Austria's
FOURTH BIENNIAL REPORT

in Compliance with the Obligations under the
United Nations Framework Convention on Climate Change,
according to Decisions 2/CP.17 and 19/CP.18
of the Conference of the Parties

The Fourth Biennial Report of Austria under the Framework Convention on Climate Change was compiled by the Federal Ministry of Sustainability and Tourism, Directorate IV/1.

Vienna, December 2019

Contents

1 Information on greenhouse gas emissions and trends

The following information on Austria's greenhouse gas emissions and emission trends is based on the inventory submission from April 2019[1]. The greenhouse gas inventory was compiled in compliance with the UNFCCC reporting guidelines according to Decision 24/CP.19, the Common Reporting Format (CRF) and the IPCC 2006 Guidelines.

1.1 Emissions and trends

Austria's total emissions of the greenhouse gases CO_2, N_2O, CH_4, HFCs, PFCs, SF_6 and NF_3 (excluding Land Use, Land-Use Change and Forestry) were 78.7 Mt CO_2 equivalent in 1990 and 82.3 Mt in 2017. However, there has been by far no linear trend in the years between. Emissions had started to increase considerably in the mid-1990ies. The most relevant reason for the increase was the rising share of transport fuel sold in Austria but consumed abroad. A reversal of the emissions trend has been achieved after 2005, although the level of exported transport fuel remained high. Emissions fell below the 1990 level in 2014, but increased again afterwards. Figure 1.1 presents the trend 1990–2017, emissions by sector and gas for the years 1990 and 2017 are shown in Table 1.1.

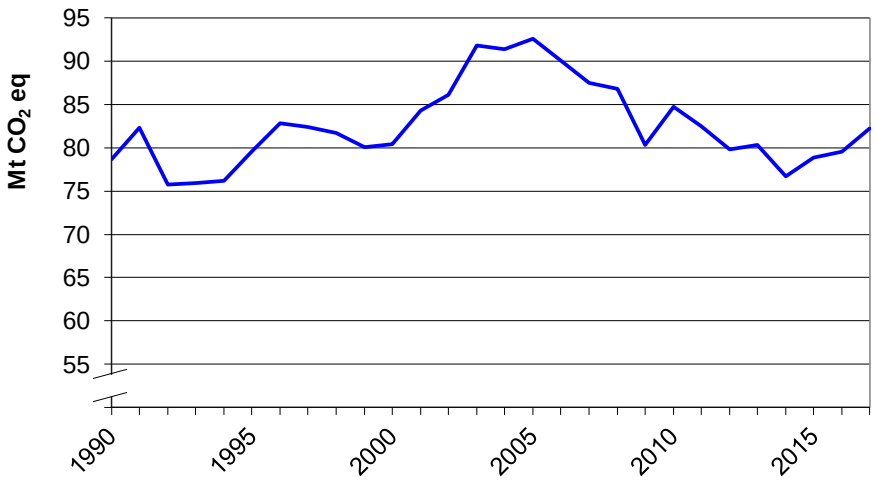

Figure 1.1: Trend in total GHG emissions 1990-2017 (excluding LULUCF)

[1] AUSTRIA'S NATIONAL INVENTORY REPORT 2019 – Submission under the United Nations Framework Convention on Climate Change. https://unfccc.int/sites/default/files/resource/aut-2019-nir-15apr19.zip

Table 1.1: GHG emissions 1990 and 2017, in Mt CO_2 equivalent

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1990					2017				
	CO_2	CH_4	N_2O	F-Gases	Total	CO_2	CH_4	N_2O	F-Gases	Total
Total without LULUCF	**62,32**	**10,36**	**4,33**	**1,66**	**78,67**	**69,98**	**6,60**	**3,51**	**2,18**	**82,26**
Total with LULUCF	**50,17**	**10,39**	**4,47**	**1,66**	**66,68**	**64,91**	**6,62**	**3,64**	**2,18**	**77,36**
1. Energy	**51,33**	**1,18**	**0,43**		**52,95**	**55,06**	**0,62**	**0,59**		**56,27**
A. Fuel Combustion	51,23	0,58	0,43		52,24	54,92	0,34	0,59		55,85
1. Energy Industries	14,05	0,01	0,04		14,10	11,07	0,03	0,10		11,20
2. Manuf, Industr., Constr.	9,82	0,01	0,07		9,90	10,90	0,02	0,13		11,05
3. Transport	13,78	0,07	0,13		13,98	24,05	0,01	0,21		24,27
4. Other Sectors	13,55	0,49	0,19		14,23	8,86	0,28	0,14		9,28
5. Other	0,04	0,00	0,00		0,04	0,05	0,00	0,00		0,05
B. Fugitive Emiss. from Fuels	0,10	0,60	IE,NA		0,70	0,14	0,29	IE,NA		0,43
2. IPPU	**10,87**	**0,04**	**1,10**	**1,66**	**13,66**	**14,80**	**0,05**	**0,17**	**2,18**	**17,20**
3. Agriculture	**0,09**	**5,37**	**2,68**		**8,14**	**0,11**	**4,71**	**2,49**		**7,31**
4. LULUCF	**-12,16**	**0,02**	**0,14**		**-11,99**	**-5,07**	**0,02**	**0,14**		**-4,91**
5. Waste	**0,03**	**3,78**	**0,12**		**3,93**	**0,00**	**1,22**	**0,26**		**1,48**
6. Other	**NO**	**NO**	**NO**		**NO**	**NO**	**NO**	**NO**		**NO**
Memo Items:										
International Bunkers	0,94	0,00	0,01		0,95	2,31	0,00	0,02		2,33
Aviation	0,89	0,00	0,01		0,90	2,25	0,00	0,02		2,26
Marine	0,05	0,00	0,01		0,05	0,06	0,00	0,00		0,06
Multilateral Operations	NO	NO	NO		NO	NO	NO	NO		NO
CO_2 Emissions from Biomass	10,40				10,40	22,44				22,44

Austria's *GHG emissions per capita* in 2017 were above EU average and below OECD average: CO_2 emissions 8.1 t/capita, total GHG emissions 9.5 t/capita CO_2 equ. *GHG emissions per GDP* (at 2010 prices) were 252 kg CO_2 equ. per € 1000 in 2017, which is clearly at the lower end of the range of EU and OECD countries.

Total emissions are dominated by CO_2 with a share of 85 % in 2017; the share of CH_4 has been decreasing since 1990 and has reached 8 %. The share of N_2O has been decreasing by one percentage point to 4 % and that of fluorinated gases has been slightly increasing to about 3 % (cf. Fig. 1.2).

The increase of CO_2 emissions results from the trend in the sector fuel combustion, namely the increasing energy consumption in the transport sector. Decreasing CH_4 emissions are a result of the trend in the sectors waste and agriculture, the decrease of N_2O emissions is mainly due to decreasing emissions from industrial processes.

Emissions of F-gases exhibit a slight increase, but the share of gases has changed significantly: There are almost no PFCs emissions any longer after the termination of aluminium production in Austria, whereas the replacement of ozone depleting HCFCs by HFCs has caused HFCs to become the most important F-gases. SF_6 had gained an important

share in the second half of the 1990ies, but has been reduced since then by a ban for certain uses and by technical progress. Emissions of NF_3 have been quite low all the time.

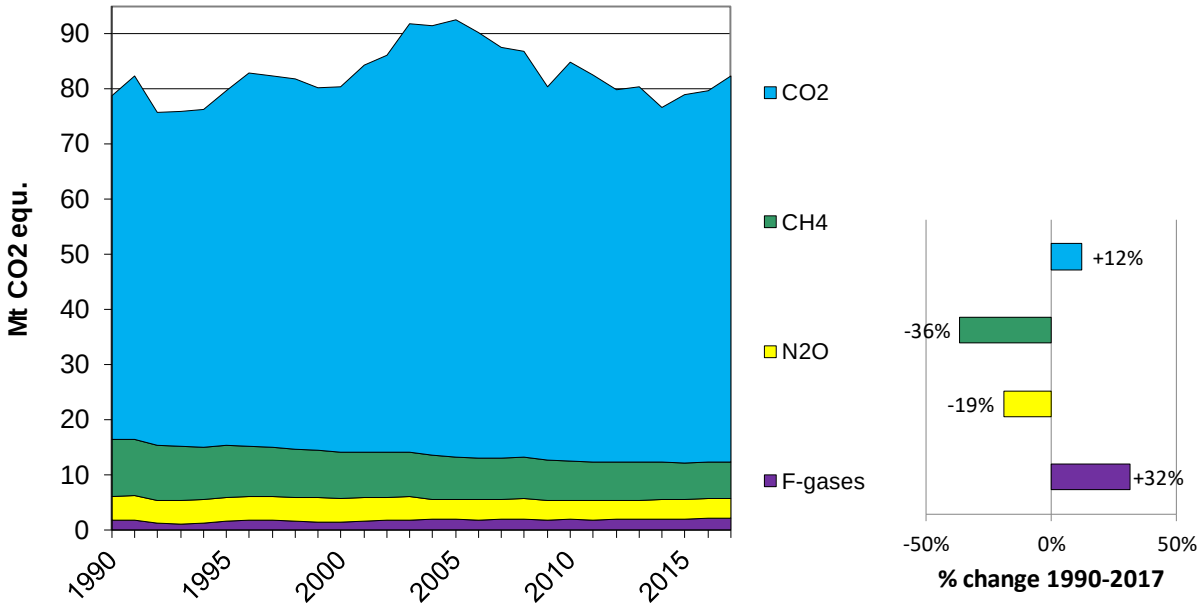

Figure 1.2: GHG emission trend (excluding land-use change and forestry) by gases

Two third of Austria's GHG emissions result from fuel combustion. Of all CRF (sub)sectors, transport (1.A.3, 29 %) has the highest share in total emissions in 2015, followed by industrial processes (2., 21 %). Energy industries (1.A.1), manufacturing industries and construction (1.A.2) and "other sectors" (1.A.4) are in the range from 14 to 11 %. Agriculture follows with 9 % of total emissons, emissions from the waste sector are low (2 %). The increase of emissions from the mid 1990ies to 2005 was mainly driven by the transport sector; growth in the IPPU sector and in manufacturing industries and construction was considerably lower. The increase after 2014 results from increasing transport, more energy demand for space heating and a rise in electricity production from gas.

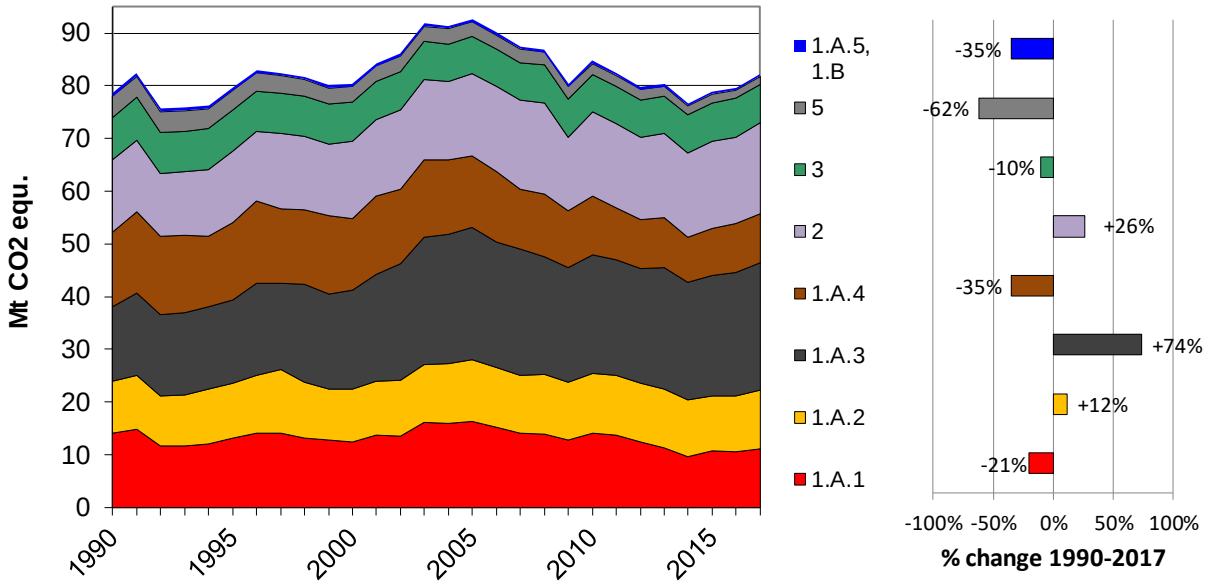

Figure 1.3: GHG emission trend (excluding land-use change and forestry) by sectors

Sectoral trends 1990–2017 and driving forces:

- Despite increasing electricity and district heating demand, emissions from energy industries decreased (-21%) due to a shift from solid and liquid fossil fuels to gas and biomass, increasing contribution of hydro and wind power, more electricity imports as well as increasing efficiency of production.
- Production increase in manufacturing industries and construction was the main driving force for the increase of emissions (+12 %), due to a fuel switch to gas and biomass as well as increasing use of electricity instead of combustion processes a higher increase has been avoided.
- Transport emissions growth (+74%) is caused by increasing inland road transport demand especially for freight transport, but also for passenger transport. In addition, the rising fuel export in the vehicle tank, i. e. the amount of fuel sold in Austria but used elsewhere, has increased considerably. The use of biofuels since 2005 and more efficient vehicles in freight transport have attenuated emission growth.
- Emissions from “other sectors” decreased substantially (-35%) despite population growth and increasing number of dwellings. The reasons are manifold: First of all, energy efficiency of building stock has improved, but fuel shift from coal and oil to gas and biomass as well as increased use of district heating and heat pumps have contributed to the trend too.
- Emissions from industrial processes and product use increased (+26%). Excluding F-gases, the sector is dominated by production of iron and steel with a current share of three quarters. Although production of steel increased by 90 % from 1990 to 2015, emission growth from processes was slowed down especially by efficiency measures in the steel industry and by N_2O abatement measures in the chemical industry.
- The emission decrease in the sector agriculture (-10%) is mainly due to decreasing livestock numbers and lower amounts of fertilizers applied on agricultural soils.

- Emissions from waste decreased substantially (-62%) due to increasing waste separation, reuse and recycling activities, obligatory pre-treatment of deposited waste with high carbon content and improved recovery of landfill gas.

1.2 Inventory arrangements

The *Umweltbundesamt* is identified as the single national entity with overall responsibility for the national inventory by law. The responsibilities for the inventory planning, preparation and management are specified and are all allocated within the *Umweltbundesamt*.

The national greenhouse gas inventory is prepared by the inspection body for GHG inventories within the *Umweltbundesamt*, an inspection body accredited according to the International Standard ISO 17020 General Criteria for the operation of various types of bodies performing inspections. The Quality Management System (QMS) also includes the necessary procedures to ensure quality improvement of the emission inventory. These comprise documentation and attribution of responsibilities of any discrepancy found and of the findings by UNFCCC review experts in particular.

The inventory preparation, including identification of key categories, uncertainty estimates and QC procedures, is performed according to the 2000 Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance and Uncertainty Management of Greenhouse Gas Inventories. The inventory management as part of the QMS includes a control system for data and calculations, for records and their archiving as well as documentation on QA/QC activities. This ensures the necessary documentation and archiving for future reconstruction of the inventory and for the timely response to requests during the review process.

Part of the legal and institutional arrangements in place as basis for the national system concerns the data availability for the annual compilation of the GHG inventory. The main data source for the Austrian inventory preparation is the Austrian statistical office (Statistics Austria). The compilation of several statistics is regulated by European and Austrian statistical legislation and partly complemented by contracts at national level. Other data sources include reporting obligations under national and European regulations and reports of companies and associations.

The inventory preparation at *Umweltbundesamt* is supported by a quality management system that embeds an inventory improvement plan. This centralized improvement management guarantees the cost-effective allocation of resources to programmes specific for inventory improvement. Improvement programmes are formulated in a continuous process in all inventory sectors and cover the quality of country-specific emission factors, activity data and models.

More detailed information on inventory data and inventory arrangements can be found in Section 1.2 of the Austrian National Inventory Report 2019[1].

There were no changes of the inventory system since the last Biennial Report.

2 Quantified economy-wide emission reduction target

2.1 Joint target of the EU and its Member States

Austria is a Member State of the European Union. In 2010, the EU submitted a pledge to reduce its GHG emissions by 2020 by 20 % compared to 1990 levels (FCCC/SB/2011/INF.1/Rev.1 of 7 June 2011). In addition the EU provided additional information relating to its quantified economy-wide emission reduction target in a submission as part of the process of clarifying the developed country Parties' targets in 2012 (FCCC/AWGLCA/2012/MISC.1). Summary information on the target can be found in Table 2.1. Detailed information on the EU target is given in CTF Table 2.

Table 2.1: Joint quantified economy-wide emission reduction target of the EU and its Member States

Parameter	Target
Base Year	1990
Target Year	2020
Emission Reduction target	-20% in 2020 compared to 1990
Gases covered	CO_2, CH_4, N_2O, HFCs, PFCs, SF_6
Global Warming Potentials	AR4
Sectors Covered	Energy, Transport, Industrial processes, Agriculture, Waste (international aviation to the extent it is included in the EU ETS)
Land Use, Land-Use Change, and Forests (LULUCF)	Excluded
Use of international credits (JI and CDM)	Possible subject to quantitative and qualitative limits.

As this target under the convention has only been submitted by EU-28 and not by each of its Member States (MS), there are no specified convention targets for single MS. Austria as part of the EU-28 takes on a quantified economy-wide emission reduction target jointly with all Member States.

2.2 EU internal effort sharing

With the 2020 climate and energy package the EU has set internal rules which underpin the implementation of the target under the Convention. The 2020 climate and energy package introduced a clear approach to achieving the 20 % reduction of total GHG emissions from 1990 levels, which is equivalent to a 14 % reduction compared to 2005 levels. This 14 % reduction objective is divided between two sub-targets, equivalent to a split of the reduction effort between ETS and non-ETS sectors of two thirds vs. one third (EU, 2009[2]).

[2] Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of

Under the revised EU ETS Directive[3], one single EU ETS cap covers the EU Member States and the three participating non-EU Member States (Norway, Iceland and Liechtenstein), i.e. there are no further differentiated caps by country. For allowances allocated to the EU ETS sectors, annual caps have been set for the period from 2013 to 2020; these decrease by 1.74 % annually, starting from the average level of allowances issued by Member States for the second trading period (2008–2012). The annual caps imply interim targets for emission reductions in sectors covered by the EU ETS for each year until 2020. For further information on the EU ETS and for information on the use of flexible mechanisms in the EU ETS see EU-BR chapter 2.1.

Non-ETS emissions are addressed under the Effort Sharing Decision (ESD)[4]. The ESD covers emissions from all sources outside the EU ETS, except for emissions from international maritime, domestic and international aviation (which were included in the EU ETS from 1 January 2012) and emissions and removals from land use, land-use change and forestry (LULUCF). It thus includes a diverse range of small-scale emitters in a wide range of sectors: transport (cars, trucks), buildings (in particular heating), services, small industrial installations, fugitive emissions from the energy sector, emissions of fluorinated gases from appliances and other sources, agriculture and waste. Such sources currently account for about 60 % of total GHG emissions in the EU.

While the EU ETS target is to be achieved by the EU as a whole, the ESD target was divided into national targets to be achieved individually by each Member State. In the Effort Sharing Decision national emission targets for 2020 are set, expressed as percentage changes from 2005 levels. These changes have been transferred into binding quantified annual reduction targets for the period from 2013 to 2020 (EC 2013)[5+6], expressed in Annual Emission Allocations (AEAs); in 2017 the allocations for the period 2017 to 2020 have been revised[7]. The quantified annual reduction targets 2013-2020 for Austria are tightened from 52.6 million AEAs in 2013, decreasing to 47.7 Million AEAs in 2020. In Austria the share of ESD emissions is 63 % (2017: Total GHG emissions 82.3 Mt CO_2 equivalent without LULUCF, emissions covered by the ESD 51.7 Mt).

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the Community (OJ L 140, 05.06.2009, p. 63) (http://eur-lex.europa.eu/ LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:00 63:0087:en:PDF)

[3] Directive 2009/29/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community

[4] Decision No 406/2009/EC

[5] Commission decision of 26 March 2013 on determining Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/EC of the European Parliament and of the Council (2013/162/EU)

[6] Commission Implementing Decision of 31 October 2013 on the adjustments to Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/ EC of the European Parliament and of the Council (2013/634/EU)

[7] Commission Decision (EU) 2017/1471 of 10 August 2017 amending Decision 2013/162/EU to revise Member States' annual emission allocations for the period from 2017 to 2020

The monitoring process is harmonized for all European MS, especially laid down in the Monitoring Mechanism Regulation[8]. The use of flexible mechanisms is possible under the EU ETS and the ESD. For the use of CER and ERU under the ETS, please refer to the European BR3.

The ESD allows Member States to make use of flexibility provisions for meeting their annual targets, with certain limitations. There is an annual limit of 3% (of 2005 emissions) for the use of project-based Kyoto credits for each MS. For Austria the amount of credits possible to use is 2.77 million CERs and ERUs. If these are not used in any specific year, the unused part for that year can be transferred to other Member States or be banked for own use until 2020. As Austria (together with Belgium, Cyprus, Denmark, Finland, Ireland, Italy, Luxembourg, Portugal, Slovenia, Spain and Sweden) fulfils additional criteria as laid down in ESD[9] Article 5(5), an additional use of credits is possible from projects in Least Developed Countries (LDCs) and Small Island Developing States (SIDS) up to an additional 1 % of Austria's verified emissions in 2005. For Austria the additional amount of credits possible to use is 0.92 million CERs and ERUs. These credits are not bankable and transferable.#

2.3 Other EU emission reduction targets

In addition to the EU target under the Convention, the EU also committed to a legally binding quantified emission limitation reduction commitment for the second commitment period of the Kyoto Protocol (2013–2020).

A further target has been pledged to the Convention through the EU's Nationally Determined Contribution submitted under the Paris Agreement, and has been adopted by the EU under the 2030 Climate and Energy Framework. For details see Section 3.3 of the EU's BR4.

[8] Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC

[9] Decision No 406/2009/EC

3 Progress in achievement of quantified economy-wide emission reduction targets and relevant information

3.1 Mitigation actions and their effects

Austria as a member of the European Union takes on the quantified economy-wide emission reduction target jointly with all Member States. Austrian policies and measures for the mitigation of greenhouse gas emissions, especially measures to achieve Austria's target under the Effort Sharing Decision, contribute to the achievement of the joint EU target, together with the policies and measures of the other Member States of the EU. Common and coordinated policies and measures of the Union are applicable to all Member States and are described in the Biennial Report of the European Union.

3.1.1 **Domestic arrangements**

Institutional arrangements for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress towards its economy-wide emission reduction target have not changed during the last two years.

Institutional, legal, administrative and procedural arrangements with respect to Austria's target under the EU Effort Sharing Decision (ESD) are based on the Austrian Climate Change Act, BGBl. I Nr. 106/2011. The 2013 revision of the Climate Change Act, BGBl. I Nr. 94/2013, has incorporated Austria's ESD target and laid down sectoral targets for 2020. The 2015 revision, BGBl. I Nr. 128/2015, adapts targets and sectors to the new inventory guidelines and GWPs. With the latest revision, BGBl. I Nr. 58/2017, the National Climate Change Committee and the National Climate Change Council, initiated in 2011, were merged into a new single National Climate Change Committee to avoid overlap between membership and functions of the two bodies.

The *National Climate Change Committee* supports the co-ordination of climate change related measures. It comprises high level representatives of the federal ministries involved in climate change and the *Länder*, of the "Social Partners", as well as representatives from science, energy and industry interest groups, environmental NGOs and the political parties represented in the first chamber of the Parliament.

A first programme with the aim to meet the targets of the Climate Change Act has been prepared in the National Climate Change Committee and adopted by the Federal

Government and the *Länder* in 2013. An update of the programme has been adopted in 2016.

The programmes according to the Climate Change Act consist of different policies and instruments for their implementation. The legislative arrangements are different for each of these elements. Areas of responsibility are spread among federal ministries as well as between the Federation, *Länder* and municipalities. That is why there is no uniform legal basis for national measures to mitigate climate change. The legal basis for the individual instruments ranges from, e. g., the Environmental Support Act and the Green Electricity Law at Federation level to the Technical Construction Regulations for buildings on *Länder* level. Administrative procedures for implementation and monitoring are as well different for the diversity of measures. Enforcement rules are laid down in the respective legal acts as appropriate. Monitoring and enforcement provisions in the EU ETS are of course quite different from those in non-ETS sectors, such as housing or transport. It should be taken into account that many policy instruments are seen as multifunctional and have been introduced for other reasons too, besides climate change mitigation, e.g. for diversification of energy supply, mitigation of air pollution or reduction of noise from transport, or even for social policy reasons (e.g. housing support schemes).

The Federal Minister of Sustainability and Tourism reports annually to the Climate Change Committee and to the Parliament on progress with respect to the targets of the Climate Change Act. If targets are not met, the Climate Change Act triggers negotiations on additional measures to meet the targets.

Progress towards the economy-wide emission reduction target of the European Union can only be evaluated at Union level. To this end, the EU Monitoring Mechanism Regulation (Regulation (EU) No 525/2013) requires Member States to report to the European Commission annually on greenhouse gas emissions and related data and biennially on projections and policies and measures. Evaluation is done by the European Commission.

New arrangements, however, habe been established with respect to the 2030 target (EU's NDC under the Paris agreement). EU legislation for reporting and monitoring (EU Governance Regulation) requests the preparation of a National Energy and Climate Plan. The Federal Ministry of Sustainability and Tourism has established a steering committee of representatives of the federal government and the provinces; in addition, sectoral working groups for the discussion on the National Plan have been established, including representatives of the federal provinces. The steering committee also gives advice to the National Climate Change Committee.

3.1.2 **Policies and Measures**

Policies which lead to a mitigation of GHG emissions date back to the early 1990ies, as Austria's early National Communications under the UNFCCC have illustrated. Chapter 1 of the current report shows that emissions from residential heating have decreased substantially due to increased efficiency of buildings and fuel shift; emissions in the waste sector have decreased because of recycling and landfill policies. Measures in the industry and transport sector have significantly slowed down the emission increase that would have resulted from production growth and higher transport demand.

Policies with respect to the 2020 target of the Effort Sharing Decision are shown in the text and in Table 3.1 below for the individual sectors. The policies represent the main policy objectives of Austria's climate policy and have not changed since the last Biennial Report. The policies are implemented by one or more instruments, depending on the policy field. Some of the instruments have been adapted/extended, especially regarding funding amount or period. A detailed description of the policies and the individual instruments to implement these policies can be found in Chapter 4 of the latest report on Austria's GHG emission projections[10]. Principal information on awareness raising measures, which may be mentioned below, can be found in Sections 9.2 and 9.3 of Austria's Seventh National Communication.

All policies described below are implemented. No planned measures have been included, as a szenario "with additional measures" was not yet available when this report was written (see the explanation in the first paragraph of Chapter 4).

Information on the effects of its individual mitigation actions for 2020 is only partly available, as no uniform regulations for monitoring and reporting the effect of PaMs and individual instruments could be established up to now. This is because the responsibilities on policies relevant for (mitigation of) GHG emissions are distributed between Federation, federal provinces and municipalities, and jurisdiction in these fields is laid down in the Constitution Act. Many measures have multiple targets besides GHG mitigation (e.g. air pollution mitigation, road safety, noise prevention, health, livable cities, tax yield, affordable housing, sustainable buildings etc.), actors in the administrations have quite different backgrounds, and establishing common reporting rules will require considerable additional resources at all levels of administration.

The "Energy" sector as defined in the reporting guidelines and used in the CTF tables covers policies in energy industries and manufacturing industries as well as policies in the buildings sector listed below (CRF 1.A.1, 1.A.2, 1.A.4), the "Industry/industrial processes" sector as defined in the reporting guidelines and used in the CTF tables covers policies in the industrial processes and product use sector listed below (CRF 2). Transport, agriculture and waste are equivalent to the CRF definitions.

[10] GHG Projections and Assessment of Policies and Measures in Austria; Reporting under Regulation (EU) 525/2013, 15 March 2019; https://www.umweltbundesamt.at/fileadmin/site/publikationen/REP0687.pdf

3.1.2.1 Cross-cutting Policies and Measures

EU Emission Trading Scheme

The EU Emission Trading Scheme is the most important policy for installations with high energy demand and CO_2 emissions in energy industries, manufacturing industries and industrial processes, as well as N_2O emissions from chemical industry. Its objective is to limit emissions by means of trading allowances, which have initially been allocated for free or auctioned. More than 200 Austrian installations are covered by the EU ETS; in total about 11,000 installations are covered in the EU.

The EU ETS (Directive 2003/87/EC as amended) is implemented in Austrian law with the Emissions Allowance Trading Act (Emissionszertifikategesetz 2011 – Federal Law Gazette I No. 118/2011 as amended).

From 2013 onwards, a fully harmonised system for allocation of free allowances is being applied, based on the revision of the ETS Directive (2009/29/EC). Rules on free allocation for stationary installations covered by the scheme are strictly harmonised within the EU, combined with a Union-wide cap, which is characterised by a linear factor that provides for the reduction of GHG emissions by 21% to be achieved in 2020 relative to 2005. So called "National Implementation Measures" need to strictly follow the rules for free allocation, laid down in the "Benchmarking Decision" by the European Commission. For most activities, free allocation is calculated on the basis of product or heat benchmarks, which are derived from the 10 % most efficient installations in Europe.

The data for Austria show that free allocation amounted to only around 70% of total emissions in the EU ETS, requiring installations to buy allowances to cover their remaining emissions:

	2013	2014	2105	2016	2107
verified emissions	29,9	28,1	29,5	29,0	30,6
free allocation	22,5	21,9	21,1	20,5	19,9

At EU level a surplus of allowances has built up during the last years. To balance supply and demand in the market the EU has established a market stability reserve, which started operation in January 2019.

The Domestic Environmental Support Scheme

The *Domestic Environmental Support Scheme* in general provides financial support for projects which improve environmental performance beyond mandatory standards in energy, manufacturing as well as service industry. Projects may be related to all greenhouse gases. Focus areas in the climate change context comprise mainly projects to improve energy efficiency, support the use of renewable energy sources and promote sustainable transport.

The legal basis is the Austrian Environmental Support Act, the scheme is administered by Kommunalkredit Public Consulting (www.publicconsulting.at/eng).

In 2017 and 2018 federal support of about EUR 100 million in total has been granted for projects with relevance for GHG mitigation (with nearly equal sums in both years). Half of the support was dedicated to energy efficiency, slightly more than one third to renewables. Additional support of more than EUR 50 million for these project stems from the EU and the federal provinces. These projects are expected to bring about a current emission reduction of about 600 kt CO_2 p. a. and of 11 million tonnes over their whole life time. (An evaluation of the effect of all projects implemented in previous years for a specific target year is not available.)

Austrian Climate and Energy Fund (KLI.EN)

The *Austrian Climate and Energy Fund (KLI.EN)* has been established in order to support the reduction of GHGs, mainly CO_2, in Austria in the short, medium and long term. It focuses on research in and development of renewable energy systems, development and testing of new transport and mobility systems and market penetration of GHG mitigation measures.

The legal basis of the Fund is the Climate and Energy Fund Law ('Klima- und Energiefondsgesetz' Federal Law Gazette I No. 40/2007), its objective is to contribute to meeting Austria's climate change commitments by funding of climate and energy related projects. The funding should bring about a long-term transformation to a climate-friendly energy system. Two relevant funding concepts of the recent years are "Model Regions" to help climate-friendly energy and mobility systems to be successful at the regional level and "Flagship Projects" to help new technical developments to be actually tested and implemented. Support of EUR 87 million has been granted in 2017; the same amount in 2018.

3.1.2.2 Policies in energy industries and manufacturing industries

The policies relevant for energy and manufacturing industries focus on the reduction of CO_2 emissions from fossil fuels.

Increase the share of renewable energy in power supply and district heating

Increasing the share of renewable energy sources in the public power and heat supply is the main policy to reduce climate impacts of the energy system. Large-scale hydro power for electricity generation has delivered a significant contribution to power supply since the first half of the last century.

In order to provide for further growth of renewable sources, quantitative targets for 2020 for the increase of the share of wind power, photovoltaics, small hydro plants and biomass/biogas in electricity generation have been laid down in the Green Electricity Act and shall be achieved by fixed feed-in tariffs. After similar previous regulations the current instrument to achieve this policy target is the Green Electricity Act 2012 (Federal Law Gazette I No. 75/2011 as amended) and the respective Feed-in Tariff Ordinance. Tariff support is provided for plants installed until 2020 for a limited period. New supported installations with a capacity of 3900 MW compared to 2010 shall be installed by 2020; in

2018 an additional capacity of 3000 MW has been reached. An amendment of the Green Electricity Act in 2017 provided for additional support a. o. to reduce the waitlist for wind and small hydropower projects.

For biomass-based district heating systems investment support is granted under the Domestic Environmental Support Scheme and serves to increase the share of biomass in heat supply. In 2017 and 2018 € 20 million have been granted for about 200 projects (disctrict heating systems, the extension of heat distribution networks, micro grids and the optimisation of systems) and € 7 million for almost 580 individual plants (figures for federal budget only). The effect of biomass funding is not included in the mitigation effect shown in Table 3.1.

Increase energy efficiency in energy and manufacturing industries

Efficiency increases are essential to limit growing demand for energy and fuels and their environmental impacts. Austria has implemented EU legislation (Energy efficiency Directive 2012/27/EU) through the Energy Efficiency Act (Federal Law Gazette I No. 72/2014), which specifies an energy efficiency target for 2020 and obligations for large companies and energy suppliers. An Energy Efficiency Action Plan has to be compiled and updated every three years, the latest plan was submitted to the European Commission in April 2017[11].

In addition, financial support for cogeneration of power and heat is granted in order to improve the efficient use of primary energy for electricity production (Combined Heat and Power Act, Federal Law Gazette I No. 111/2008 as amended). Due to unfavourable market conditions for gas-based CHP plants the effect of this regulation is currently estimated to be quite low.

3.1.2.3 Policies in the transport sector

The policies relevant for transport focus on the reduction of CO_2 emissions from fossil fuels, but there is also some effect on N_2O emissions from catalytic exhaust gas cleaning in cars.

Increase the share of clean energy sources in transport

The substitution of fossil fuels by clean energy sources is an important and well established policy in the transport sector. Starting with the Biofuels Directive 2003/30/EC, the EU has in place legislation on the promotion of renewable energy sources in transport. Currently the Renewable Energy Sources Directive 2009/28/EC requires Member States to replace at least 10% of the fossil fuels used in transport by renewables by 2020. (Target includes biofuels and electricity from renewable energy sources in rail transport as well.)

The Directive has been implemented into national law by the Austrian Fuel Ordinance (Federal Law Gazette II No. 398/2012) which stipulates minimum targets for the share of biofuels (fatty-acid methyl ester and ethanol) in diesel and gasoline sold in Austria. The minimum share targets have been raised over time (currently 5.75 %, from 2020 onwards

[11] https://ec.europa.eu/energy/sites/ener/files/documents/at_neeap_2017_en.pdf

8.45 %). In 2018 the share reached 6.25%[12]. A further instrument is funding through the consulting and funding programme "klimaaktiv mobil" (conversion of municipal and company fleets to run on pure biofuels).

In 2012 three federal ministries have launched the national Implementation Plan for electric mobility, aiming at a (in the short term moderate) electrification of road transport from 0.1% in 2013 to 1.0 % of the fleet in 2020 (pure electric vehicles and plug-in hybrid vehicles). A funding programme for 2017 and 2018 has been established by the federal ministries for transport and sustainability together with partners from industry; funding is granted for vehicles and charging infrastructure. The share of electric vehicles among registered new cars exceeded 2.5% in 2018[13]. The funding programme has been renewed for 2019 and 2020, providing € 93 million. RTD-funding of the Climate and Energy Funds is expected to contribute in the longer term to an expansion of electric road mobility.

Increase fuel efficiency of road transport

Energy demand for transport has more than doubled in the last three decades (partly due to increasing fuel export in the vehicle tank, however). Increasing fuel efficiency was therefore an essential policy to limit that growth. Efficiency of motors and vehicles has in principle improved due to technical progress. In freight transport real world performance of vehicles on the road has improved (due to inherent economic incentives of that sector). In passenger transport, however, consumer behaviour (i.e. desire for larger cars and higher engine power) has weakened or counteracted that trend.

Instruments for increasing efficiency need to foster the choice of vehicles with low specific consumption and their efficient use. Fuel tax according to the Mineral Oil Tax Act (Federal Law Gazette No. 630/1994 as amended) is directly related to fuel consumption on the road, the tax rate has last been raised in 2011. Fuel consumption based car registration tax according to the Standard Consumption Levy Act (Federal Law Gazette No. 695/1991 as amended) is expected to promote the sales of passenger cars with lower fuel consumption; taxable base is the price of the car, the tax rate increases parallel to the standard fuel consumption and therefore penalises cars with high consumption. (Cars with CO_2 emissions below 90g/km and electric vehicles are exempt from registration tax.)

Awareness raising and training programmes for fuel-efficient driving improve performance of drivers, fuel-efficient driving has also become part of the training in driving schools. Trainings for drivers of passenger cars, buses and heavy duty vehicles (and even for agricultural tractors) have been established by the programme "klimaaktiv mobil", 5–15 % lower CO_2 emissions can be achieved compared to conventional driving behaviour.

Other instruments like speed limits (which have been established due to other environmental concerns) and the mileage based lorry toll on highways (with lower rates for modern vehicles) contribute to reduced fuel consumption.

Modal shift to environmentally friendly transport modes

[12] https://www.bmnt.gv.at/umwelt/luft-laerm-verkehr/biokraftstoffbericht.html (in German)
[13] https://www.bmvit.gv.at/dam/jcr:74e523fc-97bf-4f1a-859a-af2347546231/emobil_2018_highlights_ua.pdf

Although Austria belongs to the EU Member States with the highest share of rail transport in the modal split, a further shift to environmentally friendly transport modes with a lower energy demand is essential for decreasing GHG emissions. Considerable investments have been made in railway infrastructure in the last decade, as increased capacity is a prerequisite for enhancing rail transport and as railway stations had to be modernised to become an attractive place for passengers. An extension of the public transport network is also under implementation in Vienna, especially with respect to the underground lines.

The programme "klimaaktiv mobil" for mobility management and awareness raising is an essential tool to promote environmentally friendly transport modes like public transport, cycling and walking. It is funded by the Federal Ministry of Sustainability and Tourism. The cornerstones of "klimaaktiv mobil" are the funding programme for businesses, communities and associations, target group-oriented counselling programmes, awareness-raising initiatives, partnerships, and training and certification initiatives.

In order to provide a sufficient service offer in public transport, the *Länder* order and pay for certain train and bus services which would be uneconomical for the public transport companies otherwise. With respect to freight transport, investment support for corporate feeder lines aims at shifting transport activities from road to rail.

3.1.2.4 Policies in the buildings sector

The policies relevant for the buildings sector focus on the reduction of CO_2 emissions from fossil fuels.

Increase energy efficiency of buildings

Improving the energy efficiency of buildings, including their heating systems, is for quite some time one of the most effective policies to reduce the carbon footprint of the Austrian population.

Construction standards with respect to the energy demand of new residential and non-residential buildings and criteria for the renovation of buildings are laid down in guidelines by the Austrian Institute for Constructional Engineering ("OIB Guideline 6 – Energy saving and thermal insulation"). Standards for the heat demand have been supplemented by standards for the total energy demand of buildings (including e.g. warm water and cooling). The requirements are based on the EU Directive on the energy performance of buildings (2010/31/EC) and are therefore tightened in regular intervals in order to achieve a 'nearly zero energy' building standard which will comply with the target of the EU Directive in 2020. The *Länder* translate this guideline into their regional building law. Furthermore, energy performance certificates have to be provided by sellers and landlords in the course of real estate transactions or rentings.

Besides the mandatory standards, funding is granted for the construction of residential buildings with advanced efficiency standards (housing support schemes of the *Länder*) and for the thermal renovation of buildings (including heating systems) within several

programmes, e.g. the support schemes of the *Länder* and the federal "renovation cheque" initiative for residential buildings and a programme within the environmental support scheme for commercial and industrial buildings. In addition, the federal programme klimaaktiv as well as regional energy agencies of the *Länder* provide consulting and advice on these issues. In 2018, € 36 million federal support have been granted for nearly 6,000 renovation projects.

Increase the share of renewable energy for space heating

Apart from the efficiency of buildings, the type of energy source is crucial for greenhouse gas emissions from this sector. Financial support for biomass and solar heating systems (new buildings, boiler replacement) is provided for households via funding of the *Länder* and of the Climate and Energy Funds, support for commercial and industrial applications by the domestic environment support scheme. Funding is supplemented by awareness raising measures on federal (klimaaktiv programme) and on *Länder* level.

The District Heating and Cooling Act (Federal Law Gazette I No. 113/2008 as amended) aims at the construction of district cooling systems in order to reduce electricity demand for air conditioning, as well as at the expansion of district heating networks based on waste heat from industry and renewable energy sources; subsidies are provided for that purpose.

Increase of energy efficiency in residential electricity demand

An increase of energy efficiency in residential electricity demand as a further policy target is achieved by important instruments at EU level, especially the eco-design requirements for energy using products (Directive 2009/125/EC and implementing acts) and the mandatory labelling of household appliances according to energy consumption (Directive (EU) 2017/1369 and delegated acts). These instruments are supported by awareness raising measures at national level with respect to energy efficient products and by advice provided by regional energy agencies. Furthermore the Federal Energy Efficiency Act (implementing the Energy Efficiency Directive 2012/27/EU) requires energy providers to prove saving in final energy demand, optionally amongst their customers.

3.1.2.5 Policies in the industrial processes and product use sector

EU Emission Trading Scheme and the *Environmental Support Scheme* – both described under "cross-cutting" – are the leading policies and measures with respect to CO_2 and N_2O mitigation in this sector. Further measures focus on the use of F-gases.

Reduce emissions from F-gases and other product use

Mitigation of F-gas emissions has been early targeted by national policy. National bans for certain uses have been enacted since 2002 (Federal Law Gazette II No. 447/2002 as amended): The used of SF_6 is prohibited for most applications, the use of HFCs and PFCs banned e.g. for the production of foam materials.

National regulations have been complemented by EU law at a later stage: Provisions for the maintenance of refrigeration and air conditioning systems aim at a minimisation of emissions, EU Regulation No 517/2014 has introduced a quota system for production and imports and enhanced use restrictions. Placing on the market of F-gases must be reduced to 63 % (compared to the average 2009–2012) by 2020 and to 21 % by 2030. For air conditioning systems in passenger cars the use of refrigerants with GWPs higher than 150 has been prohibited for new models since 2013 and is completely banned for new cars since 2017.

CO_2 emissions from organic solvents are of limited relevance; it may be mentioned that legislation to reduce emissions from solvent use in industry and due to paint application exists at national and EU level.

3.1.2.6 Policies in the agriculture sector

The policies relevant for agriculture focus on the reduction of CH_4 and N_2O as well as of CO_2 emissions.

Implementation of EU agricultural policies

The implementation of EU agricultural policies in Austria puts, i. a., a focus on environmental sound farming practices for Austria's largely small-structured agricultural system. The Austrian Agri-Environmental Programme has already foreseen funding for actions like reduced use of mineral fertilizers or organic farming etc. in the periods before 2013. The reform of the common agricultural policy (CAP) at EU level in 2013 (Regulation (EU) No 1305/2013) has brought about some changes regarding direct payments and the requirement to maintain land in good agricultural and ecological condition ("cross-compliance"). The Austrian Agri-Environmental Programme is maintained for the period 2014–2020, relevant actions with respect to the mitigation of greenhouse gas emissions (CH_4, N_2O) are e.g. improved feeding of pigs and poultry, covering of manure storages, low-loss application of manure and biogas slurry, promotion of organic farming, promotion of grazing and reduced use of mineral fertilisers. Future development will heavily depend on the 2020 reform of the EU CAP.

3.1.2.7 Policies in the waste sector

Reduce emissions from waste treatment

Emissions from the waste sector are clearly dominated by solid waste disposal, the policy focus has therefore been on the avoidance of emissions from landfills. Main principles of the Austrian Waste Management Act (Federal Law Gazette I No. 102/2002 as amended) are a. o. the prevention of waste and waste recovery/recycling (including incineration with energy recovery). Due to the Austrian Landfill Ordinance the deposition of untreated biodegradable waste has been banned completely. Methane emissions from old landfills are reduced by the

mandatory collection and use of landfill gas. Emissions have decreased by more than 50 % since 2003.

The carbon content of waste is reduced by incineration or mechanical-biological treatment before deposition. Due to their size, more than half of existing mechanical-biological treatment plants fall under the scope of the EU Industrial Emissions Directive; emission have to be limited according to BAT provision.

Table 3.1: Mitigation action in Austria

Name of mitigation action	Included in WM	Sectors affected	GHGs affected	Objective and/or activity affected	Type of instrument	Status	Brief description	Mitig. (kt CO_2) 2020/2030
EU Emission Trading Scheme (ETS)	Yes	Energy, Industry/industrial processes	CO_2, N_2O	framework policy multi-sectoral policy	Economic, Regulatory	Implem.	The objective is to limit the CO2 emissions of energy intensive stationary installations and aviation through a trading mechanism for emission certificates.	NE
Domestic Environmental Support Scheme	Yes	Energy, Transport	CO_2, CH_4, N_2O	framework policy multi-sectoral policy	Economic	Implem.	Financial support to GHG mitigation projects (energy efficiency, renewables,waste,…)	NE
Austrian Climate and Energy Fund (KLI.EN)	Yes	Energy, Transport	CO_2	framework policy multi-sectoral policy	Economic, Research	Implem.	Financial support to energy-relevant research projects, to climate friendly transport projects and to market launch of new climate friendly technologies.	NE
Increase the share of renewable energy in energy supply and district heating	Yes	Energy	CO_2	increase in renewable energy	Regulatory, Economic	Implem.	granting fixed feed-in tariffs for various forms of electricity generation from renewable sources	3,500/4,900
Increase energy efficiency and use of renewables in energy industries	Yes	Energy	CO_2	efficiency improvement in the energy and transformation sectorswitch to less carbon-intensive fuels	Economic, Regulatory	Implem.	Energy efficiency target for 2020 and obligations for energy suppliers and large consumers, support for cogeneration of heat and power	NE
Increase share of clean energy sources in transport	Yes	Energy, Transport, Agriculture	CO_2	low carbon fuels/electric cars	Economic, Regulatory	Implem.	Mandatory minimum share of biofuels in transport fuels, support for electric mobility	NE/4,490
Increase fuel efficiency of road transport	Yes	Transport, Energy	CO_2	efficiency improvements of vehicles and driving behaviour	Economic, Fiscal, Information, Regulatory	Implem.	Fiscal instruments to penalise cars with high fuel consumption, initiatives to promote fuel-efficient driving,	NE/2,020
Modal shift to environmentally friendly transport modes	Yes	Transport	CO_2	- demand management/reduction - modal shift to public transport or non-motorized transport	Information, Economic	Implem.	Reduction of individual motorised transport and a shift towards public transport by mobility management, awareness raising, training; improving on intermodal freight transport logistics	NE/480

				- improved behaviour				
Increased energy efficiency of buildings	Yes	Energy	CO_2	efficiency improvements of buildings	Regulatory, Economic, Information	Implem.	- construction standards for new buildings - thermal insulation of existing buildings - introduction of energy certificates for buildings - implementation of construction guidelines	476/698
Increased share of renewable energy for space heating	Yes	Energy	CO_2	increase in renewable energy	Economic, Regulatory	Implem.	- Stepping up the replacement of heating systems - District heating and district cooling Act - Funding for wood heating systems and solar heating systems	655/1,437
Increased energy efficiency in residential electricity demand	Yes	Energy	CO_2	efficiency improvement of household appliances and in service/tertiary sector	Regulatory, Information	Implem.	- implementation of eco-design requirements - introduction of energy labelling for energy consuming products - advice and information on energy efficient products	NE
Decrease emissions from F-gases and other product use	Yes	Industry/industrial processes	HFCs, PFCs, SF_6	- reduction of emissions of fluorinated gases - installation of abatement technologies	Regulatory	Implem.	- reduction of F-gases in stationary applications and products - restriction of HFC used in mobile air conditions - quota system on EU level	NE
Implementation of EU agricultural policies	Yes	Agriculture	CH_4, N_2O	- improved cropland management and reduced fertilizer/manure use - improved livestock and manure management - activities improving grazing land or grassland management	Regulatory, Economic	Implem.	- Implementation of the EU Common Agricultural Policy which takes into account the need for a reduction of environmental pollution from agricultural activity - national agricultural support programme considering environmental aspects	NE
Reduce emissions from waste treatment	Yes	Waste management/waste	CH_4	improved treatment technologies, improved landfill management	Regulatory	Implem.	Landfilling of untreated biodegradable waste banned. Mandatory landfill gas collection and use/flaring. Stricter requitements for waste plants due to revision of EU provisions for Best Available Techniques.	NE

3.2 Estimates of emission reductions

For the quantification of the progress to 2020 targets, the development of GHG emissions is the key indicator. The Convention target of a reduction of emissions by 20% from 1990 to 2020 only refers to the emissions of the EU-28 as a whole. GHG emissions of EU-28 are calculated as the sum of MS emissions. With this, GHG emissions of Austria are part of EU-28 emissions with a percentage of 1.9% in the year 2017.

The development of GHG emissions in Austria is reported in CTF Table 4. Emissions in the sector of LULUCF are not included under the convention target, therefore they are not included in CTF Tables 4 and 4(a).

Austrian emissions falling under the ESD are shown in Figure 3.1 and Table 3.2 below.

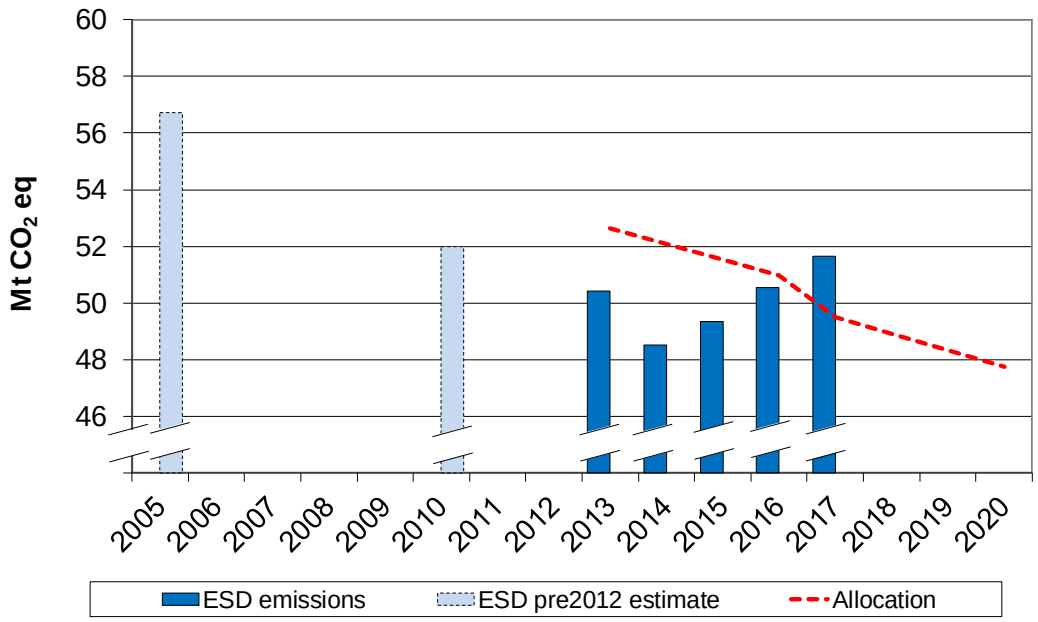

Figure 3.1: Austrian GHG emissions falling under the ESD

Table 3.2: Austrian GHG emissions falling under the ESD

	2005	2010	2013	2014	2015	2016	2017	2018	2019	2020
ESD emissions	*56.72**	*52.00**	50,43	48,51	49,34	50,54	51,65			
Allocation			52.63	52.08	51.53	50.99	49.50	48.92	48.33	47.75

* Estimated (ETS reporting before 2013 was based on a different set of installations, total emissions of the installations under the current ETS regime can therefore only be estimated for the years before 2013)

The use of flexible mechanisms takes place on the one hand by operators in the EU ETS, on the other hand by governments for the achievement of ESD targets. For information on the use in the ETS please see the BR3 of the European Union. Compliance assessment under the

ESD has been finished for the years 2013 to 2016; Austria did not make use of flexible mechanisms in these years. Austria makes use of the possibility to carry forward the part of its annual emission allocation of a given year that exceeds its greenhouse gas emissions in that year to the subsequent years. In the years 2013 to 2016 Austria had a surplus of 8.4 Mt CO_2 eq.

Currently Austria does not plan to make use of other flexibility provisions under the ESD, as the ESD target should be reached by domestic measures.

4 Projections

The latest national greenhouse gas (GHG) emission projections up to 2035 have been developed in the years 2018/2019 and published in March 2019. The "with measures" scenario (WM) takes account of climate change mitigation measures that were implemented and adopted before January 2018. A "with additional measures" scenario is being developed parallel to the work on the National Energy and Climate Plan, which was still ongoing during the preparation of the BR4. A decision on the final National Energy and Climate Plan – and the necessary set of planned policies and measures to meet the 2030 target – has not yet been taken; this is why a "with additional measures" scenario is not yet available. The scenario WM is described in more detail in the latest report on Austria's GHG emission projections "GHG Projections and Assessment of Policies and Measures in Austria" (https://www.umweltbundesamt.at/fileadmin/site/publikationen/REP0687.pdf).

The input parameters for the scenario are mostly comparable to those reported in the previous Biennial Report, i.e. a very moderate annual GDP growth of 1.5% in average over the period 2020–2030, a 9 % population increase from 2015 to 2030; a 13 % increase of the number of dwellings and a 5 % decrease of heating degree days.

4.1 Scenario results

- Total GHG emissions (excluding LULUCF) in the scenario "with measures": Decrease from 82.3 Mt CO_2 eq in 2017 to 79.7 Mt in 2020 and 72.3 in 2030 (-3 % and -12 % respectively);
- long-term decrease driven by energy industries, "other sectors" (1.A.4) and IPPU (decrease in the range from 4 to 2 Mt CO2 eq 2017–2030), decrease also in the transport sector, relative decrease strongest in the waste sector (38 %);
- share of fuel combustion remains at a level of about two third in the longer term;
- CO_2 emissions per capita expected to decrease to 6.9 t in 2030 and total greenhouse gas emissions per capita to 8.0 t CO_2 eq.

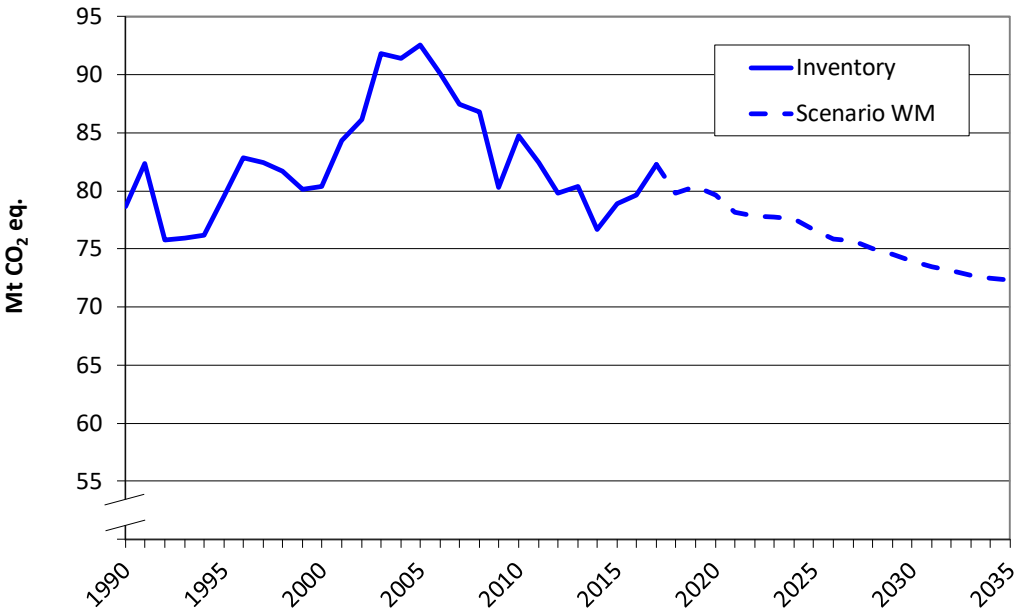

Figure 4.1: Actual and projected total GHG emissions (scenario WM) without LULUCF

Table 4.1: Actual and projected GHG emissions (scenario WM) by sector and by gas (in Mt)[14]:

	GHG emissions and removals (kt CO_2 eq)						GHG emission projections (kt CO_2 eq)			
	1990	1995	2000	2005	2010	2017	2020	2025	2030	2035
Sector										
1.A.1 Energy industries	14.100	13.155	12.397	16.397	14.028	11.195	9.873	8.169	7.311	6.824
1.A.2 Manuf.. Industries	9.900	10.340	10.085	11.708	11.393	11.052	11.610	11.892	12.138	12.532
1.A.3 Transport	13.975	15.886	18.818	24.944	22.568	24.266	24.478	24.529	23.669	22.859
1.A.4 Other sectors	14.234	14.622	13.566	13.607	11.059	9.281	8.530	7.928	7.312	6.745
2. IPPU	13.662	13.605	14.610	15.600	15.930	17.197	15.978	15.136	14.657	14.526
3. Agriculture	8.137	7.828	7.438	7.037	7.103	7.308	7.467	7.545	7.626	7.721
4. LULUCF *	-11.988	-13.143	-16.419	-10.659	-5.864	-4.906	-4.202	-3.464	-2.671	-3.131
5. Waste	3.925	3.651	2.963	2.791	2.158	1.484	1.294	1.069	921	827
1.A.5, 1.B	738	497	538	482	515	478	438	367	327	265
MEMO Intl. Bunkers	*950*	*1.410*	*1.793*	*2.069*	*2.148*	*2.330*	*2.356*	*2.384*	*2.509*	*2.652*
Gas										
CO_2 excluding LULUCF	50.166	50.955	49.735	68.579	66.206	64.910	63.411	61.888	60.614	58.674
CH_4 excluding LULUCF	10.387	9.542	8.419	7.772	7.280	6.621	6.452	6.234	6.110	6.046
N_2O excluding LULUCF	4.473	4.400	4.455	3.723	3.500	3.644	3.734	3.723	3.710	3.713
HFCs	2	353	714	1.148	1.486	1.725	1.349	1.011	679	546
PFCs	1.183	83	88	163	78	44	40	31	31	31
SF_6	471	1.100	575	494	336	399	472	276	137	148
NF_3 *	NO,NA	6	11	28	4	12	10	10	10	10
Total without LULUCF	78.670	79.584	80.415	92.566	84.753	82.261	79.669	76.637	73.961	72.298

* not covered by the joint quantified economy-wide emission reduction target of the EU and its Member States

[14] N.B.: LULUCF and NF_3 shown for comparability with the inventory, but not included in the EU's QEWERT.

Trend by gas:

- By 2030 the share of F-gases decreases from 3 to 1 %, whereas the share of CO_2 and N_2O increases slightly;
- CO_2 emissions trend (-9 % 2017–2030) due to decrease in fuel combustion as well as in industrial processes;
- CH_4 emission decrease since 1990 continues due to further decrease in the waste sector;
- no significant change is expected for N_2O emissions;
- F-gas emissions are expected to decrease by more than half, mainly because of legal restrictions for HFCs (e. g. quota system on EU level).

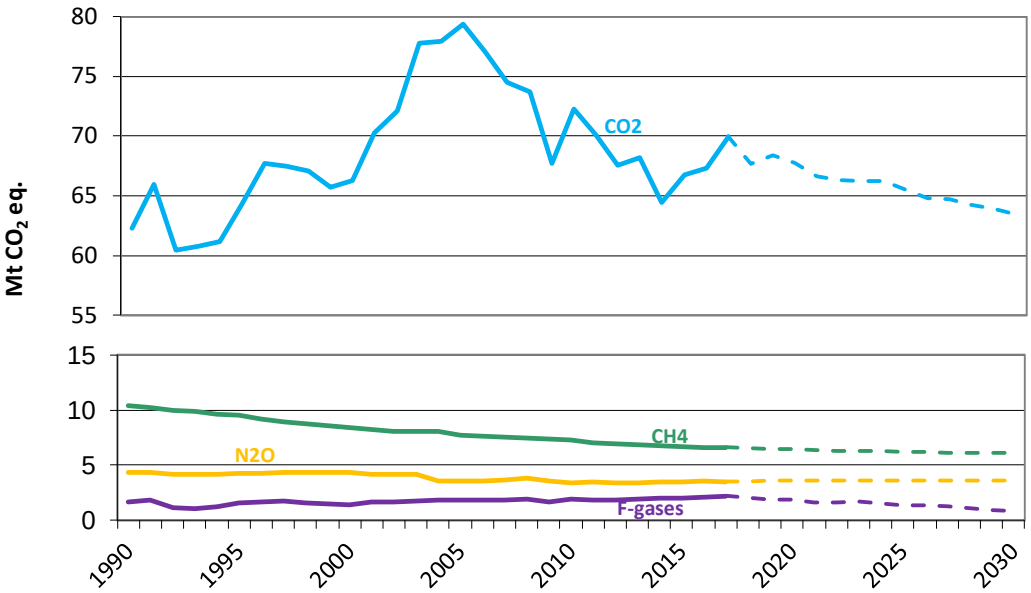

Figure 4.2: Actual and projected GHG emissions (scenario WM, excluding LULUCF) by gases

Trend by sector:

- Sectoral shares change by 1 to 4 percentage points for the sectors from 2017 to 2030, therefore transport sector still dominates total emissions (32 %), followed by IPPU (20 %), manufacturing industries and construction (16 %), energy industries (10 %), agriculture (10 %) and "other sectors" (10 %);
- despite increasing electricity demand, emissions from energy industries are expected to decrease further (-35 % from 2017 to 2030) due to a further shift from fossil fuels to biomass, increasing contribution of hydro, solar and wind power;
- emission increase in several branches of manufacturing industries and construction due to the expected economic development (production increases), for the sector an increase of 10 % is projected;
- decrease of transport emissions (-2 %) by 2030 due to further increase in the use of biofuels, better efficiency standards and more electric mobility; the share of emissions caused by fuel exported in the vehicle tank is expected to remain relatively constant at about a quarter of the sector's emissions;
- a further decrease of emissions from "other sectors" (CRF 1.A.4, -21 %) is expected, mainly because of further improvement of energy efficiency of the building stock and

heating systems, shift from fossil fuels to biomass and ambient heat (including heat pumps);

- in contrast to the past trend, emissions from industrial processes and product use are expected to decrease until 2030 (-15 %), mainly due to decreasing emissions from metal production (because of import of direct reduced iron from 2016 onwards); decreasing emissions of F-gases (see above) contribute to the trend;
- emission increase in the sector agriculture (+4%) is mainly due to an expected increase of livestock (cattle), which cannot be sufficiently compensated by the mitigation measures;
- further downward trend of emissions from the waste sector (-38%), mainly because of the decreasing carbon content of historically landfilled waste as well as because of a decrease in the amount of waste deposited in landfills.

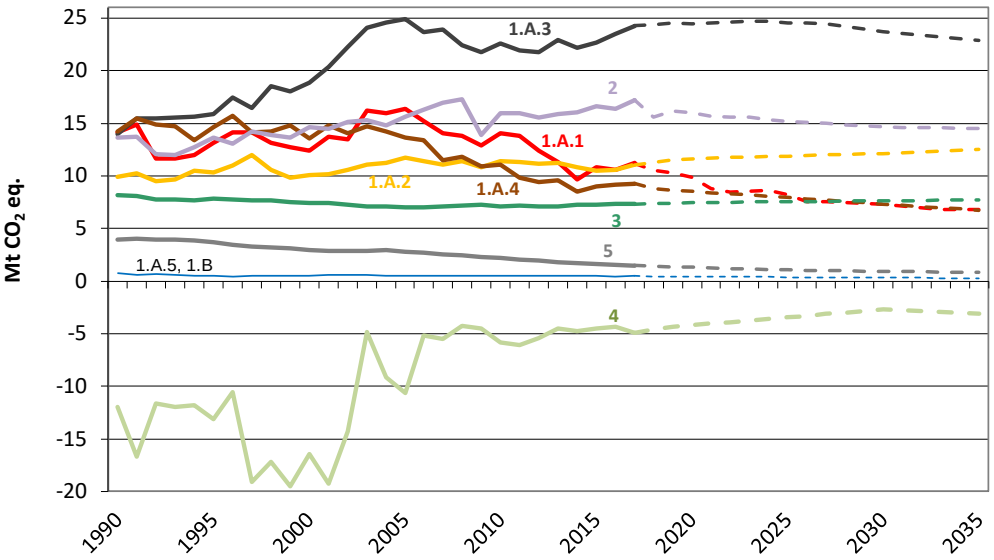

Figure 4.3: Actual and projected GHG emissions (scenario WM) by sectors

Sectoral key parameters (change 2017–2030):

- 1.A.1: Gross electricity production increases by 9 TWh (+14 %), the increase is delivered by renewable energy sources (+ 12 TWh or +26), whereas electricity from fossil fuels shows a decline; net electricity imports are projected to increase by one third; final energy consumption increases by 4 %;
- 1.A.2 and 2: Increase of retail fuel prices within a range of one fourth (coal) to more than half (oil); increase of final energy consumption by 16 %;
- 1.A.3: Increase of the number of passenger-kilometres (all modes) by 8 % and of freight transport tonnes-kilometres (all modes) by 21 % (inland demand only); increase of final energy demand for road transport (including fuel export in the vehicle tank) by 3 %;
- 1.A.4: Further increase of the number of households by 9 %; decrease of residential final energy consumption by 9 % and of heating degree days by 3 %;
- 3: Increase of cattle number by 4 %, decrease of pig and poultry numbers (4 / 16 %); increasing nitrogen input into soild from synthetic fertilizer (2 %) and manure (3 %);
- 5: 7 % decrease of solid municipal waste going to landfills

More information on sectoral activity data and parameters can be found in the (above mentioned) report on greenhouse gas projections[15], Annex 1 (Tables 26–28) and Annex 2 (Tables 32–44).

The totals above show emissions from industries which are part of the EU emission trading system as well as emissions from the sources falling under the EU Effort Sharing Directive (cf. Chapter 2).

Emissions falling under the Effort Sharing Directive[16] ("ESD emissions") represent less than 2/3 of Austrian total GHG emissions. Most of the emissions from energy industries and industry (including industrial processes) fall under the EU ETS, only about one quarter under the ESD. ESD emissions therefore are dominated by transport emissions, which currently account for slightly less than half of ESD emissions. The ratio of ESD to ETS emissions is not expected to change significantly over time.

ESD emissions trend:

- Comparable emission level in the scenario "with measures" in 2017 (51.6 Mt CO_2 eq) and 2020 (50.9 Mt, -1 %), decrease to 47.9 Mt (-7 %) in 2030.
- Emission trend up to 2030 is mainly driven by significant emission decrease in "other sectors" (1.A.4) (-2.0 Mt), IPPU (i.e. F-gases) (-1.3 Mt), transport and waste (-0.6 Mt each).

Table 4.2: Actual and projected GHG emissions (scenario WM) in Austria covered by the EU Effort Sharing Directive[17]:

	GHG emissions and removals (kt CO_2 eq)			GHG emission projections (kt CO_2 eq)		
	2005*	2010*	2017	2020	2025	2030
ESD Sector						
1.A.1 Energy industries	1.941	1.776	2.243	2.088	2.027	1.994
1.A.2 Manufact. Industries	3.568	4.316	4.720	5.007	5.216	5.385
1.A.3 Transport	24.519	22.184	23.590	23.818	23.884	23.035
1.A.4 Other sectors	13.584	11.044	9.232	8.478	7.873	7.255
2. IPPU	2.797	2.901	2.597	2.313	1.776	1.308
3. Agriculture	7.037	7.103	7.308	7.467	7.545	7.626
5. Waste	2.791	2.158	1.484	1.294	1.069	921
1.A.5, 1.B	482	515	478	438	367	327
Total	56.720	51.996	51.652	50.903	49.758	47.851

* Figures for the years before 2013 have been estimated taking into account the current sector definition.

[15] https://www.umweltbundesamt.at/fileadmin/site/publikationen/REP0687.pdf

[16] Excluded: Emissions falling under the EU ETS according to Annex I of Directive 2009/29/EC, emissions from sector 1.A.3.a, NF_3 emissions.

[17] i.e. without LULUCF, NF_3, emissions from 1.A.3.a and from installations in the EU ETS.

4.2 Methodology and changes in methodologies

4.2.1 **Models**

Emission projections for CO_2, CH_4, N_2O and F-gases are generally calculated by the Environment Agency Austria (Umweltbundesamt). Basically, the same methodologies as for the national GHG inventory are applied, as reported in Austria´s National Inventory Reports. The projections are consistent with the historical emission data of the Austrian Emission Inventory submission April 2019, with emission data up to the data year 2017.

The underlying sectoral forecasts of activities are based on the use of several models and methods and have been carried out in close collaboration with several institutions:

- The energy forecast is based on the National Energy Balance of Statistics Austria and on the econometric input-output model DYNK of the Austrian Institute of Economic Research, supported by calculations based on bottom-up models:
    - Austrian Energy Agency with the model TIMES for public electric power and district heating supply,
    - Energy Economics Group of the Technical University Vienna with INVERT/EE-Lab, for domestic heating (incl. district heating demand) & hot water supply,
    - Technical University of Graz with the models NEMO, which was developed for the calculation of emission inventories for road transport in larger areas, and GEORG, a fleet based model for the calculation of energy consumption and emissions of mobile off-road sources.
- The forecast of emissions from industrial processes and solvents are based on expert judgements of Umweltbundesamt.
- The estimations of emissions for fluorinated gases are based on a study published in 2010, supplemented by assumptions on the latest EU legislation .
- The agricultural forecast is based on the PASMA model of the Austrian Institute of Economical Research.
- The waste forecast is generally based on Umweltbundesamt expert judgements on waste amount and waste treatment.
- Several models have been used for the different LULUCF subsectors:
    - For forest growth the model CALDIS was used, for soil organic carbon the YASSO 07 model;
    - for cropland and grassland the PASMA model model of the Austrian Institute of Economical Research;
    - expert judgements have been used for wetlands, settlements and other land;
    - the forest sector model FOHOW2 has been used for projections of harvested wood products.

The same models and methods have been used for the preparation of the scenario as for the scenarios described in Austria's Third Biennial Report. The models are described in more detail in Annex C of the NC7. Details on models, emissions factors used and underlying parameters can be found in Chapter 3 of the (above mentioned) report on Austria's GHG emission projections[15].

Main strength of the modelling approach is the set of bottom-up models which provide a very detailed description of the Austrian situation and its combination with an economic top-down model. As a weakness can be seen that this approach needs considerable resources (time, staff and budget) for an individual scenario.

The data structure of activities, input data, emission factors and emission calculations is based on SNAP categories (Selected Nomenclature for sources of Air Pollution). The structure of output data is presented and aggregated in the Common Reporting Format (CRF) of the UNFCCC. Sectoral definitions align fully with the IPCC.

4.2.2 Key Input Parameters

A summary of key input parameters used is given in Table 4.3.

Table 4.3: Key input parameter of emission projections.

Key underlying assumptions		*Historical*					*Projected*			
Assumption	*Unit*	*1995*	2000	2005	2010	2017	2020	2025	2030	2035
GDP growth rate	%		3,4	2,2	1,8	3.1	1,1	1,4	1,8	2,1
Population	thousands	7.948	8.012	8.225	8.361	8,797	8.942	9.158	9.331	9.447
No. of households	thousands	3.093	3.237	3.475	3.624	3,889	3.992	4.126	4.230	4.318
Heating degree days		3.186	2.884	3.341	3.365	3,224	3.204	3.171	3.118	3.065
Exchange rate USD	USD/EUR				1,33	1.20	1,20	1,20	1,20	1,20
International oil price	EUR/GJ *					8.2	13,9	15,7	17,3	18,1
International coal price	EUR/GJ *					3.0	2,6	3,2	3,8	4,0
International gas price	EUR/GJ *					5.8	8,9	9,6	10,5	11,2
CO_2 certificate price	EUR/t CO_2					7.0	15,5	23,3	34,7	43,5
	* 2016 prices									

4.2.3 Differences to Previous Scenarios

Compared to data reported in the Third Biennial Report, the new WM scenario shows higher total emissions for all years: Emissions are 2.3 Mt CO_2 eq higher for 2020 and 4.2 Mt higher for 2030.

Differences exist for all sectors, apart from LULUCF the highest are found in sector 1.A.3 (+1.8 Mt in 2020 and +2.2 Mt in 2030), followed by 1.A.2 & 2 (+1.4 Mt in 2020 and +1.6 Mt in 2030). Changes up to 1 kt occur in the sectors 1.A.1 and 1.A.4.

The changes with respect to the previous GHG emission projections are influenced mainly by:

- Changes in the base data (e.g. GHG inventory and emission factors, energy balance, recent market devlopments);

- Changes in assumptions for activity scenarios, e.g. due to revised economic scenarios (higher growth rates for some relevant industrial branches), assumptions on the efficiency of vehicles and availability of electric cars, assumptions on subsidies-

Details can be found in Chapter 5 of the above mentioned report on Austria's GHG emission projections[15].

4.2.4 Sensitivity Analysis

The sensitivity analysis regarding the energy sector was based on the influence of economic growth on GHG emissions from transport, energy industries and manufacturing industries and construction, as well as the influence of changes in fuel prices and subsidies on GHG emissions in the residential and commercial sector. All these assessments are based on model results, obtained by calculating the effects on the Energy sector.

It is necessary to mention that the emission results in general are not linearly dependent on changes of an input factor. This is the reason why the presented sensitivity data cannot be seen as a functional dependency with varied parameters. The emission effect can only be seen for the specific values of the given parameters.

Two complete scenarios with different assumptions on economic growth and energy prices were calculated, based on the WM scenario. Main difference was a higher average economic growth of 2.5 % per year in the "Sensitivity 1" scenario and a lower growth of 0.8 % per year in the "Sensitivity 2" scenario. Energy prices as well as certificate prices in the EU ETS are influenced by economic growth (at EU and global level), the price assumptions for the sensitivity scenarios are shown in Table 4.4.

Table 4.4: Changes of parameters for sensitivity scenarios compared to the WM scenario

Sensitivity 1	2020	2030
International oil price	+5%	+28%
International coal price	+2%	+13%
International gas price	+7%	+31%
CO_2 certificate price	+32%	+18%
Sensitivity 2		
International oil price	-3%	-8%
International coal price	-2%	-5%
International gas price	-1%	-11%
CO_2 certificate price	-14%	-23%

The model calculations show 9 % higher total emissions for "Sensitivity 1" compared to the "With Measures" scenario and 4 % lower emissions for "Sensitivity 2" in 2030, see Table 4.5. Sector 1.A.1 shows the highest dependency on GDP growth, as the model projects that increased electricity demand can be met by domestic production in existing power plants under these more favourable economic circumstances (prices).

Table 4.5: Results of the sensitivity analysis – emission change compared to WM

Sensitivity 1	2020	2030
1.A.1 Energy industries	+1%	+49%
1.A.2 Manuf.. Industries	+3%	+5%
1.A.3 Transport	+3%	+6%
1.A.4 Other sectors	+0%	+0%
2 IPPU	+2%	+4%
Total (without LULUCF)	+2%	+9%
Sensitivity 2		
1.A.1 Energy industries	-10%	-1%
1.A.2 Manuf.. Industries	-3%	-7%
1.A.3 Transport	-3%	-6%
1.A.4 Other sectors	0%	2%
2 IPPU	-2%	-4%
Total (without LULUCF)	-3%	-4%

5 Provision of financial, technological and capacity-building support to developing country Parties

The provision of financial, technological and capacity-building support to developing countries is a key element in tackling climate change at the global level.

Austria is firmly committed to providing such support in the larger context of meeting the ultimate objective of the Convention and the long-term goals of the Paris Agreement. In tables 7, 7(a), 7(b), 8, and 9 we provide full details on our efforts in 2017 and 2018, respectively (excluding mobilised private climate finance, separate information on this can be found below).

Public climate finance support by Austria to developing countries – including for technology transfer and capacity building – has increased considerably since 1990. This development is in line with our commitment to provide "new and additional" resources, which we define as a gradual scaling up of support over time, with new programmes, projects and focus areas supplementing and/or extending existing initiatives over time, with the overall volume of support provided increasing in the longer term.

We also strive to achieve in the longer term a balance between support for adaptation and mitigation in our bilateral cooperation, while noting that such a balance must be viewed in a comprehensive manner (both quantitatively and qualitatively, and acknowledging that projects often address both adaptation and mitigation elements) and also taking into account other priorities articulated by our partner countries.

5.1 Finance

A broad range of actors and instruments contribute to Austria's overall contribution to climate finance. Key actors include the Development Bank of Austria (OeEB), the Federal Ministry of Finance (BMF), the Austrian Development Cooperation (ADC), and the Federal Ministry of Sustainability and Tourism (BMNT).

Austria provided financial resources to address climate change in developing countries to the tune of EUR 160.5 million (EUR 182.0 million including mobilised private climate finance) in 2017 and EUR 239.2 million (EUR 327.9 million including mobilised private climate finance) in 2018. These resources assist our partner countries in various way, including through strengthening of local capacities, building resilience against specific local and regional impacts of climate change and increasing energy efficiency and promoting the use of renewable energies.

Figure 5.1 below provides an overview of the last nine years (2013-2018) of climate finance provided by Austria to developing countries, including mobilised private climate finance.

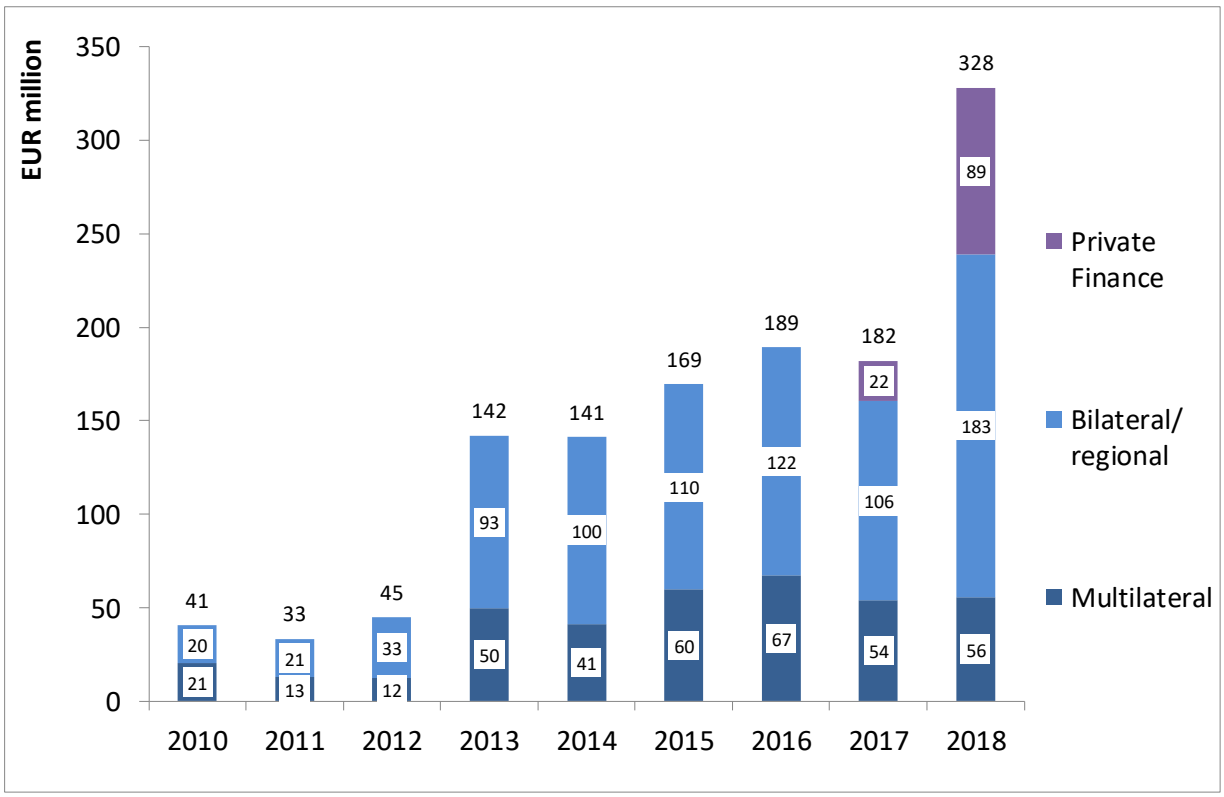

Figure 5.1: Austria's provision of climate finance to developing countries, 2010–2018 (in millions of EUR). Totals include mobilised private climate finance and therefore deviate from totals in the respective CTF tables. The coverage of private climate finance has changed over time.

Further information on specific projects and the way they assist partner countries can be found in the detailed project descriptions in CTF tables 7(b) for 2017 and 2018, respectively (see Tables 5.6 and 5.7 below).

5.1.1 National approach for tracking the provision of financial support to developing countries

In 2013, Austria adopted an international climate finance strategy (KFS, available in German only[18]). KFS established a new inter-ministerial working group (AGIK) dedicated to climate finance. AGIK is tasked to regularly take stock of national and international developments related to the provision of financial, technological and capacity-building support to developing countries and to respond to emerging developments, including on tracking the provision of financial, technological and capacity-building support.

KFS also contains guidelines for tracking the provision of climate finance. These guidelines stipulate the use of OECD DAC methodologies to ensure consistency with Austria's ODA reporting as well as comparability with other climate finance providers. This specifically entails:

- Identification of eligible recipient countries using the most current DAC list of ODA recipients (for BR reporting this has been changed to Non-Annex I Parties upon recommendation by the ERT reviewing our BR3);

[18] https://www.bmlfuw.gv.at/umwelt/klimaschutz/internationales/int_klimafinanzierung/strategie_berichte.html

- bottom-up identification of climate-relevant projects using DAC Rio markers for mitigation and adaptation, respectively; (for projects marked with a Rio marker value "1", amounts reported as climate finance are discounted by 50 percent);
- no double-counting of DAC Rio markers (if a project has more than one Rio marker valued at "1" or above, only one value (the higher value) is used for the amounts reported as climate finance);
- identification of "climate-specific" contributions to multilateral organizations (MDBs) using the latest available DAC data on imputed multilateral shares;
- use of official DAC EUR-USD exchange rates for a given reporting year;
- all flows reported on a commitment basis.

Data collection for climate finance is undertaken by the Austrian Development Agency (ADA) Statistics Office under the responsibility of Federal Ministry of Sustainability and Tourism, with ADA compiling and storing information as well as ensuring quality control.

Standard contractual clauses for individual contracts require monitoring and reporting of project implementation by the implementing agencies, thus ensuring that funds deliver on the objectives defined for individual projects.

5.1.2 How the provision of financial, technological and capacity-building support is assisting developing countries

All bilateral programmes, projects and initiatives that Austria supports are developed and implemented in close cooperation with our partner countries. Austria cooperates with partner countries based on the internationally agreed principles of the "Busan Partnership for Effective Development Cooperation". These principles include:

- Ownership of development priorities by developing countries
- A focus on results
- Partnerships for development
- Transparency and shared responsibility

Austria implements the "Busan Partnership" through country and regional strategies that are jointly developed with our partner countries.[19] These strategies reflect current and emerging interests, needs and priorities of our partners, including in the areas of climate change mitigation and adaptation.

We seek to ensure that all programmes, projects and initiatives are compatible with other related national development strategies of our partner countries. We therefore understand that all bilateral programmes, projects and initiatives meet existing and emerging needs and interests expressed by our partner countries at the national level and in the context of concrete policy implementation.

[19] https://www.entwicklung.at/en/ada/funding/country-and-regional-strategies/

5.1.3 Mobilised private climate finance

In line with the commitment of developed countries as a group of mobilizing jointly USD 100 billion dollars a year by 2020 from a wide variety of sources, Austria is committed to mobilise private climate finance and to extend tracking to cover mobilised private climate finance over time. We recognize that reporting under the BR is voluntary and that there is no CTF table to provide information in a common format.

Up until 2016 (BR3), we were only able to track mobilised private climate finance through ADC business partnerships.[20] These partnerships allow for a co-financing of up to 50 percent of a given business investment by ADC, provided the overall project supports development objectives in line with priorities of our partner countries.

Starting with BR4, Austria is now also in a position to track private climate finance mobilised by the Development Bank of Austria (OeEB). For 2017 and 2018, respectively, private climate finance mobilised by Austria amounts to:

Table 5.1 Private climate finance mobilised by Austria in 2017 and 2018 (in millions of EUR)

	2017	**2018**
ADC business partnerships	1.54	1.47
Development Bank of Austria	20.00	87.24
Total	**21.54**	**88.71**

We continue to closely follow international developments on the issue, e.g. under the OECD Research Collaborative for Tracking Private Climate Finance and intend to expand the scope of reporting on mobilised private climate finance as further guidance is developed.

[20] https://www.entwicklung.at/en/actors/businesses/business-partnerships/

Table 5.2 (CTF Table 7): Provision of public financial support: summary information in 2017

Allocation channels	*European euro – EUR*					*USD[b]*				
	Core/ general[c]	*Climate-specific[d]*				*Core/ general[c]*	*Climate-specific[d]*			
		Mitigation	*Adaptation*	*Cross-cutting[e]*	*Other[f]*		*Mitigation*	*Adaptation*	*Cross-cutting[e]*	*Other[f]*
Total contributions through multilateral channels:		1,176,755		52,972,721			1,326,669		59,721,219	
Multilateral climate change funds[g]				14,547,600					16,400,902	
Other multilateral climate change funds[h]										
Multilateral financial institutions, including regional development banks				38,300,271					43,179,562	
Specialized United Nations bodies		1,176,755		124,850			1,326,669		140,755	
Total contributions through bilateral, regional and other channels		65,591,914	10,438,012	30,272,595			73,948,043	11,767,770	34,129,194	
Total		66,768,669	10,438,012	83,245,316			75,274,712	11,767,770	93,850,413	

Table 5.3 (CTF Table 7): Provision of public financial support: summary information in 2018

Allocation channels	*European euro - EUR*					*USD[b]*				
	Core/ general[c]	*Climate-specific[d]*				*Core/ general[c]*	*Climate-specific[d]*			
		Mitigation	*Adaptation*	*Cross-cutting[e]*	*Other[f]*		*Mitigation*	*Adaptation*	*Cross-cutting[e]*	*Other[f]*
Total contributions through multilateral channels:		1,552,178		54,324,271			1,832,559		64,137,274	
Multilateral climate change funds[g]		0	0	2,400,000					2,833,530	
Other multilateral climate change funds[h]										
Multilateral financial institutions, including regional development banks		0	0	51,798,758					61,155,559	
Specialized United Nations bodies		1,552,178	0	125,512			1,832,559		148,185	
Total contributions through bilateral, regional and other channels		143,811,716	27,588,493	11,889,401			169,789,511	32,572,011	14,037,073	
Total		145,363,893	27,588,493	66,213,671			171,622,070	32,572,011	78,174,346	

Table 5.4 (CTF Table 7(a)): Provision of public financial support: contribution through multilateral channels in 2017

Donor funding	*Total amount*				*Status*	*Funding source*[f]	*Financial instrument*	*Type of support*	*Sector*
	Core/genera		*Climate-specific*						
	EUR	*USD*	*EUR*	*USD*					
Total contributions through multilateral channels			54,149,476	61,047,888					
Multilateral climate change funds [g]			14,547,600	16,400,902					
1. Global Environment Facility			8,547,600	9,636,528	committed	ODA	Grant	Cross-cutting	NA
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund			6,000,000	6,764,374	committed	ODA	Grant	Cross-cutting	NA
6. UNFCCC Trust Fund for Supplement. Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks			38,300,271	43,179,562					
1. World Bank			27,370,926	30,857,865	committed	ODA	Grant, Other[1]	Cross-cutting	NA
2. International Finance Corporation									
3. African Development Bank			6,057,138	6,828,792	committed	ODA	Grant, Other[1]	Cross-cutting	NA
4. Asian Development Bank			579,150	652,931	committed	ODA	Other[1]	Cross-cutting	NA
5. European Bank for Reconstr. and Devel.									
6. Inter-American Development Bank			535,344	603,545	committed	ODA	Grant	Cross-cutting	NA
7. Other									
Asian Infrastructure Investment Bank			3,757,713	4,236,429	committed	ODA	Grant	Cross-cutting	NA
Specialized United Nations bodies			1,301,605	1,467,424					
1. United Nations Development Programme									
2. United Nations Environment Programme									
Montreal Protocol			1,176,755	1,326,669	committed	ODA	Grant	Mitigation	NA
3. Other									
UNFCCC, KP			124,850	140,755	committed	ODA	Grant	Cross-cutting	NA

[1] Other = capital subscription

Table 5.5 (CTF Table 7(a)): Provision of public financial support: contribution through multilateral channels in 2018

Donor funding	*Total amount*				*Status*[b]	*Funding source*[f]	*Financial instrument*[f]	*Type of support*[f, g]	*Sector*[c]
	Core/general[d]		*Climate-specific*[e]						
	EUR	*USD*	*EUR*	*USD*					
Total contributions through multilateral channels			55,876,448	65,969,833					
Multilateral climate change funds [g]			2,400,000	2,833,530					
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund			2,400,000	2,833,530	committed	ODA	Grant	Cross-cutting	NA
6. UNFCCC Trust Fund for Supplement. Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, incl. Reg Dev. B.			51,798,758	61,155,559					
1. World Bank			33,564,259	39,627,224	committed	ODA	Grant, Other[1]	Cross-cutting	NA
2. International Finance Corporation									
3. African Development Bank			9,383,848	11,078,923	committed	ODA	Grant, Other[1]	Cross-cutting	NA
4. Asian Development Bank			811,652	958,267	committed	ODA	Other[1]	Cross-cutting	NA
5. European Bank for Reconstr. and Development									
6. Inter-American Development Bank			294,019	347,130	committed	ODA	Grant	Cross-cutting	NA
7. Other									
Asian Infrastructure Investment Bank			7,744,980	9,144,014	committed	ODA	Grant	Cross-cutting	NA
Specialized United Nations bodies			1,677,690	1,980,744					
1. United Nations Development Programme									
2. United Nations Environment Programme									
UNEP			1,063,578	1,255,700	committed	ODA	Grant	Mitigation	NA
Montreal Protocol			488,600	576,860	committed	ODA	Grant	Mitigation	NA
3. Other									
UNFCCC, KP			125,512	148,185	committed	ODA	Grant	Cross-cutting	NA

[1] Other = capital subscription

Table 5.6 (CTF Table 7(b)): Provision of public financial support: contribution through bilateral, regional and other channels in 2017

Recipient country/ region/project/programme[b]	*Total amount*		*Status*[c]	*Funding source*[g]	*Financial instrument*[g]	*Type of support*[g, h]	*Sector*[d]	*Additional information*[e]
	Climate-specific[f]							
	European euro - EUR	*USD*						
001 Austria	180,000	202,931	committed	10 ODA	110 Standard Grant	mitigation	250 Other (Business and other services)	IÖ Post-Paris-Navigator for Businesses
071 Albania	750,000	845,547	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	EUSIWM / EU Support to Integrated Water Management - ADC co-financing
088 States of ex-Yugoslavia, unspecified	1,000,000	1,127,396	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	EBRD European Western Balkans Joint Fund (WBJF)
089 Europe, regional/multi-country	2,000,000	2,254,791	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	EBRD - Delivering Resource Efficiency Investments in the Western Balkans and Turkey (DRIVE) Programme Account
089 Europe, regional/multi-country	2,000,000	2,254,791	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	EBRD - Renewable District Energie Programm für Western Balkan
089 Europe, regional/multi-country	199,820	225,276	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Western Balkans Energy Transition Dialogue (WeBET Dialogue)
089 Europe, regional/multi-country	500,000	563,698	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Promoting regional cooperation in SEE and Moldova via networking within the authorities responsible for the environment and justice sectors
089 Europe, regional/multi-country	80,000	90,192	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Support for countries on the Western Balkans in implementing climate change actions, especially in the area of Measuring, Reporting & Verification
089 Europe, regional/multi-country	1,000,000	1,127,396	committed	10 ODA	110 Standard Grant	mitigation	430 Cross-Cutting	Contribution to EBRD/MEI - Municipial Infrastructure Fund (in support of building communal infrastructure)
089 Europe, regional/multi-country	1,150,000	1,296,505	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	IBRD - Urban Partnership Program Phase II
089 Europe, regional/multi-country	750,000	845,547	committed	10 ODA	110 Standard Grant	mitigation	430 Cross-Cutting	Contribution to the EIB - Eastern Partnership Technical Assistance Trust Fund (EPTATF)
093 Moldova	17,300	19,504	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Gender, Social and Environmental Impact Analysis, Management and Sustainability Plan

								of the Cantemir Project Area (Consultant Contract)
093 Moldova	750,000	845,547	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Ecosystem-based adaptation, climate-resilience measures and institutional development in the Lower Dniester area
142 Egypt	1,000	1,127	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	New Opportunities Through Wind Power
142 Egypt	8,870,000	10,000,000	committed	21 OOF	421 Standard loan	mitigation	232 Energy	credit
142 Egypt	4,435,000	5,000,000	committed	21 OOF	421 Standard loan	mitigation	232 Energy	credit
142 Egypt	4,435,000	5,000,000	committed	21 OOF	421 Standard loan	mitigation	232 Energy	credit
218 South Africa	95,000	107,103	committed	10 ODA	110 Standard Grant	adaptation	312 Forestry	NAP Global Network: Supporting national-level adaptation action in a sub-Saharan African country
236 Benin	10,000	11,274	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Contribution for Energy Project to Improve the Power Supply in a University in Benin
236 Benin	3,000	3,382	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Contribution for Energy Project to Improve the Power Supply of a University in Benin
238 Ethiopia	75,000	84,555	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Engaging the Forest-Farm Interface: Improving Livelihood & Environmental Outcomes in Ethiopia's Mosaic Landscapes
238 Ethiopia	1,440,900	1,624,464	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	SWEEP - Water for Food Security, Women's Empowerment and Environmental Protection in West and East Belesa, Ethiopia
241 Ghana	14,954	16,859	committed	10 ODA	110 Standard Grant	mitigation	311 Agriculture	Establishment of a cashew seed bank
241 Ghana	134,747	151,913	committed	10 ODA	110 Standard Grant	mitigation	311 Agriculture	Supporting local communities in the Kintampo District, Ghana, to reduce emissions from landuse (Ghana)
249 Lesotho	2,850	3,213	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Upgrading the RIBASIM software and its institutionalisation at the Ministry of Water
259 Mozambique	750,000	845,547	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Contribution to the FAO Country Programming Framework 2017 - 2019
259 Mozambique	700,000	789,177	committed	10 ODA	110 Standard	adaptation	311 Agriculture	Promoting Agricultural Productivity of

					Grant			Smallholder Farmers in Sofala, Contribution 2017 and 2018
259 Mozambique	117,600	132,582	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	Disaster preparedness in Mozambique
261 Nigeria	500,000	563,698	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	SA-NIG-CEST - Strategic Alliance to Develop the Value Chain and Eco System to Eliminate Gas Flaring in Nigeria
265 Zimbabwe	30,000	33,822	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Training in Planting and Marketing of dry Resilient Crops for 100 Households
266 Rwanda	25,000	28,185	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	Regional Development Cooperation to Strengthen the Resilience of Rural Communities in Kirimbi/Nyamsheke
269 Senegal	30,000	33,822	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Resilience and food Security of Small-Scale Farmers
279 South Sudan	16,500	18,602	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Solar Lamp Project Sun Light
282 Tanzania	3,200	3,608	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Construction of Wells for Water Supply in the Region of Mzinga
282 Tanzania	2,500	2,818	committed	10 ODA	110 Standard Grant	mitigation	140 Water and Sanitation	Purchase of a Solar Water Pump for Orphanage
282 Tanzania	150,000	169,109	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Uluguru Spice Project (USP)
282 Tanzania	2,500	2,818	committed	10 ODA	110 Standard Grant	cross-cutting	740 Other (Disaster prevention and preparedness)	Support for the Building up of the Civil Disaster Control (Disasters Prevention)
285 Uganda	500,000	563,698	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	JWESSP 2017/18: Joint Water and Environment Sector Support Programme – Sector Financing Uganda
285 Uganda	1,200,000	1,352,875	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	JWESSP 2017/18: Joint Water and Environment Sector Support Programme – Sector Financing Uganda
285 Uganda	150,000	169,109	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	Assignment of a Development Partners Liaison Advisor in the Water Sector Uganda
285 Uganda	225,000	253,664	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	JWESSP 2017/18: Joint Water and Environment Sector Support Programme – Sector Financing

								Uganda
285 Uganda	180,000	202,931	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Clean renewable energy and access to new income possibilities for the rural population of Uganda
285 Uganda	250,000	281,849	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Secure Livelihoods for South Sudanese Refugees and Host Communities in West Nile Region
285 Uganda	215,429	242,874	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	The green lung of Uganda
285 Uganda	19,677	22,184	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	Secure Livelihoods for South Sudanese Refugees and Host Communities in West Nile Region, Uganda
285 Uganda	320,000	360,767	committed	10 ODA	110 Standard Grant	mitigation	720 (Emergency response)	FAO's Emergency Response to the Refugees Crisis in Uganda
287 Burkina Faso	1,000,000	1,127,396	committed	10 ODA	110 Standard Grant	cross-cutting	160 Other (Other social infrastructure and services)	OEZA EUTF- TUUMA: Strengthening of professional skills, entrepreneurship and employment of youth and women in rural areas (Burkina Faso)
287 Burkina Faso	1,900	2,142	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Electrification of the Women's Centre ACRA With the aid of Solar Energy
287 Burkina Faso	500,000	563,698	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Strenghtening the resilience and food security in the region of the Plateau Central in Burkina Faso (RESA - Plateau Central)
287 Burkina Faso	92,500	104,284	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Participatory Planning for More Inclusive and Sustainable Water Management in rural Burkina Faso
287 Burkina Faso	185,000	208,568	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Nutrition-sensitive forest restoration to enhance the capacity of rural communities in Burkina Faso to adapt to change
287 Burkina Faso	59,269	66,820	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Fighting climate change in Burkina Faso through technical cooperation and knowledge transfer in the agroforestry sector
289 South of Sahara, regional/multi-country	71,997	81,169	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Technical Assistance SADC in Designing GCCA+ for the SADC Region
298 Africa, regional/multi-country	250,000	281,849	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	African Water Facility Special Fund 2017-2019 - Contribution 2017

298 Africa, regional/multi-country	200,000	225,479	committed	10 ODA	110 Standard Grant	adaptation	151 Other (Government and civil society, general)	Contribution to the Sahel and West Africa Club - Workprogramm and Budget for 2017-18
298 Africa, regional/multi-country	200,000	225,479	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	EUEI PDF - Africa-EU RECP - Action Area 4: Innovation & Skills Development
298 Africa, regional/multi-country	210,000	236,753	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Secondment of an expert for private sector development in the Fund for Private Sector Assistance
298 Africa, regional/multi-country	500	564	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Support for the Development of Photovoltaic Systems / Africa - Tamacouda
342 El Salvador	60,000	67,644	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Training in Organic Farming and Marketing
347 Guatemala	7,500	8,455	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Construction of Furnaces Within the Development Policy Campaign "Sei so frei"
347 Guatemala	190,000	214,205	committed	10 ODA	110 Standard Grant	mitigation	312 Forestry	Promoting the development of an innovative community forest model to reduce deforestation contributing to the implementation of REDD+ in Guatemala
364 Nicaragua	2,500	2,818	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Energy-Saving Stoves in Chacara Seca in León, Phase II
364 Nicaragua	5,000	5,637	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Energy-Saving Stoves for the Partner Village Chacara Seca in León - Phase III
364 Nicaragua	10,000	11,274	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Strengthening of Seed Banks in Rio San Juan
364 Nicaragua	61,000	68,771	committed	10 ODA	110 Standard Grant	adaptation	410 Cross-Cutting	Conservation of the ecosystem of the Caribbean Coast
389 North & Central America, regional/multi-country	600,000	676,437	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	SICREEE First Operational Phase of the Central American Integration System Centre for Renewable Energy and Energy Efficiency
389 North & Central America, regional/multi-country	11,030,289	12,435,500	committed	21 OOF	520 Shares in collective investment vehicles	cross-cutting	410 Cross-Cutting	Shares: preservation of biodiversity & improvement of resource efficiency
389 North & Central America, regional/multi-country	11,030,289	12,435,500	committed	21 OOF	520 Shares in collective investment vehicles	cross-cutting	410 Cross-Cutting	Shares: preservation of biodiversity & improvement of resource efficiency

425 Argentina	31,809	35,862	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	REDD+ Project on "Fostering Resilient Livelihoods in Argentine Northeastern Model Forests"
425 Argentina	398	449	committed	10 ODA	110 Standard Grant	mitigation	312 Forestry	International conferene on "Women in mountain regions" in Alpach as well as meetings with the IUFRO Secretariat
428 Bolivia	12,000	13,529	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Training in the use and Marketing of Solar Power Components
431 Brazil	750	846	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Support for the Purchase and the Construction of Water Tanks
431 Brazil	1,550	1,747	committed	10 ODA	110 Standard Grant	mitigation	160 Other (Other social infrastructure and services)	Extra Tuition in a Children's Home; Development of Solar Energy-Infrastructure; Building up of Animal Husbandry
434 Chile	18,097	20,403	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Solar power plant Chile - environmental and social study
437 Colombia	10,000	11,274	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Riverbasin Management to Protect the Rainforest and the Food Security in Colombia
437 Colombia	25,000	28,185	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Regional Development Cooperation to Protect the Amazonas Rainforest in the Rural Areas of the Province of Guaviare
489 South America, regional/multi-country	46,128	52,005	committed	10 ODA	110 Standard Grant	mitigation	210 Transport	Associate Professional Officer (APO) Program - Institutions for Development Department (IFD) - ESCI
489 South America, regional/multi-country	42,571	47,995	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Associate Professional Officer (APO) Program - Institutions for Development Department (IFD) - ESCI
610 Armenia	758,000	854,566	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Livestock Development in Armenia: South-North - ADC
612 Georgia	350,000	394,589	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Promoting integrated approaches to animal health and plant protection in Abkhazia
612 Georgia	200,000	225,479	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	SA - GEO - Development of the sustainable value chain for organic and UTZ/fairtrade certified hazelnuts from Georgia (Phase II)
619 Central Asia, regional/multi-country	750,000	845,547	committed	10 ODA	110 Standard Grant	mitigation	250 Other (Business and other services)	Facility for Investment Climate Advisory Services (FIAS) Fiscal Year 17-21 Core Trust Fund

630 Bhutan	660,900	745,096	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Promotion of Renewable Energy and Energy Efficient Technologies in the Building Sector of Bhutan
630 Bhutan	7,000	7,892	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Knowledge Exchange Organic Farmers
630 Bhutan	180,000	202,931	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Sloping lands in transition: Participatory research on landscape management for forest ecosystem service provision and adaptation to change in Bhutan
640 Sri Lanka	9,500	10,710	committed	10 ODA	110 Standard Grant	cross-cutting	240 Other (Banking and financial services)	Consulting & installation: Environmental and Social Management System at Seylan Bank in Sri Lanka
645 India	90,117	101,597	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Damage-cost compensation for Austria's Development Bank upon default of a windpark project in Panama (net of guarantee premia)
645 India	30,000	33,822	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	More Crop per Dop
645 India	26,610,000	30,000,000	committed	21 OOF	421 Standard loan	mitigation	232 Energy	credit
660 Nepal	7,500	8,455	committed	10 ODA	110 Standard Grant	adaptation	122 Other (Basic health)	Water, Sanitation and Hygiene-Project (WASH-Project) After Flood Disaster in Nepal
660 Nepal	450	507	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Electrification Through Solar Energy for NGO Foyer JATO Antonio in Lomé, Toto and Renovation of the Secondary School in Gautam Nath
660 Nepal	61,500	69,335	committed	10 ODA	110 Standard Grant	adaptation	240 Other (Banking and financial services)	Improvement of MFI regarding climate financing in Nepal
660 Nepal	26,000	29,312	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Improvement of social- and environmental balance of portfolio enterprises, knowhow
665 Pakistan	58,700	66,178	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	A Safer Tomorrow – Disaster Preparedness in Pakistan IV
666 Bangladesh	8,275	9,329	committed	10 ODA	110 Standard Grant	cross-cutting	240 Other (Banking and financial services)	consulting & education measures: with the goal to improve the environmental and social management system of One Bank
689 South & Central Asia, regional/multi-country	45,000	50,733	committed	10 ODA	110 Standard Grant	mitigation	152 Other (Conflict prevention & resolution,	Central Asia: Prevention of violent extremism through the application of security measures:

							peace & security)	A Mapping Study
745 Laos	500,000	563,698	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	SA - LAO - Market Development Initiative - Hydro Power in Laos
745 Laos	22,568	25,443	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Consulting/management for the project development initiative
745 Laos	19,952	22,494	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	technical screening for the identification of renweable energyplants (project development initiative)
745 Laos	80,048	90,246	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	technical screening for the identification of renweable energyplants (project development initiative)
745 Laos	5,000,000	5,636,979	committed	10 ODA	510 Common equity	mitigation	232 Energy	Development of renewable energy projects as JV between OeEB and partners
798 Asia, regional/multi-country	250,000	281,849	committed	10 ODA	110 Standard Grant	mitigation	210 Transport	Sustainable Transport for All
889 Oceania, regional/multi-country	10,000	11,274	committed	10 ODA	110 Standard Grant	cross-cutting	998 Other (Unallocated/unspecified)	Voluntary Contribution to IUCN - Cooperation with PSIDS (Pacific Small Island Developing States) on sustainable energy
998 Bilateral unallocated	250,000	281,849	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	European Water Initiative Plus for Eastern Partnership countries (EUWIplus East)
998 Bilateral unallocated	5,000	5,637	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	Well Construction and Photovoltaic Training of Young People From Tanzania in Carinthia
998 Bilateral unallocated	11,351	12,797	committed	10 ODA	110 Standard Grant	adaptation	160 Other (Other social infrastructure and services)	IBRD - Donor Funded Staffing Program - Poverty and Equity Global Practice, Front Office (GPVDR)
998 Bilateral unallocated	250,000	281,849	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Contribution to Sustainable Energy For All (SE4all)
998 Bilateral unallocated	260,000	293,123	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Vienna Energy Forum 2017
998 Bilateral unallocated	147,636	166,444	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	IBRD - Donor Funded Staffing Program - Junior Professional Officer to support the Energy Sector Management Assessment Program
998 Bilateral unallocated	210,120	236,888	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Expert adivce of the OEZA concerning sustainable energy
998 Bilateral unallocated	99,891	112,617	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Support to the Vienna Energy Forum 2017

998 Bilateral unallocated	70,000	78,918	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Contribution 2017/2018 towards the Renewable Energy and Energy Efficiency Partenership (REEEP)
998 Bilateral unallocated	150,716	169,917	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	IBRD - Donor Funded Staffing Program; JPO to support the Global Facility for Disaster Reduction and Recovery
998 Bilateral unallocated	10,000	11,274	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Global Forest Expert Panel on Forests and Water
998 Bilateral unallocated	12,500	14,092	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	International Conference on Halting Deforesting and Increasing Forest Area
998 Bilateral unallocated	25,000	28,185	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Forestry Knowledge and Information Shared Globally
998 Bilateral unallocated	25,000	28,185	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Voluntary contribution towards the International Institute for Sustainable Development (IISD)
998 Bilateral unallocated	28,832	32,505	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	IUCN (International Union for Conservation of Nature and Natural Resources) Membership fee 2017
998 Bilateral unallocated	365	411	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Climate Alliance - Alianza del Clima: Membership fee
998 Bilateral unallocated	4,500	5,073	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Contribution 2017 to the Trust Fund of the Vienna Convention for the Protection of the Ozone Layer
998 Bilateral unallocated	40,000	45,096	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Contribution 2017 to the Trust Fund of the Montreal Protocol on Substances that deplete the Ozone Layer
998 Bilateral unallocated	15,000	16,911	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Voluntary contribution towards the RSO Trust Fund of the Vienna Convention
998 Bilateral unallocated	10,000	11,274	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Voluntary contribution to OECD RC - Tracking Private Climate Finance
998 Bilateral unallocated	15,200	17,136	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	THE PEP (Transport, Health and Environment Pan-European Programme; 76% ODA)
998 Bilateral unallocated	17,800	20,068	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	THE PEP (Transport, Health and Environment Pan-European Programme; 89% ODA)
998 Bilateral unallocated	20,000	22,548	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Austrian voluntary conribution 2017 towards the UNFCCC Technology Executive Committee

								(TEC)
998 Bilateral unallocated	44,942	50,668	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Voluntary contribution to the IPCC Trust Fund
998 Bilateral unallocated	10,000	11,274	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Establishment of a crowd-finance platform to fund climate finance projects worldwide
998 Bilateral unallocated	29,351	33,090	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Project work related to Green Finance/Article 2.1c of the Paris Agreement
998 Bilateral unallocated	13,386	15,091	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Technical support on legal issues in the context of the UNFCCC
998 Bilateral unallocated	40,429	45,580	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Global Forum on Sustainable Enegry (GFSE)
998 Bilateral unallocated	19,396	21,867	committed	10 ODA	110 Standard Grant	adaptation	410 Cross-Cutting	Technical support for UNFCCC negotiations (adaptation)
998 Bilateral unallocated	8,000	9,019	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Technical support for tracking and reporting of the austrian contribution for climate finance
998 Bilateral unallocated	20,000	22,548	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	THE PEP (Transport, Health and Environment Pan-European Programme; 24% ERG-KF)
998 Bilateral unallocated	20,000	22,548	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	THE PEP (Transport, Health and Environment Pan-European Programme; 11% ERG-KF)
998 Bilateral unallocated	200,000	225,479	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Austrian Contribution to the OECD/DAC Programme of Work and Budget 2017-2018
998 Bilateral unallocated	10,761	12,132	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	IBRD - Donor Funded Staffing Program - GSURR, Urban Risk
998 Bilateral unallocated	3,000,000	3,382,187	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	Global Facility for Disaster Reduction and Recovery (GFDRR) Climate Risk Multi-Donor Trust Fund
998 Bilateral unallocated	117,311	132,256	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	IBRD - Donor Funded Staffing Program; JPO to support the Global Facility for Disaster Reduction and Recovery
998 Bilateral unallocated	125,000	140,924	committed	10 ODA	110 Standard Grant	adaptation	998 Other (Unallocated/unspecified)	ECDPM - Formulation and implementation of development policy in the framework of the European Union
998 Bilateral unallocated	3,991,500	4,500,000	committed	10 ODA	510 Common equity	mitigation	232 Energy	Investment Fund targeting renewable energy investments

Total contributions through bilateral, regional and other channels	106,302,521	119,845,007						
Subtotal	39,891,944	44,974,007		ODA				
Subtotal	66,410,577	74,871,000		OOF				
Subtotal	30,900,444	34,837,029			Grants			
Subtotal	44,350,000	50,000,000			Loan			
Subtotal	31,052,077	35,007,979			Other			
Subtotal	4,682,917	5,279,501					Agriculture	
Subtotal	62,720,999	70,711,386					Energy	
Subtotal	639,405	720,863					Forestry	
Subtotal	0	0					Industry	
Subtotal	296,128	333,854					Transport	
Subtotal	3,366,600	3,795,490					Water	
Subtotal	5,705,786	6,432,679					Other	
Subtotal	28,570,685	32,210,468					Cross-cutting	

Table 5.7 (CTF Table 7(b)): Provision of public financial support: contribution through bilateral, regional and other channels in 2018

Recipient country/ region/project/programme[b]	*Total amount*		*Status*[c]	*Funding source*[g]	*Financial instrument*[g]	*Type of support*[g, h]	*Sector*[d]	*Additional information*[e]
	Climate-specific[f]							
	European euro - EUR	*USD*						
063 Serbia	24,000,000	28,335,301	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan for the construction of a windpark
064 Bosnia and Herzegovina	5,000,000	5,903,188	committed	21 OOF	421 Standard loan	mitigation	233 Energy	Corporate financing with the goal of an energy efficiency investment
088 States of ex-Yugoslavia, unspecified	500,000	590,319	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	EBRD European Western Balkans Joint Fund (WBJF)
089 Europe, regional/multi-country	1,750,000	2,066,116	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Danube region water supply & wastewater utilities capacity building program (water facility for the Danube countries)
089 Europe, regional/multi-country	28,900	34,120	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	Promoting the role of volunteers and the population in Civil Protection/ProVoice
089 Europe, regional/multi-country	1,500,000	1,770,956	committed	10 ODA	110 Standard Grant	mitigation	430 Cross-Cutting	EBRD - Municipial Infrastructure Fund (MEI)(in support of building communal infrastructure)
089 Europe, regional/multi-country	849,113	1,002,495	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	International Finance Corporation (IFC) Clean Energy Infrastructure Programme for Southeast and Eastern Europe (ECA Power)
089 Europe, regional/multi-country	178,450	210,685	committed	10 ODA	110 Standard Grant	mitigation	998 Other (Unallocated/unspecified)	EBRD - Austrian Technical Assistance Cooperation Fund (ATACF) (TF all countries, 43%)
093 Moldova	1,072,000	1,265,643	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Promotion of climate change and disaster risk reduction solution in the water and civil protection sectors for enhanced rural resilience
093 Moldova	400,000	472,255	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	Establishing safe water disposal in the town of Cantemir - Moldova - OEZA
093 Moldova	20,000	23,613	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Energy efficient solar cooling and drying in Moldova (FS-Mol-ConsultAir)
142 Egypt	35,000	41,322	committed	10 ODA	110 Standard Grant	mitigation	250 Other (Business and other services)	restructuring management
238 Ethiopia	3,000,000	3,541,913	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Support to livelihoods of drought affected households and resilience building in

								Warder and Kebredahar woredas of Ethiopia's Somali Region
238 Ethiopia	320,000	377,804	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Strategic Partnership Austrian Red Cross 12/2018 - 11/2023, Water Sanitation Hygiene (WASH), East Africa
238 Ethiopia	112,056	132,297	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Environmental management for livelihood security, Ethiopa
238 Ethiopia	212,370	250,732	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Juniperus procera – Development of a concept for the provision of forest reproductive material in Ethiopia
238 Ethiopia	245,000	289,256	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Reforestation of the Ethiopian Highlands using mixtures of indigenous tree species, Carbo Part II Äthiopen, Boku
241 Ghana	98,798	116,644	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Promotion of the value creation of maize as a high-quality feed in Ghana
241 Ghana	193,821	228,833	committed	10 ODA	210 Interest subsidy	adaptation	140 Water and Sanitation	Interest subsidy grant for project: Enhancement of the Nationwide Water Network Management
241 Ghana	1,401,000	1,654,073	committed	10 ODA	210 Interest subsidy	adaptation	140 Water and Sanitation	Interest subsidy grant for project: Enhancement of the Nationwide Water Network Management
241 Ghana	4,000,000	4,722,550	committed	22 OSEC	421 Standard loan	adaptation	140 Water and Sanitation	Frame II export credit: Enhancement of the Nationwide Water Network Management
248 Kenya	27,189	32,100	committed	10 ODA	110 Standard Grant	cross-cutting	151 Other (Government and civil society, general)	Promotion of sustainable agriculture and human rights, Kenya
248 Kenya	103,750	122,491	committed	10 ODA	110 Standard Grant	mitigation	140 Water and Sanitation	Water Supply and Basic Sanitation in Turkana County, Kenya
259 Mozambique	41,902	49,471	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Sustainable rural development in the province of Sofala, Mozambique
259 Mozambique	70,600	83,353	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	Strengthening of Disaster Risk Reduction Systems (DRR Systems) and awareness to reach most vulnerable population groups
259 Mozambique	25,000	29,516	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Nudging sustainability transitions using innovation platforms and market-oriented development in Mozambique
259 Mozambique	10,000	11,806	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Mangroves - environmental protection, reforestation and food security

259 Mozambique	10,000	11,806	committed	10 ODA	110 Standard Grant	mitigation	122 Other (Basic health)	ComuSanas - Health for mothers and children incl. water and solar energie supply of the health centre
260 Niger	1,000	1,181	committed	10 ODA	110 Standard Grant	mitigation	311 Agriculture	Garden irrigation through solar pumps
261 Nigeria	5,000	5,903	committed	10 ODA	110 Standard Grant	adaptation	232 Energy	Photovoltaic plants for Madonna Austria Hospital in Ihitte
261 Nigeria	500	590	committed	10 ODA	110 Standard Grant	mitigation	236 Energy	Provision of electric power for an orphanage and needy families
261 Nigeria	20,000	23,613	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Construction of a photovoltaic system for a hospital
261 Nigeria	1,650	1,948	committed	10 ODA	110 Standard Grant	mitigation	140 Water and Sanitation	Solar pumping system for the well in the village
261 Nigeria	5,000	5,903	committed	10 ODA	110 Standard Grant	mitigation	140 Water and Sanitation	Project "Water is the future" for Alaocha
269 Senegal	17,128	20,222	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	Health and Biodiversity - ENDA Santé
269 Senegal	57,339	67,696	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Food security and capacity building in KAOLACK
269 Senegal	30,572	36,094	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Resilience and adaption to climate change
269 Senegal	27,631	32,622	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Food security and resilience
269 Senegal	23,343	27,559	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Agricultural Development Senegal 19-22
269 Senegal	53,044	62,626	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Sustainable agricultural and local development - symbiosis
269 Senegal	20,584	24,302	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Institutional strengthening of rural civil society - Organisation INTERPENC
269 Senegal	20,424	24,113	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Sustainable Agriculture & Entrepreneurship Organic bananas - Cooperative APROVAG
269 Senegal	19,890	23,483	committed	10 ODA	110 Standard Grant	mitigation	311 Agriculture	Bio-componst facilities in Senegal
279 South Sudan	3,000	3,542	committed	10 ODA	110 Standard Grant	cross-cutting	111 Other (Education, level unspecified)	Rehabilitation of schools
282 Tanzania	4,000	4,723	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Construction of a spring capture for agricultural irrigation

282 Tanzania	62,033	73,239	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Sustainable livelihood of smallholder farmers, Tanzania
282 Tanzania	11,320	13,365	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Enabling Rural Innovation im Östlichen Afrika / OWSL, Tanzania
282 Tanzania	30,261	35,727	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Strenghtening Food Security in Songwe, Tanzania
282 Tanzania	10,000	11,806	committed	10 ODA	110 Standard Grant	mitigation	140 Water and Sanitation	Biogas latrines for kindergarden and primary school in Kinyamwenda
285 Uganda	71,500	84,416	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Growing Together: Participatory Management of Forests and Water Resources
285 Uganda	400,000	472,255	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Strategic Partnership Austrian Red Cross 12/2018 - 11/2023, Water Sanitation Hygiene (WASH), East Africa
285 Uganda	730,000	861,865	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Strategic Partnership Austrian Red Cross 12/2018 - 11/2023, Water Sanitation Hygiene (WASH), East Africa
285 Uganda	180,000	212,515	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	The dynamics and governance of Uganda's informal timber value chains: Identifying appropriate options
285 Uganda	61,002	72,021	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Livelihood improvement through sustainable and environmentally friendly agricultural production
285 Uganda	11,502	13,580	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Enabling Rural Innovation im Östlichen Afrika / Caritas MADDO, Uganda
285 Uganda	12,906	15,237	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Enabling Rural Innovation im Östlichen Afrika / RICE, Uganda
285 Uganda	14,088	16,633	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Enabling Rural Innovation in Eastern Africa, Uganda
285 Uganda	15,173	17,914	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Enabling Rural Innovation im Östlichen Afrika / YARD, Uganda
285 Uganda	11,466	13,538	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Enabling Rural Innovation im Östlichen Afrika / Caritas Tororo, Uganda
285 Uganda	115,000	135,773	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	Assignment of a Development Partners Liaison Advisor in the Water Sector Uganda
285 Uganda	105,000	123,967	committed	10 ODA	110 Standard Grant	mitigation	311 Agriculture	Earmarked contribution to CGIAR: research project - Sustainable Intensification of the Pig Value Chain in Uganda

285 Uganda	2,245	2,651	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Improvement of the energy supply in the St. Josephs hospital - Photovoltaic system
285 Uganda	8,250	9,740	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Electrification of a hospital ward
285 Uganda	100,000	118,064	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Uganda – Clean cooking and electricity for households
285 Uganda	125,000	147,580	committed	10 ODA	110 Standard Grant	mitigation	720 Other (Emergency response)	Living conditions in Imvepi Fostered Together/ Gemeinsame Förderung der Lebensbedingungen in Imvepi (LIFT)
287 Burkina Faso	92,500	109,209	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Participatory Planning for More Inclusive and Sustainable Water Management in rural Burkina Faso
287 Burkina Faso	185,000	218,418	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Nutrition-sensitive forest restoration to enhance the capacity of rural communities in Burkina Faso to adapt to change
287 Burkina Faso	3,500	4,132	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Light for schools and health stations - Solar systems
287 Burkina Faso	675,000	796,930	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Berufsbildung Erneuerbare Energie in Burkina Faso
287 Burkina Faso	2,000	2,361	committed	10 ODA	110 Standard Grant	mitigation	140 Water and Sanitation	Construction of deep wells with hand pump, rehabilitation of wells and solar pump
287 Burkina Faso	75,000	88,548	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Berufsbildung Erneuerbare Energie in Burkina Faso - ADC co-financing
289 South of Sahara, regional/multi-country	270,595	319,475	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Building drought resilience through land and water management in arid and semi-arid areas in Kenya and Uganda (phase 2)
289 South of Sahara, regional/multi-country	1,599,700	1,888,666	committed	10 ODA	110 Standard Grant	adaptation	114 Other (Post-secondary education)	Education and research hub for the sustainable management of aquatic ecosystem in Eastern Africa, AQUAHUB
289 South of Sahara, regional/multi-country	950,000	1,121,606	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Capacity building support for the ECOWAS Centre for RE and EE (ECREEE) - Phase II
289 South of Sahara, regional/multi-country	720,450	850,590	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Accelerating Transition Towards Resilient Water Resources Management (IIASA)
289 South of Sahara, regional/multi-country	3,000,000	3,541,913	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Contribution to the Trust Fund of the Energy and Environment Partnership in Southern and Eastern Africa 2018 - 2021

289 South of Sahara, regional/multi-country	1,250,000	1,475,797	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Support to the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) -BP2
298 Africa, regional/multi-country	500,000	590,319	committed	10 ODA	110 Standard Grant	adaptation	410 Cross-Cutting	Climate Learning and Advocacy for Resilience (CLAR)
298 Africa, regional/multi-country	250,000	295,159	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	African Water Facility Special Fund 2017-2019 - Contribution 2018
298 Africa, regional/multi-country	160,000	188,902	committed	10 ODA	110 Standard Grant	cross-cutting	140 Water and Sanitation	Technical Assistance Expert for the African Water Facility (AWF) of the African Development Bank (AfDB) - 2018
298 Africa, regional/multi-country	70,000	82,645	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Secondment Sustainable Energy Investment Expert to AfDB
298 Africa, regional/multi-country	500	590	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Support for the Development of Photovoltaic Systems / Africa - Tamacouda
336 Costa Rica	9,000	10,626	committed	10 ODA	110 Standard Grant	mitigation	111 Other (Education, level unspecified)	Solar energy suppply and completion of the interior "Escuela de la Tierra" (school)
342 El Salvador	30,000	35,419	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Strengthening agricultural production and marketing
342 El Salvador	42,022	49,612	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Strengthening Agroecology in the Biosphere Reserve Apaneca-Ilamatepec, El Salvador
342 El Salvador	29,904	35,306	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Agroecological farming families in Morazán, El Salvador
342 El Salvador	21,942	25,905	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Strengthening the role of women for a sustainable life in Suchitoto, El Salvador
342 El Salvador	39,059	46,114	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Improving the food security of farming families in the outskirts of Ciudad Arce, El Salvador
347 Guatemala	39,215	46,299	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Food security for indigenous farmer families in western Guatemala
347 Guatemala	36,242	42,789	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Family and community farming in Quiché, Guatemala
347 Guatemala	44,623	52,683	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Family farming in Atitlán, Guatemala
347 Guatemala	212,000	250,295	committed	10 ODA	110 Standard Grant	mitigation	312 Forestry	Supporting the implementation of REDD+ (UNFCCC) in the community forest model of Petén (Maya Biosphere Reserve, Guatemala)

364 Nicaragua	54,735	64,623	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Food security of farmers and indigenous families in the RACC, Nicaragua
364 Nicaragua	2,000	2,361	committed	10 ODA	110 Standard Grant	mitigation	111 Other (Education, level unspecified)	Production of energy-efficient components at the partner school
364 Nicaragua	1,600	1,889	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Electrification through solar energy in Wawashang
389 North & Central America, regional/multi-country	800,000	944,510	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE) - start-up and first operational phase
389 North & Central America, regional/multi-country	8,473,000	10,003,542	committed	21 OOF	421 Standard loan	adaptation	311 Agriculture	Loan to the agriculture business
389 North & Central America, regional/multi-country	12,709,500	15,005,313	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan for financing projects in the renewable energy sector
425 Argentina	35,000	41,322	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	REDD+ Project on "Pathways to Sustainability. Formoseno Model Forests"
428 Bolivia	5,000	5,903	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Cultivation of Quinoa
428 Bolivia	28,000	33,058	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Implementation of solar energy components
431 Brazil	750	885	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Support for the purchase and the construction of water tanks
431 Brazil	7,270	8,583	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Contribution to climate protection in Rio Negro
431 Brazil	4,150	4,900	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Climate Aliance: Financial contribution to a project in Amazonia Regional Development RIO NEGRO
431 Brazil	10,000	11,806	committed	10 ODA	110 Standard Grant	mitigation	111 Other (Education, level unspecified)	Expansion of the family agricultural school in Angical - Bahia and photovoltaic system
431 Brazil	6,354,750	7,502,656	committed	21 OOF	421 Standard loan	mitigation	322 Other (Mineral resources and mining)	The loan will be used to finance a melting furnace
437 Colombia	25,000	29,516	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Regional Development Cooperation to Protect the Amazonas Rainforest in the Rural Areas of the Province of Guaviare
437 Colombia	10,000	11,806	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	Riverbasin Management to Protect the Rainforest and the Food Security in Colombia

437 Colombia	2,674	3,157	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Various Projects to Climate Alliance in Colombia
440 Ecuador	12,709,500	15,005,313	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan for onleding to projects with focus on financing energy efficiency projects
454 Peru	15,000	17,710	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Promoting of farming in the context of climate change
489 South America, regional/multi-country	44,785	52,875	committed	10 ODA	110 Standard Grant	cross-cutting	151 Other (Government and civil society, general)	IDB- Associate Professional Officer (APO) Program: Evaluation and Oversight (OVE)
489 South America, regional/multi-country	37,308	44,047	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Associate Professional Officer (APO) Program - Housing and Urban Development Division (CSD/HUD)
498 America, regional/multi-country	320,000	377,804	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Secondment to CCREEE - Sustainable Energy Expert with focus on Energy Efficiency
498 America, regional/multi-country	280,000	330,579	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Latin American and Caribbean Energy Efficiency Program (Phase III)
540 Iran	346,654	409,273	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Energy Efficiency Partnership in Iran (SA-IRN-ALLPLAN)
612 Georgia	102,500	121,015	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Earmarked contribution to CGIAR: research project - Enhancing Rural Livelihoods in Georgia
612 Georgia	444,315	524,575	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Farming Support Initiative (FSI)
612 Georgia	500,000	590,319	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	Risk Management for geological and hydro-meteorological disasters by introducing a Natural Hazard Protection Program for Georgia
612 Georgia	96,250	113,636	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	WP-GEO-Saatbau Linz-Seed Production and Contract Farming (wheat) in Georgia
612 Georgia	950,000	1,121,606	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Strengthening capacities of stakeholders for the implementation of the Strategy for Agricultural Development in Georgia 2015-2020 and the Rural Development Strategy of Georgia 2017-2020
612 Georgia	500,000	590,319	committed	10 ODA	110 Standard Grant	cross-cutting	321 Industry	Green Economy, Tourism and Agriculture (GRETA): Sustainable Mountain Tourism & Organic Agriculture in Georgia - ADC co-financing

612 Georgia	699,750	826,151	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Promoting sustainable forest management for climate resilient rural development in Georgia
612 Georgia	49,733	58,717	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Assistance in the field of environmental and social balance (Caucasus Clean Energy Fund (CCEF))
612 Georgia	21,182,500	25,008,855	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan for financing of solutions for renewable energy projects and SME
619 Central Asia, regional/multi-country	56,500	66,706	committed	10 ODA	110 Standard Grant	mitigation	231 Energy	Preparatory Phase - ECO Clean Energy Centre (ECEC)
630 Bhutan	180,000	212,515	committed	10 ODA	110 Standard Grant	adaptation	311 Agriculture	Sloping lands in transition: Participatory research on landscape management for forest ecosystem service provision and adaptation to change in Bhutan
630 Bhutan	7,000	8,264	committed	10 ODA	110 Standard Grant	cross-cutting	311 Agriculture	Mutual training of organic farmers
640 Sri Lanka	10,360	12,231	committed	10 ODA	110 Standard Grant	cross-cutting	240 Other (Banking and financial services)	Consulting & training with the aim to create a sustainable banking
645 India	29,441	34,759	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Damage-cost compensation for Austria's Development Bank upon default of a windpark project in Panama (net of guarantee premia)
645 India	26,000	30,697	committed	10 ODA	110 Standard Grant	mitigation	240 Other (Banking and financial services)	Audit of enviromental and social management system as well as corporate rollout
660 Nepal	47,000	55,490	committed	10 ODA	110 Standard Grant	adaptation	740 Other (Disaster prevention and preparedness)	Building resilience of households and communities of earthquake affected areas in Nepal
660 Nepal	2,108	2,489	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	Citizen science for landslide risk reduction and disaster resilience building in mountain regions
660 Nepal	25,000	29,516	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Additional building of 3 class rooms for the Chilaune School; care for disabled people (BIA Project); One Day- one Tree (afforestation project)
660 Nepal	750,000	885,478	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Austria-Nepal Renewable Energy Blended Finance Facility
666 Bangladesh	7,500	8,855	committed	10 ODA	110 Standard Grant	cross-cutting	240 Other (Banking and financial services)	Management training in the field of environmental and social risks and

								opportunities
666 Bangladesh	2,965,550	3,501,240	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan earmarked for the on-lending to Green-Finance and renewable energy projects
666 Bangladesh	7,555,000	8,919,717	committed	21 OOF	421 Standard loan	mitigation	321 Industry	Loan for an expansion of the existing production capacity of a sugar factory
679 South Asia, regional/multi-country	154,655	182,591	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	IBRD - Donor Funded Staffing Program - Environment and Natural Resources Management Global Practice
679 South Asia, regional/multi-country	13,183,988	15,565,511	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan earmarked for the on-lending to small solar- and solarroof projects
679 South Asia, regional/multi-country	3,762,012	4,441,573	committed	21 OOF	421 Standard loan	mitigation	232 Energy	Loan earmarked for the on-lending to small solar- and solarroof projects
689 South & Central Asia, regional/multi-country	800,000	944,510	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Contribution to the Establishment of the Renewable Energy and Energy Efficiency Capability for the Hindu Kush Himalaya (REEECH)
689 South & Central Asia, regional/multi-country	1,500,000	1,770,956	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Beitrag zum 5-jährigen Aktionsplan von ICIMOD für den Zeitraum 2018 - 2020
745 Laos	762,000	899,646	committed	10 ODA	210 Interest subsidy	mitigation	140 Water and Sanitation	Interest subsidy grant for project: Care Waste Management
745 Laos	238,540	281,629	committed	10 ODA	210 Interest subsidy	mitigation	140 Water and Sanitation	Interest subsidy grant for project: Health Care Waste Management
745 Laos	238,540	281,629	committed	10 ODA	210 Interest subsidy	mitigation	140 Water and Sanitation	Interest subsidy grant for project: Health Care Waste Management
745 Laos	762,000	899,646	committed	10 ODA	210 Interest subsidy	mitigation	140 Water and Sanitation	Interest subsidy grant for project: Care Waste Management
745 Laos	1,508,552	1,781,053	committed	22 OSEC	421 Standard loan	mitigation	140 Water and Sanitation	Frame II export credit: Health Care Waste Management
798 Asia, regional/multi-country	1,000,000	1,180,638	committed	10 ODA	110 Standard Grant	cross-cutting	430 Cross-Cutting	Contribution to ADB Cities development initiative for Asia (CDIA) - infrastructure and development planning in cities in Central Asia
798 Asia, regional/multi-country	159,400	188,194	committed	10 ODA	110 Standard Grant	mitigation	210 Transport	IBRD - Donor Funded Staffing Program - Transport and Digital Development Global Practice

854 Vanuatu	850,000	1,003,542	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Nationally Appropriate Mitigation Action (NAMA): Rural Electrification in Vanuatu
889 Oceania, regional/multi-country	10,000	11,806	committed	10 ODA	110 Standard Grant	cross-cutting	232 Energy	International Union for Conservation of Nature (IUCN) - Cooperation with PSIDS (Pacific Small Island Developing States) on sustainable energy
998 Bilateral unallocated	75,916	89,629	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	IBRD - Donor Funded Staffing Program: GSURR, Urban Risk
998 Bilateral unallocated	424,557	501,247	committed	10 ODA	110 Standard Grant	adaptation	430 Cross-Cutting	IFC - ECA Cities Platform II
998 Bilateral unallocated	154,655	182,591	committed	10 ODA	110 Standard Grant	adaptation	140 Water and Sanitation	IBRD - Donor Funded Staffing Program: Water Global Practice
998 Bilateral unallocated	1,000,000	1,180,638	committed	10 ODA	110 Standard Grant	cross-cutting	250 Other (Business and other services)	International Finance Corporation-Austria (IFC/Austria) Climate Change Partnership
998 Bilateral unallocated	361	426	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Climate Alliance - Alianza del Clima: Membership fee
998 Bilateral unallocated	180,000	212,515	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Vienna Energy Forum 2018 - Special Session
998 Bilateral unallocated	50,000	59,032	committed	10 ODA	110 Standard Grant	cross-cutting	231 Energy	Contribution to the EU High-Level Conference on Regional Cooperation
998 Bilateral unallocated	600,000	708,383	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Poverty - Environment Action for the Sustainable Development Goals 2018 -2022 (PEA)
998 Bilateral unallocated	31,000	36,600	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Technical support on legal issues in the context of the UNFCCC
998 Bilateral unallocated	8,000	9,445	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Technical support for tracking and reporting of the austrian contribution for climate finance
998 Bilateral unallocated	22,500	26,564	committed	10 ODA	110 Standard Grant	cross-cutting	312 Forestry	Forestry Knowledge and Information Shared Globally
998 Bilateral unallocated	26,595	31,399	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	International Union for Conservation of Nature and Natural Resources (IUCN) Membership fee 2018
998 Bilateral unallocated	25,000	29,516	committed	10 ODA	110 Standard Grant	cross-cutting	410 Cross-Cutting	Voluntary contribution to the UNFCCC Trust Fund for Participation
998 Bilateral unallocated	250,000	295,159	committed	10 ODA	110 Standard Grant	mitigation	220 Other (Communications)	IBRD - EFO Agreement "Europe 4.0 - The Promise of Digital Transformation"

998 Bilateral unallocated	1,500,000	1,770,956	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	IBRD - ESMAP Hydropower Development Facility
998 Bilateral unallocated	250,000	295,159	committed	10 ODA	110 Standard Grant	mitigation	321 Industry	Establishing of social companies (e.g. bakeries, coffee shops)
998 Bilateral unallocated	20,000	23,613	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	THE PEP (Transport, Health and Environment Pan-European Programme)
998 Bilateral unallocated	32,500	38,371	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Voluntary contribution towards the International Institute for Sustainable Development (IISD)
998 Bilateral unallocated	89,843	106,071	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Global Forum on Sustainable Enegry (GFSE); 2018-2020, first payment
998 Bilateral unallocated	70,000	82,645	committed	10 ODA	110 Standard Grant	mitigation	232 Energy	Contribution 2018/2019 towards the Renewable Energy and Energy Efficiency Partenership (REEEP)
998 Bilateral unallocated	39,765	46,948	committed	10 ODA	110 Standard Grant	mitigation	410 Cross-Cutting	Contribution 2018 to the Trust Fund of the Montreal Protocol on Substances that deplete the Ozone Layer
998 Bilateral unallocated	200,000	236,128	committed	10 ODA	110 Standard Grant	mitigation	240 Other (Banking and financial services)	Renewable Energy Capacity Building for the ProCredit Group
998 Bilateral unallocated	11,862,200	14,004,959	committed	21 OOF	520 Shares in collective investment vehicles	mitigation	232 Energy	Investment in A-Shares of the Global Climate Partnership Fund (GCPF)
998 Bilateral unallocated	5,083,800	6,002,125	committed	21 OOF	520 Shares in collective investment vehicles	mitigation	232 Energy	Investment in B-Shares of the Global Climate Partnership Fund (GCPF)
Total contributions through bilateral, regional and other channels	183,289,610	216,398,595						
Subtotal	42,939,258	50,695,700		ODA				
Subtotal	140,350,352	165,702,895		OOF				
Subtotal	39,343,357	46,450,244			Grants			
Subtotal	123,404,352	145,695,811			Conc. loans			
Subtotal	20,541,901	24,252,540			Other			
Subtotal	15,139,607	17,874,389					Agriculture	

Subtotal	126,110,086	148,890,302					Energy	
Subtotal	1,436,620	1,696,128					Forestry	
Subtotal	8,305,000	9,805,195					Industry	
Subtotal	159,400	188,194					Transport	
Subtotal	14,931,353	17,628,516					Water	
Subtotal	10,039,234	11,852,696					Other	
Subtotal	7,168,310	8,463,175					Cross-cutting	

5.2 Technology development and transfer

Austria is a pioneer nation in environmental technologies. Austrian cutting-edge technologies in the fields of solar energy and photovoltaics (for hot water supply and supplementary heating, but also for environmentally sound refrigeration and the production of cold from heat), wind and hydropower for the generation of electricity, biomass (for the generation of electricity, heat and organic fuels), waste treatment, air and water purification as well as ecological construction are used world-wide. Currently about 210,000 people are employed in Austria's environmental sector. The turnover generated amounted to Euro 35.9 billion in 2017. Austria's vision continues - not only to become a leading supplier of environmental technology and services - but also to increase the production and supply of energy from renewable sources as well as energy efficiency measures at home. The latest "Masterplan Umwelttechnologie – MUT 2019", adopted in autumn 2019, aims to support environmental technologies, including climate technologies, in Austria. Main areas are innovation, digitalization, qualification and better cooperation (Link: https://www.bmnt.gv.at/umwelt/nachhaltigkeit/green-jobs/umwelttechnologien/aktualisierter-masterplan-umwelttechnologie-veroeffentlicht.html).

Austria is committed to a range of actions to advance technology development and transfer. Technology for mitigation and adaptation is a component of many of the programmes and projects supported by Austria's climate finance commitments. Some examples are highlighted in the table below.

The Austrian Development Cooperation (ADC)[21] has a strong focus on sustainable energy, in particular hydro and solar power as well as dissemination of decentralised renewable energy solutions. Furthermore, ADC does support initiatives by Austrian enterprises in developing countries. Most often, the fields of interests are related to renewable energy (especially solar energy systems), resource efficiency for sustainable consumption and production and energy efficient buildings. The granted funding by this "business partnerships programme" has to be matched by at least the same amount of the enterprises own funds. This is why business partnership projects, can serve as an incubator for private investments. The Programme supports projects submitted by enterprises, which are simultaneously committed to pursue a developmental benefit for the beneficiary country's common welfare as well as an entrepreneurial benefit.

Several years ago, most of ADC's financial support to the energy sector was dedicated to the construction and maintaining of hydropower plants for the national energy supply of partner countries. In 2007, the first contribution agreement to the regional "Energy and

[21] Bilateral Austrian Development Cooperation

Environment Partnership" (EEP) in Central America was signed, and since 2009 the focus of ADC's energy portfolio is on regional initiatives that support the development and dissemination of decentralised renewable energy solutions, help mitigate existing barriers to renewable energy and energy efficiency markets, investments and industries and promote south-south and triangular experience exchange. In this context, the ADC supports the establishment and the programmatic work of the regional centres for renewable energy and energy efficiency under the umbrella of the Global Network of Sustainable Energy Centres (GN-SEC). Therewith, the support of applied research and technology transfer gains importance within the energy portfolio.

The ADC focuses on key partner Least Developed Countries (LDCs) that are affected by a substantial energy gap, and where typically almost of energy currently used is derived either from fossil fuel and gas, or from wooden biomass. In this regard, a switch to energy efficient solutions or any non-wood renewable energy source is a significant contribution to combatting deforestation, revert land degradation processes and therewith mitigating atmospheric GHG emissions while enhancing resilience towards climate change.

The ADC acknowledges and addresses the interlinkages between natural resources, energy and food security. In the context of rural development projects and programs, which are following a multisector, interlinked and systemic approach, the entry points for climate change mitigation are correspondingly diverse. Here the ADC supports and implements activities to avoid deforestation and degradation of vegetation and soils which are matched by the search for alternative energy sources respectively energy efficiency solutions for household, sustainable and climate-smart agricultural production (e.g. climate-resilient seeds, composting, intercropping, water harvesting) and small business activities.

Regarding endogenous technologies it has to be noted that the Technology Executive Committee (TEC) in its recent work observed a lack of common understanding among various stakeholders on what endogenous capacities and endogenous technologies are and what developing and enhancing them might mean. Austria does not have a specific strategic approach how to support the development and enhancement of endogenous capacities and technologies of developing countries. However, projects and activities are often developed jointly with the partner countries, and the work relies upon local experts and consultants. One example is the business partnership (supported by ADA) "Atmove – Biomethan mobility for Brazil". Atmove is working on a biogas-based mobility solution (bio-methane) for rural areas in Brazil to drastically reduce the dependence on fossil fuels. The solutions target small and medium sized farmers and municipalities as well as the agro-industry. In cooperation with the Brazilian partner and with the support of Austrian funding three targets were reached:

1. Atmove created an innovation hub to "tropicalize" Austrian and European technology in the field of biogas production, methanation and mobility.

2. Building of cooperation with Austrian and Brazilian Universities in the biogas sector and in particular with the universities in Paraná.
3. CH4pa - prototype of a biomethane tractor - was constructed under the aspects of frugal innovation and efficiency to cover local needs and develop a virtual prototype of an innovative Mobile Upgrading Truck (MoBi), which converts Biogas to Bio-CNG on site and therefore massively reduces investment costs for famers.

Regarding the tracking of support for technology development and transfer the Austrian Development Agency has various instruments in place:

- OECD/DAC type of aid ("modality") codes – e.g. D01 and D02 identifying Free-standing Technical Cooperation (DAC terminology)
- A keyword for capacity building has been in place in the relevant Austrian database for many years
- Text search functions are available for identifying references to technology transfer

Nevertheless, tracking technology development and transfer faces a number of issues that affect completeness and accuracy of information:

- Lack of definitional guidance on underlying basic concepts, e.g. What are the boundaries for inclusion/exclusion of an activity? In case of a technology transfer activity linked indirectly to climate change action (for instance capacity building for a developing country finance institution that extends green finance products) – would that be included or excluded?
- Identification of climate finance components in integrated (often project- or programme-type) activities. It can be difficult to clearly identify even the existence of such a component, let alone identifying its size, thus:
- Quantification is a real challenge. While it can be easy for part of the portfolio (for financing extended directly by the donor agency in the form of stand-alone technical cooperation), it is very difficult for integrated activities where the finance is extended through an intermediary (e.g. a programme by a multilateral organisation), this being the greater share in the portfolio.

Another important actor in Austria is OeEB, which acts as the official Development Bank of Austria. As a private sector financial institution it has been mandated by the Republic of Austria to promote economically, environmentally and socially sustainable development through financing and investing in profitable private sector projects in developing and transition countries and through the provision of advisory services. Renewable energy, energy and resource efficiency are areas of special focus. In addition, OeEB supports renewable energy and energy efficiency projects through local financial intermediaries.

The Federal Ministry of Finance in its engagement with International Financial Institutions (IFIs) places also a strong emphasis on climate related issues and continuously encourages the IFIs to set more ambitious targets. Furthermore, as the Strategic Guidelines of the

Federal Ministry of Finance for International Financial Institutions highlight sustainable energy and climate protection are one of the four priority areas for programmatic cooperation.

Austria's contributions to IFIs are key to deliver the climate finance commitments both in the fields of mitigation and adaptation. Core contributions as part of capital increases (such as to the World Bank Group and regional development banks) and replenishments of funds (such as the International Development Association of the World Bank Group, the soft windows of the regional development banks, the Global Environment Facility, the International Fund for Agricultural Development, the European Development Fund). Bilateral programmatic support to IFIs, which was initiated in 2007, is also essential to deliver on national climate finance commitments.

Austria welcomes the increased focus of IFIs on climate action and promotes technology development and transfer for climate change mitigation and adaptation through project implementation and capacity building measures. In this regard, the Ministry of Finance supports the Energy Sector Management Assistance Program, in particular the Hydropower Development Facility with the World Bank Group, the Smart Cities Initiative with IFC, the Regional Technical Assistance for Sustainable Transport with the Asian Development Bank and the Sustainable Energy and Climate Change Initiative with the Inter-American Development Bank.

In addition to coordinating the reporting of Austria's climate finance contributions the Austrian Ministry of Sustainability and Tourism undertakes concrete cooperation projects in partner countries. The National Designated Entity (NDE) for the Climate Technology Centre and Network (CTCN) is located in the Ministry. Furthermore, the Ministry is actively following the work of the CTCN as well as the Technology Executive Committee (TEC).

Further initiatives of the Austrian government, such as the joint environmental-technologies initiative of the Ministry of Sustainability and Tourism and the Federal Economic Chamber, supports export oriented SMEs and hence supports technology transfer. It provides support and strengthens the export orientation of SMEs. Information events abroad present the offers and capacities of Austrian environmental technology and service providers. In addition to the opportunity of participating in various seminars in the target markets, participants present their environmental-technology products and services. The goods and services offered by the enterprises selling environmental technologies are presented also in joint catalogues and business guides.

Austria is also member of institutions and initiatives that focus on technology development and transfer, e.g. Renewable Energy and Energy Efficiency Partnership (REEEP), Private Financing Advisory Network (PFAN), Sustainable Energy for All. REEEP (located in Vienna) is a public private partnership for scaling up clean energy business models in developing

countries and emerging markets and collaborates with PFAN on business models for technology transfer.

Table 5.8 shows some examples of programmes and projects supporting development and transfer of technology.

Table 5.8 (CTF Table 8): Selection of projects with respect to provision of technology development and transfer support

Recipient country and/or region	*Targeted area*	*Measures and activities related to technology transfer*	*Sector[c]*	*Funding source*	*Activities under-taken by*	*Status*
Georgia	Adaptation	Geotechnical soil and slope protection works on a road section severely damaged by a landslide. Strengthening of national sector capacity through know-how and technology transfer.	Other (Infrastructure)	Private and Public	Private	Implemented (2018-2021)
Eastern African Region	Mitigation	Start-up and first operational phase of the East African Centre for Renewable Energy and Energy Efficiency (EACREEE)	Energy	Public	International Organisation / UNIDO	Implemented (2013-2020)
Latin America and the Caribbean	Mitigatieon	Energy Efficiency Promotion Programme in Central America and the Caribbean	Energy	Public	International Organisation / OLADE	Implemented (phase II: 2015-2018)
Southern Africa Region (SADC)	Mitigation	Start-up and first operational phase of the Southern African Centre for Renewable Energy and Energy Efficiency (SACREEE)	Energy	Public	International Organisation / UNIDO	Implemented (2013-2020)
Western African Region (ECOWAS)	Mitigation	Support to the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)	Energy	Public	International Organisation / ECREEE	Implemented (2013-2021)
Caribbean Region	Mitigation	Start-up and first operational phase of the Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE)	Energy	Public	International Organisation / UNIDO	Implemented (2014-2020)
Central America (SICA)	Mitigation	Start-up and first operational phase of the Central American Integration System Centre for Renewable Energy and Energy Efficiency (SICREEE)	Energy	Public	International Organisation / UNIDO	Implemented (2015-2021)
Pacific Region	Mitigation	First operational phase of the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE)	Energy	Public	International Organisation / UNIDO	Implemented (2016-2020)
Himalaya – Hindu Kush	Mitigation	Start-up and first operational phase of the Renewable Energy and Energy Efficiency Capability for the Hindu Kush Himalaya (REEECH)	Energy	Public	International Organisation / UNIDO	Implemented (2018-2022)
Botswana,	Mitigation	Southern African Solar Thermal Training and	Energy	Public	CSO	Phase III

Lesotho, Mozambique, Namibia, South Africa, Zimbabwe		Demonstration Initiative, Phase IV				completed (2019), Phase IV started (2019-2022)
Egypt	Mitigation	Paving new ways for sustainable solar photovoltaic solutions in Egypt	Energy	Private and Public	Private	Implemented (2016-2019)
Global (Non-Annex 1)	Mitigation	Establishment of the Post-Paris Navigator for enterprises to unlock the potential of private sector projects to contribute to the climate agenda in the post-Paris process. Implementation of such high-impact projects, specifically focusing on the energy and environmental sector. Companies receive know-how and match-making support to develop their own project ideas to get them "investment-ready".	Energy	Private and Public	Private	Implemented (2017-2020)
Tanzania	Adaptation	Capacity building in biological agriculture; improving food security; support climate change resilience; participatory on-farm research	Agriculture	Private and Public	CSO	Implemented (2014-2016)
Chad	Adaptation	Capacity development for rural households, vegetable farmers and poor/vulnerable women; training in technical and organisational skills; improved agricultural production; improved competitive position of rural value chains	Agriculture	Private and Public	CSO	Implemented (2014-2016)
Fiji	Adaptation	infrastructure improvement in the communities; agricultural know-how and natural disaster prevention measures; training for international certification according to Australian Certified Organic and Fairtrade standards	Agriculture	Private and Public	Private	Implemented (2014-2017)
Maldives	Mitigation	Support (and demonstration) to the technical and economic viability of floating solar systems; capacity building for Maldivian SMEs and policy makers on business opportunities and economic welfare effects such as lowering of power prices; development of hybrid solar PV financing and operation models for different stakeholders (including community owned mini-grid operators)	Energy	Private and Public	Private	Implemented (2014-2018)
Georgia	Mitigation and Adaptation	Contribution to rural poverty reduction and delivery on commitments taken by the government of Georgia with regard to climate and sustainable green growth. Creation of an enabling environment and effective interagency coordination for improved forest and watershed management, sustainable rural energy solutions, and diversification of rural income opportunities. Promotion of green technology and know-how for private sector and energy efficiency solutions.	Energy, Forestry, Water and sanitation	Private and Public	CSO	Implemented (2018-2022)
South Eastern Europe Region	Adaptation	Capacity Development for the countries of the Western Balkans concerning climate proofing investments in the infrastructure sector. Strengthening national capacities to understand climate change and climate change related risks in the region through improvement of the information base by development of a methodology on high resolution, localized, bias corrected climate change scenarios for the whole target region based on EuroCordex and MedCordex and	Other (Infrastructure)	Public	International Organisation / UNEnvironment	Implemented (2016-2020)

		development of a software for development of further bias corrected with the integration of additional local observations				
Africa regional	Mitigation and Adaptation	The WACDEP goal is to promote water as a key part of sustainable regional and national development and contribute to climate change adaptation for economic growth and human security. The overall objective of WACDEP is to support integration of water security and climate resilience in development planning and decision making processes, through enhanced technical and institutional capacity and predictable financing and investments in water security and climate change adaptation.	Water and sanitation	Public	Inter-national Organi-sation (GWP)	Implemente d (2011-2019)
South of Sahara	Mitigation	A fund providing equity capital for renewable energy projects in order to improve Sub-Sahara Africa's energy supply	Energy	Private and Public	Private and Public	Implemente d (since 2016)
Georgia	Mitigation and Adaptation	Strengthening the national regulatory body; web-based decision support system to analyse the impact of climate change and water resource development in a certain area of Georgia	Energy	Private and Public	Private and Public	Implemente d (since 2016)

5.3 Capacity-building

Capacity-building is a key component throughout Austrian programmes and projects that support developing countries in their transition to low carbon climate resilient development pathways and implementing their NDCs. As capacity building is an integral part of most activities, and also in the absence of an agreed international methodology to track capacity building quantitatively, Austria is not able to quantify its support to capacity building. Some providers of capacity building support such as the Austrian Development Agency (ADA) have put in place internal systems that allow for the identification of climate finance projects that support capacity building by combining the use of the OECD DAC Rio Markers with internally used key words. However, this does not allow to quantify the capacity building support. Against this backdrop, Austria will continue to qualitatively report on its support in the area of capacity building.

Adequate capacities are indispensable for country-owned and participatory policy and strategy development, systematic planning and result-oriented execution of interventions as well as the provision of efficient and effective climate and development finance. Austria understands capacity building as an endogenous change process that needs to be initiated and owned by the actors concerned, i.e. individuals, organizations and society as a whole in partner countries. In this comprehension, external partner organizations still play a major yet only supportive role by accompanying and promoting the internal process of change.

In order to be effective, capacity building measures need to be based on the articulated demand of the end-users and meet their needs, priorities and interests. Austria recognizes this fact by developing programmes, projects and initiatives with partner countries in such a

way that capacity-building is an integral part of most of the projects it supports and encourages systematic capacity needs assessments (strengths and weaknesses of stakeholders) and the identification of capacity gaps including their often-hidden causes in all support activities. This allows to tailor funding to cater existing and emerging needs and interests expressed by Non- Annex I countries. For example, the capacity building that ADA provides through its support of the Pacific Centre for Renewable Energy and Energy Efficiency is based on the gaps identified during a needs assessment concerning regional capacity building, knowledge management and business development.

Country ownership and support for capacity building at various levels including national, regional and local level are key elements of Austrian support. An example is the longstanding Austrian support to the NAP process in Moldova, which started with capacity building of national actors. In the new phase the focus now lays on supporting the integration of adaption into local level development plans and strengthening the capacities of local level actors including at municipal level. Furthermore, Austria also recognizes the importance of supporting the strengthening of scientific and technical capacities in developing countries to be able to provide guidance and assistance to local authorities for policymaking and strategic planning, prepare students for their professional challenges related to climate change and develop innovative community based adaptation solutions, based on local scientific information. The Austrian Partnership Programme in Higher Education and Research for Development (APPEAR) supports well-designed collaborative and innovative partnerships between Austrian and partner country universities that respond to identified needs and demands in the respective countries and in the partner institutions. Table 5.9 provides some examples of APPEAR projects as well as a representative sample of the different types of projects that address capacity-building in a context-specific, results-oriented manner with different approaches and in cooperation with different types of actors.

Table 5.9 (CTF Table 9): Selection of projects with a specific focus on capacity-building

Recipient country/region	*Targeted area*	*Programme or project title*	*Description of programme or project* [b,c]
Africa, regional	Multiple areas	Water, Climate and Development Programme in Africa	The overall objective of WACDEP is to support integration of water security and climate resilience in development planning and decision making processes, through enhanced technical and institutional capacity and predictable financing and investments in water security and climate change adaptation.
Ethiopia, Uganda	Mitigation	Solar Skills Training and Environmental Education in Ethiopia and Uganda	Supporting the curricula development and roll out of solar skills trainings in the vocational education and training sector.
Ethiopia	Adaptation	Support to livelihoods of drought affected households and resilience building in Warder and Kebredahar woredas of Ethiopia's Somali Region	The overall objective is to strengthen the resilience of pastoral and agro-pastoral communities to reduce the impact of droughts and climate risks in Warder and Kebredehar woredas of Ehtiopia's Somali Region. A specific capacity development component aims at increasing the capacity of regional and local level institutions for climate and disaster risk reduction, adaptation, preparedness and response.
Southern African	Mitigation	Southern African Solar	The outcome of SOLTRAIN IV is strengthened capacity

Region (SADC)		Training and Demonstration Initiative, Phase IV	of the partner institutions and governmental bodies of the selected partner countries to implement their sustainable national solar thermal roll-out programs i.a. though providing training courses in design, installation, maintenance and quality assurance of solar thermal systems.
Western African Region (ECOWAS)	Mitigation	Capacity building support for the ECOWAS Centre for RE and EE (ECREEE) - Phase II	The overall objective of the project is to strengthen the capacities of ECREEE so that it continues to deliver high quality services and is recognized as the Centre of excellence in the ECOWAS region and within the scope of the Global Network of Regional Sustainable Energy Centres (GN-SEC).
Africa, regional	Adaptation	Climate Learning and Advocacy for Resilience (CLAR)	Throughout the implementation of the project, practitioners' capacity to integrate climate resilience will be enhanced, including adaptive capacity, adaptation planning and user-centered climate services, in targeted sector-based programmes.
South Eastern Europe Region	Adaptation	CLIMAPROOF - Enhancing Environmental Performance Through Climate Proofing of Infrastructure Investments in the Western Balkan Region from an EU integration perspective	The project aims to improve the capacities of the countries of the Western Balkans countries concerning climate proofing investments in the infrastructure sector, by strengthening national capacities to understand climate change and climate change related risks in the region through improvement of the information base, strengthening national capacities to integrate climate change projections and climate proofing and green infrastructure in infrastructure development on a regional and national level and fostering an enabling environment for regional cooperation and investments in climate resilient infrastructure in the WB.
Eastern African Region	Adaptation	Education and research hub for the sustainable management of aquatic ecosystem in Eastern Africa, AQUAHUB	The project aims at strengthening scientific and research capacities on sustainable, climate resilient management of aquatic Ecosystems in the Eastern African Region, by supporting universities to establish education and research hubs in Eastern Africa, which educate professionals, carry-out relevant research/extension activities, contribute to the development of evidence-based policies and enhance regional and international networking.
Republic of Moldova	Adaptation	Enhancing climate resilience in the Biosphere Reserve "Prutul de Jos" (Lower Prut)	Climate resilience of the Natural Protected Area Biosphere reserve "Prutul de Jos" is enhanced and communities and local authorities have increased their capacities for climate change adaptation.
Republic of Moldova	Adaptation	Ecosystem-based adaptation, climate-resilience measures and institutional development in the Lower Dniester area	The project supports the integration of climate change adaptation into local development plans and support capacity development of local communities from the target area of the Lower Dniester for climate adaptation, nature conservation and management.
Georgia	Adaptation	Risk Management for geological and hydro-meteorological disasters by introducing a Natural Hazard Protection Program for Georgia	The outcome of this business partnership is the realization of a showcase project (Tskneti Landslide Rehabilitation) and capacity development in Georgia for engineering, design and construction of natural hazard mitigation and prevention systems.
Armenia	Multiple areas	Adolescents as Agents of Climate Change in their Communities	The project will support the integration of climate change considerations into curricula, the elaboration of teaching materials and provide capacity building for teachers, adolescents and community leaders to be able to integrate climate change considerations in their tuition.
Bhutan	Mitigation	Promotion of Renewable Energy and Energy Efficient Technologies in the	The project provides capacity building for the Royal Government of Bhutan and other Bhutanese stakeholders in the areas of solar thermal energy and

		Building Sector of Bhutan	energy efficiency in buildings.
Pacific Region	Mitigation	First operational phase of the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE)	Based on the identified gaps during a needs assessment concerning regional capacity development, knowledge management and business development, the project will i.a. address capacity building needs of local key institutions and stakeholder groups through the upscaling and replication of certified training and applied research programs and mechanism.
Caribbean Region	Mitigation	CCREEE - start-up and first operational phase	The project follows an official request of the SIDS-DOCK initiative to support the Caribbean countries in the establishment of CCREEE. CCREEE will provide capacity building for regional stakeholders in the area of renewable energy and energy efficiency
Nicaragua	Multiple Areas	Strengthening of Local Research Capacities at the Bluefields Indian and Caribbean University (BICU), Nicaragua to Confront the Effects of Climate Change	Within this project local scientific capacity at BICU is strengthened with the support and guidance from the Vienna University of Natural Resources and Life Sciences (BOKU). With these capacities BICU will be able to provide guidance and assistance to local authorities for policymaking and strategic planning, prepare students for their professional challenges related to climate change and develop innovative community based adaptation solutions, based on local scientific information.