best Available Technology/Technique (BAT) approach in alignment with National Environmental Management Air Quality (Act 39 of 2004), the National Environmental Management Waste Act (Act 59 of 2008)</li> </ul>

<sup>8</sup> Areas of high-biodiversity-value can be defined as set out in National Environmental Management: Biodiversity Act 10 of 2004 and are set out in the National Biodiversity Assessment 2018

<sup>9</sup> Consistent with the National Environmental Management: Biodiversity Act 10 of 2004

<sup>10</sup> See the sustainable use of pesticides within the Pesticide Management Policy for South Africa

	<p>and the 2017 National Framework for Air Quality Management for the Intensive Rearing of Poultry or Pigs, and by using similar emission reducing techniques for dairy farming;</p> <ul style="list-style-type: none"> <li>• Ensure that mitigation and emission reduction techniques for feeding and housing of livestock and for manure storage and processing are applied, guidance is provided in the UNECE Framework Code for Good Agricultural Practice for Reducing Ammonia;</li> <li>• Where manure is applied to the land, activities should comply with the limit of 170kg nitrogen application per hectare per year, or alternatively, the derogated threshold where one has been set.</li> </ul>
Sustainable resource use and circularity	<ul style="list-style-type: none"> <li>• Activities should use residues and by-products and take any other measures to minimise primary raw material use per unit of output, including energy<sup>11</sup>.</li> <li>• Activities should minimise the loss of nutrients from the production system into the environment.</li> </ul>
<b>Comply with Minimum Social Safeguards</b>	
Companies and other issuers disclosing against the Taxonomy must comply with the criteria set out in the Draft Green Finance Taxonomy Annex.	

## Production of electricity, heating and cooling from gas

Sector classification and activity	
Macro-Sector	Electricity, gas, steam and air conditioning supply
SIC Code	3510
Description	Construction and operation of electricity generation facilities that produce electricity, heating and cooling from Gas Combustion (not exclusive to natural gas)
Make Significant Contribution criteria	
Climate Change Mitigation	
Principle	<ul style="list-style-type: none"> <li>• Support a transition to a low carbon net-zero emissions economy</li> <li>• Avoidance of lock-in to technologies which do not support the transition to a low carbon economy net-zero emissions economy</li> <li>• Ensure that economic activities meet best practice standards</li> <li>• Ensure equal comparability within an economic activity with regards to achieving low carbon net-zero emissions economy target</li> <li>• Where necessary, incorporating technology-specific considerations into secondary metrics and thresholds</li> </ul>
Metric and Threshold	<ol style="list-style-type: none"> <li>1. Life-cycle GHG emissions from the generation of electricity using gaseous and liquid fuels are lower than 100gCO<sub>2</sub>e/kWh.  Life-cycle GHG emissions are calculated based on project-specific data, where available using ISO 14067:2018 or ISO 14064-1:2018.  Quantified life-cycle GHG emissions are verified by an independent third party.</li> <li>2. Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the criteria set out in the relevant Section of this Annex, where applicable. Where the CO<sub>2</sub> emitted from the electricity generation is captured as a way to meet the emissions limit set out in point 1 of this Section, the CO<sub>2</sub> is transported and stored underground in a way that meets the technical screening criteria for transport of CO<sub>2</sub> and storage of CO<sub>2</sub> set out in under the Transport of CO<sub>2</sub> economic activity and the Permanent Sequestration of Captured CO<sub>2</sub> economic activity respectively.</li> <li>3. The activity meets either of the following criteria:</li> </ol>

<sup>11</sup> The criterion refers to “unit of output” to allow for production efficiency increases where raw material use may not decline.

	<p>a) at construction, measurement equipment for monitoring of physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced;</p> <p>b) at operation, physical measurement of emissions are reported and leak is eliminated.</p>
<b>Climate Change Adaptation</b>	
Depending on the primary objective of the activity, refer to the Draft Green Finance Taxonomy Annex. Users of the Taxonomy should identify and explain which criteria they are responding to.	
<b>Do No Significant Harm assessment</b>	
The key environmental aspects to be taken into account when investing in this activity are the impact on local water (consumption and sewage), the fulfilment of the applicable waste and recycling criteria, the NO <sub>x</sub> and CO emissions control in line with Best Practicable Environmental Option (BPEO) principle informed by the Best Available Technology/Technique (BAT) and the avoidance of direct impacts on sensitive ecosystems, species or habitats.	
Climate change mitigation	<p>For adaptation projects</p> <p>The direct GHG emissions of the activity are lower than 270gCO<sub>2</sub>e/kWh.</p>
Climate change adaptation	<p>For mitigation projects</p> <p>The activity complies with the criteria set out in the Draft Green Finance Taxonomy Annex.</p>
Sustainable use of water and marine resources	Fulfil the requirements of South African water legislation such as the National Water Act (No.36 of 1998), Mountain Catchment Areas Act (No. 63 of 1970) and the Water Services Act (No.108 of 1997) where applicable. Identify and manage risks related to water quality and/or water consumption at the appropriate level. Where water use/conservation management plans are required by South African legislation, these plans are to be developed in consultation with relevant stakeholders.
Ecosystem protection and restoration	<p>Ensure an Environmental Impact Assessment (EIA) has been completed in accordance with the National Environmental Management Act (No.107 of 1998) as amended (or other equivalent national provisions or international standards (e.g. IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks) – whichever is stricter and any required mitigation measures for protecting biodiversity/eco-systems, in particular UNESCO World Heritage and Key Biodiversity Areas, have been implemented.</p> <p>For sites/operations located in or near to biodiversity-sensitive areas, ensure that an appropriate assessment has been conducted in compliance with the provisions of National Environmental Management Biodiversity Act (Act 10 of 2004) (or other equivalent national provisions or international standards (e.g. IFC Performance Standard 6) – whichever is stricter based on the conservation objectives of the protected area. For such sites/operations, ensure that:</p> <ul style="list-style-type: none"> <li>• a site-level biodiversity management plan exists and is implemented in alignment with the IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;</li> <li>• all necessary mitigation measures are in place to reduce the impacts on species and habitats; and</li> <li>• a robust, appropriately designed and long-term biodiversity monitoring and evaluation programme exists and is implemented.</li> </ul>
Pollution prevention	Ensure emissions to air and water are based on the application of the Best Practicable Environmental Option (BPEO) principle informed by the Best Available Technology/Technique (BAT) approach in alignment with National Environmental Management Air Quality (Act 39 of 2004), the National Environmental Management Waste Act (Act 59 of 2008) and the 2017 National Framework for Air Quality Management concerning the activity in question or other techniques that provide for an equivalent level of environmental protection.
Sustainable resource use and circularity	N/A

<b>Comply with Minimum Social Safeguards</b>
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Companies and other issuers disclosing against the Taxonomy must comply with the criteria set out in the Draft Green Finance Taxonomy Annex.
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## Taxonomy coverage developmental constituents

### Transition taxonomy basis

The Draft South African Green Finance Taxonomy identifies economic activities that are recognised as significant for transition, for which transitional criteria and performance thresholds should be defined in the applicable technical standards.

As the taxonomy is revised and enhanced in future iterations, it is anticipated that fewer and/or more narrowly defined economic activities and relevant projects and assets will be recognised in the taxonomy – i.e. there will be a steady diminishment of what is recognised as taxonomically-aligned. This is intrinsic to the time-dimension of climate change mitigation requirements, as well as the expectation for steadily increasing the ambition for environmental performance as regards the other environmental objectives.

At this time, it is suggested that the substance of recognition at a point in time of transitional activities, assets or projects as taxonomically-aligned is that – in addition to stipulated conformance to the taxonomy requirements (7 steps) – any statement of transitional taxonomic-alignment must include the additional steps as defined in Figure 1 and Figure 2.
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To be clear, taxonomy-alignment for transitional economic activities requires determination of full-taxonomy alignment, including minimum social safeguards and climate resilience.

A Transition Taxonomy is planned to be undertaken as a subsequent design and development process. As such, the materials herein are a first consideration, with significant developmental requirements anticipated before future inclusion in an expanded finance taxonomy.



	<p><b>Differentiate the activity as ‘transitional’ – as distinct from ‘fully green’</b></p> <p>Clear identification in disclosure that the taxonomically-aligned economic activity and the related finance is for ‘transition’</p>
	<p><b>Provide further transparency, rationale and phase-out commitment</b></p>
	<p><b>Disclose credible, substantiated quantitative information, and where not possible provide detailed explanation</b></p>

Figure 1: High-level outline of the potential additional process steps to determine and demonstrate a transitional activity as taxonomy-aligned





## Provide further transparency, rationale and phase-out commitment both at...

### ...activity level –

To demonstrate transition alignment, disclose further qualitative and quantitative disclosure concerning the economic activity, including:

- Rationale for the transitional activity – providing express explanation and quantitative specifications for the economic activity and comparison in terms of the following dimensions against comparable/relevant ‘fully green’ alternatives:
  - Significance of commercial and economic transformation
  - Contribution to environmental objectives
  - Particular demonstrable or attributable social and socio-economic contribution
  - Strategic relevance in terms of a transition plan
- Timeframe of the transitional activity (with specified sunset date)
- Detailed phase out planning for the activity

### ...and entity level –

To substantiate transition alignment, An environmental impact reduction strategy must be available and:

- **Be aligned to the green economy ambition** identified for the environmental objectives expressed in this document, be that climate change and any of other objectives as relevant to the economic activity and entity
- **Be as – or more – ambitious than the prevailing national policy context** concerning the relevant environmental objectives
- **Include robust quantitative entity level transition pathway projections** and the related impact performance against the particular environmental objectives, from the time of disclosure to the point of meeting the ‘fully green’ criteria of the applicable standard
- **Specify the process followed to define the transition pathway projections** and related impact performance in detail
- **Demonstrate how the entity will follow the transition pathway**
- **Define the disclosure frequency and detail** that the entity will employ to demonstrate that transition is continuing at the necessary scale and pace
- **Identify the specific economic activity**, asset or project which is the subject of taxonomic-alignment assessment, and position it definitively in the context of the transition strategy overall

Figure 2: Further detail for transparency at activity and entity level to determine and demonstrate a transitional activity as taxonomy-aligned

## **Expanding the South African Green Finance Taxonomy and embedding its use**

Catalysing the much-needed economy-wide investment to respond to climate change and unlocking the needed finance for the solutions to achieve deep decarbonisation and equitable transition, remains challenging. An essential tool that can help economic actors allocate capital in a way that is more consistent with the vision for a development-focused, climate-resilient economy, is a taxonomy that strongly encompasses social and socio-economic development objectives, and provides coverage for finance classification challenges in economic transition.

With the support of the SA UK PACT (Partnering for Accelerated Climate Transitions) programme, the project 'Expanding the South African Green Finance Taxonomy and embedding its use' will undertake the critically important work to expand the Green Finance Taxonomy (GFT) as follows;

- Developing and integrating social aspects and just transition models into the green finance taxonomy,
- Developing a chapter of the taxonomy specifically addressing transition,
- Deepening and broadening the catalogue of South African-specific green activities and innovation needs, and
- Integrating principles and guidance concerning climate-risk and low-carbon incompatible activities.

Such an expanded GFT offers a way to tie the financial sector back to the real economy by providing a clear set of definitions for what “counts” towards sustainability in South Africa. Through its contribution to reasonable certainty and to transparency, it places the spotlight on the financial sector to align its activities with sincerity.

The project, lead by National Business Initiative and supported by the Carbon Trust, will continue to work with the financial sector, industry associations, regulators and national and sub-national government throughout. It will also learn from and work bilaterally with others working on similar taxonomy developments across the world, as knowledge and understanding grows and challenges with taxonomies are better understood. The project will also develop roadmaps and provide practical implementation support and knowledge building, to enable the adoption of the resulting expanded GFT by financial actors and non-financial actors, in both the private and the public sectors.

The project is planned to be delivered during the 12 months March 2021 – February 2021, and will build on the foundations laid by the initial phase of work supported by IFC, part of the World Bank Group, through IFC's Green Bond Market Development program in partnership with SECO (Swiss State Secretariat for Economic Affairs) and Sida (Swedish International Development Cooperation Agency). It also benefits from global support from the IFC-facilitated Sustainable Banking Network (SBN).



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The National Business Initiative is a voluntary coalition of South African and multinational companies, working towards sustainable growth and development in South Africa and the shaping of a sustainable future through responsible business action.

Since our inception in 1995, the NBI has made a distinct impact in the spheres of housing delivery, crime prevention, local economic development, public sector capacity building, further education and training, schooling, public private partnerships, energy efficiency and climate change.

The NBI is a global network partner of the World Business Council for Sustainable Development (WBCSD) and an implementation partner of We Mean Business, the CEO Water Mandate and CDP.

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