

# Leveraging domestic offset projects for a climate-neutral world – Regulatory conditions and options

## Input Paper

for the workshop on 27 Sep 2016 at the German Emissions Trading  
Authority, Berlin

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September 2016

## Introduction

Voluntary domestic offset schemes offer great potential as instruments for advancing ambitious climate action and supporting the transformation towards low-carbon economies. At the same time, their possible scope of action in countries with reduction targets is limited by international, regional and national regulations on climate protection. Mitigation commitments from the Kyoto Protocol, the EU ETS and national or subnational compliance mechanisms enhance the risk of different forms of double counting and make it difficult for project developers to prove additionality. Adding to these challenges, the regulatory framework will change after 2020.

More countries have already successfully implemented initiatives for the development of domestic carbon offset projects, but there is no common framework for accounting and certifying GHG mitigation activities in the voluntary market and for embedding it in the compliance market yet.

The study carried out by adelphi on behalf of the German Emissions Trading Authority (DEHSt) at the Federal Environmental Agency (UBA) seeks to analyse the characteristics of initiatives in countries that generate carbon credits from domestic projects for voluntary compensation. It aims at identifying the respective challenges and opportunities and to develop recommendations for improving these conditions in order to advance the development of a domestic voluntary market and leverage its potential for a climate-neutral world. This input paper for the workshop summarizes the preliminary findings. The workshop discussions will serve to refine the study results.

## Setting the scene: main concepts

### Domestic offset projects (DOPs)

DOPs are usually understood as instruments for countries with mitigation targets to stimulate domestic emission reduction or removal opportunities and technological innovation in sectors that are not used for compliance purposes. What initially started as voluntary bottom-up initiatives from project developers and NGOs is today increasingly seen as a private sector mechanism for governments to incentivize reductions from emission sources neglected by existing market mechanisms (Peters-Stanley 2012). In a DOP, project developers reduce or remove GHG emissions for which they receive (mostly) tradable credits. Once the reductions or removals are certified and verified by an independent quality standard or a domestic offset scheme they may be purchased by domestic entities wishing to offset their emissions.

While some definitions refer to domestic offsets as projects to “reduce emissions of CO<sub>2</sub> equivalent (CO<sub>2</sub>eq). in the non-ETS sectors and trade these as CO<sub>2</sub> credits on the ETS market” (Van Der Gaast et al. 2013), this paper explicitly understands these as schemes intended to contribute to greenhouse gas mitigation beyond compliance targets in the host country itself. Voluntary domestic offsetting, in particular, refers to carbon credits that are sold on the voluntary market of the host country and are not used for compliance purposes. This market is driven by a desire of companies or individuals to make voluntary commitments to reduce their environmental impact.

### Barriers for DOPs

Domestic offset projects for the voluntary market are confronted with several challenges. In particular, the scope of action for domestic voluntary offset projects in countries with reduction targets is limited by the international, regional and national regulatory frameworks on climate protection. Mitigation commitments from the Kyoto Protocol, the EU ETS, the Effort Sharing Decision and national or sub-national compliance mechanisms as well as other types of low-carbon policies enhance the risk of different forms of double counting and make it difficult for project developers to prove additionality. Both additionality and the avoidance of double counting are intended to safeguard the environmental integrity of an offset and guarantee that projects generate emission reductions (or removals) over and above a country’s international mitigation commitment.

**Additionality:** To achieve net zero GHG emissions, offsetting activities need to ensure that the reduction or removal of GHG is additional – which means that it would not have occurred in absence of the funded activity. Neglecting additionality can undermine the intended net zero and result in a net increase in emissions. Simply put, an additionality test asks the question whether a mitigation activity would not have been implemented in absence of the willingness to sell or purchase the resulting emission reduction or removal units.

Additionality tests not only guarantee buyers wishing to compensate their emissions that their investments are environmentally effective, but also ensures that voluntary action is not used to substitute activities that are mandatory under existing climate or energy policies. As additionality tests are based on counterfactual future projections and arguments, a certain degree of uncertainty will always remain. Additionality is usually demonstrated with the help of one or several tests that assess barriers on different levels, including financial, legal, technological and other non-financial barriers.

Proving additionality on the project level may turn out to be particularly difficult for voluntary projects. Projects in the voluntary market are often small and only generate a limited number of carbon credits and thus revenues. Complex additionality tests may prevent project developers from realising their ideas and can limit opportunities. Not only the high costs and efforts, but also uncertainty related to the actual success of the tests pose substantial challenges and can exceed the capacities of small initiatives.

For these reasons, voluntary offset schemes are increasingly shifting to performance standards, which evaluate the technologies or processes that generate emission reductions or removals instead of the individual project. The standards are usually developed by the certifying quality standard or the scheme operator, thereby shifting part of the administrative burden from project developers to a standard-setting entity. Performance standards can be benchmark approaches, establishing a baseline scenario against which all new project proposals are measured, or positive technology lists. The latter provide a list of all technologies and processes that will be considered additional in certain project areas, making additionality testing a transparent and less costly process.

**Double counting:** Double counting refers to a scenario in which a specific GHG emission reduction or removal is inadvertently or intentionally claimed, sold, accounted or monetized twice (VCS 2012; Gold Standard 2015). Double counting is a risk specific to offsetting and emissions trading that can undermine the environmental integrity of emission reduction (or removal) units.

Double counting can take many different forms and can occur in different actor constellations both in a compliance and a voluntary market setting. Its implications with regard to the environmental integrity of an emission reduction (or removal) also vary depending on whether the reduction is used on the voluntary market or for compliance purposes. Four types of double counting can be distinguished: double selling, double issuance, double claiming and double monetisation.

| Type of double counting | Scenario(s)  | Implications for environmental integrity  | Solutions to avoid double counting   |
|-------------------------|--|---|--|
| <b>Double selling</b>   | One unit of CO <sub>2</sub> e is sold more than once to different actors.  | Environmental integrity unimpaired as long as the units derived from the same ton of CO <sub>2</sub> equivalent are not claimed towards emission reduction commitments. Must nevertheless be avoided because it is fraud. | Establish reliable registries that record the full history of transactions.  |
| <b>Double issuance</b>  | 1. One unit is duplicated in a registry and issued twice on the back of one actual emission reduction unit.                                    | Environmental integrity of the unit is impaired, as one unit does not correspond to one ton of CO <sub>2</sub> e reduced anymore.   | Registries need to assign unique serial numbers to each GHG emission reduction unit and that indicates the exact project location. |
|                         | 2. One unit is credited twice under two different standards or in two different registries   |   | Project developers should attest that they do not seek credit issuance under another standard / scheme.                            |
|                         | 3. Two entities are issued a unit under the same mechanism for the same emission reduction (e.g. entities operating in the same project area). |   | Only one entity may be eligible to receive credits.  |

| Type of double counting | Scenario(s)   | Implications for environmental integrity   | Solutions to avoid double counting   |
|-------------------------|---|--|--|
| Double claiming         | 1. A company uses certificates to voluntarily demonstrate the carbon neutrality of its production process. The buyer of their product may also claim the carbon neutrality of the product for himself.        | 1. Environmental integrity is not impaired as long as the emission reductions from voluntary domestic projects are not accounted for in the national GHG inventory.  | Clear and transparent communication has priority.  |
|                         | 2. One unit is used by a company to voluntarily offset parts of its GHG emissions, and this unit is accounted for in the national inventory and claimed by the host government towards their national target. | 2. Disputed:<br>As long as the units stay within the host country, environmental integrity is, by definition, not impaired. However, the voluntary reduction helps the government to achieve its reduction target, which may not be desirable. | <ul style="list-style-type: none"> <li>▶ Exclusion of any project type that is accounted for in the national GHG inventory (unrealistic)</li> <li>▶ Cancellation of AAU for each voluntary unit issued</li> <li>▶ Transparent communication</li> </ul> |
| Double monetisation     | 1. One unit from a voluntary domestic project is used by a company in an Annex B country to offset its emissions, 'freeing up' AAUs that the government sells to another Annex B country.                     | Environmental integrity is impaired, as both scenarios lead to a net increase in emissions.  | <ul style="list-style-type: none"> <li>▶ Cancellation of AAU for each voluntary unit issued or commitment not to sell excess AAUs</li> <li>▶ Emission reductions or removals not captured in the national inventory (work-around)</li> </ul>           |
|                         | 2. A VER from a voluntary project in an Annex B country is sold to another Annex B country without cancellation of equivalent amount of AAUs.   |  | VERs must not be traded internationally. <i>(In a voluntary domestic scheme that does not allow the transfer of credits to other countries, this situation does not occur.)</i>  |

Forms of double counting in the voluntary carbon market can be classified as follows: (1) Those that can be resolved more or less easily and (2) those that pose more serious difficulties and require more indepth analysis.

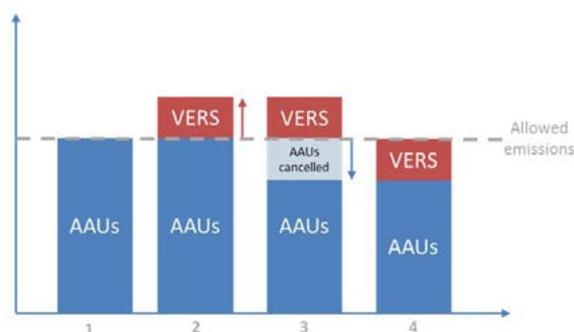
1. **Double selling** and **double issuance** or accounting do not necessarily cause environmental integrity issues, as long as units are not double claimed (for compliance purposes). Moreover, both forms are related to accounting and registration issues that can – in theory – be easily resolved by introducing centralised registries with a full record of the transaction history. Therefore, these two forms of double counting have less relevance with regard to how they relate to the regulatory framework conditions that define the scope for voluntary domestic projects.
2. **Double claiming** and **double monetisation**, if they emerge in scenarios that involve an entity engaged in voluntary offsetting and a national government of an Annex B country, are more problematic. The impact of double claiming on environmental integrity is contested, as is the question as to whether double claiming in a 'mixed' scenario needs to be avoided by all means. Double monetisation, in contrast, causes a net increase in emissions and impairs environmental integrity. To safeguard the credibility of the voluntary carbon market, it needs to be avoided. The best solution towards preventing both double claiming and double monetisation would be the systematic cancellation of AAUs for each credit issued by a voluntary project. To what extent the risks of double claiming and monetisation are relevant for voluntary domestic schemes and arise in the different regulatory contexts depends on the individual context.

## Framework conditions for DOPs pre-2020

### Kyoto Protocol and implications for double counting

Countries with binding reduction targets under the Kyoto Protocol (Annex B countries) are assigned an emissions budget in the form of ‘assigned amount units’ (AAUs). The quantified reduction targets are primarily to be achieved with domestic action, constituting a “significant element of the effort” ([UNFCCC CMP1 2006](#)), including measures such as energy efficiency, market instruments, carbon or energy taxes, legal regulations, voluntary commitments or research and development ([UNFCCC 2012](#)). Domestic offset projects also fall within the scope of domestic action, as the carbon benefit stays within the host country. However, voluntary domestic projects are ineligible for compliance under the Kyoto Protocol.

**Double claiming:** Certificates generated through voluntary domestic projects usually affect the national inventory and AAU budget. Sectors that are not accounted for in the national inventory for Kyoto compliance are theoretically not at risk of double claiming, as they are not on the ‘radar’ of the state – however, with the exception of certain LULUCF activities, there are hardly any sectors left that are not yet covered by Kyoto. As a consequence, Annex B countries with voluntary domestic initiatives would need to make sure that for every issued voluntary certificate an AAU is cancelled in order to prevent the reduction/removal from being claimed twice.



**Double monetisation:** Voluntary projects in sectors covered by the Kyoto Protocol bear the risk of unintentionally ‘liberating’ AAUs and thus leading to double monetisation. Cancelling AAUs for each credit issued on the voluntary market would also counteract this risk of double monetisation. To avoid the second type of double monetisation that arises from the sale of voluntary credits outside the host country without a corresponding cancellation of AAUs, voluntary standards like VER+ do not allow credits to be transferred out of the host country as long as AAUs are not retired ([SEI and GHGMI 2011](#)). While double claiming only implies that a country counts the reduction against its national target, with debatable implications for environmental integrity, double monetisation means that surplus AAUs are sold and enable another country to increase its emissions – thereby increasing the global emissions ceiling instead of offsetting. The latter impairs environmental integrity and should by all means be avoided.

**AAU cancellation:** To avoid both double claiming and double monetisation, AAU cancellation for projects in Kyoto sectors would be a good option for Annex B countries. In practice, however, Annex B countries refrained from cancelling AAUs for all VERs created so far.<sup>1</sup> One of the main problems is the lack of a comprehensive, universal quality standard on the voluntary market, as governments of Annex B countries need to make sure that the voluntary credits for which they retire AAUs are additional and environmentally sound. As long as different standards with different levels of quality coexist, it would require enormous efforts from the government to reconcile these with internationally acknowledged regulations like those of JI, for example. This substantially limits the scope of action for voluntary domestic projects, as most verification standards that are internationally acknowledged do not accept projects from Annex B countries that do not retire AAUs.

**How voluntary standards deal with it:** Most verification standards in the voluntary carbon markets suggest cancelling AAUs or avoiding projects in Annex B countries in the first place. The VCS, for example, requires proof that AAUs have been cancelled from the national registry for a project to be eligible ([VCS 2012](#)).

<sup>1</sup> With the sole exception of Bulgaria, that cancelled more than 60,000 AAUs in exchange for credits from the VCS-certified project “Katuntsi Small Hydro Power Project” ([VCS 2015](#)).

## The European framework

The European Union has set itself and committed to ambitious targets for the reduction of greenhouse gas emissions up to 2050. The overall targets of reducing emissions by 20 percent by 2020 and by 40 percent compared to 1990 by 2030 are to be achieved through a wide range of regulatory measures. The two main areas of reduction activities are the EU emissions trading system and the Effort Sharing Decision (ESD).

**EU ETS:** The EU's emissions trading system (EU ETS), launched in 2005, is the key tool of EU climate policy and the largest emissions trading scheme worldwide. The scheme is currently in its third trading period, which runs from January 2013 to December 2020, with a cap representing GHG emission reductions of 21 percent compared to 2005 levels. Similar to the Kyoto Protocol, the EU ETS permits flexibility as to how emission reduction targets are achieved. As the Kyoto Protocol entered into force, the EU agreed to allow the use of Kyoto flexibility instruments for compliance under the scheme to a certain extent with the 2004 'Linking Directive' (2004/101/EC).

**ESD:** The overall goal of the ESD is a reduction of emissions from non-ETS sectors, which account for around 55 percent of all EU emissions, by 10 percent by 2020 ([European Commission 2016; CDC Climat Research et al. 2015](#)). Member States are allowed to use flexibility instruments to achieve their emission targets, including trading, banking or borrowing between states and over years. The principle of flexibility under the ESD aims at ensuring environmental integrity, effective compliance and addressing different capacities. The ESD includes the sectors transport, buildings, agriculture and waste, but explicitly excludes LULUCF at present.

**Implications for voluntary domestic projects:** With regard to double counting, the challenges for voluntary domestic offsetting are similar to those of the Kyoto framework. One of the major difficulties for domestic offset projects within EU Member States is the fact that most low-cost abatement technologies and installations are among the ETS sectors and thus not eligible for voluntary domestic action ([Hoozgaard and von Unger 2010](#)). This means that many of the remaining options for domestic offsetting have high abatement costs that make them financially unattractive. However, the LULUCF sector offers great potential for lower cost GHG sequestration projects and is likely to play an increasing role, given that the potential for emission reductions in other sectors will decline.

## The national framework: domestic offset projects in Germany

The German framework for DOPs is mostly determined by Germany's commitments under the Kyoto Protocol and the European climate and energy framework. These differ from other Annex B countries only with regard to the scope of LULUCF activities that are reported under the Kyoto framework. For the second commitment period, Germany decided to include the activities of grassland and cropland management in its GHG inventory, while rewetting and wetland drainage were not selected.

**Little space for German DOPs:** One of the few examples of a German DOP are MoorFutures, an initiative that offers emission reductions from peatland rewetting. Until 2013, peatland was not counted towards Kyoto targets in Germany's national greenhouse gas (GHG) inventory and did not cause any issues of double counting. However, as most German peatlands are within forests, cropland or grassland, around 85 percent of CO<sub>2</sub> emissions from peatlands in Germany are attributable to forestry and agricultural use (including grassland and cropland) under the Kyoto Protocol. This raises issues of double claiming that have not yet been resolved, as like most Annex B countries, Germany does not allow for cancelling AAUs in lieu of VERs.

**German DOPs – differences between wishes and constraints:** A 2015 market analysis by adelphi and sustainable on behalf of the Federal Environment Agency showed that almost 50 percent of the German buyers of carbon offsets would prefer domestic certificates. However, this demand can currently not be met, as there are virtually no projects outside the accounting of the Kyoto Protocol that offer credits from DOPs for reasons of regulative uncertainty as well as high transaction and abatement costs. Harmonising supply and demand seems to offer great potential for the voluntary markets, but requires legislative changes to incentivise the development of DOPs.

## Insights from selected voluntary domestic offset schemes

Several examples of domestic offset schemes in different countries exist that have found different ways in dealing with the challenges identified above.

### 1 Australia: Carbon Farming Initiative / Emissions Reduction Fund

The Carbon Farming Initiative (CFI) is a national voluntary offset scheme that was initiated by the Australian government in 2011. Since 2014, it is part of Australia's Emissions Reduction Fund (ERF), constituting a centrepiece of the Australian Government's emission reduction policy. CFI enables farmers to voluntarily engage in GHG emission reduction or removal activities to earn carbon credits which can be sold both on the voluntary and the compliance carbon market. Carbon credits under the CFI are known as "Australian Carbon Credit Units" (ACCUs). The CFI covers activities in the agriculture and land use sectors, as well as emission reductions from legacy landfill waste, which was complemented by activities in the sectors energy efficiency, transport and industrial fugitives under the ERF.



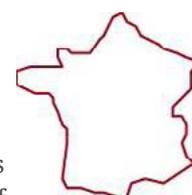
The CFI and now the ERF comprise both Kyoto and non-Kyoto activities, and enable project proponents to generate Kyoto ACCUs or non-Kyoto ACCUs. When the CFI was introduced, Australia had opted out of accounting for voluntary activities under Article 3.4 (forest land management, cropland management, grazing land management and/or revegetation). Projects in the domains of soil carbon, feral animal management, improved forest management and non-forest revegetation were eligible to earn non-Kyoto ACCUs that could only be sold on the voluntary market.

With the second Kyoto period, and the inclusion of additional mandatory activities under Article 3, Australia was obliged to count all forest management activities towards their target and voluntarily added cropland and grazing land management, leaving fewer activities eligible for non-Kyoto ACCUs. Activities added under the ERF, energy efficiency, transport and industrial fugitives, can only earn KACCUs. Between December 2012 and June 2016, more than 25 million ACCUs were issued through the CFI and the ERF. Of these, only approximately one million, or 4.3 percent, were non-Kyoto ACCUs.

As abatement from non-Kyoto ACCUs is not reflected in Australia's Kyoto accounts, at present, there is no risk of double claiming or double monetisation. In order to avoid double monetisation of Kyoto ACCUs, all CFI / ERF credits from Kyoto activities that can be traded on the international voluntary market are coupled with AAUs or RMUs that the government issues in exchange for KACCUs.

### 2 France: Voluntary Carbon Land Certification (VOCAL)

The project Voluntary Carbon Land Certification (VOCAL) aims to develop a methodological framework for validating carbon reduction/removal units in agricultural and forestry projects in France. The certification scheme is developed in close collaboration with the French government since the beginning of 2016: The environmental ministry (MEEM) participates in the stakeholder consultation process and is a member of the 'Club Carbone'. Furthermore, MEEM is committed to approving the certification framework a priori in 2017. It will then be in charge of validating the methodologies. As the framework development is done by a stakeholder group, government workload is reduced and the utilisation of maximum expertise can be ensured. At the same time, government endorsement or approval of the certification framework promises to improve trust and visibility of domestic offset projects, thereby potentially increasing market demand.



Activities covered by VOCAL will include afforestation/reforestation, improved forest management, emission reductions from field crops ("grandes cultures") and cattle farming. The project counts on a site in the Massif Central to pilot the methodologies in the forestry sector in cooperation with GIP Massif Central. The pilot projects not only aim at carbon sequestration but also at the generation of biodiversity, socio-economic or landscape benefits.

Double counting provisions are still to be decided, but in general VOCAL aims to contribute to national and European greenhouse gas reduction targets. A transparency approach is likely to be adopted: As long as project and emission reduction/removal details are clear and transparent, involved stakeholders can communicate their voluntary contributions and there will be clear communication of the double claiming issue.

### 3 Italy: Codice Forestale del Carbonio

As Italy converts all carbon stored by Italian forests, both public and private, into RMUs for potential use towards fulfilment of its emission reduction obligations under the Kyoto Protocol, forest owners have restricted access to carbon markets for concerns of double claiming. The initiative of the Italian “Codice Forestale del Carbonio” (FCC – Forest Carbon Code) has been developed to counter these challenges and it looks into innovative carbon sequestration activities outside the common definition of forest management practices applied for RMU generation. The FCC, first released in 2012, aims to stimulate a low carbon economy by facilitating public and private investment for the creation of new forests and the improvement of green systems in agricultural and urban environments in Italy. It supports the development of domestic forestry projects for use on the voluntary carbon market.



The FCC provides a handbook for developers of carbon sequestration projects and focuses on facilitating investments in forest and farmland management and fostering sustainable management of green areas to generate carbon credits for the voluntary market. Despite the importance of the forestry sector, many projects still work without guidelines, quality standards and external certification, or use their own standards, because certification costs seem too high for micro or small projects. While it does not offer formal certification of forestry projects, the FCC provides good practice guidance and touches upon major issues project developers should take into consideration to enhance quality standards and harmonise the process of carbon crediting throughout Italy.

For its reporting on forest management under Article 3.4 of the Kyoto Protocol, Italy applies a very broad definition of managed forests, regarding all forest in Italy as managed. In 2006, Italy was assigned a cap of 2.78 M t CO<sub>2</sub>e/year of carbon sequestration that can be credited with RMUs. In 2009 alone, 94.7 M t of CO<sub>2</sub> were removed from the atmosphere with LULUCF activities, mostly forest land, grassland and cropland – a volume greatly exceeding the allowed cap. Thus, there is a large volume of carbon sequestration that must not be counted towards Italy’s Kyoto target and that could theoretically be partly used by a voluntary market. While double monetisation from forest management activities does not occur in Italy, the removals may still be double claimed.

### 4 Spain: ‘Calculo, reduzco, compenso’ / ‘Fondo de Carbono para una Economía Sostenible (FES-CO<sub>2</sub>)’

There are two major crediting schemes in Spain: (1) The Spanish “Fondo de Carbono para una Economía Sostenible (FES-CO<sub>2</sub>)” is a voluntary scheme to promote private actions to reduce emissions in non-EU ETS sectors. The scheme is exclusively domestic and does not allow for credits to be traded outside of Spain. (2) The voluntary carbon footprint registry (Registro de huella de carbono, compensación y proyectos de absorción – RHC) that generates credits from voluntary projects in the forestry and land use sector. These credits can be purchased by companies wishing to voluntarily reduce their carbon footprint.

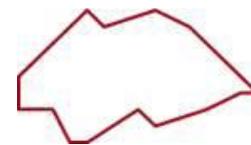


Participation in the FES-CO<sub>2</sub> scheme is voluntary for companies but projects are intended to contribute to the Spanish ESD target. So at the moment, units are not actually traded on the carbon market for compensation but used to reduce emissions within the non-ETS sectors and help the Spanish government achieve its reduction target. For this reason, double claiming and monetisation are currently not possible both on the domestic and the international level, as the emission reductions are only used by the national government and are not tradable. However, if credits could be purchased by actors other than the government, double counting would occur, as the project categories agriculture, housing, waste, industry, transport and fluorinated GHGs are counted towards the ESD target and part of the commitments under the Kyoto Protocol.

Project activities eligible under the voluntary registry, reforestation with land use change and restoration of existing forests, are mandatory reporting categories according to articles 3.3 (type A) and 3.4 (type B) of the Kyoto Protocol, and must therefore be listed in Spain’s national inventory and counted towards its Kyoto target. This puts projects at risk of double counting, at least on the international level. Regarding the European framework there is no problem with double counting until 2021.

## 5 Switzerland: Domestic compliance scheme

In its CO<sub>2</sub> Act, Switzerland committed to reducing its GHG emissions by 20 percent to 40 million t CO<sub>2</sub>e by the year 2020. Several instruments and policies have been implemented to achieve this target, including a Swiss ETS, a CO<sub>2</sub> levy on fossil fuels and a domestic offset scheme. Within the offset scheme, importers or producers of fossil motor fuels are legally obliged to offset 10 percent of all traffic-related emissions by 2020. Rates increase annually, starting with 2 percent in 2014 and aiming for an accumulated volume of 6.5 M t CO<sub>2</sub>e between 2013 and 2020. Fuel importers may compensate either by purchasing credits from domestic Swiss projects or by implementing inhouse carbon reduction projects.



The Swiss domestic offset scheme is different from other case studies examined in this paper in that it is not a voluntary mechanism, which has significant impacts on the way it relates to the current international framework. As the GHG emission reductions realised through domestic offset projects in Switzerland are counted towards the national climate target, the scheme faces less restrictions with regard to the sectors in which projects and programmes can be implemented. In theory, any sector that is eligible for compliance could also be suitable for the domestic offset scheme without risking double claiming or double monetisation – as long as credits are not sold outside Switzerland. In general, the risk of double counting is much lower than for voluntary domestic offset schemes, as double monetisation is not a problem and the risk of double claiming is substantially reduced because the Swiss government counts reductions against its pledge anyway.

## 6 United Kingdom: Woodland Carbon Code (WCC)

Launched in 2011, the Woodland Carbon Code (WCC) is a voluntary standard that generates credits for national woodland creation within the United Kingdom. Since 2011, more than 200 projects with an overall volume of 15,841 hectares of woodland with a sequestration potential of 5.848 million t CO<sub>2</sub>e over the next 100 years have been registered, 125 of which have already been validated.



Parts of the credits are issued ex-ante as so-called “Pending Issuance Units” (PIUs), interim credits that stand for a promise to deliver future GHG removals but that cannot be claimed. Woodland Carbon Code units can only be counted against mitigation targets ‘ex-post’, after verification of the carbon sequestration and a transformation of PIUs into Woodland Carbon Units (WCUs). Since 2014, PIUs are available for sale, and once converted into verified units, they will become available for use within the UK to offset for organisation’s emissions or to claim carbon neutrality of a product or an event.

The WCC activities fall under the category of “direct, human-induced, afforestation, reforestation and deforestation activities” and are thus listed in the UK’s national inventory in accordance with the Kyoto Protocol’s LULUCF regulations. As a result, removal units (RMUs) are credited to the national account for WCC projects in the UK and there is clear communication regarding the fact that WCUs contribute to the UK’s national reduction target. Double claiming does occur, whereas double monetisation is not possible, as the UK emission reduction target is more stringent than international commitment and the UK has committed to cancelling any excess AAUs. Furthermore, PIUs and WCUs are only available to domestic buyers.

# Opportunities for DOPs in a post-2020 world

## The Paris Agreement

In December 2015, the Paris Agreement was adopted and is to come into effect and be implemented from 2020. In contrast to the Kyoto Protocol’s static annex framework, all parties are expected to contribute based on the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDRRC). The Paris Agreement thus greatly expands obligation coverage and successfully includes those Parties that did not ratify or withdrew from the Kyoto Protocol, including the world’s two largest emitters the USA and China. Through its INDC process the UNFCCC has established a framework for bottom-up pledges that need to be transformed into legally binding targets under a new mechanism of the Paris Agreement (nationally determined contributions – NDCs).

Although “markets” are nowhere explicitly mentioned, the Paris Agreement allows the “use of internationally transferred mitigation outcomes towards nationally determined contributions” under Article 6.2, setting the basis for a new market mechanism. As there will be no distinction between Annex I and non-Annex I countries, all Parties may buy and sell emission reduction certificates, or “internationally transferred mitigation outcomes” (ITMOs). ITMOs can essentially be derived from any kind of bilateral, regional or multilateral cooperation, for example in the field of carbon schemes, technology transfer, ETS or even climate finance (Prell 2015).

The Paris Agreement also makes arrangements for the establishment of a new mechanism that could succeed JI and CDM and has been dubbed “mechanism for mitigation and sustainable development”. This mechanism targets private and public entities alike and will be installed under the UNFCCC with supervision from a body designated by the Parties.

The Paris Agreement expects cooperation mechanisms to contribute to increased ambition of Parties in the implementation of NDCs. This might offer great potential for domestic offset schemes, as more ambitious targets are likely to increase demand for carbon credits. In particular, many major Parties including the European Union and the U.S. explicitly declared that they intend to meet their initial pledges without acquiring international offsets. This could open up new possibilities for domestic projects in meeting the additional mitigation need resulting from the PA. However, with the Paris Agreement’s ratchet mechanism a use of international offsets to comply with more ambitious targets at a later stage cannot be excluded.

## European framework: enhanced flexibilities under ESD

As reduction targets will be raised under the new ESD in 2021, DOPs could gain more importance on the European carbon market, as their potential of reducing a Member State’s quota is substantial. Moreover, the EU’s decision not to make use of international credits post 2020 also means that these credits can no longer be used as flexibilities under the EU ETS and the ESD. This will rule out CERs from CDM and ERUs from non-EU Member States, while credits equivalent to what are currently ERUs from within the European Union might still be eligible.

In addition, the proposal for the new Effort Sharing Decision (2021-2030), released in July 2016, includes two new types of flexibilities. First, Member States may use a limited amount of allowances from the EU ETS to achieve their national target in the non-ETS sectors. And second, domestically generated credits from the landuse sector (including afforested land, managed grassland and managed cropland) may be used for national targets up to a fixed country-specific limit (European Commission 2016). Together with the rising targets for non-ETS sectors for the period of 2021 to 2030, this can unlock great potential for domestic projects. Mitigation potential from the LULUCF sector will prospectively play an increasingly important role. At the same time, this will require a robust framework.

Together with the new ESD, a proposal of the European Commission for the inclusion of GHG emissions and removals from LULUCF into the 2030 climate and energy framework was released. It proposes an accounting framework for LULUCF during the period from 2021 to 2030 with slight changes to the regulations under Decision 529/2013/EU (European Commission 2016). The new framework establishes a “no-debit rule”, according to which no Member State should have net emissions from LULUCF on its territory. The use of flexibilities, including the accumulation of net removals over the ten year period and the transfer of excess removals to other Member States, will be allowed. Together with the no-debit rule, this sets new incentives to increase GHG removals beyond the national commitment.

## Recommendations

Voluntary carbon markets have always played an important role as playing fields, pioneering and improving mechanisms. This can be an important function of voluntary markets also with regard to the post-2020 framework. At the same time, the degree of conducive regulation of the voluntary carbon market is still limited. A number of quality standards and voluntary schemes with different stringency coexist with varying perceptions of the issues related to environmental integrity, robust accounting frameworks and double counting. This regulative uncertainty is also reflected in the volume of voluntary credits internationally: In 2015, only 1.4 percent of the volume in the global carbon markets was attributable to the voluntary market ([Ecosystem Marketplace 2016](#); [Thomson Reuters 2016](#)).

As we work towards more ambitious emission reduction targets, voluntary carbon markets can play a more important role in safeguarding the international pathway to limit global warming to below 2°C. Considering the substantial ambition gap under the Paris Agreement, with analysis indicating that pledges included in the INDCs are merely sufficient for a 3°C path, (UNEP 2015), more efforts are needed from all parts of society. Domestic schemes are particularly suitable as they ensure that targets are met by domestic measures, contributing to a fair global climate regime. However, with increasing coverage of mitigation activities included in international and regional compliance schemes, the scope for voluntary domestic projects is limited. Under current legislations and different regulatory domestic frameworks, virtually all voluntary projects will raise issues of double claiming and double monetisation. In addition, in a world where almost all countries assume binding targets or commit to contribute to the Paris Agreement, as opposed to the framework of the Kyoto Protocol, the voluntary domestic carbon market needs to redefine its role. If we want to promote and support voluntary initiatives for climate protection, national governments need to act soon to establish a credible and robust regulative framework that enables project developers to generate high-quality voluntary offsets that are environmentally sound. The following recommendations can help to address these challenges:

### **No more niches: Regulative framework needs safeguards to avoid double counting**

At present, voluntary carbon schemes can still develop niche approaches within sectors that are not entirely captured in the national inventory for compliance purposes. However, in Annex B countries such niches are restricted to those LULUCF activities not yet voluntarily selected under the Kyoto Protocol. For EU Member States, this gap will close at latest with the new Effort Sharing Decision starting in 2021. Any state aiming at credible and environmentally sound emission reduction should therefore take measures to create space for voluntary projects to be implemented without emission reductions or removals risking to be counted twice.

**Cancellation of AAUs:** Governments may consider the cancellation of AAUs, or the equivalent units in lieu of voluntary carbon credits in a post-2020 world to reliably exclude double claiming and double monetisation and thus incentivizing voluntary engagement. At present, the main perceived barrier to cancelling AAUs is concern of indirectly endorsing emission reductions that might not be environmentally sound. At the same time, reliable and internationally acknowledge quality standards such as the Gold Standard and VCS do not certify emission reductions or removals in Kyoto Protocol Annex B countries unless they permanently cancel AAUs.

To break this cycle, cancellation of AAUs or respective scheme units for voluntary projects credited under a positive list with predefined robust quality standards that fulfil the requirements of standards used in the international compliance market may be worth considering. Besides addressing double counting this would guarantee that reductions or removals from voluntary projects are truly additional to national compliance activities, raising the ambition of the overall target and confirming the integrity of the system.

At least five EU Member States, Denmark, Germany, the Netherlands, Sweden and the United Kingdom, have decided to cancel their surplus AAUs and ERUs that resulted from overachieving the targets of the first Kyoto commitment period by 2020 (Government of Sweden 2015). This would be an ideal opportunity to enable project developers to issue VERs in exchange in order to incentivise private mitigation action without risking to claim or monetise reductions or removals twice.

**Deducting voluntary reductions/removals from national inventories:** Another, yet less straightforward, solution could be discounting the GHG reductions and removals from voluntary projects from the national inventory and not counting them towards the compliance target. While the result would be the same as with AAU cancellation, the implementation could be more challenging. Currently, national inventories do not distinguish between reductions or removals from voluntary and from compliance measures. As a first step, a central registry for voluntary projects would therefore be required. Moreover, the LULUCF sector would be particularly difficult to monitor, as the current accounting rules are not able to record whether a GHG removal was caused by voluntary or by compliance activities. If domestic projects were able to guarantee that emission reductions or removals are not accounted within the national inventory, they could even be eligible for certification under standards such as the Gold Standard – enabling the government to simply use the data from the corresponding GS registry for discounting voluntary emission reductions from the national inventory.

## Assess and endorse existing voluntary carbon standards

While governments of European countries are still reluctant to recommend the use of existing voluntary carbon standards, examples of other countries show that there is an increasing recognition of voluntary standards also in compliance settings. For example, the VCS has recently been recognised by national governments as an offset mechanism for instruments such as the Californian cap-and-trade programme or the South African Carbon Tax Regulation ([VCS 2016](#)). This shows that voluntary standards are increasingly perceived as alternatives to the traditional compliance market standards in terms of rigour and delivering environmentally sound emission reductions. While official government endorsement of voluntary offset mechanisms requires a careful assessment, it could offer the opportunity to build on credible standards and use existing infrastructure instead of creating parallel structures that increase the risk of double counting.

## Closing the ambition gap with voluntary action

What seems to be a contradiction – using voluntary domestic offsets for compliance – may, in fact, be a feasible solution to get on track with an ambitious climate target. In order to close the ambition gap, more incentives are needed to encourage project developers to initiate activities that reduce or remove GHGs. Since much demand for sound emission reductions is likely to come from governments themselves, voluntary domestic schemes can offer alternatives to purchasing international credits. Apart from responding to the high demand for domestic credits on the voluntary market, using credits from DOPs for national compliance can be considered a fair contribution to the global climate target.

A possibility to further stimulate the use of DOP's may also be the creation of a centrally-approved scheme for voluntary domestic projects. Building on good practice in other countries, such a scheme could guarantee project developers the purchase of a fixed volume of credits, similar to the Australian model. At the same time, centrally-endorsed credits could be made available to interested actors via the voluntary carbon market. This would address multiple issues at the same time:

- ▶ **Enhancing investment security:** Guaranteed purchase of a fixed amount of units by the government, given the compliance of activities with pre-defined quality standards, enables project developers to plan ahead.
- ▶ **Encouraging innovative solutions:** As the potential for further emission reductions in capped sectors will decline, innovative private measures are urgently needed to stay on track with ambitious emission reduction targets.
- ▶ **Avoiding double claiming and double monetisation:** Bundling voluntary action under a domestic mechanism makes it easier to keep track of voluntary DOPs in order to take measures that avoid double claiming and double monetisation (e.g. cancellation of AAUs).
- ▶ **Safeguarding the integrity of reductions:** A domestic scheme gives governments full control of the quality requirements and rigor applied to domestic projects, making it easier to endorse the emission reductions or removals.
- ▶ **Addressing the supply problem:** Interest in domestic carbon offsets is high, but there is currently not enough supply. A government-approved domestic offset scheme that guarantees the avoidance of double claiming could level up the volume of domestically-generated carbon credits.
- ▶ **Creating local social, economic and environmental benefits:** Carbon offset projects can deliver multiple benefits above and beyond the carbon reduction, including health benefits, environmental conservation, investment in local economies, transfer of technology, or local infrastructure.