



09 November 2019

**Compilation of information on the minimization of adverse  
impacts in accordance with Article 3, paragraph 14, of the Kyoto  
Protocol, 2019**

**Note by the secretariat**

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## I. Mandate

1. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), by Decision 15/CMP.1,<sup>1</sup> requested the secretariat to compile annually the supplementary information referred to in paragraph 3 and 4 below.
2. In accordance with Article 3, paragraph 14, of the Kyoto Protocol, each Party included in Annex I to the Convention (Annex I Party) shall strive to implement the commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol, in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention.
3. In accordance with decision 15/CMP.1,<sup>2</sup> Annex I Parties, which are also Parties to the Kyoto Protocol, shall provide the supplementary information as referred to in paragraph 2 above. Parties included in Annex II to the Convention, and other Annex I Parties that are in a position to do so, shall incorporate information in their submissions on how they give priority, in implementing their commitments under Article 3, paragraph 14, of the Kyoto Protocol, to the following actions, based on the relevant methodologies referred to in decision 31/CMP.1:<sup>3</sup>
  - (a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions, and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities; The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions, and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities;
  - (b) Removing the subsidies associated with the use of environmentally unsound and unsafe technologies;
  - (c) Cooperating in the technological development of non-energy uses of fossil fuels and supporting developing country Parties to this end;
  - (d) Cooperating in the development, diffusion and transfer of lower-greenhouse-gas-emitting advanced fossil-fuel technologies and/or technologies relating to fossil fuels that capture and store greenhouse gases, encouraging their wider use, and facilitating the participation of least developed countries and other Parties not included in Annex I to the Convention in this effort;
  - (e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention to improve efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities;
  - (f) Assisting developing country Parties, which are highly dependent on the export and consumption of fossil fuels, in diversifying their economies.
4. Where the information referred to above has been provided in earlier submissions, Annex I Parties shall include information on any changes that have occurred compared with the information reported in their last submissions.
5. One of the purposes of this compilation is to facilitate the detailed examination by an expert review team of the supplementary information incorporated in the annual inventory during an in-country visit, in conjunction with the review of the national communication, in accordance with decision 22/CMP.1.<sup>4</sup>

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<sup>1</sup> Decision 15/CMP.1 annex. I.H, paragraph 26.

<sup>2</sup> Decision 15/CMP.1, annex, I.H, paragraph 23.

<sup>3</sup> In accordance with decision 31/CMP.1, paragraph 11, secretariat organized a workshop on reporting methodologies in the context of Article 3, paragraph 14, of the Kyoto Protocol, which was held in Abu Dhabi, United Arab Emirates, from 4 to 6 September 2006. The workshop report is contained in document FCCC/SBI/2006/27.

<sup>4</sup> Decision 22/CMP.1, annex, paragraph 125.

## II. Approach

6. As of November 2019, thirty-nine Parties submitted information in their national inventory reports (NIR) on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol. The information contained in section IV of this document is reproduced as received from Parties in their 2019 NIRs. The secretariat has, however, made minimal changes to the format of the information to ensure consistency in presentation.

7. There are four different types of presentation:

(a) In the case that majority of the information provided in the 2019 NIR differs from the information provided in the 2018 NIR, the complete text as included in the 2019 NIR is presented in the compilation;

(b) In the case that only a small part of the information provided in the 2019 NIR differs from the information provided in the 2018 NIR, only the difference is presented.

(c) In the case that additional information is provided in the 2019 NIR on top of the information provided in the 2018 NIR, only the additional part is presented;

(d) In the case that no difference was found between the 2019 and 2018 NIRs, it is stated “No additional information was included in the NIR for 2019”.

## III. Observations

8. Out of the NIRs from the thirty-nine Parties, it is observed that ten Parties (Austria, Estonia, European Union, Finland, France, Italy, Latvia, Monaco, Spain and United Kingdom) provided major changes and/or additional information, fourteen Parties provided minor changes or updates, and fifteen Parties provided the same information as contained in last year’s NIRs.

## IV. Compilation of information on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol

### 1. Australia

The following additional information was provided in Australia's NIR for 2019.

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#### **How Australia addresses the international impacts of Response measures**

Australia is a member of the NDC Partnership’s Steering Committee and has provided funding and assisted the establishment of the Regional Pacific NDC Hub, announced in Germany in November 2017.

### 2. AUSTRIA

The following information was updated in Austria's 2019 NIR compared to its 2018 NIR.

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Updates compared to previous submission of Article 3 (14) information (as included in NIR 2018) have been included regarding the information on the assistance to the developing countries on renewable energy sources and on the involvement in joint Implementation Agreements at the International Energy Agency.

#### **Agricultural subsidies**

**(b) Removing subsidies associated with the use of environmentally unsound and unsafe technologies**

The Climate and Energy Strategy of the Federal Government foresees the identification of subsidies that run counter to climate and energy targets. An interministerial working group on this issue will be set up in the course of 2019.

**(d) Cooperating in the development, diffusion and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort**

[...] Austria supports the development of renewable energy and energy efficiency in developing countries on several levels and with substantive projects and programmes.

A few examples of such activities are:

- On multilateral level Austria supports UNIDO's approaches on "Global Network for Sustainable Energy Centres"; SE4All is being supported with grants for the operations in Vienna; the EU Africa Energy Initiative is being supported with pool funding of the operations of GET.pro (support for the creation of regional Energy centres, studies etc.); GET.pro is the replacement of EUEI-PDF in 2018; ESCOM receives funding from the Austrian Development Agency ADA; SADC infrastructure department received Technical Assistance for the formulation of regional policies in RE/EE (called REEESAP) till 2016; the "Global Forum on Sustainable Energy, GFSE" as international part of the Austrian Energy Agency AEA supports substantially the annual "Vienna Energy Forum" in conjunction with other partners;
- On bilateral level Austria supports an initiative by the Austrian renewables institution "AEEIntec" in 6 SADC countries. A program called SOLTRAIN promotes the use and does training of solar-heating devices.
- Austria supports the establishment of renewable energy and energy efficiency centres for West-, East and Southern Africa as well as for the Caribbean, Pacific and Himalaya- Hindukush Regions.
- Austria supports the "Southern African Research and Documentation Centre SARDC" in Harare/Zim in its dissemination and information efforts of RE/EE in the SADC region.
- Austria supports the establishment, operation and maintenance of Small Hydropower development in Bhutan;
- Austrian NGOs are being co-financed for their efforts in training and capacity-building for RE/EE in Africa and elsewhere;
- Austria supports more than 25 regionally balanced projects in America/ Asia/ Africa in the course of Climate finance (i.e.):
- BRAZIL: Design, assessment and implementation of advanced agriculture based Biogas facilities for low carbon rural development in Brazil (BioBraz)
- CHINA: Organisation of a workshop in the frame of the China-EU-Water Platform. Title: "Operation and Development of Small Hydropower"
- EGYPT: Paving new ways for sustainable photovoltaic solutions in Egypt.

**(f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.**

International Energy Agency (IEA)

[...] Research and co-operation in the field of energy technologies are in the responsibility of the Austrian Federal Ministry of Transport, Innovation and Technology (BMVIT). BMVIT therefore also deals with issues of the Technology Collaboration Programmes of the IEA. The ministry has commissioned the Austrian Research Promotion Agency (FFG) with the administration of the Austrian participation in these programmes. FFG collects and provides information on the programmes and tasks with Austrian participation. An overview of Austria's participation in the IEA Technology Collaboration Programmes can be found at <https://www.iea.org/media/impag/TCPreportsWeb.pdf>. More details are provided by the FFG at <https://nachhaltigwirtschaften.at/en/iea/technologyprogrammes/>.

A few examples of activities are:

- a IEA Bioenergy Task 39 deals with the commercialization of conventional and advanced biofuels, including innovative raw materials such as micro-algae, their economic, environmental and social assessment and the investigation of relevant policies. Findings from countries with a committed biofuels policy are made accessible to Austria, and success stories of Austrian industry, research and policy are promoted internationally
- IEA SHC Task 53 ‘New Generation (NG) Solar Cooling & Heating Systems’ investigates system concepts for solar electric and solar heat driven cooling and heating processes. Its main goal is the development, documentation and assessment of reliable and economically viable photovoltaic and/or solar heat operated cooling and heating systems. A comprehensive and comparative report of various NG systems and a description of support measures for their market introduction are key results of the international cooperation.
- Climate Technology Initiative (CTI)  
[...] The CTI Technology Collaboration Programme closed in June 2017.

### 3. BELGIUM

No additional information was included in Belgium's NIR for 2019.

### 4. BULGARIA

No additional information was included in Bulgaria's NIR for 2019.

### 5. CROATIA

No additional information was included in Croatia's NIR for 2019.

### 6. CYPRUS

No additional information was included in Cyprus' NIR for 2019.

### 7. CZECH REPUBLIC

The following additional information was provided in the Czech Republic's NIR for 2019.

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#### **Tab 15-1 Actions implementation by party as identified in paragraph 24 of the Annex to Decision 15/CMP.1**

Action a).

*Implementation by the party*

[...] The submission of the analysis was postponed to the first quarter of 2019.

Action d).

*Implementation by the party:*

[...] New major project „Research center for low-carbon energy technologies“ was launched in 2018. It is focused on oxyfuel combustion of various sorts of biomass in a fluidized bed, oxygasification of biomass and utilization of the captured CO<sub>2</sub> to produce liquid fuels. The project should be finalized by 2022.

### 8. DENMARK

No additional information was included in Denmark's NIR for 2019.

## 9. ESTONIA

The following additional information was provided in Estonia's NIR for 2019.

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### **15.1. Information on how Estonia is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement the commitments mentioned in Article 3, paragraph 1, of the Kyoto Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention**

[...] The 2030 climate and energy policy framework build on and further strengthens the existing policy framework for the reduction of greenhouse gases setting out a binding, economy-wide reduction target of at least 40% domestic reduction in greenhouse gas emissions.[...]

### **15.2. Information on how Estonia gives priority, in implementing the commitments under Article 3, paragraph 14, to specific actions**

[...]

#### *Excise duties*

In recent years, Estonia's tax policy has proceeded from the principle that the tax burden is shifted towards taxation of consumption of natural resources and pollution of the environment. At the same time, it seeks to keep the tax system simple and transparent, with as few exceptions as possible. The following energy carriers are subject to excise duty in Estonia: electricity, natural gas, conventional gas and aviation gasoline, kerosene, diesel, light fuel oil, heavy fuel oil, shale oil, oil shale, liquid gas, lignite and coke.

Existing fuel and electricity excise duties are significantly higher than the thresholds laid down in the EU Energy Taxation Directive (2003/96/EC) for major energy carriers, nor does VAT apply to fuels and electricity.

Excise duty exceptions have been introduced in Estonia to ensure the competitiveness of large energy consumers. Estonia is applying an EU-wide excise duty (0.5 €/MWh) to electricity intensive consumers whose energy management system complies with the principles set out in ISO 50001. As of 01.01.2019, the amendments to the Alcohol, Tobacco, Fuel and Electricity Excise Duty Act introduce an excise duty exception on natural gas for intensive natural gas consumers (11.30 €/1000 m<sup>3</sup>). This does not apply to companies that supply electricity, gas, steam and air conditioning.

Excise duty is exempt from biogas, including biomethane.

Reducing the excise duty rate on both electricity and natural gas contributes to energy efficiency and thus to the reduction of CO<sub>2</sub> emissions.

#### **Pollution charges**

#### ***c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end***

Estonia does not have any cooperation activities in this field currently.

#### ***f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies***

Estonian Ministry of the Environment adopted in June 2018 a regulation aiming to support developing country cooperation and stipulating specific rules for international climate cooperation. Estonia aims to support both, adaptation and mitigation actions in developing countries, for example by supporting renewable energy sources, energy efficiency or transport and industry efficiency projects, as well as by strengthening administrative capacity regarding climate action or supporting solutions of adapting to climate change.

## 10. EUROPEAN UNION

The following additional information was provided in the European Union's NIR for 2019.

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### **15.1 Information on how the EU is striving, under Article 3, paragraph 14, of the Kyoto Protocol, to implement the commitments mentioned in Article 3, paragraph 1, of the Kyoto**



**Protocol in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention**

**Directive on the promotion of the use of renewable energy - Promotion of biomass and biofuels**

[...] In December 2018, the revised Renewable Energy Directive (EU) 2018/2001 was adopted, which set a new target, namely to achieve a share of at least 32 % of energy from renewable energy sources in the EU's gross final energy consumption by 2030.

In addition to biofuels and bioliquids, the Directive now covers also solid biomass and biogas for heat and power. More specifically, it includes the following requirements that have to be applied to all biofuels, to biogas used in installation with a total rated thermal input equal to or exceeding 2 MW and to solid biomass with a total rated thermal input equal to or exceeding 20 MW:

- Requirements for minimum greenhouse gas emissions savings have been strengthened.
- Agriculture production within the EU is no longer interlinked with sustainability requirements under the Common Agriculture Policy, but globally applicable criteria to mitigate risks for soil quality and carbon have been added for agricultural biomass.
- A new sustainability criterion on forest biomass has been introduced, focusing on legality of harvest, forest regeneration, maintaining or improving long term productivity, protected areas, minimizing negative impacts on soil quality and biodiversity during harvest as well as LULUCF-requirements

Furthermore, high indirect land use change risks biofuels like biofuels from palm oil shall not exceed the level of consumption in 2019 and shall gradually decrease to 0 % (31 December 2023 until 31 December 2030).

[...] The European Commission has so far (April 2019) recognised 17 voluntary schemes: International Sustainability and Carbon Certification (ISCC), Bonsucro EU, Round Table on Responsible Soy (RTRS EU RED), Roundtable of Sustainable Biofuels (RSB EU RED), Biomass Biofuels voluntary scheme (2BSvs), Red Tractor Farm Assurance Combinable Crops & Sugar Beet Scheme, SQC (Scottish Quality Farm Assured Combinable Crops (SQC) scheme), Red Cert, Better Biomass NTA 8080, RSPO RED (Roundtable on Sustainable Palm Oil RED), Roundtable on Sustainable Palm Oil RED (RSPO RED), Biograce GHG calculation tool, HVO Renewable Diesel Scheme for Verification of Compliance with the RED sustainability criteria for biofuels, Gafta Trade Assurance Scheme, KZR INIG System, Trade Assurance Scheme for Combinable Crops and Universal Feed Assurance Scheme, Universal Feed Assurance Scheme, U.S. Soybean Sustainability Assurance Protocol (SSAP)88.

**The 2030 climate and energy framework**

In 2018, the main legislation was adopted to implement the 2030 climate and energy framework which sets three key targets for the year 2030:

- At least 40% cuts in greenhouse gas emissions by 2030 (from 1990 levels)
- At least 32% share for renewable energy
- At least 32.5% improvement in energy efficiency

To achieve the at least 40% target the EU emissions trading system (ETS) sectors will have to cut emissions by 43% (compared to 2005) – to this end, the ETS was reformed and strengthened. The non-ETS sectors will need to cut emissions by 30% (compared to 2005) – this was translated into individual binding targets for Member States. While binding at the EU level, there are no binding renewable targets for Member States individually but the objective is to be fulfilled through clear commitments decided by the Member States themselves. These should be guided by the need to deliver collectively the EU-level target and build upon what each Member State should deliver in relation to their current targets for 2020. While not foreseeing national-level energy targets, the 2030 climate and energy framework makes use of a new governance framework based on national plans for competitive, secure and sustainable energy.

**15.2 Information on how the EU gives priority, in implementing the commitments under Article 3, paragraph 14, to specific actions**

[...] a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities

## 11. FINLAND

The following additional information was provided in the Finland's NIR for 2019 .

Climate financing is part of Finland's development cooperation funding, and disaster risk management is also covered by our development cooperation.

Finland promotes low carbon development and the capacity of its partner countries to adapt to climate change, and it furthers the integration of these goals into partner countries' own development planning. Particular attention is paid to the roles of women, children and indigenous peoples in adapting to and combating climate change. At present, the guidelines for mainstreaming climate change mitigation and adaptation in Finland's development programming are being updated. Finland supports programmes and projects that improve access to clean and modern energy services, increases energy efficiency and promotes renewable energy production, focusing on poor countries and regions in particular.

Finland's development policy has the eradication of extreme poverty as an overarching goal. Regarding the minimisation of adverse social impacts, the Ministry for Foreign Affairs commissioned a study some years ago on integrating poverty reduction and climate change response measures in Finland's development cooperation and CDM activities. The results showed that the level of coherence between climate funding and development cooperation objectives has progressed, although there is still room for learning how to focus, in particular, on CDM activities in such a way that they also contribute to poverty reduction.

[...] Finland and the International Finance Corporation (IFC) have developed the Finland-IFC Blended Finance for Climate Program (MEUR 114) to spur private sector financing for climate change solutions, in low-income countries. [...]

Among the actions listed in the Annex to Decision 15/CMP.1, Part I.H, 'Minimisation of adverse impacts in accordance with Article 3, paragraph 14', Finland gives particular priority to the following actions: [...]

Action f): [...] Through the Finland-IFC Blended Finance for Climate Program private sector financing for climate change solutions is incentivised for in low-income countries.

**Table 15.1-1** Summary of specific actions to minimise the adverse impact of response measures in developing countries

<i>Action</i>	<i>Implementation in Finnish policy</i>
[...]	[...]
(d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.	Finland does not have any support activities in this field.
(f) Assisting developing country Parties that are highly dependent on the export and consumption of fossil fuels in diversifying their economies.	[...] Finland is also supporting access to clean energy and renewable energy business opportunities through the Energy and Environment Partnership (EEP) Programme, launched during the United Nations World Summit on Sustainable Development in 2002 and currently implemented in the Mekong Region as well as in Southern and Eastern Africa, the latter covering 15 countries: Botswana, Burundi, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. [...]
	[...] The Finland-IFC Blended Finance for Climate Program (MEUR 114) has been designed to spur private sector financing for climate change solutions. The program focuses on supporting projects in the least developed countries, other low-income countries, and lower-middle income countries and territories. The geographic scope is

defined by the Development Assistance Committee of the Organization of Economic Cooperation and Development, which maintains a list of recipients of official development assistance (ODA), and parties to the United Nations Framework Convention on Climate Change. The projects can focus on climate change mitigation (renewable energy; energy efficiency in buildings; agriculture, forestry and land-use; water and wastewater; transport) and climate change adaptation (meteorology; water and sanitation; food security; sustainable forestry).

## 12. FRANCE

The following additional information was provided in France's NIR for 2019 .

### 15.1 Description des externalités potentielles des politiques et mesures de la France

#### L'adaptation au changement climatique et l'intégration des questions climatiques dans les politiques nationales

La France est engagée dans différentes coalitions qui participent au renforcement des capacités des pays en développement, pour les aider à monter en compétence et élaborer et mettre en oeuvre des politiques de réduction des émissions et d'adaptation au changement climatique. Par exemple, dans le cadre de l'Alliance mondiale pour le bâtiment et la construction (GABC), le programme pour l'efficacité énergétique dans les bâtiments (PEEB), lancé par l'Agence Française de Développement, la GIZ et l'ADEME à la COP22, vise à créer une nouvelle facilité internationale dédiée à l'efficacité énergétique dans les bâtiments, pour les pays en développement et émergents. D'autres exemples illustrent le soutien financier et la contribution au renforcement de capacités, tels que l'initiative « Mobilise your City », qui soutient des Etats et villes de pays en développement dans l'élaboration de stratégies de mobilité urbaine durable, ou encore l'initiative sur les systèmes d'alerte précoce pour la résilience au changement climatique (CREWS), qui agit pour l'amélioration des systèmes d'alertes précoces face aux catastrophes naturelles dans les pays les moins avancées, avec pour objectif la mobilisation de 100 millions de dollars d'ici 2020 pour ce sujet peu représenté dans les aides multi ou bilatérales.

La France a participé (et participe encore) à plusieurs projets visant à renforcer les capacités d'adaptation au changement climatique de ses membres. [...]

<i>Bénéficiaire Pays/ Région</i>	<i>Champ</i>	<i>Programme ou titre du projet</i>	<i>Description du programme ou du projet</i>
<i>Afrique subsaharienne</i>	<i>Planification énergieclimat, adaptation</i>	<i>Convention des Maires en Afrique subsaharienne</i>	<i>Projet de l'Union européenne auquel l'ADEME participe sur les aspects méthodologiques et de renforcement de capacités des 13 villes africaines engagées pour l'élaboration de leurs stratégies énergie-climat</i>

#### Mise en place d'un système national de rapportage (inventaire de GES, projections, préparation de NAMA's)

[...] Un atelier dédié à l'adaptation a eu lieu à Douala en 2018, avec la participation de l'ONERC.

### 15.2 Ressources financières

[...] Fin 2017, la France a annoncé le rehaussement de la part consacrée à l'adaptation au changement climatique, qui a été portée à 1,5 Md€ en 2020. Le Comité interministériel de la coopération internationale et du développement (CICID) du 8 février 2018 inscrit l'aide publique au

développement (APD) parmi les priorités du gouvernement jusqu'en 2022 et réaffirme l'objectif général de l'éradication de la pauvreté, la mise en oeuvre des Objectifs de développement durable (ODD), de l'Accord de Paris et la protection des biens communs mondiaux. Il réaffirme également l'orientation prioritaire de l'aide au développement française vers l'Afrique.

Entre 2013 et 2017, la France a augmenté de 67% ses financements publics pour l'atténuation et l'adaptation aux changements climatiques dans les pays en développement, à travers des sources bilatérales et multilatérales. En 2017, le volume total de financements fournis par la France s'établissait ainsi à près 4,4 milliards d'euros (4,9 md USD), contre 2,6 milliards d'euros en 2013 (3,5 md USD).

- Coopération bilatérale

***Soutien financier fourni par le groupe Agence française de développement***

[...] Ses engagements en matière de financement du climat sont mis en œuvre principalement à travers le canal bilatéral de l'Agence Française de Développement (AFD) et de sa filiale pour le secteur privé PROPARCO. Ils permettent de poursuivre l'ambitieuse politique en faveur du climat assignée à l'AFD dans le cadre de sa stratégie 2017-2022, qui prévoit notamment l'engagement d'assurer une activité du groupe AFD **compatible à 100 %** avec l'**Accord de Paris**. L'objectif d'atteinte d'au moins 50 % des engagements ayant un co-bénéfice climat est en outre confirmé et étendu à PROPARCO (contre 30 % auparavant). En 2017, le groupe AFD a engagé 4 Md€ pour le climat, contre 3,6 Md€ en 2016.

[...] Les engagements du groupe AFD en matière de lutte contre les changements climatiques représentaient en 2017 un montant cumulé de 4,1 Md€, soit un niveau d'engagement en hausse de 14,5 % par rapport à 2016 (3,58 Md€). Ce volume représente en 2017 un ratio de 50 % des engagements de l'AFD (52 % en 2016) et 47 % des crédits de Proparco (36 % en 2016). Les financements du Groupe octroyés en 2017 en faveur de l'atténuation atteignent près de 2,8 Mds€. Les octrois dans le domaine de l'adaptation représentent 832 M€ (+37% par rapport à 2016) et représentent 20 % de l'activité « climat » totale de l'AFD (hors projets mixtes atténuation/adaptation), en hausse par rapport à 2016.

L'outil d'évaluation de l'impact carbone des projets, mis en place en 2007, permet d'estimer *ex-ante* que les projets d'atténuation cofinancés par le groupe AFD en 2017 devraient permettre d'éviter l'émission de 4,8 millions de tonnes équivalent CO<sub>2</sub> par an tout au long de leur durée de vie.

***Soutien financier fourni par le fonds français pour l'environnement mondial***

[...]En 2017, le FFEM a engagé un volume total de 6,4 M€, dont 3,1 M€ relatifs à des projets d'atténuation ou d'adaptation aux changements climatiques. Sa reconstitution pour la période de 2019-2022 et la refonte de son cadre stratégique d'intervention ont été finalisés fin 2018.

***Soutien financier fourni sous forme de dons (FASEP) et de prêts par le Trésor français***

La France contribue, sous forme de dons, au financement d'études de faisabilité, d'assistance technique et de démonstrateurs de technologies innovantes dédiés à l'environnement et au développement durable, dans le cadre du Fonds d'études et d'aide au secteur privé (FASEP). Cet instrument finance des prestations réalisées par des bureaux d'études ou entreprises innovantes français et bénéficie à des entités publiques dans des pays s'inscrivant dans les cibles prioritaires de l'aide publique au développement française (soit près d'une centaine de pays récipiendaires) et pour des projets de développement économique durable répondant aux besoins de ces pays (meilleur accès à l'eau, à l'électricité, amélioration de l'offre de transports, etc.).

[...] En 2017, 128 M€ ont été engagés sous forme de prêt du Trésor concessionnel en faveur du climat et 9,5 M€ sous forme de dons dans le cadre de FASEP (21 projets au total). [...]

- Coopération multilatérale

Avec une contribution de près de 11,5 milliards de dollars en 2017, la France est le cinquième bailleur mondial en volume parmi les pays de l'OCDE en matière d'aide publique au développement multilatérale<sup>5</sup> et se situe au troisième rang des pays du G7 en termes de contribution rapportée au revenu national brut. [...] En 2016, la France a rapporté pour la première fois la part « climat » imputable à sa contribution dans ces fonds concessionnels. En 2017, la part « climat » des

<sup>5</sup> Source : <http://www2.compareyourcountry.org/oda?cr=oced&lg=fr>

décaissements réalisés dans ces instruments concessionnels est estimée représenter 99M€ (111 M US\$).

#### ***Contribution au Fonds vert pour le climat***

[...] A fin 2017, 54 projets pour un montant total de plus de 2,6 milliard de dollars avaient été approuvés. A fin 2018, ce portefeuille s'est étoffé et représente actuellement 4,6 MdUS\$ engagés au bénéfice de 93 projets. Les financements au bénéfice de projets d'atténuation représentent 40% du portefeuille, les projets d'adaptation 25% et les projets mixtes 36%. L'Agence française de développement (AFD) et sa filiale Proparco, spécialisée dans le financement du secteur privé, ont été accréditées au Fonds vert. Trois projets présentés par l'AFD au conseil de fonds ont été approuvés à ce jour.

L'Agence française de développement (AFD) et sa filiale Proparco, spécialisée dans le financement du secteur privé, ont été accréditées au Fonds vert. Trois projets présentés par l'AFD au conseil de fonds ont été approuvés à ce jour.

[...] En 2018, la France a finalisé le versement intégral de sa contribution annoncée en 2015. Le fonds vert pour le climat vise un équilibre entre les financements dédiés à l'atténuation aux changements climatiques et ceux dédiés à l'adaptation. La France est en outre impliquée activement dans le cadre des travaux en cours de préparation de la reconstitution de ce fonds.

#### ***Contribution au Fonds pour l'environnement mondial***

[...] La France contribue à hauteur de 300 M\$ (216 M€) au Fonds pour l'environnement mondial pour la période 2019-2022, après une contribution similaire en dollars pour 2015-2018. [...] Si la fenêtre climatique du FEM doit être réduite sur la période 2019-2022, les co-bénéfices climat des projets financés par cette institution seront en hausse.

En outre, le Fonds multilatéral du Protocole de Montréal relatif à la préservation de la couche d'ozone (FMPM)<sup>37</sup>, dont la contribution française s'élève à 34,04 M€ pour la période 2018-2020, inclut depuis 2018 l'élimination de substances à fort pouvoir de réchauffement climatique.

#### ***Contribution au Fonds pour les pays les moins avancés***

[...] La France y a apporté 25 M€ en dons en 2016-2017 et a annoncé lors de la COP24 en décembre 2018 une contribution additionnelle de 20 M€ pour 2018-2019.

#### ***Contribution au Fonds d'adaptation***

Le Fonds d'adaptation a été institué en 2007 et est placé sous le protocole de Kyoto. Il a mobilisé environ 800 MUSD depuis sa création. [...] La France a contribué à hauteur de 5 millions d'euros en 2015 et a annoncé lors de la COP24, en décembre 2018, une nouvelle contribution à hauteur de 15 M€.

### **15.3 Transfert de technologie**

#### **Déclarations relatives à d'autres informations pertinentes pour le changement climatique**

##### ***Adoption de la Stratégie Nationale Bas-Carbone de la France***

Le niveau des émissions de gaz à effet de serre par habitant est déjà en France l'un des plus faibles parmi les pays développés, grâce à quatre décennies de politiques de maîtrise de l'énergie et de décarbonisation du mix électrique. Mais cela ne suffit plus et il faut aller plus loin.

Par la loi de transition énergétique pour la croissance verte, promulguée le 17 août 2015, la France s'est engagée à réduire les émissions de gaz à effet de serre de 40 % entre 1990 et 2030 et à diviser par quatre ses émissions de gaz à effet de serre entre 1990 et 2050. Pour atteindre ces objectifs, la loi a notamment instauré de nouveaux outils pour orchestrer la transition vers une économie bas-carbone : la Stratégie nationale bas-carbone (SNBC) et les « budgets carbone ».

Les « budgets carbone » sont les plafonds d'émissions de gaz à effet de serre fixés par périodes successives de 4 puis 5 ans, pour définir la trajectoire de baisse des émissions. Ils sont déclinés à titre indicatif par grands domaines d'activité (transport, logement, industrie, agriculture, énergie, déchets).

La SNBC donne les orientations stratégiques pour mettre en œuvre, dans tous les secteurs d'activité, la transition vers une économie bas-carbone et durable. La SNBC porte notamment deux grandes ambitions : réorienter les investissements en faveur de la transition énergétique et placer au cœur des décisions économiques l'objectif de réduction de l'empreinte carbone. Elle a été co-construite avec la société civile, via l'association étroite des organisations représentées au Conseil national de la transition écologique et par une consultation du public en ligne.

Le décret fixant les trois premiers « budgets carbone » pour les périodes 2015-2018, 2019-2023, 2024-2028 et approuvant la SNBC a été publié au Journal officiel le 19 novembre 2015.

Elle sera revue d'ici fin juin 2019 puis tous les 5 ans. A chacune de ces occasions, un bilan pour la période couverte par le précédent budget sera réalisé par un comité d'experts indépendants, la visibilité sur la trajectoire de réduction d'émission étendue de 5 ans et la stratégie renforcée afin de pouvoir intégrer les nouvelles possibilités pour rehausser l'ambition.

La stratégie nationale bas-carbone ainsi que des plaquettes de présentation du document en français et anglais sont également disponibles à partir de l'URL : <https://www.ecologique-solidaire.gouv.fr/strategie-nationale-bas-carbone>

Des documents de présentation de la loi de transition énergétiques pour la croissance verte sont notamment disponibles à partir de l'URL : <https://www.ecologique-solidaire.gouv.fr/loi-transition-energetique-croissance-verte>

### *Stratégie et planification de l'adaptation au changement climatique au niveau national*

Le Gouvernement a publié en décembre 2018 – après une période de consultation – un nouveau Plan national d'adaptation au changement climatique (PNACC) qui sera mis en œuvre pendant le quinquennat. Son objectif sera de mieux protéger les Français face aux événements climatiques extrêmes, mais aussi de construire la résilience des principaux secteurs de l'économie (agriculture, industrie, tourisme) face aux changements climatiques. La France augmentera ses financements dédiés à l'adaptation de ses territoires et de son économie pendant le quinquennat pour agir dans les territoires métropolitains et d'outre-mer sur la prévention des impacts du changement climatique, la résilience et la mobilisation des solutions d'adaptation basées sur la nature. L'adaptation au changement climatique du territoire français en métropole et en outre-mer est également considérée comme un enjeu majeur qui doit être envisagé dans sa complémentarité essentielle aux actions d'atténuation déjà engagées et à venir.

Le début de l'action de l'État dans le domaine de l'adaptation au changement climatique a commencé par l'adoption de la Loi n°2001-153 du 19 février 2001 conférant à la lutte contre l'effet de serre et à la prévention des risques liés au réchauffement climatique la qualité de priorité nationale et portant création d'un Observatoire national sur les effets du réchauffement climatique (ONERC) en France métropolitaine et dans les départements et territoires d'outre-mer. Cette loi conférant à l'ONERC une mission explicite sur l'adaptation au changement climatique, s'ensuivit par l'adoption de la Stratégie nationale d'adaptation en 2006 et du premier Plan National d'Adaptation au Changement Climatique en juillet 2011. Au niveau régional et local, les actions d'adaptation sont mises en œuvre à travers les Schémas régionaux d'aménagement, de développement durable et d'égalité des territoires (SRADDET), les Schémas d'aménagement régionaux (SAR), les Schémas Régionaux Climat Air (SRCAE) Énergie et les Plans Climat Air Énergie Territoriaux (PCAET) qui doivent également posséder un volet adaptation.

## **13. GERMANY**

No additional information was included in Germany's NIR for 2019 .

## **14. GREECE**

No additional information was included in Greece's 2019 NIR.

## **15. HUNGARY**

The following additional information was provided in Hungary's NIR for 2019.

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[...] The policy framework is laid down in Hungary's second National Climate Change Strategy (NCCS-II) for the period 2018-2030, with an outlook to 2050. The NCCS-II – as a review of the first climate change strategy – was adopted by the 23/2018 Parliamentary resolution on 30 October 2018. Similarly to other multisectoral, horizontal strategies, NCCS-II is a strategy paper to facilitate

sectoral planning. It sets out an individual set of goals and specific action lines, but does not “overwrite” any of the sectoral development efforts. According to the topics of mitigation–adaptation–awareness-raising, NCCS-II includes the Hungarian Decarbonisation Roadmap laying down the (HDR) goals, priorities and action lines to reduce GHG emission. NCCS-II also covers the assessment of the expected effects of climate change in Hungary and its natural, social and economic consequences. It also includes National Adaptation Strategy (NAS) which is based on the climate vulnerability assessment of ecosystems and industries. The duties of Hungarian decarbonisation and climate change adaptation are supplemented by the Climate Awareness Raising Programme (“Partnership for Climate” Awareness-Raising Plan).

After the adoption of the NCCS-II an Action Plan is being prepared for a three-year period to achieve the goals of the strategy. The Action Plan will contain an evaluation and monitoring system too.

For the time being Hungary alone does not carry out any relevant large scale development project, however as a Member State, it fully supports the EU’s activities in this regard.

## 16. ICELAND

No additional information was included in Iceland's NIR for 2019.

## 17. IRELAND

No additional information was included in Ireland's NIR for 2019.

## 18. ITALY

The following additional information was provided in Italy’s NIR for 2019.

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### 13.3 Italian commitment under Art 3.14 of the Kyoto Protocol

[...]

#### **Procedure for assessing sustainability at local and national level for CDM and JI**

For this section, information was collected from the UNFCCC CDM Project Search Database (UNFCCC, 2019[a]). On 20 February 2019, the UNFCCC CDM Database reported a total of 7,805 registered project activities out of 8,158 projects. With data as of 31 January 2019, 83.7% of CDM projects were registered in Asia and the Pacific Region, 12.9% in Latin America and Caribbean, 2.8% in Africa, and 0.6% in Countries with economies in transition. The distribution of registered projects by scope activity was mainly: energy industries (75.2%), waste handling and disposal (10.7%) and manufacturing industries (4.3%). Registered projects by Host Party were mainly in China (48.2%), India (21.4%), Brazil (4.4%) and Viet Nam (3.3%).

[...]

Italy as investor Party, contributes with 1.6% of world-wide CDM project portfolio. Up to 20 February 2019 Italy is involved in 128 CDM registered projects. Italy is involved directly, as government, in 52 registered CDM (MATTM, 2011). Projects by dimension are 60.2% large scale and 39.8% small scale. Italy is the only proposer for 39.8% of the CDM projects.

[...] Up to 1<sup>st</sup> February 2019, the UNEP database reports 761 JI projects (track1+track2) from which 604 projects are registered (91.9% track 1+8.1% track 2). Up to 1<sup>st</sup> February 2019 the UNEP database reports 8,378 CDM projects with 7,805 registered from which 7 projects are validated with CCB, 138 with GS, and 40 with SD tool (Sustainable Development tool).

### 13.4 Funding, strengthening capacity and transfer of technology

**Table 14.4 Financial resources to developing countries and multilateral organisations from Italy, USD million (2016 and 2017 data are updated on 21 December 2018)**

	2001-	2002	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>NET DISBURSEMENTS</b>											
<i>I. Official Development Assistance (ODA) (A + B)</i>	1980	3297	2996	4326	2737	3430	4009	4003	5087	8858	
ODA as % of GNI	0.18	0.16	0.15	0.20	0.14	0.17	0.19	0.22	0.27	0.30	
A. Bilateral Official Development Assistance	724	875	759	1703	624	867	1372	1829	2420	2977	
of which: General budget support	-1	9	5	1	6	7	8	6	1	0	
Core support to national NGOs	64	-	15	-	1	99	93	118	137	37	
Investment projects	-107	37	-34	310	-17	9	42	32	6	-9	
Administrative costs	34	59	42	53	35	36	40	36	21	39	
Other in-donor expenditures	10	5	5	526	272	406	843	985	1666	1808	
of which: Refugees in donor countries	8	-	3	525	247	404	840	983	1665	1804	
Imputed student costs								1	1	1	5
B. Contributions to Multilateral Institutions	1255	2423	2237	2623	2113	2563	2637	2174	2667	2881	
of which: UN	198	205	170	150	188	217	200	161	155	271	
EU	691	1862	1557	1924	1516	1605	1662	1424	1773	1761	
IDA	183	214	386	179	166	329	377	198	214	216	
Regional Development Banks	61	24	6	206	105	229	178	135	286	290	
II. Other Official Flows (OOF) net (C + D)	-158	-72	-151	-214	196	161	96	43	51	110	
C. Bilateral Other Official Flows (1 + 2)	-158	-72	-151	-214	196	161	96	43	51	110	
1. Official export credits(1)	16	-28	-28	117	97	90	48	-	-	-	
2. Equities and other bilateral assets(1)	-173	-44	-123	-330	100	71	48	-	-	-	
D. Multilateral Institutions	-	-	-	-	-	-	-	-	-	-	
III. Officially supported export credits(2)	1271	463	882	1234	725	2031	584	1414	802	1368	
IV. Private Flows at Market Terms (long-term) (1 to 3)	-	2504	1719	5731	6456	7436	11024	3896	10033	13286	7390
1. Direct investment	930	129	4366	7530	8016	8643	3369	9715	8046	2	
2. Bilateral portfolio investment	-	3434	1590	1365	-1074	-580	2381	527	317	5239	7388
3. Securities of multilateral agencies	-	-	-	-	-	-	-	-	-	-	
V. Grants by Private Voluntary Agencies(3)	16	162	150	111	91	58	121	128	83	64	
VI. Total resource flows (long-term) (I to V)	605	5569	9608	11912	11186	16703	8706	15621	19309	14791	
Total resource flows as a % of GNI	0.05	0.27	0.47	0.55	0.56	0.81	0.41	0.86	1.04	0.76	

Source: OECD (OECD, 2016) <http://www.oecd.org/dac/stats/statisticsonresourceflowstodevelopingcountries.htm>

(1) no more updated by OECD since 2018 submission.

(2) item reported as “**2. Private export credits**” under title IV up to 2017 submission.

(3) item reported as title “III. Grants by Private Voluntary Agencies” up to 2017 submission.

### 13.6 Additional information and future activities related to the commitment of Article 3.14 of the Kyoto Protocol

[...] Their activities are reported as an example of national companies operating in developing countries and implementing emission reductions project in those countries with CDM project that have to evaluate possible adverse effect.

### 13.7 Review process of Article 3.14 of the Kyoto Protocol

In 2018 an in-country review process for the Seventh National Communication took place. During this process also the minimization of adverse impacts in accordance with Article 3, paragraph 14, of



the Kyoto Protocol was reviewed. According to the UNFCCC review report, the Expert review team (ERT) considers the reported information to be transparent and complete (UNFCCC, 2018).

## 19. JAPAN

The following additional information was provided in Japan's NIR for 2019.

### 15.1 Overview

[...] As discussed in international community including COP, the transition to green economy and the attainment of low-carbon growth are the key elements in order to address climate change and to achieve the sustainable development which strikes a balance between environment and economy.

[...] In March 2018, Japan announced “Vision for International Cooperation on Climate Change Mitigation” that presents Japan’s pursuit of international cooperation to reduce greenhouse gas emissions tremendously and to lead global decarbonization towards the Paris Agreement goals. Japan continues to proactively contribute to the international community in these fields.

### 15.2 Actions to minimize adverse impacts in accordance with article 3. Paragraph 14

- *Technical assistance in the energy and environmental sectors*

[...] For example, Japan has provided cooperation for development and operation of institutions related to energy-saving and renewable energy through capacity building such as accepting technical training participants from, and sending experts to developing countries. Moreover, from the view point of deployment of renewable energy in small island nations particularly vulnerable to climate change, Japan supports introduction of hybrid power generation system in the Pacific region. Japan also supports policy development and system introduction of renewable energy in Middle East and Africa.

- *Development of carbon capture and storage (CCS) technologies*

[...] Also, Japan has actively conducted information exchange and joint research on CCS technologies with other countries such as the United States of America and European countries through multilateral and bilateral cooperation.

## 20. LATVIA

The following information was updated in Latvia's 2019 NIR compared to its 2018 NIR.

- a) The progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities.

### *Energy sector*

- 1) [...] In 2017 amount of electricity produced in hydro and wind power plants grew up by 70.5%. Over the past five year s (from 2013 to 2017), the gross energy consumption has not changed significantly, however the share of renewables has increased by 2.55%. In Latvia already made 284 permissions to support solar panel construction. [...]
- 2) The National Development Plan of Latvia for 2014–2020 is the main medium-term development planning document in Latvia. In respect of promoting a sustainable transport sector it is indicated therein that a sustainable transport infrastructure which ensures mobility inland and international reachability, is necessary for achieving the priority “Growth of the National Economy”. With the purpose of ensuring highly productive and internationally competitive production and services the NDP 2020 provides for the necessity to support introduction of new technologies and rational use of resources, thus reducing emission of polluting substances in the energy, industry, transport and agricultural sector.

[...]The number of registered electric cars (commercial vehicles and passenger cars) in Latvia in 2014 were 194 and at the end of 2017 were 302. [...]

### **Environmental taxes**

#### **Excise duty on Fuels**

Articles 5 and 14 of the Law “On Excise Duties” determine the rates of duty for mineral oils and their substitutes utilised for heat production.

[...] Articles 61 and 151 of the Law “On Excise Duties” determine the rates of duty for natural gas utilised for energy production. The taxation was in force 01.01.2010-31.08.2010 and has been re-introduced from 01.07.2011. Currently the differentiated rates are applied. The general rate is 1.65 EUR per 1 MWh (the highest calorific value). The reduced (33%, 0.55 EUR/1 MWh) rate is applied for natural gas utilised as fuel for industrial production processes as well as other processes related to production, for providing necessary climate conditions in production premises, for enterprises placed in industrial parks. The exemption is applied for natural gas utilised in agriculture sector for providing heat for greenhouses, industrial scale henhouses/sheds and incubators. The exemption from taxation is stated also for:

- natural gas utilised for other purposes (not as fuel or transport fuel) or utilised in two ways (including processes of chemical reduction, electrolytic and metallurgy processes);
- amount of natural gas used by the operator of natural gas transmission, storage and distribution system for the technological needs of natural gas supply (including losses during supply);
- natural gas utilised in mineralogy processes.

Law “On Excise Duties” establishes procedure by which duty shall be imposed. The Article 5,14 and 18 of the Law “On Excise Duties” determine the rates of duty for gasoline and diesel oil.

The actual duties and their development is presented in Table 15.1.

	2016-2017	2018-2019	From 01.01.2020
Unlead gasoline	411.21	436	476
Unlead gasoline with 5% (volume) of ethanol produced from agriculture origin raw materials	411.21	436	476
Unlead gasoline with 70-85% (volume) of ethanol produced from agriculture origin raw materials in Latvia or imported from EU member state	123.36	131	30% from the base rate
Lead gasoline	455.32	455.32	594
Diesel (gas oil);	332.95	341	372
Diesel (gas oil) with any mix of biodiesel	332.95	341	372
Pure biodiesel, produced in Latvia or imported from EU member state	0	0	0
Oil gasses and other hydrocarbons (per 1000 kg)	161	206	244

For labeled diesel (regarding use in agriculture, logging, swamp processing, fish pond processing) 15% of the standard rate applies.

For rapeseed oil realized or used as combustible or transportation fuel, and for biodiesel wholly obtained from rapeseed oil, the tax is calculated at a rate of EUR 0 per 1000 liters if it is produced in the Republic of Latvia or imported from an EU Member State.

#### **Natural Resources Tax Law**

The procedure of taxation applicable for coal, coke and lignite is prescribed by the *Natural Resources Tax Law*, Annex 9. The taxation on coal utilisation was introduced starting from the 1st January 2007. The applied rates were 0.35 EUR/GJ or 9.80 EUR/1 ton if information of specific heating value is not available in 2017, 0.36 EUR/GJ or 10.25 EUR/1 ton in 2018.

Starting from 2019 the slight increase will be in force, respectively 0.38 EUR/GJ or 10.65 EUR/ton. The exemption is stated for coal utilised for electricity production and combined heatpower production.

Taxation applicable for the use of water for electricity production in hydropower plants (HPP) is prescribed by the *Natural Resources Tax Law*. This type of taxation has been introduced from 1st January 2014. In the period 01.01.2014-31.12.2016 this tax was applied for HPP with the capacity below 2 MW. From 01.01.2017 the tax is applied for all HPP. The current rate is 0.00853 EUR per 100 m<sup>3</sup> water flow through the hydrotechnical construction.

Extraction of local natural resources utilised for primary energy production. In relation to Latvia energy sector the tax rate for peat extraction may be considered, defined by Annex 1 of the *Natural Resource Tax Law*. The actual rate from the 01.01.2014 is 0.55 EUR per 1 ton of peat with moisture 40%. However, peat utilisation for energy production in Latvia is very minimal.

Taxation applicable for the use of geological structures as underground natural gas storage. The procedure of taxation is prescribed by the *Natural Resources Tax Law*. The following tax rate are applied - 0.0143 EUR for pumped 100 m<sup>3</sup> of natural gas.

The taxation procedure of CO<sub>2</sub> emissions in combustion installations is also prescribed by the *Natural Resources Tax Law*. The subject of CO<sub>2</sub> taxation is CO<sub>2</sub> emitting the polluting activities referred to Annex 2 the Law "On Pollution" for which a GHG emission permit is required and if the amount of the activity is below the limit defined for inclusion in EU Emissions Trading Scheme. The tax rate per 1 ton of CO<sub>2</sub> emission has been slightly raised up from 2.85 EUR in 2014 up to 4.5 EUR (from 01.01.2017). Installation operators who participate in EU Emission trading System or which are using renewable energy or peat are excluded from this tax.

Taxation on noxious air polluting emissions creates synergy effect with CO<sub>2</sub> taxation. The procedure of air polluting emissions taxation is prescribed by the *Natural Resources Tax Law*. The taxable are emissions of PM<sub>10</sub> (75 EUR/ton), CO (7.83 EUR/ton), NH<sub>3</sub>, H<sub>2</sub>S and other nonorganic compounds (18.50 EUR/ton), SO<sub>2</sub>, NO<sub>x</sub>, VOC, C<sub>n</sub>H<sub>m</sub> (85.37 EUR/ton), metals (Cd, Ni, Sn, Hg, Pb, Zn, Cr, As, Se, Cu) and their compounds recalculated for the relevant metal, V<sub>2</sub>O<sub>5</sub> recalculated to vanadium (1138.30 EUR /ton).

#### ***Taxation applicable for electricity***

The procedure is prescribed by the *Electricity Tax Law*. The actual rate is 1.01 EUR/MWh. According the Law, electricity supplied to an end user, as well as electricity, which is supplied for own consumption (exemption stated), shall be taxable. Taxpayers shall be both the entities who supply electricity to end users and have entered into contracts or otherwise agreed regarding the supply (selling) of electricity, and autonomous producers. The taxpayers shall be also end-users which purchase electricity in electricity spot exchange.

The Amendments of the *Electricity Tax Law*, in force from 01.01.2017, had cancelled the most part of tax exemptions. According these Amendments only three exemptions are still in force:

- the carriage of goods and public carriage of passengers, including on rail transport and in public carriage of passengers in towns,
- household users,
- street lighting services.

#### ***Annual taxation of vehicles***

The Law „*On the Vehicle Operation Tax and Company Car Tax*” established the annual taxation system for cars, which have been registered in Latvia after 01.01.2005 depending on engine size, maximal power of engine and full mass of vehicle. For cars, registered before 01.01.2005, tax rate continues to depend on the full mass of the car. Starting from 01.01.2017 the reform of cars annual taxation introduce the taxation based on CO<sub>2</sub> emissions specific values. The latest amendments of the Law, adopted 23 November 2016, introduced the new approach - cars annual taxation based on the specific CO<sub>2</sub> emissions of the car. For the cars registered up to 31.12.2016 the new approach will be applied starting from 2019 (thus, for the cars registered in the period 01.01.2009-31.12.2016 the “old approach” continued for years 2017 and 2018). For the cars undergoing registration in Latvia after 31.12.2016 – immediately. The reduced tax rates are applied based on the:

- environmental aspects: the tax is not applied for the vehicles driven by the electric motor only (electromobiles) and for vehicles with CO<sub>2</sub> emissions up to 50 g per km;
- social factors: the tax is not applied for one vehicle if the owner of the motorcycle or car is the handicapped person or family which has handicapped child; 20% (up to 31.12.2015) and 50% (from 01.01.2016) tax rate reduction is applied for one car/family car, if the family has the status of multichildren family (three or more under-age children); state services fulfilments - the taxation is not applied or reduced 50% tax rate is applied; the taxation is not applied for the vehicles having sport vehicle or historical vehicle status,
- competitiveness of agriculture sector economics: the reduced tax rate (25%) is applied for cargo vehicles used in agriculture sector to provide both production process and agriculture products transportation process.

An additional rate of EUR 300 for passenger cars with an engine capacity of more than 3500 cm<sup>3</sup> is also applied.

[...]

- c) Cooperating in the technological development of non-energy uses of fossil fuels, and supporting developing country Parties to this end.

There was no collaboration studies or programs in regarding capacity strengthening of developing country parties.

- d) Cooperating in the development, diffusion, and transfer of less-greenhouse-gas-emitting advanced fossil-fuel technologies, and/or technologies, relating to fossil fuels, that capture and store greenhouse gases, and encouraging their wider use; and facilitating the participation of the least developed countries and other non-Annex I Parties in this effort.

There were no greenhouse gas emission reduction or capture and storage technology development or transfers regarding developing country parties in 2017.

- e) Strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities.

There was no collaboration studies or programs in regarding capacity strengthening of developing country parties.

- f) Assisting developing country Parties which are highly dependent on the export and consumption of fossil fuels in diversifying their economies.

There have not been assistance projects in 2015, 2016 and 2017 to diversify developing countries' economies.

## 21. LIECHTENSTEIN

No additional information was included in Liechtenstein's NIR for 2019.

## 22. LITHUANIA

The following additional information was provided in Lithuania's NIR for 2019.

[...] In spring of 2018, Lithuanian solar company has finished its project in Moldova: during the project 55 Kw power solar plant was installed on the rooftop of the Ministry of Environment building in Kishinev. The total amount of the project is around 228 thous. EUR, subsidy amount is 140 thous. EUR.

Another Lithuanian solar company Saulės grąža has implemented its project in Georgia. The main goal of the project was to install solar power plants and heating systems in 6 public schools and kindergartens in Georgia, total value of the projects is approx. 245 thous. EUR, subsidy amount is approx. 191 thous. EUR.

In the end of 2017, the Ministry of Environment has agreed to finance 3 projects in Mali, Armenia and Georgia. The main goal of all projects is to install solar power plants in public buildings. The total amount of subsidy for all 3 projects is 608 thous. EUR. The total value of 3 projects is approx. 1 million EUR.

In the end of 2018, the Ministry of Environment in a partnership with the Environmental Project Management Agency launched a call for submission. In the end of 2018, a total of 10 applications have been received. Currently, projects are evaluated. It is planned that 800 thous. EUR will be distributed to future projects.

In 2018 Lithuania has contributed 100 thous. EUR to the EIB's Eastern Partnership TA Trust Fund, which directs a large part of its funds towards the Climate Action (approx. 60% of the fund are directed for climate-related purposes).

The table below summarizes the data on international climate finance provided by Lithuania in 2018:

<i>Thous. EUR</i>	<i>Type of support</i>	<i>Recipient of support</i>	<i>Provider of support</i>
800*	bilateral	Development cooperation projects	Ministry of Environment
100	multilateral	EPTATF - Eastern Partnership Technical Assistance Trust Fund, administered by the European Investment Bank	Ministry of Finance

## 23. LUXEMBOURG

No additional information was included in Luxembourg's NIR for 2019.

## 24. MALTA

No additional information was included in Malta's NIR for 2019.

## 25. MONACO

The following additional information was provided in Monaco's NIR for 2019.

### 15.1. Description des effets potentiels des politiques et mesures nationales

Selon l'article 3.14 du protocole de Kyoto, les Parties doivent faire en sorte que leurs politiques climatiques nationales soient mises en oeuvre de manière à réduire au minimum les conséquences sociales, environnementales et économiques néfastes pour les pays en développement, en particulier les pays les plus vulnérables.

La Principauté soutient pleinement l'Accord de Paris qui marque un pas important dans la réduction des émissions responsables du changement climatique à l'échelle mondiale. En 2015, le Gouvernement Princier a ainsi annoncé que Monaco visait une réduction de 50% de ses émissions de gaz à effet de serre en 2030 et la neutralité carbone en 2050.

Afin de tenir ses engagements, la Principauté met en oeuvre une politique de transition énergétique particulièrement ambitieuse.

Les politiques et mesures mises en place en Principauté de Monaco, concourent notamment à :

- Améliorer l'efficacité énergétique;
- Favoriser les énergies non fossiles ;
- Réduire les consommations de carburant dans les transports;

- Réduire la production de déchets incinérés et développer la valorisation matière ;
- Limiter les émissions relatives aux gaz fluorés.

Une tendance à la baisse existe pour les énergies fossiles de type pétrolières qui se reportent partiellement sur le gaz naturel. Les quantités sont cependant insignifiantes à l'échelle des pays producteurs, mais peuvent soulever à terme la question générale de la diversification de certaines économies pétrolières.

Les politiques et mesures de la Principauté de Monaco ont conduit aux :

- Variation de la consommation de produits pétroliers (carburants, fioul domestique et fioul lourd) :
- Variation de la consommation de gaz :

Monaco est conscient qu'il convient d'être attentif aux éventuels impacts négatifs de la transition vers des économies bas-carbone sur les pays en développement. Cependant, il convient de souligner que l'évaluation des effets adverses potentiels des politiques climatiques déployées au niveau national est par essence particulièrement complexe et incertaine dans la mesure où ces éventuelles conséquences sont indirectes et inévitablement liées aux politiques mises en oeuvre dans les pays en développement eux-mêmes.

De plus, il est important de rappeler que la Principauté de Monaco est un Etat de 2 kilomètres carrés.

Les effets potentiels des politiques et mesures mises en oeuvre sur le territoire de la Principauté de Monaco doivent être considérés comme extrêmement faibles, voire inexistantes, eu égard à la taille du pays. Il est donc matériellement peu probable que les politiques climatiques domestiques de Monaco aient des conséquences sociales, environnementales et économiques néfastes substantielles dans les pays en développement.

En outre, en 2018, Monaco a acheté ses premières unités de réduction certifiée des émissions (URCE). Afin de minimiser les éventuels effets adverses liés à la réduction d'une partie de ses émissions à l'étranger, le Gouvernement Princier attache une importance particulière à la qualité des URCE. Les projets sélectionnés doivent ainsi avoir une réelle valeur ajoutée écologique, démontrer une utilité sociale et économique pour les populations du pays en développement hôte et respecter certains critères éthiques.

Nonobstant, la Principauté participe à des programmes de coopération avec les pays en développement qui, bien qu'ils ne soient pas directement liés à la minimisation d'effet adverse de ses politiques et mesures, peuvent avoir un effet positif local de réduction des besoins en énergie fossile et par conséquent de diminution de l'impact des variations du prix du pétrole sur les populations et de réduction des émissions de gaz à effet de serre.

## **15.2. Ressources financières et transfert de technologie**

### *15.2.1. Octroi de ressources financières*

Au-delà de la politique de transition énergétique mise en oeuvre au niveau national, la Principauté reconnaît le rôle des pays développés dans le soutien à apporter aux pays en développement et aux populations vulnérables afin qu'ils puissent réorienter leurs économies vers des trajectoires de développement bas-carbone et renforcer leur résilience aux effets adverses du changement climatique.

Dans cette perspective, le financement climatique international de Monaco a connu une montée en puissance sensible au cours des dernières années.

En complément des crédits traditionnellement alloués au titre de l'aide publique au développement, des crédits spécifiques additionnels ont été inscrits au budget de l'Etat afin de soutenir l'action climatique.

Au total, en 2018, plus de 1 200 000 euros ont été versés, intégralement comptabilisés au titre du financement climatique international. Ce montant a été acheminé à plus de 90% par des canaux multilatéraux. En particulier, on doit souligner que la contribution monégasque au Fonds Vert pour le climat a triplé entre 2015 et 2018 pour atteindre 750 000 euros annuels.

En complément de ces ressources, on estime à plus de 5 millions d'euros le montant des subventions allouées sur la période 2014-2018 dans le cadre de la politique de coopération internationale monégasque ayant conjugué des bénéfices en termes de développement et au titre de l'action climatique. Les programmes financés ont avant tout contribué au renforcement de la résilience et à l'adaptation des populations rurales au changement climatique (prévention et gestion des catastrophes naturelles, promotion de l'agriculture durable, soutien aux petits éleveurs et agriculteurs, soutien à la sécurité alimentaire).

Les projets soutenus sont essentiellement déployés dans les Pays les Moins Avancés (PMA), en particulier ceux de la zone sahélienne, ainsi que les Petits Etats Insulaires en Développement (PEID), où les populations sont particulièrement vulnérables aux répercussions négatives du changement climatique.

Ces ressources sont allouées exclusivement sous forme de dons et font partie intégrante de l'engagement global de Monaco en faveur du développement durable. Elles participent ainsi indirectement à la minimisation des éventuels effets adverses des politiques climatiques mises en oeuvre au niveau national.

## 26. NETHERLANDS

The following additional information was provided in Netherland's NIR for 2019.

Since the submission of the NIR 2018, there have been limited changes in the activities on minimizing adverse impacts. Policies are still in place and are being executed.

Among the actions – a to f – listed in the Annex to Decision 15/CMP.1, Part I. H, 'Minimization of adverse impacts in accordance with Article 3, paragraph 14', the Netherlands implemented national actions as well as actions to support and to assist developing countries.

With regard to the progressive reduction or phasing-out of market imperfections, fiscal incentives, tax and duty exemptions, and subsidies in all greenhouse-gas-emitting sectors, taking into account the need for energy price reforms to reflect market prices and externalities (action a), energy prices have reflected market prices for many years. With (increasing) environmental taxation the externalities of energy use related to GHG emissions are increasingly reflected in energy prices. Examples are: environmental taxes on the use of natural gas up to 170,000 m<sup>3</sup> increased from €0.1639 per m<sup>3</sup> in 2011 to €0.29313 in 2019; excise duty on gasoline increased in the same period from €0.71827 per litre to €0.78773 per litre. An overview of all environmental taxes is available at:

[https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/zakelijk/overige\\_belastingen/belastingen\\_op\\_milieugrondslag/tarieven\\_milieubelastingen/tabellen\\_tarieven\\_milieubelastingen?projectid=6750bae7-383b-4c97-bc7a-802790bd1110](https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/zakelijk/overige_belastingen/belastingen_op_milieugrondslag/tarieven_milieubelastingen/tabellen_tarieven_milieubelastingen?projectid=6750bae7-383b-4c97-bc7a-802790bd1110) and on excise duties at: <https://download.belastingdienst.nl/douane/docs/tarievenlijst-accijns-acc0552z78fd.pdf>

[...] In addition, in 2015 the Netherlands mobilized €73 million private finance in 2015, €171 million in 2016 and €335 million in 2017. [...]

## 27. NEW ZEALAND

The following additional information was provided in New Zealand's NIR for 2019.

### 15.3 Removal of subsidies

[...] New Zealand has been working with the Friends group to encourage and support the G20 and Asia-Pacific Economic Cooperation (APEC) economies to meet their commitments to reform inefficient fossil fuel subsidies. New Zealand has participated in the peer review panels for Peru and the Philippines, and, in 2016, co-sponsored a project on capacity building for APEC economies, enabling the successful implementation of fossil fuel subsidy reform by developing practical solutions to common challenges. A Guidebook to Reviews of Fossil Fuel Subsidies, published by the International Institute for Sustainable Development Global Subsidies Initiative (Gerasimchuk et

al., 2017), was shared with the fifty-fourth APEC Energy Working Group hosted in New Zealand in November 2017. Within G20, New Zealand continues to encourage countries to participate in the peer review process, and, in 2017, issued a joint statement of support for Mexico undergoing the peer-review process – having already encouraged Mexico to endorse the international Fossil Fuel Subsidy Reform Communiqué.

[...] At the twenty-second session of the Conference of the Parties (COP22) of the United Nations Framework Convention on Climate Change in November 2016, New Zealand hosted a side event to promote fossil fuel subsidy reform as an important climate change mitigation policy, and, with the Friends group, organised a ministerial-level event at COP23 that highlighted the opportunities that reforming subsidies and taxing fossil fuels offer for attaining the Sustainable Development Goals and implementing the Paris Agreement.

In December 2017, New Zealand delivered a Ministerial Statement to the World Trade Organisation (WTO) encouraging it to address the global harm being caused by inefficient fossil fuel subsidies. Endorsed by 11 other WTO members, the statement confirms the environmental, development and trade benefits of fossil fuel subsidy reform, and includes a political commitment to look at avenues to bring the issue into the WTO.

In addition to previous events in 2015 and 2016, New Zealand jointly hosted side events on fossil fuel subsidy reform with the Friends and World Bank in the margins of the World Bank – International Monetary Fund Spring Meetings in April 2017. To support the case for reform, New Zealand – with Armenia, Philippines and Mexico – shared its insights into successful reform, including building political will and pricing fossil fuel externalities.

## 28. NORWAY

The following additional information was provided in Norway's NIR for 2019.

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### 15 Information on minimization of adverse impacts in accordance with Art. 3.14

#### Cooperation on carbon capture and storage

[...] The Norwegian Government has an ambition to realize a cost effective solution for full-chain CCS if this makes sense in a global technology development and transfer perspective. [...]

#### Cooperation with developing countries related to fossil fuels – “Oil for Development”

[...] The programme is currently engaged in 14 countries, mainly in Africa.

#### Cooperation with developing countries related to renewable energy – “Clean energy for Development”

[...] The budget for 2019 is increasing again to 1 142 million NOK, thus fulfilling the commitment to double the budget compared to 2017.

[...] Norway's interventions in renewable energy is also seen as a contribution to reduce further development of coal power.

[...] Norway is currently looking into a further development of economic instruments directed towards the private sector, i.e. guarantees.

[...] The current investments in clean energy from Norfund is approx. NOK 10 billion.

## 29. POLAND

The following information was updated in Poland's 2019 NIR compared to its 2018 NIR.

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### 15. CHANGES IN INFORMATION ON MINIMIZATION OF ADVERSE IMPACTS IN ACCORDANCE WITH ARTICLE 3.14



In 2017, the total amount of climate aid donated was more than PLN 5.5 million (€ 1.3 million) and covered non-Annex I countries such as: Armenia, Ethiopia, Georgia, Indonesia, Iran, Kenya, Moldova, Morocco, Nicaragua, Papua New Guinea, Pakistan, Tanzania, Togo and Zimbabwe. Approximately 19% of the climate aid provided by the bilateral channel related to mitigation actions and 32% - adaptation related activities. The remaining part was devoted to the implementation of capacity building projects.

### 30. PORTUGAL

The following additional information was included in Portugal's NIR for 2019.

#### 15. INFORMATION ON MINIMIZATION OF ADVERSE IMPACTS IN ACCORDANCE WITH ARTICLE 3, PARAGRAPH 14

[...]

##### c) Mainstream mitigation objectives into sectoral policies.

In 2016, following the ratification of the Paris Agreement, Portugal established a carbon neutrality by 2050 objective. The work under the Carbon Neutrality Roadmap has already outlined a trajectory of -45% to -55% emission reduction by 2030, -55% to -65% by 240 and -85% to -90% by 2050.

### 31. ROMANIA

No additional information was included in Romania's NIR for 2019.

### 32. RUSSIAN FEDERATION

The following additional information was provided the Russian Federation's NIR for 2019.

#### 10.4 Сведение к минимуму неблагоприятных последствий в соответствии с пунктом 14 статьи 3 Киотского протокола

[...] При этом выбросы парниковых газов от операций по добыче, подготовке и транспортировке экспортируемых нефти и природного газа, а также утилизации нефтяного (попутного) газа учитываются в национальном кадастре и, соответственно, их сокращение является обязательством Российской Федерации. В частности, уровень полезного использования нефтяного (попутного) газа в 2017 г. Составил 87%, что на 7% превышает аналогичный показатель 1990 года.

Экспортные поставки российского природного газа способствуют внедрению в странах-импортерах современных технологий в энергетическом секторе и обеспечивают замещение более углеродоемких видов топлива (каменный уголь и нефть), снижая, таким образом, выбросы в атмосферу парниковых газов, в первую очередь, CO<sub>2</sub>.

[...] По данным информационно-аналитической системы формирования и распределения квоты приема иностранных граждан на обучение Министерства науки и высшего образования Российской Федерации, в 2016 - 2017 учебном году в Российской Федерации обучался 201 представитель развивающихся стран и стран СНГ.

[...] Резюме изменений, внесенных в раздел 10.4 (по сравнению с предыдущим кадастром):

- представлены данные по уровню полезного использования нефтяного (попутного) газа в 2017 г.;
- актуализированы данные о количестве иностранных граждан из развивающихся стран и стран СНГ, обучающихся в Российской Федерации в 2016 – 2017 учебном году.

### 33. SLOVAKIA

No additional information was provided in Slovakia's NIR for 2019.

### 34. SLOVENIA

The following additional information was provided in Slovenia's NIR for 2019.

In recent years, Slovenia has been increasing its climate finances. In the last 5 years (2013- 2017) Slovenia has almost doubled its assistance to developing countries. In 2017, Slovenia contributed around EUR 3.8 million for climate finance or assistance in developing countries, which represents an increase of almost 27% as compared to 2016; and in 2016 around EUR 3 million, which represents an increase of 23% as compared to 2015.

The indicative projection of the climate finance for years 2018, 2019 and 2020 is the following: Slovenia will do its best to continue the climate financing for the developing countries pursuant to Paris agreement and will strive to maintain the amount of around EUR 3.5 million per year for the named climate related assistance to developing countries up to 2020.

### 35. SPAIN

The following information was included in Spain's NIR for 2019.

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#### **15 INFORMACIÓN SOBRE LA MINIMIZACIÓN DE LOS EFECTOS ADVERSOS DE ACUERDO CON EL ARTÍCULO 3, PÁRRAFO 14 DEL PROTOCOLO DE KIOTO**

A continuación se recopila la información relativa a la minimización de los posibles efectos adversos de las medidas de respuesta adoptadas por España frente al cambio climático, tal como se expuso en la Séptima Comunicación Nacional (capítulo 4.2) presentada por España ante el Secretariado de UNFCCC el 22 de diciembre de 2017<sup>6</sup>

##### **15.1 Consecuencias económicas y sociales de las medidas de lucha contra el cambio climático en terceros países**

###### **15.1.1 Análisis de las consecuencias económicas y sociales de las medidas de lucha contra el cambio climático en terceros países**

El análisis de las consecuencias económicas y sociales de las medidas de lucha contra el cambio climático se ha realizado para todas y cada una de las medidas adoptadas en España o que lo van a ser en un breve periodo de tiempo.

Se han analizado las medidas por grupos, dependiendo de los posibles impactos que puedan derivarse de la aplicación de las mismas.

Cabe destacar que el efecto principal de las medidas de mitigación del cambio climático es la reducción de emisiones de gases de efecto invernadero, que supone un beneficio global de por sí, además de generar incentivos para la diversificación económica, por ejemplo, en países productores de combustibles fósiles. Muchas de las medidas de lucha contra el cambio climático también generan la disminución de la demanda de combustibles fósiles por el ahorro energético y el aumento de la eficiencia energética, lo que puede tener un potencial efecto en los precios de estos combustibles.

Otro efecto positivo de todas estas medidas es la mejora de la calidad del aire, tanto a nivel global como, otras muchas veces, a nivel menor. Adicionalmente, muchas de las medidas adoptadas por España tienen efectos positivos sobre la adaptación al cambio climático de los mismos sectores sobre los que actúan o sobre otros sectores complementarios, aunque estos beneficios se aprecian más a nivel local, y menos en terceros países.

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<sup>6</sup> [http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/\\_application/pdf/68037591\\_spain-nc7-1-7cn.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/_application/pdf/68037591_spain-nc7-1-7cn.pdf)

Sobre las políticas y medidas aplicadas a nivel nacional como transposición de las políticas europeas, España, como Estado miembro de la Unión Europea, debe adaptar la legislación de la UE a su sistema legislativo. En el proceso de adopción de estas políticas europeas, la UE ha establecido un sistema para analizar los impactos positivos y negativos de dichas políticas, incluyendo los efectos en terceros países. Esto se hace a través de estudios de impacto, que son un elemento clave de la decisión final de la definición de políticas y medidas, y ayudan a asegurar que los impactos negativos de una política europea en terceros países (sociales, ambientales y económicos, incluyendo en las relaciones comerciales y en relación con las obligaciones de la Organización Internacional de Comercio) se reducen al mínimo, lo que garantiza al mismo tiempo que la legislación española derivada de las políticas establecidas por la UE respeta el compromiso del artículo 3.14. del Protocolo de Kioto.

Todos los estudios de impacto de la legislación europea, que son de carácter público, pueden encontrarse en enlace abajo indicado<sup>7</sup>

En cuanto a las medidas de adaptación, estas se encuadran en el Plan Nacional de Adaptación al Cambio Climático. Por su carácter nacional y subnacional y sus características específicas, no se prevé que las medidas aplicadas tengan ningún efecto en terceros países, salvo posibles efectos positivos de transferencia de conocimientos y replicabilidad de acciones.

Los posibles impactos de las medidas de mitigación del cambio climático ejecutadas por parte de España se analizan a nivel supranacional y a nivel nacional.

#### 15.1.1.1 Medidas supranacionales

Se contemplan a continuación las dos medidas supranacionales que España ha implementado o implementa para cumplir con sus objetivos de reducción de emisiones y sus posibles efectos, tanto positivos (+) como negativos (-), en terceros países.

**Tabla 15.1.1 – Medidas supranacionales**

MEDIDAS	POTENCIALES EFECTOS EN TERCEROS PAÍSES		
	Ambientales	Sociales	Económicos
Comercio de emisiones de la Unión Europea (ETS)	(+). Las firmas internacionales en el comercio de emisiones deberán desarrollar tecnologías más eficaces con potencial de ser transferidas a otros países		
Mecanismo de Desarrollo Limpio (MDL) y Aplicación Conjunta (AC)	(+) implementación de tecnologías bajas en carbono en los países en desarrollo	(+) creación de empleo a nivel local en los países en desarrollo	(+) inversión extranjera en el desarrollo de infraestructuras en los países en desarrollo
	(-) posible incentivo para no aplicar tecnologías menos emisoras y generar adicionalidad ambiental para los proyectos		

Fuente: Ministerio para la Transición Ecológica (MITECO)

<sup>7</sup> [http://ec.europa.eu/smart-regulation/impact/ia\\_carried\\_out/cia\\_2016\\_en.html](http://ec.europa.eu/smart-regulation/impact/ia_carried_out/cia_2016_en.html)

### 15.1.1.2 Medidas nacionales

Los efectos positivos o negativos en terceros países de las medidas nacionales se recogen en la tabla de este apartado.

#### 15.1.1.2.1 Medidas relacionadas con el aumento de las energías renovables y del uso de biocombustibles

En España se aplican medidas que fomentan el uso de otras energías renovables cuyos impactos se recogen en la tabla siguiente. Además, existen numerosas medidas que promocionan el uso de biocombustibles para reducir las emisiones de gases de efecto invernadero, la mayoría en los sectores del transporte, y sector residencial, comercial e institucional, que tienen impactos adicionales a los de otras medidas de renovables al generar posibles variaciones en los usos del suelo.

#### 15.1.1.2.2 Medidas de ahorro y eficiencia energética

No sólo se trata de generar energía de una forma más limpia, se trata también de reducir el consumo de energía, a través del ahorro de energía y la eficiencia energética. En España se han desarrollado medidas para potenciar tanto el ahorro de energía como la eficiencia energética.

#### 15.1.1.2.3 Medidas en el sector agrícola, LULUCF y residuos

Las medidas en el sector agrícola están enfocadas a la reducción de emisiones de CH<sub>4</sub> y N<sub>2</sub>O. La política principal en este sector, con influencia en las emisiones de GEI, es la Política Agrícola Común de la Unión Europea (PAC), cuyos posibles impactos se detallan en el estudio de impacto de esta política elaborado por la Comisión Europea. Esta evaluación de impactos está disponible en la página web de la Unión Europea. Muchas de las medidas que se implementan en el sector agrícola generan reducciones de emisiones en otros sectores, como el sector energía, LULUCF o el sector residuos, además también están interrelacionadas con otras medidas transversales como la Huella de Carbono y los Proyectos Clima. Los posibles impactos de estas medidas serán aquellos reflejados en las tablas correspondientes a esos otros sectores.

Las medidas en el sector LULUCF se encaminan a mantener y aumentar los stocks de carbono de los ecosistemas, principalmente, forestales y agrícolas.

Las medidas de mitigación en el sector residuos están encaminadas al reciclaje, compostaje, reducción de vertidos, etc.

#### 15.1.1.2.4 Medidas transversales

El Registro de la huella de carbono, compensación y proyectos de absorción de dióxido de carbono fomenta el cálculo de huella en todos los sectores descritos anteriormente, por lo que sus impactos ya se encuentran incluidos en sus correspondientes apartados. En la tabla se recogen únicamente los impactos de calcular y compensar la huella.

Los Proyectos Clima fomentan la participación del sector privado a través de proyectos de reducción de emisiones en el territorio nacional. Estos proyectos se incluyen en los sectores abordados en los capítulos anteriores, por lo que los impactos ya se detallan en las correspondientes tablas.

En el caso de la Hoja de Ruta de difusos 2020, al igual que los Proyectos Clima, los efectos de estas medidas se corresponden con las consideradas en los capítulos anteriores.

**Tabla 15.1.2 – Medidas nacionales**

MEDIDAS	POTENCIALES EFECTOS EN TERCEROS PAÍSES		
	Ambientales	Sociales	Económicos
Medidas que aumentan el uso de biocombustibles	(+) si los criterios de sostenibilidad (establecidos por la UE para sus EEMM) se cumplen, en particular, en relación con los cambios de uso indirectos	creación de empleo en los países exportadores de biocombustibles	(-) reducción de la demanda de combustibles fósiles en los países productores, con disminución de ingresos para los mismos y tensiones en

<i>POTENCIALES EFECTOS EN TERCEROS PAÍSES</i>			
<i>MEDIDAS</i>	Ambientales	Sociales	Económicos
	(-) si se producen cambios de uso del suelo como consecuencia de las políticas de biocombustibles, como aumento de la deforestación y riesgo para la seguridad alimentaria, si no se cumple los criterios de sostenibilidad del RD 1597/2011 y su modificación Real Decreto 1085/2015, de 4 de diciembre, de fomento de los Biocarburantes		los precios de estos productos  (+) Incentivo para la diversificación económica en países productores de combustibles fósiles
<i>MEDIDAS</i>	<i>POTENCIALES EFECTOS EN TERCEROS PAÍSES</i>		
	Ambientales	Sociales	Económicos
Medidas que aumentan el uso de energías renovables	(+) incentivos al desarrollo de tecnologías que pueden ser transferidas a terceros países	(+) creación de empleo en los países fabricantes de tecnologías o materiales para ser utilizados en el desarrollo de proyectos de energía renovable	(+) incentivos al desarrollo de tecnologías que pueden ser transferidas a terceros países  (-) reducción de la demanda de combustibles fósiles en los países productores, con disminución de ingresos para los mismos y tensiones en los precios de estos productos  (+) incentivo para la diversificación económica en países productores de combustibles fósiles  (+) la implantación de tecnologías eficientes con consumo eléctrico como la geotermia puede incentivar el desarrollo de interconexiones eléctricas con el norte de África y la integración de renovables en el mix energético euromediterráneo
Reducción de emisiones en LULUCF	(+) reducción de la demanda de productos forestales y agrícolas de terceros países, lo que	(+) reducción de efectos negativos en pueblos dependientes de	(-) impactos en comercio exterior de materias

MEDIDAS	POTENCIALES EFECTOS EN TERCEROS PAÍSES		
	Ambientales	Sociales	Económicos
	reduce los impactos en cambios de uso del suelo (tala ilegal, por ejemplo)	los bosques en países en desarrollo, al reducir, entre otras cosas, la tala ilegal	primas y productos agroalimentarios (+) Incentivo para la diversificación económica en países exportadores de estos productos
Reducción de emisiones de la gestión de los residuos	(+) implantación de tecnologías eficientes en la gestión de los residuos que pueden ser transferidas a otros países		(+) implantación de tecnologías eficientes en la gestión de los residuos que pueden ser transferidas a otros países  (-) posible descenso en la exportación de residuos para su tratamiento en terceros países
Huella de carbono	(+) (-) posibles desplazamientos de residuos para su tratamiento en terceros países. El impacto será (+) o (-) según sea el tratamiento de destino	(+) sensibilización de las empresas y la sociedad sobre las emisiones que producen y sobre la necesidad de reducirlas	(+) transferencia de estas políticas por intercambio y armonización de procesos de etiquetaje  (-) posible disminución de inversión en proyectos de absorción en terceros países.

Fuente: MITECO

### 15.2 Acciones para minimizar los posibles efectos adversos Identificados

De acuerdo con las directrices de información sobre acciones para minimizar los posibles efectos adversos de las medidas de respuesta frente al cambio climático, se incluye información sobre los apartados siguientes:

#### 15.2.1 Reducción o eliminación gradual de las imperfecciones de Mercado

La reducción o eliminación gradual de las imperfecciones de mercado, los incentivos fiscales, las exenciones de impuestos y derechos y las subvenciones en todos los sectores emisores de gases de efecto invernadero, de manera que se tenga en cuenta que las reformas de los precios de la energía deben reflejar los precios de mercado y las externalidades.

La promoción de la investigación, los proyectos de demostración, los incentivos fiscales o las tasas de carbono son instrumentos importantes para avanzar en el objetivo último de la Convención Marco de las Naciones Unidas sobre el Cambio Climático (UNFCCC, por sus siglas en inglés). Una reducción progresiva de estos incentivos iría contra la consecución de dicho objetivo, y de los objetivos de la UE y sus EEMM con el Protocolo de Kioto. Sin embargo, la UE sigue trabajando en reducir gradualmente los subsidios, tasas, etc. que puedan ir en contra de los objetivos de la UNFCCC y de la aplicación de instrumentos de mercado.

Muchas políticas de la UE tienen como objetivo hacer frente a las imperfecciones del Mercado y reflejar las externalidades.

Con la implementación del Régimen Comunitario de Comercio de Emisiones, la UE utiliza un instrumento de mercado para alcanzar los objetivos de la UNFCCC y del Protocolo de Kioto, creando los incentivos adecuados para tomar decisiones de inversión bajas en carbono, y para reforzar una señal clara, sin distorsiones y a largo plazo del precio del carbono.

Con respecto al apoyo financiero a las empresas, el Tratado de la UE dispone de una prohibición general de "ayudas de Estado". Este concepto abarca una amplia gama de medidas de apoyo financiero adoptadas a nivel nacional o subnacional.

#### **15.2.2 Supresión de las subvenciones asociadas al uso de tecnologías ecológicamente poco racionales o peligrosas**

No existe una definición clara y acordada de tecnologías ecológicamente poco racionales o peligrosas, por lo tanto, en línea con la UE, España interpreta esta disposición en el context del Protocolo de Kioto, entendiendo que las tecnologías inadecuadas e inseguras serían las que derivan en emisiones de gases de efecto invernadero crecientes.

Un ejemplo de las acciones de la UE en este sentido es la Decisión 2010/787/UE, de 10 de diciembre de 2010, sobre la ayuda estatal para facilitar el cierre de minas de carbón no competitivas, que autoriza a los Estados miembros a conceder ayudas estatales para facilitar el cierre de minas no competitivas hasta 2018.

#### **15.2.3 Cooperación en el desarrollo tecnológico de usos no energéticos de los combustibles fósiles y el apoyo a las Partes que son países en desarrollo con ese fin**

Del petróleo se obtienen determinados compuestos que son la base de diversas cadenas productivas que acaban en una amplia gama de productos denominados petroquímicos, que después se utilizan en las industrias de fertilizantes, plásticos, alimenticia, farmacéutica, química y textil, etc. La industria petroquímica tiene un peso significativo en España y, en particular, la industria del plástico. Estos sectores concentran una importante cifra de gasto e *España, Informe Inventarios GEI 1990-2017 (Edición 2019) 15. Minimización efectos adversos* 750 inversión en I+D+i en España y en este respecto hay que destacar la acción especial llevada a cabo en el subsector de los plásticos para agricultura.

#### **15.2.4 Cooperación para el desarrollo, difusión y transferencia tecnológica**

La cooperación para el desarrollo, la difusión y la transferencia de tecnologías avanzadas de combustibles fósiles que emitan menos gases de efecto invernadero y/o de tecnologías relacionadas con los combustibles fósiles que capturen y almacenen gases de efecto invernadero, y el fomento de su aplicación más generalizada, así como la facilitación de la participación en estos esfuerzos de los países menos adelantados y otras Partes no incluidas en el Anexo I.

En este ámbito, cabría destacar las siguientes iniciativas concretas:

##### **15.2.4.1 CIUDEN (Fundación Ciudad de la Energía)**

CIUDEN es una organización dependiente del Gobierno de España para ejecutar programas de I+D+i relacionados con la energía y el medio ambiente y contribuir al desarrollo económico. En la misma participan los ministerios de Industria, Comercio y Turismo (MINCOTUR), Agricultura, Pesca y Alimentación (MAPA), Economía y Empresa (MINECO) y para la Transición Ecológica (MITECO). En su ámbito de actuación, cabe destacar la puesta en marcha del Centro de Desarrollo de Tecnologías de Captura de CO<sub>2</sub> (es.CO<sub>2</sub>), aglutinando todas las partes de la cadena completa de Captura, Transporte y Almacenamiento de CO<sub>2</sub> (CAC) a través de sus diferentes plantas industriales de Captura y Transporte y Almacenamiento.

##### **15.2.4.2 Iniciativa NER300**

La Directiva 2009/29/CE prevé que 300 millones de derechos de emisión se destinen a financiar proyectos de demostración de captura y almacenamiento geológico de carbono y de renovables innovadoras.

#### **15.2.5 Fortalecimiento de la capacidad de las Partes**

El fortalecimiento de la capacidad de las Partes que son países en desarrollo que se enumeran en los párrafos 8 y 9 del artículo 4 de la UNFCCC para mejorar la eficiencia de las actividades iniciales y finales relacionadas con los combustibles fósiles, teniendo en cuenta la necesidad de mejorar la eficiencia ecológica de esas actividades.

España promueve y apoya, un gran número de acciones de capacitación y de transferencia de tecnología en países en desarrollo incluyendo países en desarrollo que se enumeran en los párrafos 8 y 9 del artículo 4 de la UNFCCC, promovidas por diversos centros de investigación y tecnológicos

de España, así como a través de la cooperación española y sus socios colaboradores. En el capítulo 7 y el Anexo 4 de la Séptima Comunicación Nacional relativos al “Apoyo financiero, tecnológico y de capacitación en materia de cambio climático a países en desarrollo 2013-2016” se puede encontrar los ejemplos más relevantes de las acciones llevadas a cabo en 2013, 2014, 2015 y 2016. Cabe destacar los principales organismos implicados en estas actuaciones: AECID: Agencia Española de Cooperación Internacional para el Desarrollo; AEMET: Agencia Estatal de Meteorología; Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente (a través de sus diferentes unidades, entre las que destaca la Oficina Española de Cambio Climático); CDTI: Centro para el Desarrollo Tecnológico Industrial; CIEMAT: Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas; IDAE: Instituto para la Diversificación y el Ahorro Energético; OEPM: Oficina Española de Patentes y Marcas, O.A.

#### **15.2.6 Prestación de asistencia a las Partes**

La prestación de asistencia a las Partes que son países en desarrollo y dependen en gran medida de la exportación y el consumo de combustibles fósiles para diversificar sus economías.

En el capítulo VII de la Séptima Comunicación Nacional y sus Anexos asociados, se incluye más información sobre el apoyo financiero, tecnológico y de capacitación en materia de cambio climático de España a países en desarrollo entre 2013-2016. En relación con las contribuciones financieras hechas a países en desarrollo en materia de cambio climático durante los años 2013, 2014, 2015 y 2016 (último año con información disponible) ascendieron a 254, 463, 466 y 595 millones de euros, respectivamente. Aproximadamente el 80% de estos recursos fueron a proyectos de mitigación, incluyendo acciones de educación, capacitación, investigación, refuerzo institucional, apoyo a infraestructuras, proyectos de generación y suministro de energía eléctrica, proyectos de energías renovables y de eficiencia energética, entre otros.

En este contexto, a nivel bilateral, España apoya diversas acciones, programas y proyectos de tecnologías limpias en distintos países productores de petróleo lo cual les permite la diversificación de sus economías. Entre los países productores de petróleo que han recibido apoyo destacan Angola, Argelia, Ecuador, Guinea Ecuatorial y Venezuela. España contribuye además a diferentes programas e iniciativas de organismos e instituciones multilaterales que apoyan proyectos de tecnologías limpias en países productores de petróleo.

### **36. SWEDEN**

No additional information was included in Sweden's NIR for 2019.

### **37. SWITZERLAND**

The following information was updated in Switzerland's 2019 NIR compared to its 2018 NIR.

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#### **Fiscal incentives, tax and duty exemptions and subsidies**

[...] In the respective report published in August 2018, the Swiss Federal Audit Office recommends the preparation of a legislative revision to abolish the mineral oil tax refunds in the agriculture sector (economic support for agriculture should be provided entirely in the form of direct payments)<sup>8</sup>

### **38. UKRAINE**

The following additional information was provided in Ukraine's NIR for 2019.

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[...] For development of individual chapters of the NIR following organizations were participating:

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[https://www.efk.admin.ch/images/stories/efk\\_dokumente/publikationen/\\_wirtschaft\\_und\\_verwaltung/wirtschaft\\_und\\_landwirtschaft/17500/17500BE\\_WiK\\_e.pdf](https://www.efk.admin.ch/images/stories/efk_dokumente/publikationen/_wirtschaft_und_verwaltung/wirtschaft_und_landwirtschaft/17500/17500BE_WiK_e.pdf)



1. State Enterprise «Cherkassy State Research Institute for technical and economic information in chemical industry»;
2. Ukrainian state forest inventory production association «Ukrderzhlisproekt»;
3. Public Organization «Bureau of complex analysis and forecasts «BIAF» in the leader of the scientific Director, PhD. of technical Sciences, senior researcher, B. A. Kostyukovskiy;
4. Institute of Animal Science of NAASU;
5. Ukrainian Hydrometeorological Institute;
6. Space Research Institute NAS Ukraine and SSA Ukraine.

### 39. UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

The following additional information was provided in UK's NIR for 2019.

This chapter has been updated for the 2019 NIR submission. Changes include:

- An update on research programmes in 15.2.1;
- An update on International Climate Finance in 15.2.3;
- An update on Knowledge Transfer in 15.2.4;
- An update on Research Collaboration in 15.2.5;
- An update on Capacity Building and Technology Transfer projects on Renewable Energy and Energy Efficiency in 15.2.6;
- An update on capacity building projects on adapting to climate change in 15.2.7; and
- An update on Energy Market Reforms in 15.2.8;

#### 15.2.1 UK research, reports and analysis

[...]

- BEIS recently published a review of the available scientific evidence to assess the cobenefits and possible adverse side effects of climate change mitigation. BEIS<sup>9</sup> recently funded two major programmes of research to produce research to feed into the IPCC Special Report on Global Warming of 1.5°C. This included analysis of 1.5 degree pathways and the limitations and possible impacts of 1.5 degree consistent mitigation options (for example widespread deployment of Bioenergy and Carbon Capture and Storage<sup>10</sup>). The UK continues to fund a major programme of research into greenhouse gas removal technologies, which includes an exploration of the challenges and limitations of such technologies<sup>11</sup>.

[...]

- BEIS is now extending this programme, providing an additional £3.5 million over three years. This will allow a further five countries to create their own Calculator models, and support updates to Calculators in developing countries that have already been developed.

[...] Following on from the Gallagher review in 2008, the UK Department for Transport (DfT) has and continues to lead work into understanding Indirect Land Use Change (ILUC) impacts from biofuels. For example, on the basis of the review and emerging evidence, the UK decided to promote the transition from crop-based to waste-derived biofuels, including double rewards for waste-based biofuels and a cap on crop-based biofuels. DfT continues to review evidence and support research into the area to ensure we promote biofuels with the highest possible greenhouse gas savings, including when indirect land use change impacts are taken into account.

<sup>9</sup> <https://www.gov.uk/government/publications/climate-change-mitigation-the-co-benefits-and-possible-adverse-side-effects>

<sup>10</sup> <http://iopscience.iop.org/article/10.1088/1748-9326/aaaa02/meta>

<sup>11</sup> <https://nerc.ukri.org/research/funded/programmes/ggr/>

### 15.2.3 International Climate Finance

Recognising the growing importance and urgency of tackling climate change and its impact on growth and poverty reduction, the UK invested £3.87 billion in International Climate Finance (ICF) from 2011-2016 (financial years 2011/12 to 2015/16). The UK has committed to provide at least a further £5.8 billion from 2016-2020 (financial years 2015/16 to 2020/21). This was a 50% uplift on 2011-15 and a doubling in 2020 of our 2014 spend, placing the UK amongst the largest providers of climate finance. Recognising that adaptation is a priority for many developing countries, the UK aims for an even split in its adaptation and mitigation spend and achieved this aim in 2016 and 2017. [...]

Cumulative data that we collect show that, between 2011/12 and 2017/18, UK ICF programme have:

- Supported 47 million people to cope with the effects of climate change;
- Provided 17 million people with improved access to clean energy;
- Reduced or avoided 10.4 million tonnes of greenhouse gas (GHG) emissions (tCO<sub>2</sub>e);
- Installed more than 590 MW of clean energy capacity; and
- Mobilised £3.3 billion public and £910 million private finance for climate change purposes in developing countries.

[...] In the past year, the GCF has made significant progress in terms of programming, tightening its policy framework, and building the Secretariat's capacity. So far, the GCF has committed \$4.6 billion of funding to 93 projects, representing a balanced geographical and thematic split, with over 50% of funds going to private sector projects, and \$520 million to Small Island Developing States.

**The Nationally Appropriate Mitigation Action (NAMA) Facility** is a bilateral programme supported by the UK, working in partnership with the German Federal Ministry for the Environment (BMUB), Denmark and the European Commission. **NAMAs** refer to any action that reduces emissions in developing countries and is prepared under the umbrella of a national governmental initiative. They can be policies directed at transformational change within an economic sector, or actions across sectors for a broader national focus. The Facility seeks to support and fund the implementation of the most transformational parts of the NAMAs. It has an open application process, welcoming projects across a diverse range of sectors and geographies.

Since 2012, 20 climate mitigation projects across 16 countries have been supported, with each project chosen for its ability to catalyse change in the sector. To support this demand the UK has committed £185 million into the Facility, of which £45 million has been allocated to the 6<sup>th</sup> Call of the Facility, launched at Cop24.

**Climate Investment Funds** - The UK is the largest investor in the \$8.5 billion Climate Investment Funds (CIFs), having invested around \$2.5 billion since 2008, to pilot low-emission and climate resilient development through projects implemented by the multilateral development banks. [...]

**Least Developed Countries Fund (LDCF):** [...] The most recent Annual Review, covering results up to June 2017, demonstrated that the 86 projects in the active LDCF portfolio had already reached more than 4.4 million direct beneficiaries, brought around 1.5 million hectares of land under more climate-resilient management, and trained some 358,000 people in various aspects of climate change adaptation.

#### **Reduce Emissions from Deforestation and forest Degradation (REDD)**

- The UK has committed £141.5 million to the Forest Carbon Partnership Facility to support more than 40 countries to develop and then deliver ambitious plans to reduce deforestation. It provides payments based on progress to reduce deforestation as an incentive for countries to take action.
- The UK also supports the BioCarbon Fund with £115 million. This fund combines upfront technical assistance with results-based finance, rewarding countries which implement landscape-level approaches that reduce emissions from agriculture, forests and other land use. It also aims to catalyse investments from the private sector, recognizing that many companies along the supply chain of commodities (such as palm oil) have committed to zero-deforestation sourcing.

**REDD for Early Movers (REM)** - [...] The £104 million **Partnerships for Forests (P4F)** programme, focusing in South America, West, Central and East Africa, and Southeast Asia, brings

together the private sector, governments, and local communities to create market-ready partnerships for sustainable forestry and land-use.

**UK Climate Investments** - UKCI is a joint venture between the Green Investment Group and the UK Government Department for Business, Energy and Industrial Strategy. UKCI invests in renewable energy and energy efficiency projects across sub-Saharan Africa and India to demonstrate that low carbon development is possible, replicable at scale, commercially viable and capable of supporting economic growth, poverty reduction and lowering carbon emissions.

UKCI is mandated to invest up to £200m of UK International Climate Finance over an initial investment period of 2015-2019. The fund provides late-stage minority equity investments on a commercial basis to help get projects off the ground that would not otherwise reach financial close. Completed investments to date include a 60GW utility-scale solar project in Maharashtra, India and India's first renewable yield company (or yieldco), an innovative financial structure that pools solar energy assets to provide secondary market funding and free up developers' capital for new renewable energy projects.

**The Renewable Energy Performance Platform (REPP)** - The REPP seeks to mobilise private sector development activity and investment in small and medium scale renewable energy projects (up to 25MW, or up to 50MW for wind power) in sub-Saharan Africa. REPP aims to increase the number of sound 'bankable' smaller renewable energy projects by assisting project proponents throughout the project development stage by providing technical assistance, access to risk mitigation instruments, and pre-construction finance, and providing post-construction finance where needed. The UK made an initial commitment of £48 million in 2015 and has recently committed an additional £100m to the programme to 2023.

[...]

The **Climate Leadership in Cities (CLIC) Programme** is a £27.5 million UK Government initiative launched at the end of 2017, which supports developing country cities to unlock ambitious climate action. The programme was developed in recognition of the fact that, with the majority of the world's population living in urban areas, and cities accounting for more than 70% of global CO<sub>2</sub> emissions, climate leadership in cities is critical in delivering the Paris Agreement. The programme contains three components:

- Technical assistance for 15 megacities in Latin America and Asia to develop ambitious climate action plans consistent with the Paris Agreement, delivered by C40.
- Expanding the C40 Cities Finance Facility, jointly implemented by C40 and GIZ, through which cities bid for technical assistance to develop investable business cases for climate action.
- Global research and national advocacy (with country programmes in China and Mexico) to help remove barriers to city action, delivered by the Coalition for Urban Transitions.

The **Global Climate Partnership Fund (GCPF)** uses a £49 million investment by the UK, combined with investments from other donor governments, as a risk cushion so that it can raise capital from development institutions, institutional investors and the private sector. To date it has raised over \$600 million. The GCPF then provides lines of credit to local banks in developing countries so they can on-lend to their clients for renewable energy and energy efficiency investments. The clients are small and medium-sized enterprises and households and their investments range from high-efficiency household appliances to light industrial equipment. GCPF can also invest directly in larger sale projects.

The UK also funds the GCPF's technical assistance facility with £6m, which supports the local banks to open up new green lending markets, establish CO<sub>2</sub> reporting facilities and so on. The GCPF has now invested in over 20 countries in Latin America, Africa and Asia. Its partners have issued over 55,000 sub-loans, amounting to over 10 million tonnes of CO<sub>2</sub> saved over the lifetime of the loans.

The **Market Accelerator for Green Construction (MAGC)** is a £106.1 million global programme launched at the end of 2018 in collaboration with the International Finance Corporation. The Fund aims to drive the financing and construction of more energy efficient buildings in emerging economies. Buildings account for around a fifth of global greenhouse gas emissions and improving

building design and construction will play an important role in avoiding climate change and meeting our Paris Agreement goals.

By providing a package of technical assistance and blended finance, the programme will work with banks to establish new green construction finance services that will help crowd in private finance while encouraging developers to adopt greener construction practices, thereby developing clean growth markets in emerging economies. A significant research component will also aim to develop a robust evidence base that can be used to further enhance green building standards and motivate the wider uptake of green construction over conventional approaches.

**UK PACT (Partnering for Accelerated Climate Transitions)** - Set up in 2018, **UK PACT** is a £60 million technical assistance programme designed to support clean growth transitions in middle-income developing countries. Through demand-driven technical assistance projects, long term secondments and short-term skill shares, the programme works to increase capacity and capability in partner countries to reduce carbon emissions in line with their commitments under the Paris Agreement. UK PACT works in areas of UK low-carbon expertise, including green finance, climate legislation, and energy market reform. The programme is currently working in Colombia and Mexico across multiple demand-led areas, as well as in China (solely on green finance). UK PACT plans to expand to four new countries in Africa and Southeast Asia in the next two years.

In addition to the direct assistance the UK provides to developing countries through our climate finance programmes listed above, the UK recognises that the scale of the challenge will require a broader effort at all levels to align investment flows with the goals of the Paris Agreement. **Integrating climate and environmental factors into financial decision making** is essential to aligning financial flows with these goals and accelerating lowgreenhouse gas and climate-resilient investment globally. The UK has played a leading role in this area becoming co-chair of the G20 Green Finance Study Group, established by China during its 2016 G20 Presidency.

The leadership of the Governor of the Bank of England, Mark Carney, is widely recognised, including his role in helping to establish the Financial Stability Board's industry-led Task Force on Climate-related Financial Disclosures (TCFD). In 2017 the UK became one of the first governments to formally endorse these recommendations, and we are working to promote their uptake internationally. The City of London has established formal relationships on **green finance** with major emerging market economies, including China, India and Brazil. These partnerships present opportunities for the UK to collaborate with key developing economies in a rapidly growing market and to share Britain's green finance expertise.

#### **15.2.5 Research collaboration**

[...] The UK is playing a leading role in supporting technical assistance on Carbon Capture, Usage & Storage (CCUS) to developing countries and emerging economies. The UK has committed up to £70 million of International Climate Finance since 2012 to raise the level of understanding of CCUS within fossil fuel-intensive countries, such as Mexico, South Africa, China and Indonesia. This funding is supporting the establishment of the necessary regulatory and policy frameworks, technical know-how and incentive structures to enable demonstration and ultimately accelerate the deployment of CCUS. UK funding is provided through the World Bank CCUS Trust Fund and the Asian Development Bank CCUS Fund to support technical assistance activities, such as feasibility studies, pilot projects, developing regulatory and policy frameworks, establishing CCUS Centres of Excellence, running training workshops, and facilitating knowledge-sharing activities.

The UK is an active member of key international CCUS fora: the CCUS Initiative under the Clean Energy Ministerial, the Carbon Sequestration Leadership Forum (CSLF), the IEA Greenhouse Gas R&D programme, and co-leads the CCUS Challenge under Mission Innovation (alongside Mexico and Saudi Arabia). The UK also co-hosted the International CCUS Summit and Conference with the IEA in November 2018 and hosted a CCUS side event in the UK Pavilion at COP 24.

#### **15.2.6 Capacity Building and Technology Transfer projects on Renewable Energy and Energy Efficiency**

[...]

- **Carbon Capture, Usage and Storage (CCUS):** Since 2012, the UK has provided £70 million to support developing countries and emerging economies to build the technical and institutional knowledge necessary to enable the deployment of CCUS technologies.

CCUS development and deployment is crucial for meeting the ‘wellbelow’ 2°C target set out under the Paris Agreement. The programme aims to raise the level of knowledge of CCUS in key countries, such as Mexico, South Africa, China and Indonesia, leading to the establishment of the necessary regulatory and policy frameworks to support CCUS demonstration and ultimately accelerate the deployment of CCUS.

[...]

- **Capacity Building and Transparency:** [...] The UK is the second largest donor (behind the US) to CBIT to date, committing £10 million from the ICF and £1 million from the Scottish Government.

### 15.2.8 Energy Market Reforms – responding to energy market imperfections

[...]

CfDs are long term (15 year) contracts between CfD generators and the Low Carbon Contracts Company (LCCC), a government-owned company. Contracts are designed to give greater certainty and stability of revenues to electricity generators by reducing their exposure to volatile wholesale prices, whilst protecting consumers from paying for higher support costs when electricity prices are high. A CfD generator is paid the difference between the ‘strike price’ (a price for electricity reflecting the cost of investing in a particular low-carbon technology) and the “reference price” (a measure of the average market price for electricity).

Investment contracts (and early form of CfD) were awarded to eight projects in 2014, and two competitive allocation rounds have been held since then in 2015 and 2017. Projects currently supported by the CfD scheme are expected to provide around 10GW of new renewable electricity capacity by 2023. Eleven projects have so far been commissioned, providing a combined capacity of over 2.4 GW of renewable electricity. Details of CfD projects are available on the CfD Register published by the LCCC at [www.lowcarboncontracts.uk](http://www.lowcarboncontracts.uk).

The government confirmed in its Clean Growth Strategy in October 2017 that up to £557 million (in 2011/12 prices) of annual support will be available for further CfDs, with the next auction planned to open by May 2019. Further allocation rounds will be held around every two years after that. Depending on the price achieved, these auctions will deliver between 1 to 2 gigawatts of offshore wind each year in the 2020s.

Four main Capacity Market auctions have been completed so far. These auctions have secured supplies up to 2021/22. However, the Capacity Market is currently standstill, following the judgment of the General Court of the Court of Justice of the European Union in Case T- 793/14. The UK government is working closely with the European Commission on the necessary steps for the GB Capacity Market (CM) scheme to be reinstated as quickly as possible. During this standstill period no further auctions can take place nor any capacity payments made.

The most recent main auction concluded in February 2018, for delivery in 2021/22. This secured 50.4GW of capacity. [...]

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