CIFA 气候投融资专业委员会

Taxonomy of Climate Investment and Financing Projects

September 2021

CONTENTS

Scope 01

Normative References 02

Terms and Definitions 03

General Rules 04

Classification of Climate Change Mitigation Projects 05

Classification of Climate Change Adaptation Projects 17

Annex A 30

SCOPE

China Taxonomy of Climate Investment and Financing Projects (hereinafter referred to as "the taxonomy")specifies the general rules for the classification of climate investment and financing projects, as well as the guidance on the classification of climate change mitigation projects and climate change adaptation projects.

The Taxonomy applies to the identification, definition and classification of climate investment and financing projects by relevant organizations during investment and financing activities.

NORMATIVE REFERENCES

The following documents are indispensable to the application of the Taxonomy. For dated references, only the dated edition is applicable to the Taxonomy. For undated references, the latest edition (including all amendments) applies.

- GB/T 4754 *Industrial Classification for National Economic Activities*
- GB/T 32150 *General Guideline of the Greenhouse Gas Emissions Accounting and Reporting for Industrial Enterprises*
- GB/T 33760 *Technical Specification at the Project Level for Assessment of Greenhouse Gas Emission Reductions—General Requirements*
- GB/T 39965 *General Methods for Energy Savings Pre-assessment*
- ISO 14064-2 *Greenhouse gases - Part 2: Specification with Guidance at the Project Level for Quantification, Monitoring and Reporting of Greenhouse Gas Emission Reductions or Removal Increases*
- ISO 14090:2019 *Adaptation to Climate Change - Principles, Requirements and Guidelines*
- *ISO 14091:2021 Adaptation to Climate Change - Guidelines on Vulnerability, Impacts and Risk Assessment*

TERMS & DEFINITIONS

For the purpose of the Taxonomy, the terms and definitions given in GB/T 32150 and the following apply.

Climate investment and financing projects

Projects where the funds are mainly used to address climate change.

Note 1: As defined in Article 1 of the United Nations Framework Convention on Climate Change (UNFCCC), "climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Note 2: As described in the *Guiding Opinions on Promoting the Investment and Financing to Address Climate Change* (HQH [2020] No. 57), "climate investment and financing" means investment and financing activities in response to climate change, toward which the flow of more capital be actively guided and promoted in order to achieve the goal of intended nationally determined contributions (INDC) and the goal of low carbon development.

Climate change mitigation projects

Projects that are intended to reduce the emissions of greenhouse gases or increase their removal.

Climate change adaption projects

Projects that are intended to mitigate the adverse impacts of climate change by taking measures to reduce the vulnerability of natural and human systems against actual or expected effects of climate change.

Note: As stated in the *Circular on National Strategy for Climate Change Adaptation* (FGQH [2013] No. 2252), to address climate change, we should not only reduce the emissions of greenhouse gases, but also take proactive actions, strengthen management and adjust human activities, and make full use of favorable factors to mitigate the adverse impacts of climate change on natural ecosystems and socioeconomic systems.

GENERAL RULES

The classification of climate investment and financing projects shall be made on the latest scientific basis in accordance with the requirements of policies, relevant regulations and standards, taking into account project realities and following the principle of comprehensiveness, objectivity, applicability and openness.

Climate investment and financing projects include climate change mitigation projects, climate change adaptation projects, and projects that have both mitigation and adaptation effects.

Climate investment and financing projects support the following ones:

In terms of climate change mitigation:

- Projects that contribute to the industrial restructuring and the active development of strategic emerging industry;
- Projects that contribute to the energy structure optimization and the vigorous non-fossil energy development;
- Projects related to the pilot demonstration of carbon capture, use and storage (CCUS);
- Projects that contribute to the control of greenhouse gas emissions from non-energy activities such as industry, agriculture and waste treatment;
- Projects that contribute to increasing forest, grassland and other carbon sinks.

In terms of climate change adaptation:

- Projects that contribute to the improvement of adaptability to climate change in such key areas as agriculture, water resources, forestry and ecosystems, marine, meteorology, disaster prevention, mitigation and relief;
- Projects that contribute to strengthening adaptability building, accelerating infrastructure construction, and improving scientific and technological capacity.

Climate investment and financing projects shall comply with the regulations, policies, and mandatory standards related to safety, environmental protection, and quality.

Climate investment and financing projects shall, where applicable, give reasonable consideration to the impacts on other sustainable development goals (SDGs), to avoid significantly impairing these SDGs.

Note: The 17 sustainable development goals (SDGs) adopted by the United Nations can be found at https://sdgs.un.org/2030agenda.

The Taxonomy shall be updated in a timely manner to reflect the latest policies and standards, while those projects failing to meet the latest requirements shall be delisted.

Note: The rationale for defining climate investment and financing projects may vary with the development of science and technology.

CLASSIFICATION OF CLIMATE CHANGE MITIGATION PROJECTS

Principle of classification

- Climate change mitigation projects shall be in alignment with the *Green Industry Guidance Catalogue* (2019 Edition), the *Catalogue of Green Bond Endorsed Projects* (2021 Edition) and other relevant statistical system.
- Climate change mitigation projects shall be able to yield significant benefits such as reduction of greenhouse gas emissions and/or increase of greenhouse gas removal over the life cycle of the projects. The greenhouse gas emission reduction or greenhouse gas removal increase resulting from climate change mitigation projects may be determined with reference to GB/T 33760, ISO 14064-2 and other standards.

Note: Pre-assessment on the greenhouse gas emission reduction of climate change mitigation projects may be carried out with reference to GB/T 39965 and other standards.

Example of classification

- Refer to Table 1 for the examples of classification of climate change mitigation projects.

Note: The project types shown in Table 1 may correspond to more than one national economic industry, depending on technology and operating condition.

Table 1 Examples of Classification of Climate Change Mitigation Projects

Examples of Typical Projects					
Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.1 Low-carbon industry	M.1.1.1 Industrial energy saving	M.1.1.1.1 Energy system optimization	E. Construction industry 48 Civil engineering construction 486 Energy-saving and environmental protection engineering construction 4861 Energy conservation engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.1.1.2 Industrial energy saving transformation	E. Construction industry 48 Civil engineering construction 486 Energy-saving and environmental protection engineering construction 4861 Energy conservation engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
		M.1.1.2 Manufacturing of low-carbon technology equipment	M.1.1.2.1 New energy and clean energy equipment manufacturing	C. Manufacturing industry Manufacturing industry 38 Electrical machinery and equipment manufacturing 382 Manufacturing of power transmission, distribution and control equipment 3825 Manufacturing of photovoltaic devices and components 34 General equipment manufacturing 3414 Manufacturing of hydraulic turbines and their auxiliaries 3415 Manufacturing of wind power prime movers 3419 Manufacturing of other prime movers	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.1.2.2 Energy-efficient equipment manufacturing	C. Manufacturing industry 35 Special equipment manufacturing 359 Manufacturing of equipment for environmental services, postal services and social public services, and other special equipment 3599 Manufacturing of other special equipment 34 General equipment manufacturing 341 Manufacturing of boilers and prime movers 3411 Manufacturing of boilers and auxiliary equipment 344 Manufacturing of pumps, valves, compressors and similar machinery 346 Manufacturing of ovens, fans, packers and other equipment 38 Electrical machinery and equipment manufacturing 381 Motor manufacturing 382 Manufacturing of power transmission, distribution and control equipment 385 Manufacturing of household electrical appliances 387 Manufacturing of lighting apparatus 39 Computer, communication equipment and other electronic equipment manufacturing	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.1 Low-carbon industry	M.1.1.2 Manufacturing of low-carbon technology equipment	M.1.1.2.2 Energy-efficient equipment manufacturing	391 Computer manufacturing	See the Green Industry Guidance Catalogue (2019 Edition).
			M.1.1.2.3 Manufacturing of new energy vehicles and green ships	C. Manufacturing industry 36 Automobile manufacturing 361 Vehicle manufacturing 3612 New energy vehicle manufacturing 365 3650 Tram manufacturing 367 3670 Manufacturing of auto parts and accessories 38 Electrical machinery and equipment manufacturing 382 Manufacturing of power transmission, distribution and control equipment 41 Other manufacturing industries 419 Other manufacturing industries not listed here 4190 Other manufacturing industries not listed here	See the Green Industry Guidance Catalogue (2019 Edition).
	M.1.2 Low-carbon agriculture			A. Agriculture, forestry, animal husbandry and fishery 01 Agriculture 05 Specialized and support activities in agriculture, forestry, animal husbandry and fishery 051 Specialized and support activities in agriculture	Activities that can reduce greenhouse gas emissions during agricultural production

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.3 Low-carbon buildings and building energy saving	M.1.3.1 Building energy saving and green building	M.1.3.1.1 Ultra-low energy building construction	E. Construction industry 47 Housing construction 49 Construction and installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.3.1.2 Green buildings	E. Construction industry 47 Housing construction 49 Construction and installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.3.1.3 Application of renewable energy in buildings	E. Construction industry 47 Housing construction 49 Construction and installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.3.1.4 Fabricated buildings	E. Construction industry 47 Housing construction 49 Construction and installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.3.1.5 Energy saving and greening of existing buildings	E. Construction industry 47 Housing construction 49 Construction and installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.3.1.6 Logistics & green warehousing	E. Construction industry 47 Housing construction 49 Construction and installation	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.3 Low-carbon buildings and building energy saving	M.1.3.2 Green building materials	M.1.3.2.1 Manufacturing of green building materials	C. Manufacturing industry 30 Manufacturing of non-metallic mineral products 304 Glassmaking	See the *Green Industry Guidance Catalogue* (2019 Edition).
	M.1.4 Low-carbon transportation	M.1.4.1 Construction and operation of low-carbon transportation facilities	M.1.4.1.1 Construction and operation of freight transport railways and energy-saving and environmentally friendly reform of railways	Operation projects are classified as: G. Transportation, warehousing and post services 53 Railway transport industry 533 Support activities in railway transportation 5333 Maintenance activities in rail transportation 5339 Other support activities in rail transportation Construction projects are classified as: 48 Civil engineering construction 481 Railway, road, tunnel and bridge engineering construction 4811 Railway engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.4.1.2 Construction of shore power facilities for ports and terminals and power supply facilities for airport corridors	Operation projects are classified as: G. Transportation, warehousing and post services 55 Water transport industry 553 Support activities in water transportation 5531 Passenger ports, including terminals for water sports 5532 Cargo ports	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.4 Low-carbon transportation	M.1.4.1 Construction and operation of low-carbon transportation facilities	M.1.4.1.2 Construction of shore power facilities for ports and terminals and power supply facilities for airport corridors	5539 Other construction projects of support activities in water transportation Construction projects are classified as: E. Construction industry 48 Civil engineering construction 482 Water conservancy and waterway engineering construction 4823 Port and shipping facilities engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.4.1.3 Construction and operation of urban and rural public transport systems	Operation projects are classified as: G. Transportation, warehousing and post services 54 Road transport industry 541 Urban public transport 5411 Electric bus passenger transportation 5412 Urban rail transit 5414 Public bicycle service 5419 Other urban public transport 544 Support activities in road transportation 5441 Passenger bus station (long-distance passenger transport station) services 5442 Freight hubs (stations) Construction projects are classified as: E. Construction industry	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.4 Low-carbon transportation	M.1.4.1 Construction and operation of low-carbon transportation facilities	M.1.4.1.3 Construction and operation of urban and rural public transport systems	48 Civil engineering construction 481 Railway, road, tunnel and bridge engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.1.4.1.4 Urban slow-moving traffic	Operation projects are classified as: G. Transportation, warehousing and post services 54 Road transport industry 541 Urban public transport 5411 Electric bus passenger transportation 5412 Urban rail transit 5413 Taxi passenger transport 55 Water transport industry 553 Support activities in water transportation 5531 Passenger ports, including terminals for water sports 5532 Cargo ports 5539 Other support activities in water transportation Construction projects are classified as: 48 Civil engineering construction 489 Other civil engineering construction 4899 Other civil engineering building construction	See the (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.4 Low-carbon transportation	M.1.4.2 Supporting facilities of clean energy vehicles	M.1.4.2.1 Construction and operation of charging, battery swapping, hydrogen refueling and gas refueling facilities	Operation projects are classified as: G. Transportation, warehousing and post services 54 Road transport industry Construction projects are classified as: 48 Civil engineering construction 489 Other civil engineering construction 4899 Other civil engineering building construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
	M.1.5 Low-carbon services	M.1.5.1 Low-carbon services		M. Scientific research and technical services 74 Specialized technical services 7455 Certification and accreditation services L. Rental and business service industry 72 Business service industry 724 Consultation and investigation 7245 Environmental consulting J. Financial industry 67 Capital market services 676 6760 Capital investment services 69 Other financial services 695 6950 Financial Asset Management Company 699 Other financial services not listed here 6999 Others not including financial services	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.1 Low-carbon industry system	M.1.6 Low-carbon supply chain services	M.1.6.1 Construction of low-carbon supply chain-related facilities	M.1.4.1.3 Construction and operation of urban and rural public transport systems	Facility construction projects are classified as: E. Construction industry 48 Civil engineering construction Facility operation projects are classified as: L. Rental and business service industry 72 Business service industry 722 Comprehensive management services 7224 Supply chain management services G. Transportation, warehousing and post services 59 Loading, unloading, handling and warehousing 592 5920 General warehousing	Construction and operation of low-carbon processing, warehousing, logistics and other related facilities.
M.2 Low-carbon energy	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.1 Construction and operation of solar energy utilization facilities	Facility operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production 4416 Solar power generation 443 Thermal power production and supply 4430 Thermal power production and supply	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.2 Low-carbon energy	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.1 Construction and operation of solar energy utilization facilities	Facility construction projects are classified as: E. Construction industry 48 Civil engineering construction 487 Electric power engineering construction 4875 Solar power engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.2.1.1.2 Construction and operation of wind power facilities	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production 4415 Wind power generation Construction projects are classified as: E. Construction industry 48 Civil engineering construction 487 Electrical power engineering construction 4874 Wind power engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.2 Low-carbon energy	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.3 Construction and operation of biomass energy utilization facilities	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production 4417 Biomass power generation 443 Thermal power production and supply 4430 Thermal power production and supply Construction projects are classified as: E. Construction industry 48 Civil engineering construction 487 Electrical power engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.2.1.1.4 Comprehensive utilization of biomass resources	Operation projects are classified as: C. Manufacturing industry 25 Oil, coal and other fuel processing industry 254 Biomass fuel processing 2541 Biomass liquid fuel production 2542 Densified biomass briquette fuel processing Construction projects are classified as: E. Construction industry	Construction and operation of facilities for the production of biomass briquette from crop straw and facilities for the production of biogas from fecal residue and wastewater.

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.2 Low-carbon energy	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.4 Comprehensive utilization of biomass resources	48 Civil engineering construction 487 Electrical power engineering construction	Construction and operation of facilities for the production of biomass briquette from crop straw and facilities for the production of biogas from fecal residue and wastewater.
			M.2.1.1.5 Construction and operation of hydropower facilities	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production 4413 Hydropower Construction projects are classified as: E. Construction industry 48 Civil engineering construction 487 Electrical power engineering construction 4872 Hydropower engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.2.1.1.6 Construction and operation of geothermal energy utilization facilities	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.2 Low-carbon energy	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.6 Construction and operation of geothermal energy utilization facilities	4419 Other electricity production 443 Thermal power production and supply 4430 Thermal power production and supply Construction projects are classified as: E. Construction industry 48 Civil engineering construction 487 Electrical power engineering construction 484 Industrial and mining engineering construction 4840 Industrial and mining engineering construction 49 Construction and installation 492 Pipe and equipment installation 4920 Pipe and equipment installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.2.1.1.7 Construction and operation of ocean energy utilization facilities	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production 4419 Other electricity production Construction projects are classified as: E. Construction industry 48 Civil engineering construction	Construction and operation of facilities for the production of biomass briquette from crop straw and facilities for the production of biogas from fecal residue and wastewater.

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.2 Low-carbon energy	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.7 Construction and operation of ocean energy utilization facilities	487 Electrical power engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.2.1.1.8 Construction and operation of hydrogen energy utilization facilities	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 441 Electric power production 4419 Other electricity production 443 Thermal power production and supply 4430 Thermal power production and supply Construction projects are classified as: E. Construction industry 48 Civil engineering construction 487 Electrical power engineering construction 48 Civil engineering construction 484 Industrial and mining engineering construction 4840 Industrial and mining engineering construction 485 Overhead line and pipeline engineering construction 4852 Pipeline engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.2 Low-carbon energy 	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.9 Construction and operation of heat pumps	Operation projects are classified as: D. Electric power, thermal power, gas and water production and supply industry 44 Electric power and thermal power production and supply industry 443 Thermal power production and supply 4430 Thermal power production and supply Construction projects are classified as: E. Construction industry 49 Construction and installation 492 Pipe and equipment installation 4920 Pipe and equipment installation	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.2.1.1.10 Construction and operation of efficient energy storage facilities	D. Electric power, thermal power, gas and water production and supply industry 44 Electricity production 442 Power supply 4420 Power supply 443 Thermal power production and supply 4430 Thermal power production and supply Construction projects are classified as: E. Construction industry 48 Civil engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
	M.2.1 Renewable energy utilization	M.2.1.1 Renewable energy utilization	M.2.1.1.10 Construction and operation of efficient energy storage facilities	487 Electrical power engineering construction 4870 Other electric power engineering construction	See the *Green Industry Guidance Catalogue* (2019 Edition).
M.3 Pilot demonstration of carbon capture, use and storage 	M.3.1 Construction and operation of carbon capture, use and storage facilities			E. Construction industry 48 Civil engineering construction 486 Energy-saving and environmental protection engineering construction	Construction and operation of carbon capture, use and storage facilities in energy and other industrial activities.
	M.3.2 Manufacturing of carbon capture, use and storage equipment			C. Manufacturing industry 35 Special equipment manufacturing 359 Manufacturing of equipment for environmental services, postal services and social public services, and other special equipment 3599 Manufacturing of other special equipment	Manufacturing of special equipment for carbon capture, use and storage.

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.4 Control of greenhouse gas emissions from non-energy activities	M.4.1 Reduction of fugitive methane emissions			B. Mining industry 07 Oil and gas extraction 072 Natural gas extraction	Activities that are intended to reduce fugitive methane emissions and vent emissions in the coal industry and the oil and gas industry, such as construction and operation of relevant facilities for methane emission reduction by vent natural gas and oilfield associated gas recovery and utilization, and by means of comprehensive energy-saving technology for closed gathering and transportation of oil and gas; construction and operation of coalbed methane extraction and utilization facilities.
	M.4.2 Carbon emission reduction during production			C. Manufacturing industry 25 Oil, coal and other fuel processing industry 26 Manufacturing of raw chemical materials and chemical products 28 Chemical fiber manufacturing 29 Manufacturing of rubber and plastic products 30 Manufacturing of non-metallic mineral products 31 Smelting and pressing of ferrous metals 32 Smelting and pressing of non-ferrous metals	Activities that are intended to reduce greenhouse gas emissions during production through implementation of such measures as process improvement and cleaner production, for example, reduction of greenhouse gas emissions in the cement industry through replacement of traditional limestone raw materials with non-carbonate raw materials and application of advanced float process, use of sulfur hexafluoride gas mixture and recovery of sulfur hexafluoride in the chemical industry.

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.4 Control of greenhouse gas emissions from non-energy activities	M.4.2 Carbon emission reduction during production			33 Manufacturing of metal products 34 General equipment manufacturing	Activities that are intended to reduce greenhouse gas emissions during production through implementation of such measures as process improvement and cleaner production, for example, reduction of greenhouse gas emissions in the cement industry through replacement of traditional limestone raw materials with non-carbonate raw materials and application of advanced float process, use of sulfur hexafluoride gas mixture and recovery of sulfur hexafluoride in the chemical industry.
	M.4.3 Control of hydrofluorocarbons (HFCs)			C. Manufacturing industry 26 Manufacturing of raw chemical materials and chemical products 266 Manufacturing of special chemical products 2661 Manufacturing of chemical reagents and additives C. Manufacturing industry 34 General equipment manufacturing 346 Manufacturing of ovens, fans, packers and other equipment 3464 Manufacturing of refrigeration and air conditioning equipment	Production and application of hydrofluorocarbon (HFCs) substitute products, including low-GWP substitute products for refrigeration equipment such as green and efficient air conditioners, as required by the Kigali Amendment to the Montreal Protocol.

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.4 Control of greenhouse gas emissions from non-energy activities	M.4.4 Waste and wastewater treatment and disposal	M.4.4.1 Solid waste management	M.4.4.1.1 Disposal, collection and utilization of rural solid waste	N. Water conservancy, environment and utility management 77 Ecological protection and environmental treatment 772 Environmental treatment 7723 Solid waste treatment	See the *Green Industry Guidance Catalogue* (2019 Edition).
			M.4.4.1.2 Disposal, collection and utilization of municipal and industrial solid waste	N. Water conservancy, environment and utility management 77 Ecological protection and environmental treatment 772 Environmental treatment 7723 Solid waste treatment	See the *Green Industry Guidance Catalogue* (2019 Edition).
		M.4.4.2 Wastewater treatment	M.4.4.2.1 Construction and operation of wastewater treatment, recycling and sludge treatment and disposal facilities	Construction projects are classified as: E. Construction industry 48 Civil engineering construction 486 Energy-saving and environmental protection engineering construction N. Water conservancy, environment and utility management 77 Ecological protection and environmental treatment 772 Environmental treatment 7721 Water pollution control	See the *Green Industry Guidance Catalogue* (2019 Edition).

Examples of Typical Projects

Level I Classification	Level II Classification	Level III Classification	Level IV Classification	Industrial Classification for National Economic Activities (2019 Revision)	Type of Activity
M.5 Carbon sink increasing	M.5.1 Forest carbon sink	M.5.1.1 Forest carbon sink enhancement projects		A. Agriculture, forestry, animal husbandry and fishery 02 Forestry 022 0220 Afforestation and renewal 023 Forest management, protection and transformation 0231 Forest management and protection N. Water conservancy, environment and utility management 77 Ecological protection and environmental treatment	Activities that are intended to absorb and fix carbon dioxide in the atmosphere through implementation of such measures as afforestation, reforestation and sustainable forest management, and reduction of deforestation.
	M.5.2 Ecosystem carbon sink	Ecosystem carbon sink projects		N. Water conservancy, environment and utility management 77 Ecological protection and environmental treatment	Construction and conservation activities that are mainly intended to enhance the carbon sequestration and sink capacity of ecosystems such as grasslands, wetlands, oceans and tundra.

Note 1: M.2.1.1.8 Construction and operation of hydrogen energy utilization facilities include clean hydrogen production activities covered in the *Green Bond Endorsed Projects Catalogue* (2021 Edition).

CLASSIFICATION OF CLIMATE CHANGE ADAPTATION PROJECTS

Principle of classification

- Climate change adaptation projects shall have a clear correlation with identified climate change-related risks, vulnerabilities and impacts.
- Climate change adaptation projects may be identified with reference to the requirements of ISO 14090 and other standards.
- The risk, vulnerability and impact of climate change adaptation projects may be assessed with reference to the requirements of ISO 14091 and other standards.

Example of classification

- Examples of the classification of climate change adaptation projects have been developed with reference to the *National Plan on Climate Change* (2014-2020), and are shown in Table 2. See Annex A for the areas of adaptation covered in the IPCC Working Group Report *AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability*.

Table 2 Examples of Classification of Climate Change Adaptation Projects

Examples of Typical Projects			
Level I Classification	Level II Classification	Level IV Classification	Remarks
A.1 Improvement of adaptability to climate change in key areas	A.1.1 Improvement of adaptability of urban and rural infrastructure	A.1.1.1 Urban and rural construction	Construction of related facilities for sponge cities
		A.1.1.2 Water conservancy facilities	Reconstruction of drainage and water supply systems with a high flood protection level
		A.1.1.3 Energy facilities	Modification of power transmission and transformation facilities to withstand wind, voltage and freezing
	A.1.2 Water resources management and facilities construction	A.1.2.1 Water resources management	Flood control dam, drainage pipe system, etc.
		A.1.2.2 Construction of water resources utilization facilities	Rural drinking water safety projects, non-traditional water resources (such as reclaimed water, seawater desalination and rainfall flood) development and utilization facilities
	A.1.3 Adaptability in agriculture and forestry	A.1.3.1 Plantation	Construction of drip irrigation, micro-irrigation and other facilities
		A.1.3.2 Forestry	Construction of forest fire trail facilities, and forest pest and disease control
		A.1.3.3 Animal husbandry	Improvement of pastures, construction of artificially sown pastures and feed crop production bases

Examples of Typical Projects

Level I Classification	Level II Classification	Level IV Classification	Remarks
A.1 Improvement of adaptability to climate change in key areas	A.1.4 Adaptability of ocean and coastal zone	A.1.4.1 Ocean disaster protection capacity building	Infrastructure related to prediction and early warning of ocean disasters such as typhoon, storm surge and high waves
		A.1.4.2 Integrated management of coastal zones	comprehensive management of estuaries and construction of sea walls and river embankments
		A.1.4.3 Marine ecosystem monitoring and restoration	Ecological restoration of coastal protection forests, mangrove forests and coastal wetlands
		A.1.4.4 Safety of islands and reefs	Wind, wave and tide protection works of islands
	A.1.5 Construction of disaster prevention and mitigation system	A.1.5.1 Prediction and integrated early warning	Prediction of climate change risks and extreme climate events
		A.1.5.2 Climate change risk management	Preparation of emergency response plans for extreme climate events and disasters
		A.1.5.3 Climate disaster management	Diversion dike, sediment storage dam, anti-scour wall and other works
A.2 Adaptability to capacity building and construction of infrastructure	A.2.1 Adaptability of ecologically vulnerable areas	A.2.1.1 Ecological conservation and integrated management of agriculture-pasture ecotone and alpine grassland	Control of grassland degradation and conservation and restoration of alpine wetlands in key areas
		A.2.1.2 Integrated management of loess plateau and northwest desert areas	Soil erosion control of loess plateau, integrated management of sandy wasteland and saline-alkali land

Examples of Typical Projects

Level I Classification	Level II Classification	Level IV Classification	Remarks
A.2 Adaptability to capacity building and construction of infrastructure	A.2.1 Adaptability of ecologically vulnerable areas	A.2.1.3 Integrated management of stony desertification areas	Slope-to-terrace works, slope water works, rainwater collection and utilization works
	A.2.2 Adaptability in the area of population health	A.2.2.1 Impact of climate change on population health	Public health facilities in areas vulnerable to climate change
		A.2.2.2 Emergency response to impact of climate change on population health	Monitoring, prevention and control of vector-borne diseases under climate change conditions

Annex A (informative)

The areas of climate change adaptation projects covered in the IPCC Working Group Report AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability, and corresponding examples are shown in Table A.1.

Table A.1 Areas of Adaptation covered in the IPCC Working Group Report AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability, and Corresponding Examples

Area of Climate Change Adaptation Project	Example
Adaptation-related engineering and environmental construction project	Construction of sea walls and coastline protection facilities, flood control dams and culverts, impoundment and pumped storage, wastewater treatment plants, drainage improvement projects, beach nourishment, flood and wind protection facilities, building codes, storm water and wastewater management, transportation and road infrastructure improvement, floating houses, regulating power stations and power grids, etc.
Adaptation-related technical capacity improvement project	Research and development of new crop and animal varieties, genetic technologies, traditional technologies and methods, efficient irrigation, rainwater collection and other water saving technologies, conservation agriculture, food storage and preservation facilities, disaster mapping and monitoring technologies, early warning systems, building insulation, mechanical and passive cooling, renewable energy technologies, and second-generation biofuels, etc.
Ecosystem-based adaptation project	Ecological restoration for wetland and floodplain protection and recovery, increase of biodiversity, afforestation and reforestation, protection and replanting of mangrove forests, reduction of bushfire and other specific fires, green infrastructure, control of overfishing, fishery co-management, assisted migration or managed displacement, ecological corridors, ex-situ conservation and seed banks, community-based natural resource management (CBNRM), and adaptive land use management, etc.
Adaptation-related service	Social safety net and social protection, food bank and distribution of surplus food, municipal services including water and sanitary facilities, vaccination programs, basic public health services including reproductive health services and enhanced emergency medical care services, and international trade, etc.
Adaptation-related education project	Awareness raising and integration into education, gender equality in education, extension services, local and traditional knowledge sharing incorporating adaptation planning, community survey, knowledge sharing and learning platform, international conferences and research network, and media communication, etc.
Adaptation-related information project	Disaster and vulnerability mapping, early warning and response system incorporating health-related early warning, system monitoring and remote sensing, climate services incorporating enhanced forecasting, downscaled climate scenarios, longitudinal datasets, integration of local climate observations, old house renovation and other community-based adaptation plans, etc.
Adaptation-related behavior project	Accommodation, household preparedness and evacuation plans, retreat and migration for the purpose of human health and safety protection, soil and water conservation, livelihood diversification, changes in livestock and aquaculture practices, crop transformation, changes in planting mode, pattern and planting time, afforestation options, and reliance on social networks, etc.
Adaptation-related economic project	Financial incentives including taxes and subsidies, including index-based weather insurance plan and other insurances, catastrophe bonds, revolving fund, funds for ecosystem services, water fees, savings groups, microcredit, disaster emergency funds, and cash transfers, etc.
Adaptation-related government management projects	National and regional adaptation planning including mainstream climate change, local adaptation planning, urban upgrading planning, municipal water management projects, disaster planning and preparedness, municipal planning, urban planning, and industry planning possibly including water resources management, landscape and basin management, integrated management of coastal zone, adaptability management, ecosystem-based management, sustainable forest management, fishery management and community adaptation, etc.