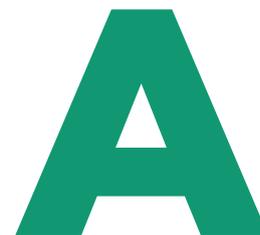


RELEVANT KYOTO PROTOCOL RULES



Australia has joined the second commitment period of the Kyoto Protocol from 2013–20 and will achieve its target in compliance with the Kyoto Protocol rules. This appendix explains these rules. All references to articles and paragraphs refer to the Kyoto Protocol unless otherwise specified.

A.1 KYOTO PROTOCOL COMPLIANCE

To comply with its Kyoto Protocol obligations, at the end of the second commitment period Australia will need to 'retire' enough Kyoto units to match its greenhouse gas emissions over the period 2013–20.

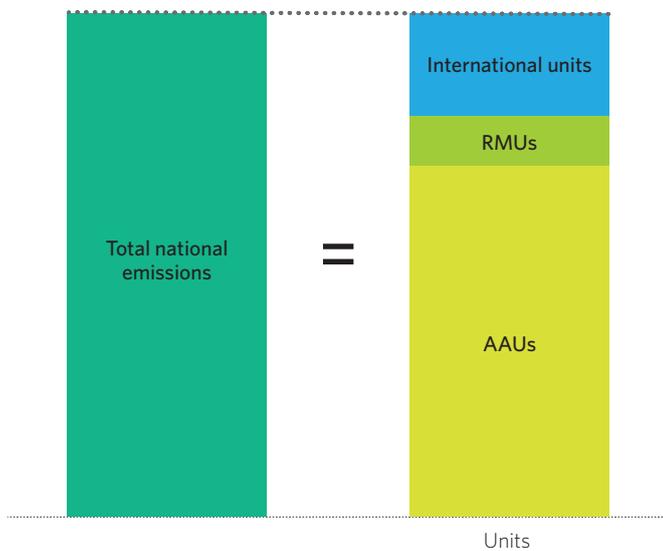
Australia was assigned an initial carbon budget, equal to its Kyoto target, at the start of the commitment period (art. 3, para. 1). Australia is able to create Assigned Amount Units (AAUs) equal to this budget, with each AAU representing one tonne of emissions. After 2020, it can retire these units for compliance.

As well as these AAUs, Kyoto rules allow Australia to use other units for compliance, including:

- **Removal Units** (RMUs)—if Australia achieves removals of emissions (for example, through storing carbon in forests: UNFCCC, Dec 13/CMP.1), it can issue RMUs and use these for compliance (see A.7). Australia can also use RMUs issued by other countries.
- **AAUs** from other countries (art. 17) (see A.4).
- **Certified Emission Reductions** (CERs) issued under the Clean Development Mechanism (art. 12).
- **Emission Reduction Units** (ERUs) issued under the Joint Implementation Mechanism (art. 6).
- **Units issued under a market-based mechanism** established under the UNFCCC (see A.5).

If Australia's domestic emissions exceed its second commitment period target, it can still comply with its obligation by purchasing units. In this case, the additional emissions in Australia are offset by emissions reductions elsewhere. Similarly, if Australia sells units to other countries, it cannot use those units to meet its own target.

All units must be tracked using the Kyoto Protocol's integrated electronic registry system. Countries use this system to issue, transfer, retire (for compliance) and cancel units. Kyoto Protocol compliance is illustrated in Figure A.1.

FIGURE A.1: KYOTO PROTOCOL COMPLIANCE

A.2 TRUE-UP PERIOD

Kyoto rules define what happens after the commitment period ends. First, countries are given time to finalise their emissions inventory reporting. Inventory reports are submitted with a two-year delay and are subject to international review (UNFCCC, Dec 15/CMP.1). Australia submitted its final inventory report for the first commitment period on 15 April 2014.

Once all Parties' final inventory reports have been reviewed, Parties will have a 100-day period ('true-up period') to get things in order and retire the right amount of units for compliance. Countries can continue to trade in this period.

The timing of the true-up period is important because it determines the timing of carryover, which in turn has implications for the availability of units (see A.3). Timing needs to be agreed by Parties to the UNFCCC and has not yet been decided. Most analysts consider the earliest the true-up period could start is mid-2015 and, if Parties do not decide on timing at the Lima meeting in November 2014, it would be delayed to at least 2016.

A.3 CARRYOVER RULES

Under the Kyoto Protocol, Australia can carry over to the second commitment period certain Kyoto units that have not been retired for compliance with the first commitment period. Different units are subject to different carryover restrictions (Dec 13/CMP.1):

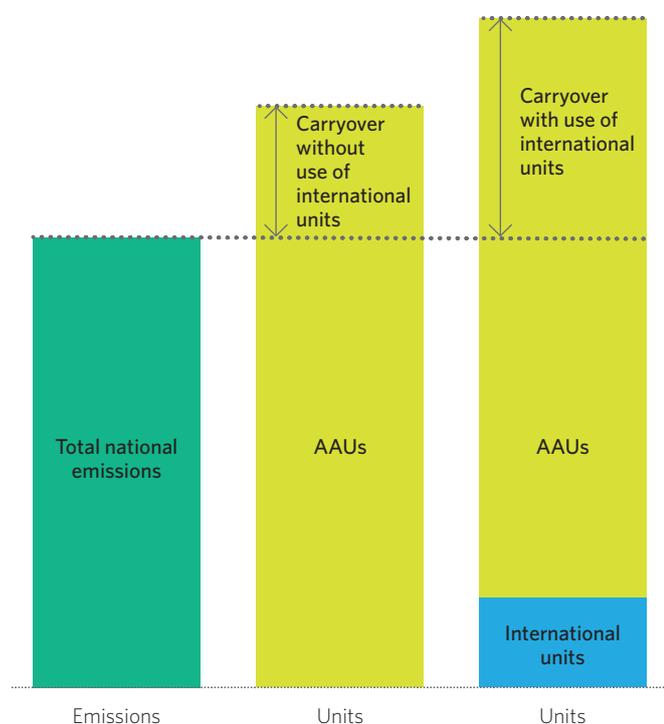
- AAUs (whether Australia's surplus or bought from another country) can be carried over without restriction (see A.4).
- CERs can be carried over up to a maximum of 2.5 per cent of Australia's initial assigned amount for the first commitment period (equivalent to 74 million units)
- ERUs can be carried over up to a maximum of 2.5 per cent of Australia's initial assigned amount (74 million units).
- RMUs, ERUs converted from RMUs and temporary CERs (issued for forestry projects under the CDM) cannot be carried over.

At the end of the true-up period, Australia will submit a report confirming what units it proposes to carry over. This report will be subject to international review.

Carryover, like all other Kyoto Protocol transactions, is recorded in the integrated electronic registry system. The first commitment period units Australia elects to carry over will be converted into second commitment period units. Any first commitment period units that are not carried over are cancelled.

The rules for compliance in the first commitment period, true-up and carryover are a window of opportunity for Australia. Provided that the volume is available, Australia could purchase first commitment period units such as CERs, ERUs or RMUs before the end of true-up and retire them for compliance towards its first commitment period target. This would increase the number of AAUs that Australia could carry over and use towards its second commitment period target (Figure A.2 illustrates). From an environmental perspective, this is robust—provided that all units purchased represent genuine emissions reductions.

FIGURE A.2: COMPLIANCE, TRUE-UP AND CARRYOVER RESTRICTIONS



A.4 USE OF SURPLUS AAUs

Once carried over, there is no restriction on using Australia's own AAUs to meet its 2020 target. Parties have, however, agreed to some trade constraints for surplus AAUs from the first commitment period. This was in response to concerns about the large surplus of AAUs ('hot air') that many countries are expected to have (Chapter 3). The arrangements will also apply to Australia's surplus.

For each country, AAUs that are carried over from the first commitment period will be placed in a special account in the registry called the 'previous period surplus reserve account'. Australia will be able to use these AAUs without restriction towards its second commitment period target (Dec 1/CMP.8 para. 24).

Parties can buy other countries' previous period surplus AAUs in the second commitment period, but only to a limit of 2 per cent of their assigned amount from the first commitment period (Dec 1/CMP.8 para. 26).

When the new rules were agreed in 2012, Australia made a political declaration that it would not purchase surplus AAUs carried over by other countries. Japan, Liechtenstein, Monaco, Norway and Switzerland made similar statements, and these AAUs cannot be used for compliance under the EU's legislation.

The 2012 amendments to the Kyoto Protocol also contained a safeguard to avoid creating new surpluses of AAUs in the second commitment period (new hot air) (art. 3 para. 7 ter). This safeguard forces countries with second commitment period targets weaker than the threshold (their average emissions in 2008-10) to cancel AAUs. In effect, this means their second commitment period target cannot exceed this threshold. This improves the environmental integrity of AAUs in the second commitment period.

A.5 NEW MARKET MECHANISMS

When the second commitment period was agreed in 2012, several amendments to the Kyoto Protocol were also adopted. One allows for countries with a Kyoto Protocol target to use units generated under a market-based mechanism established under the UNFCCC towards meeting their second commitment period targets (art. 3 para. 12 bis-ter). The rules for these new market mechanisms are still under negotiation.

A.6 SHARE OF PROCEEDS

The Kyoto Protocol rules require 2 per cent of CERs generated from each CDM project to be provided to the Adaptation Fund, which sells the units and uses the proceeds to assist vulnerable developing countries' adaptation projects. This 'share of proceeds' occurs at the point of issuance and the cost is reflected in the price of remaining CERs sold on the market.

In the second commitment period, a similar 'share of proceeds' has been agreed for the transfers of other Kyoto Protocol units (Dec. 1/CMP.8 para. 20). This means that if Australia was to buy second commitment period ERUs, RMUs or AAUs, 2 per cent of the units transferred would need to be provided to the Adaptation Fund. This is only required for the first international transfer of the units and not for subsequent transfers.

These rules would need to be taken into account when purchasing units for the second commitment period.

A.7 LAND USE ACCOUNTING

To meet Kyoto Protocol targets, countries must count net emissions from some types of land use activities (including, for the second commitment period, forest management) and can opt to count others (revegetation, cropland management, grazing land management, and wetland drainage and rewetting).

For removals such as those from afforestation, reforestation and forest management, countries issue an RMU. There is a limit on the number of forest management RMUs a country can use toward its second commitment period target (3.5 per cent of 1990 emissions, excluding land use, land use change and forestry, multiplied by eight) (Dec. 2/CMP.7, Annex D para. 13). This limit applies to forest management RMUs issued by Australia, as well as any forest management RMUs acquired from other countries.

There is also a limit on the number of CERs from afforestation and reforestation projects that can be used (1 per cent of 1990 emissions, excluding land use, land use change and forestry, multiplied by eight) (Dec. 2/CMP.7, Annex D para. 19).

ASSESSMENT OF DIFFERENT TYPES OF UNITS

B

This appendix sets out analysis and conclusions about different international units; it complements the discussion in Chapter 3.

| CERTIFIED EMISSION REDUCTIONS (CERs) | | |
|--|--|--|
| CERs are issued under the CDM for emissions reductions that occur in developing countries. | | |
| Principle | Analysis | Conclusion |
| Economic efficiency | The wide coverage of the CDM, across a large number of countries, sectors and gases, allows for low-cost abatement to be sourced. The mechanism has been operating for some time and the market is now well established. There is a large number of CERs available in the market at historically low prices, currently below \$0.50 (see Chapter 4). They represent a cost-effective option to help achieve Australia's target. | Allow (subject to some exceptions discussed below) |
| Environmental effectiveness | The CDM has detailed rules and governance arrangements to ensure emissions reductions are genuine. Over time, the CDM has developed a sophisticated set of methodologies and rules for determining whether reductions are additional and these are constantly refined. Its operation has improved over time, and its Executive Board has made a conscious and consistent effort to identify and address environmental credibility concerns. It now operates with a high level of environmental integrity. Similar governance arrangements and verification processes are employed in Australia's CFI and are proposed for the ERF. | |
| Effective global response | Market mechanisms such as the CDM allow for lowest-cost emissions reductions to be sourced regardless of where in the world they occur. In this way, markets can promote and enable increased global action as individual countries can take on more ambitious targets at lower cost. Using CERs to contribute to Australia's 2020 goals would help maintain market capacity and confidence, and demonstrate the mutual benefits trade can provide to both buying and selling countries. | |
| Foreign policy and trade objectives | CERs are consistent with Australia's foreign policy and trade objectives. They count towards Australia's target under the Kyoto Protocol rules, and their use by Australia would generally be considered credible internationally. | |

FIRST COMMITMENT PERIOD CERs

First commitment period CERs are issued for emissions reductions that occurred before the end of 2012.

| Principle | Analysis | Conclusion |
|-------------------------------------|---|------------|
| Economic efficiency | There is currently a large number of first commitment period CERs available in the market. Their availability and cost will depend on demand from other countries (see Chapter 4). | Allow |
| Environmental effectiveness | First commitment period CERs represent genuine verified emissions reductions. It could be argued that they do not represent 'additional' emissions reductions, as the reductions have already occurred and, if Australia doesn't buy them, they will be cancelled at the end of the true-up. | |
| Effective global response | Restricting the purchase of these first commitment period CERs would likely undermine investor confidence in the CDM, other market-based approaches and other clean investment schemes. This would not be consistent with supporting an effective global response to climate change. | |
| Foreign policy and trade objectives | First commitment period CERs can be used towards Australia's second commitment period target if they have been carried over. There is a limit on carryover equivalent to 74 million CERs for Australia. If Australia wants to purchase more than 74 million first commitment period CERs, it could retire them in place of AAUs against its first commitment period target and increase the number of AAUs that can be carried over (see Appendix A). | |

SECOND COMMITMENT PERIOD CERs

Second commitment period CERs are issued for emissions reductions that occur from 1 January 2013.

| Principle | Analysis | Conclusion |
|-------------------------------------|--|--|
| Economic efficiency | Currently, there is a limited number of second commitment period CERs available in the market at low prices. More are expected to become available over the period to 2020 at prices below \$1.15 (see Chapter 4). | Allow from projects in: |
| Environmental effectiveness | <p>The CDM general rules provide primary assurance of the environmental integrity of CERs. However, in some cases the national goals to reduce emissions in host countries could affect additionality.</p> <p>In the period 2013 to 2020, many developing countries have taken on commitments or actions to reduce their emissions under the UNFCCC. These commitments have many different forms—some are unilateral; others are contingent on financial support (such as the support delivered through mechanisms like the CDM).</p> <p>The rules for how to account for these commitments and how they interact with the Kyoto Protocol mechanisms are subject to ongoing negotiation. To be additional and avoid double-counting, Australia can only use CERs where the same emissions reduction is not counted towards the developing country's unilateral emissions reduction goals.</p> <p>Until there is greater clarity on how second commitment period CERs are to be counted, additional filters on the CERs Australia can purchase may be required to ensure they represent an additional emissions reduction:</p> <ul style="list-style-type: none"> • Where developing countries confirm that they will not count CERs towards meeting their own commitments, the CERs would be additional. • Where developing countries have taken on commitments that encompass only specific sectors or greenhouse gases, CERs from projects in uncovered sectors or gases would be additional. • Least-developed countries may not have commitments or be expected to take action without financial assistance. CERs from projects in these countries would be additional. | <ul style="list-style-type: none"> • countries that confirm the CERs they sell will not be counted towards meeting their own commitments and actions under the UNFCCC • sectors or for gases not covered by the host country's commitment • countries that are not expected to take on commitment without assistance, such as least-developed countries |
| Effective global response | Some countries that are eligible to host CDM projects are not really 'developing' because they have high incomes but do not yet have a commitment under the UNFCCC. The CERs from projects in these countries would, strictly speaking, be additional. Purchasing these units would not, however, be consistent with Australia's foreign policy objectives or an effective global response, as these countries can reasonably be expected to take on commitments. | |
| Foreign policy and trade objectives | Second commitment period CERs can be used towards Australia's target under the Kyoto Protocol and would be considered credible internationally. | |

TEMPORARY CERs (FIRST AND SECOND COMMITMENT PERIOD)

Forestry projects are credited with temporary CERs (called tCERs and ICERs) that have a limited life.

| Principle | Analysis | Conclusion |
|-------------------------------------|---|--------------|
| Economic efficiency | <p>There are very few forestry CERs available on the market.</p> <p>The purchasing country (not the forestry host country) would need to replace the units when they expire or if there is a reversal of the carbon storage (for example, if the forest was destroyed). This buyer liability model creates extra risks for Australia. It also makes administering either a government purchase program or domestic policy more complicated, as the requirement to replace the CER would need to be tracked.</p> | Do not allow |
| Environmental effectiveness | Temporary CERs are environmentally credible because, like other CERs, they are only issued for verified abatement from approved forest projects. | |
| Effective global response | There is widespread acceptance of the role that land sector abatement will need to play in a carbon-constrained world. Under the CDM, this abatement is facilitated through the issue of temporary CERs. | |
| Foreign policy and trade objectives | Temporary CERs can be used towards Australia's target under the Kyoto Protocol and would be considered credible by some countries. First commitment period temporary CERs cannot be carried over. If Australia uses second commitment period temporary CERs, they would need to be replaced consistent with the Kyoto Protocol rules. | |

LARGE-SCALE HYDRO-ELECTRIC GENERATION PROJECTS (FIRST AND SECOND COMMITMENT PERIOD)

| Principle | Analysis | Conclusion |
|-------------------------------------|---|--|
| Economic efficiency | There is significant potential supply from large hydro-electric generation projects, which are likely to be low cost. | Do not allow unless the project meets criteria established by the World Commission on Dams |
| Environmental effectiveness | Large-scale hydro-electric generation projects can significantly reduce emissions compared to fossil-fuel generation. They can also displace local communities, and lead to loss of agricultural land and a decline in biodiversity. The World Commission on Dams has established a set of criteria for the development of these projects that is widely accepted as good practice. Most large hydro-electric CDM projects meet these criteria. | |
| Effective global response | Hydro-electric generation has a role in an effective global response to climate change. | |
| Foreign policy and trade objectives | The EU only accepts CERs from hydro-electric projects that meet the criteria. If Australia was to purchase CERs from hydro-electric CDM projects without similar restrictions, it could be criticised internationally. | |

INDUSTRIAL GAS DESTRUCTION PROJECTS (FIRST AND SECOND COMMITMENT PERIOD)

 A large number of CERs issued to date have come from projects that destroy industrial gases—trifluoromethane (HFC-23) and nitrous oxide (N₂O) from adipic acid production—that would have otherwise been released into the atmosphere.

| Principle | Analysis | Conclusion |
|-------------------------------------|---|--------------|
| Economic efficiency | <p>The cost of reducing HFC-23 and N₂O emissions is very low. Some controversy around these projects relates to the large profit that projects received in the past, given the low cost of the emissions reductions compared to the CER price received at the time. European entities in particular transferred significant wealth to projects in developing countries.</p> <p>Europe and other developed countries fund the phase-out of HCFC 22 under the Montreal Protocol. This, in turn, reduces the associated HFC-23. Some argue that an additional incentive from the CDM is therefore not required.</p> <p>There is also some concern that the high rates of return for CDM projects has shifted production of adipic acid offshore to developing countries because the treatment under the CDM is much more favourable than in Europe.</p> | Do not allow |
| Environmental effectiveness | <p>These projects achieved real emissions reductions but there are widespread credibility concerns. The EU, for example, has restricted the use of CERs from these projects.</p> <p>Initially concerns were raised with projects that destroy HFC-23 (which is a by-product of HCFC-22, controlled under the Montreal Protocol established to protect the ozone layer). Later, similar concerns were raised with projects that destroy N₂O from adipic acid production.</p> <p>Concerns centre on the perverse incentive to produce more HCFC-22 just to get the CERs from destroying the HFC23. The methodology has been amended to largely address these concerns.</p> | |
| Effective global response | These gases have high global warming potential and so an effective global response would provide incentives for these emissions to be reduced. Some consider that developing countries should act to reduce these emissions without the incentive from the CDM because the cost of the reduction is so low. | |
| Foreign policy and trade objectives | While emissions reductions from these projects are real, they are widely perceived as not credible. If Australia was to purchase these, it could be criticised internationally and domestically, and may also increase scepticism about international units. | |

NEW COAL-FIRED ELECTRICITY PROJECTS (FIRST AND SECOND COMMITMENT PERIOD)

The CDM credits new coal-fired electricity generators if it can be demonstrated that the generator is less emissions-intensive than the fossil-fuel plant that would have been built instead. This project type does not incorporate fossil-fuel electricity generators that deploy carbon capture and storage (CCS).

| Principle | Analysis | Conclusion |
|-------------------------------------|---|---|
| Economic efficiency | These units make up only a very small proportion of the total potential supply. Currently, six projects of this type have been registered (approved)—five in India and one in China. To date, 606,306 CERs have been issued from these projects. There are an additional 55 projects in the pipeline but many are unlikely to be eligible under the most recent methodology. These CERs are unlikely to be available at a lower cost than other CERs. | Under a government purchase program, place a low priority on buying units |
| Environmental effectiveness | There have been concerns with the methodology for these projects—some argue the financial and common practice tests used to demonstrate additionality are not sufficient, and default factors used in setting the baseline might over-credit some projects (Lazarus and Chandler 2011). The methodology has been reviewed by the CDM Executive Board several times. The latest version has more stringent additionality tests and baselines than previous versions. Many other CDM projects use similar additionality tests and approaches to setting baselines. | |
| Effective global response | By locking in new emissions-intensive infrastructure, these projects reduce the chance of keeping global average warming to below 2 degrees. Many countries, as well as international financial institutions such as the World Bank, have recently announced they will avoid funding new coal power plants in developing countries for similar reasons. The premise of the CDM methodology is that a long-lived fossil-fuel power plant is going to be built in any event but, with support from the CDM, a less emissions-intensive plant can be built instead. The CDM does not assess any projects on the basis of whether the investment is consistent with a less-than-2-degrees-future; rather, it assesses if emissions will be lower than they otherwise would be. | |
| Foreign policy and trade objectives | It is possible that those countries hosting projects would criticise the restriction, potentially reducing Australia's influence. Australia is also an exporter of coal and does not prohibit fossil-fuel generation domestically. In practice, the low number of units from this source means that they could not make a large contribution to any purchasing strategy in Australia. | |

INVESTING IN EXISTING OR ONLY NEW PROJECTS

There is a large potential supply of CERs in the period to 2020 from projects that are already registered (approved). This potential supply is much larger than expected demand over the same period. Without additional demand, it is unlikely that many new projects would be developed.

| Principle | Analysis | Conclusion |
|-------------------------------------|---|---|
| Economic efficiency | Excluding CERs from existing projects would significantly reduce the potential supply and likely increase the price. There are very few new projects currently requesting registration. This mostly reflects a lack of demand. If Australia demanded units from new projects, then project developers would likely respond. New projects are likely to require a price higher than some existing projects to come to market (see Chapter 4). | Allow from both existing and new projects |
| Environmental effectiveness | Some of the existing projects, but not all, will continue without an on-going incentive from the CDM. It could be argued that it would be more environmentally effective to purchase CERs from new projects only, or to only purchase CERs from projects that will continue without an on-going incentive. | |
| Effective global response | Investors undertook existing projects with the reasonable expectation of market demand for their verified emissions reductions. Reassessing whether the project needs an on-going incentive after the investment has already been made would weaken market confidence, with investors less likely to invest again (or requiring a higher rate of return on new investments). This would not be consistent with an effective global response to climate change, which requires substantial investment. | |
| Foreign policy and trade objectives | Kyoto Protocol rules allow for Australia to use CERs from both existing and new projects. It is unlikely that Australia would be criticised for using CERs from existing projects. | |

PRIORITISING PROJECTS TO ACHIEVE BROADER FOREIGN, TRADE OR DEVELOPMENT OBJECTIVES (FIRST AND SECOND COMMITMENT PERIOD)

Units from projects that enhance Australia's trade, foreign policy and development objectives could be prioritised.

| Principle | Analysis | Conclusion |
|-------------------------------------|--|--|
| Economic efficiency | If Australia only allows units from projects that also enhance its broader foreign, trade or development objectives, it could reduce supply and increase costs. If the broader policy objectives can be achieved through the carbon market in a cost-effective way, targets purchasing rules could be a good way to meet Australia's mitigation and other objectives at the same time. If, however, there are other, cheaper, options, it would be more economically efficient to have more open purchasing rules. | Under a government purchase program, prioritise units from projects that enhance Australia's broader foreign, trade and development policy objectives where they can be sourced at a cost similar to other units |
| Environmental effectiveness | No specific concerns; could prioritise projects that deliver multiple environmental benefits. | |
| Effective global response | An effective global response from climate change is more likely to be achieved if cooperation to address climate change can also enhance other objectives. | |
| Foreign policy and trade objectives | Purchasing units from projects in specific countries could enhance Australia's broader trade, foreign policy and development objectives. For example, Australia could allow units from projects located in neighbouring countries that are a particular focus of its development agenda; that use technology, inputs or skills exported from Australia; or that are owned by Australian developers. | |

ASSIGNED AMOUNT UNITS (AAUs)

AAUs are the primary compliance unit under the Kyoto Protocol. Trade in AAUs could also allow Australia to use units generated in domestic markets of other Kyoto Protocol countries, where those domestic units are backed by an AAU.

| Principle | Analysis | Conclusion |
|-------------------------------------|--|---|
| Economic efficiency | There is a large volume of first commitment period AAUs that will not be used for compliance and can be carried over for use in the second commitment period. There may also be some second commitment period AAUs available in the period to 2020. It is unlikely that AAUs would be available at prices below other units. | Do not allow first commitment period AAUs Allow second commitment period AAUs if satisfied with the stringency of the country's target |
| Environmental effectiveness | <p>There are environmental credibility concerns associated with the large volume of surplus AAUs, particularly from countries with economies in transition whose first commitment period targets were significantly above their business-as-usual emissions (referred to as 'hot air'). Purchasing these units would not necessarily lead to an additional emissions reduction in the other country.</p> <p>It is not yet clear if the same credibility concerns will arise with the second commitment period AAUs.</p> <p>In the past, some countries have addressed the credibility concerns associated with AAU trades by funding green investment. Some of these schemes are similar to Australia's Emissions Reduction Fund, but instead of investing in domestic projects the schemes invested in projects located in other countries (Tuerk et al. 2013). Similar investment schemes could emerge for the second commitment period and provide a credible way for Australia to source AAUs.</p> <p>Where trade in AAUs is linked to a credible domestic market in another country, it would be environmentally credible. For example, EUAs are very credible, with the EU ETS having a binding cap and robust monitoring and verification procedures.</p> | |
| Effective global response | Trade in AAUs could help support an effective global response to climate change. Trade in emissions reductions between countries that have economy-wide emissions budgets will be an important element of the post-2020 framework, because it allows countries flexibility to cooperate and find the lowest-cost emissions reductions. Trade in AAUs is how this same flexibility can be achieved under the Kyoto Protocol. | |
| Foreign policy and trade objectives | First commitment period AAUs count towards Australia's target under the Kyoto Protocol rules; however, use by Australia would generally not be considered credible internationally. Australia has made a political declaration that it would not use other countries' surplus AAUs from the first commitment period towards meeting its second commitment period target (see Appendix A). | |

REMOVAL UNITS (RMUs)

RMUs are issued by countries with a Kyoto Protocol target for each tonne of CO₂ that is removed from the atmosphere. RMUs can also be traded to other countries.

| Principle | Analysis | Conclusion |
|-------------------------------------|--|------------|
| Economic efficiency | There are not many RMUs available on the market, but some could become available. They could be economically efficient if they are available for prices similar to other low-cost units. | Allow |
| Environmental effectiveness | RMUs are environmentally effective. Some concerns have been raised about the robustness of land sector accounting and the permanence of sequestration. The measurement and reporting of land sector emissions, however, is part of the Kyoto Protocol compliance process. The lack of permanence is dealt with in subsequent periods, with emissions counted in the selling country's emissions inventory. | |
| Effective global response | There is widespread acceptance of the role the land sector will play in a carbon-constrained world. Trade can facilitate this abatement, and trade in RMUs is how this is achieved under the Kyoto Protocol. | |
| Foreign policy and trade objectives | RMUs count towards Australia's target under the Kyoto Protocol rules and their use by Australia would generally be considered credible internationally despite them being excluded from the EU ETS. However, first commitment period RMUs cannot be carried over, so if Australia wanted to use them it would need to purchase them before the end of the true-up period and use them for compliance in the first commitment period (Appendix A). In the second commitment period, Australia would need to stay within the limit on the use of RMUs from forest management activities. | |

EMISSION REDUCTION UNITS (ERUs)

ERUs are issued under the Joint Implementation (JI) mechanism. JI allows a country with a Kyoto Protocol target (or an entity it approves) to implement an emissions reduction project in another country that also has a target, and to trade the resulting ERUs for use towards its target.

| Principle | Analysis | Conclusion |
|-------------------------------------|--|---|
| Economic efficiency | From an economic perspective, there is a number of first commitment period ERUs available in the market. These units trade at similar prices to CERs. Rules for JI in the second commitment period are still under negotiation. | Allow first commitment period ERUs and second commitment period ERUs when they are available, with the following exceptions: |
| Environmental effectiveness | <p>In the first commitment period JI operated with two tracks. Track I allows the host country to verify emissions reductions itself using its own procedures. Under Track II, emissions reductions are verified under the supervision of an international body called the Joint Implementation Supervisory Committee (JISC). The ultimate decision about whether to issue the ERU is made by the host country.</p> <p>As with AAUs, there could be some environmental credibility concerns with Track I ERUs because those countries with a large surplus of AAUs could declare a project has reduced emissions, without any real additional emissions reduction. JI projects approved under Track II have not faced the same credibility concerns because their verification is subject to international oversight.</p> <p>Most countries who have participated in the JI have developed processes and programs that provide a degree of environmental integrity. Some use methodologies and procedures that are similar to those under Track II. Green investment schemes have also been used to develop and fund JI projects of high quality.</p> <p>The Parties have agreed to review the operation of the JI for the second commitment period with the intention to streamline the mechanism to operate under a single track, align accreditation of auditors with arrangements under the CDM, and specify mandatory requirements for assessing additionality and approving baselines of projects. The final arrangements for the JI in the second commitment period as well as transitional arrangements are subject to ongoing negotiation.</p> <p>As with the CDM, there are some particular types of JI projects that may not be credible sources of units. The same assessment would apply to large hydro-electricity, industrial gas destruction and new coal-fired power plants, and investment in existing projects. Forestry and other land-based JI projects would be acceptable as the resulting ERU is not temporary (unlike forestry CERs).</p> | <ul style="list-style-type: none"> ERUs from large hydro-electric projects, unless they meet the criteria established by the World Commission on Dams ERUs from projects that destroy HFC-23 and N₂O from adipic acid production <p>Under a government purchase program, a low priority should be placed on ERUs from new fossil-fuel projects</p> |
| Effective global response | JI facilitates cooperative action between two countries that have mitigation commitments. Market mechanisms of this type will be an important element of an effective global response to climate change. Supporting the JI by using ERUs in the period to 2020 can help to maintain existing market capacity that will remain valuable post-2020. | |
| Foreign policy and trade objectives | ERUs count towards Australia's target under the Kyoto Protocol rules and use by Australia would generally be considered credible internationally. Australia can only carry over 74 million ERUs. If it purchases more first commitment period ERUs it could use them towards its first commitment period target. | |

SUMMARY OF OTHER COUNTRIES' RESTRICTIONS AND PREFERENCES



This appendix provides background information on purchasing programs for international units from around the world. These encompass a range of schemes that permit international unit purchases, government purchase programs and carbon funds operated by multilateral agencies.

| COUNTRY/FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|--|--|---|---|
| European Union Emissions Trading Scheme (EU ETS)—multilateral scheme | <p>The EU ETS is the largest emissions trading scheme in the world and has been operating since 2005. Its objective is to reduce the emissions from EU member states by setting an absolute limit on emissions. This 'cap' covers around 50 per cent of EU-wide emissions—about 11,000 factories, power stations and other installations with a net heat excess of 20 MW in all 28 EU member states plus Iceland, Norway and Liechtenstein.</p> <p>The EU ETS allows liable operators to use a limited number of eligible flexibility mechanisms to meet their compliance obligations. (CERs from the CDM and ERUs from JI).</p> <p>Operators used 1.058 billion international credits in the period 2005 to 2012, with about 500 million more expected to be used for the period 2013–20.</p> | <p>The EU ETS Directive is set in legislation agreed by the European Parliament. The majority of rules guiding the operation of the EU ETS are set out in Directives that are agreed by the European Parliament and the European Union Member States.</p> <p>The European Commission administers the scheme, including operational matters such as proposing registry rules, issuing allowances and other provisions.</p> | <p>The EU ETS imposed several qualitative restrictions on international units used for compliance. In previous phases of the EU ETS, the following project types were:</p> <ul style="list-style-type: none"> • nuclear • agriculture and land use, land use change and forestry • hydropower generation where generation capacity exceeds 20 MW and is not consistent with the World Commission on Dams • RMU units, temporary CERs (tCER) or long-term CERs (ICER). <p>From 2013, additional restrictions were placed on projects involving:</p> <ul style="list-style-type: none"> • Trifluoromethane (HFC-23) • Nitrous oxide (N₂O) emissions from adipic acid production. <p>There are additional restrictions in the third phase of the EU ETS (from 2013 to 2020)—the only units allowed are:</p> <ul style="list-style-type: none"> • existing CDM projects that were eligible in the previous phase, and were registered by 31 December 2012 • new CDM projects that are undertaken in least developed countries (LDCs) or small island developing states, and were registered after 31 December 2012 • Track II JI projects from countries with an emissions reduction target under the second commitment period of the Kyoto Protocol. |

Sources: Kollmuss, A et al, 2010; European Commission 2014; European Environment Agency 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
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| European Union Effort Sharing Decision—multilateral scheme | <p>The Effort Sharing Decision establishes binding annual greenhouse gas emission targets for EU member states for the period 2013–20. It covers most sectors not included in the EU ETS, including transport (except aviation and international maritime shipping), buildings, agriculture and waste. The Effort Sharing Decision allows governments to use CDM and JI units for compliance, to an annual limit up to 3 per cent of their annual emissions in 2005.</p> <p>The Effort Sharing Decision allows certain member states to use an additional 1 per cent of credits from LDCs or Small Island Developing States. The member states concerned are Austria, Finland, Denmark, Italy, Spain, Belgium, Luxembourg, Portugal, Ireland, Slovenia, Cyprus and Sweden.</p> <p>Total emissions for the EU 27 in 2005 were 5,177 Mt CO₂-e. This means EU governments can access approximately 153 Mt CO₂-e of CDM and JI units annually for compliance with the EU Effort Share.</p> | <p>Directives for the Effort Sharing Decision are agreed by the parliament and administered by the European Commission. The Commission proposes rules, undertakes reviews and provides a range of operational support but allows member states ultimate flexibility to determine how they achieve their target.</p> <p>Member states meet their own targets by reducing emissions in the covered sectors and/or by using Kyoto offset units up to their allowable limit.</p> | <p>EU member states can use any CER or ERU that is eligible under the EU ETS. In addition, tCERs and ICERs from afforestation and reforestation projects can be used by member states provided they are replaced with eligible Kyoto units prior to expiry.</p> <p>Where member states opt to purchase units for compliance, they are encouraged to purchase CERs from projects in LDCs and small island developing states.</p> |

Sources: European Commission 2014; European Environment Agency 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
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| Carbon Fund for Europe (CFE)—multilateral fund | <p>The CFE is a trust fund designed to help some EU countries and private firms meet their commitments under the Kyoto Protocol and the EU ETS. The CFE was launched in March 2007 once the target funding of €50 million was reached from participants.</p> <p>The CFE is funded by governments and the private sector. Contributor governments include Portugal, Ireland, Luxembourg and the Flemish Region of Belgium.</p> <p>The CFE purchases emissions reduction units from the CDM and JI from either the World Bank's existing portfolio of projects, or standalone CDM or JI projects. Units were sourced from projects in the primary market.</p> <p>The CFE has signed eight Emissions Reduction Purchase Agreements to a total amount of 3.2 Mt CO₂-e.</p> <p>The fund is closed to new entrants.</p> | <p>The CFE was established and administered by the World Bank, in cooperation with the European Investment Bank (EIB).</p> <p>Participants devolve all administrative and operational control to the World Bank, which undertakes all project assessment, purchasing, contractual and other arrangements. The credits generated by CFE-funded projects are then apportioned to fund participants.</p> | <p>EU ETS-compatible emissions reduction units were purchased from CDM and JI projects.</p> <p>The fund focuses on projects that cover:</p> <ul style="list-style-type: none"> • renewable energy • energy efficiency • methane recovery • recovery of natural gas. |

Sources: Kollmuss, A et al. 2010; UNCCD 2014; World Bank 2010, 2010b, 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|---|---|---|---|
| Prototype Carbon Fund (PCF)— multilateral fund | <p>The PCF was the pioneering carbon fund established and managed by the World Bank and became operational in 2000.</p> <p>Its mission is to pioneer the market for project-based greenhouse gas emissions reductions while promoting sustainable development and offering a learning-by-doing opportunity to its stakeholders.</p> <p>The PCF piloted the production of emission reductions within the framework of JI and the CDM prior to their ratification under the UNFCCC.</p> <p>Participants included Japan, Canada, Netherlands, Norway, Sweden, Finland and a number of private sector entities.</p> <p>The PCF had a total capital of about US\$220 million, and signed emissions reduction purchase agreements for over 28 Mt CO₂-e in emissions reductions from 24 projects.</p> | <p>The PCF operates as a trust fund established and administered by the World Bank.</p> <p>Participants devolve administrative and operational control to the World Bank, who undertakes all project assessment, purchasing, contractual and other arrangements. Any CDM or JI credits generated by PCF-funded projects are apportioned to fund participants.</p> | <p>The PCF invested in a range of projects prior to the CDM and JI frameworks being ratified by the UNFCCC. The fund was operational when these were ratified and many existing PCF projects transitioned to CDM and JI projects.</p> <p>Most of the portfolio's geographic distribution was in the East-Asia and Pacific region (65 per cent), followed by Latin America and the Caribbean, Europe and Central Asia, and Africa.</p> <p>The PCF portfolio was heavily concentrated in projects promoting mitigation of industrial GHG emissions, renewable energy technology, afforestation/reforestation and energy efficiency.</p> |

Sources: Kollmuss, A et al. 2010; UNCCD 2014; World Bank 2010, 2010b, 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
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| BioCarbon Fund (BioCF)— multilateral fund | <p>The BioCF was established in 2004 as a way to channel investment into projects that reduce greenhouse gas emissions from the land sector, from deforestation and forest degradation in developing countries, and from sustainable agriculture, as well as smarter land-use planning, policies and practices.</p> <p>The BioCF is a multilateral fund, supported by governments and private firms, and is managed by the World Bank.</p> <p>It was the first global carbon fund to focus on land use and has pioneered new methodologies for afforestation/reforestation in the CDM as well as voluntary standards.</p> <p>The BioCF is a public-private sector initiative.</p> <p>There have been three tranches of projects since inception. The BioCF Tranche 1 and Tranche 2 (T1/T2) focus mainly on afforestation and reforestation activities in the primary market projects.</p> <p>T1 started operations in 2004 and had funding of about US\$54 million; T2 began in 2007 with funding of about US\$30 million. These tranches financed 20 land-use change, REDD+ and agriculture projects. The participants in T1 and T2 included Canada, Italy, Luxembourg, Spain and Ireland, and private sector entities. It is closed to new fund participation.</p> <p>Tranche 3 (T3) is known as the Initiative for Sustainable Forest Landscapes. Beginning in 2013, it has total funding of US\$311 million. Current participants include Norway, the US and the UK, and it is open to new participants.</p> | <p>The BioCF operates as a trust fund established and administered by the World Bank.</p> <p>Participants devolve administrative and operational control to the World Bank, who undertakes all project assessment, purchasing, contractual and other arrangements. Any credits generated by BioCF-funded projects are then apportioned to fund participants.</p> | <p>While the LULUCF sector is not currently eligible to generate emission reductions under the CDM, some Afforestation and Reforestation projects are.</p> <p>Most of the BioCF resources under T1 and T2 (about 80 per cent) have been earmarked to Afforestation and Reforestation projects under the CDM. There are also agricultural and REDD+ projects in the T1/T2 portfolios.</p> <p>T3 projects are selected according to a jurisdictional landscape approach (where the trade-offs and synergies between different competing land uses in a jurisdiction are identified and integrated solutions can be offered. Currently, there is expected to be a portfolio of about four jurisdictional programs with country and regional diversity.</p> |

Sources: BioCarbon Fund 2014; Kollmuss, A et al. 2010; UNCCD 2014; World Bank 2010, 2010b, 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|------------------------------------|--|---|--|
| Spanish Carbon Fund—sovereign fund | <p>The Spanish Carbon Fund was created in 2004 in an agreement between the Spanish Government and the World Bank.</p> <p>This fund was established to purchase greenhouse gas emission reductions from projects developed under the Kyoto Protocol to mitigate climate change while promoting the use of cleaner technologies and sustainable development through the CDM and JI.</p> <p>The fund, which started operations using financial resources provided by the Spanish Government, is also open to participation by Spanish private entities.</p> <p>The fund has invested in projects in two tranches since inception. Tranche 1 (T1) commenced in 2005 and tranche 2 (T2) in 2008. The fund has a total capital of about US\$280 million to purchase a minimum of 34 Mt CO₂-e.</p> | <p>The Spanish Carbon Fund was formed by the Spanish Government, together with representatives of the Spanish industry linked to the energy sector, and the World Bank.</p> <p>The World Bank operates and administers the fund in trust for the Spanish public and private sector participants.</p> <p>Participants devolve administrative and operational control to the World Bank, who undertakes all project assessment, purchasing, contractual and other arrangements. Any Kyoto credits generated by the fund projects were then apportioned to participants.</p> | <p>The Spanish Carbon Fund purchased a range of units in its two tranches, including CERs, ERUs, AAUs and EUAs.</p> <p>The fund had purchased units from projects including industrial energy efficiency, fugitive emissions, energy distribution, transport, hydropower, HFC23 destruction, landfill gas, wind and methane avoidance.</p> <p>It includes projects from many regions, including Latin America, North Africa, East Asia, South Asia, Eastern Europe and the Russian Federation.</p> |

Sources: Kollmuss, A et al. 2010; UNCCD 2014; World Bank 2010, 2010b, 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
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| Asia Pacific Carbon Fund (APCF)—multilateral fund | <p>The APCF was established and managed by the Asian Development Bank (ADB) in 2007. The APCF invested in CDM mitigation projects in the ADB's developing country members. It also assisted participants to comply with their emissions reduction commitments.</p> <p>It achieved this by providing up-front finance for eligible CDM projects in exchange for a portion (between 25 and 50 per cent) of the expected future CERs.</p> <p>The fund received a total of US\$152 million from seven governments—Belgium (on behalf of the Flemish Region), Finland, Luxembourg, Portugal, Spain, Sweden and Switzerland.</p> <p>The fund provided project developers with marketing, project development, validation and registration, project implementation and monitoring, and broader capacity development.</p> <p>The fund purchased CERs up to 2012. It will not continue into the second Kyoto commitment period.</p> | <p>Participants devolved all administrative and operational control to the ADB, who undertook all project assessment, purchasing, contractual and other arrangements. The credits generated by APCF-funded projects were then apportioned to participant countries.</p> <p>The APCF maintained a roster of technical experts in a Technical Support Facility to assist developers produce high-quality projects and reduce the risk of non-delivery.</p> | <p>The fund invested only in CDM projects. Projects prioritised by the fund included energy efficiency, renewable energy, and methane capture and utilisation projects. CERs from these projects were required to generate permanent not temporary reductions.</p> |

Sources: ADB 2014; UNCCD 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
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| Austrian JI/CDM Programme— sovereign fund | <p>The Austrian JI/CDM Programme was established in 2003 to purchase Kyoto units to meet its emission targets under the first Kyoto commitment period. Currently, there are no plans to extend the fund to purchase units for the second commitment period.</p> <p>The programme had a maximum funding of US\$579 million.</p> <p>The overall target of the programme was to purchase a maximum 80 Mt CO₂-e of emissions reductions.</p> <p>Currently, the portfolio consists of 76 projects in more than 29 countries.</p> | <p>The programme was established under legislation with the Minister for the Environment the responsible authority. The minister was supported by an advisory board made up of representatives from relevant ministries and key Austrian stakeholder groups.</p> <p>Management of the programme was devolved entirely to a private company, Kommunalkredit Public Consulting GmbH. The company has specific competencies, experience in environmental protection and financial expertise. The management team comprises technical, commercial and legal experts who:</p> <ul style="list-style-type: none"> • carry out all purchases of units • control and actively manage the performance risk of the portfolio. | <p>The programme purchased units from the CDM and JI, as well as from Green Investment Schemes (GIS-based AAUs).</p> <p>The priority areas included:</p> <ul style="list-style-type: none"> • renewable energy • energy efficiency • recovery of landfill gases. <p>The programme did not purchase from any industrial gas (HFC-23) or large hydro-electric projects not covered by the World Commission on Dams report.</p> <p>All host countries for the CDM and JI are eligible.</p> <p>The programme has also established an independent initiative called CDM in Africa, in order to develop projects in sub-Saharan Africa.</p> |

Sources: Kommunal Kredit 2014; UNCCD 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|--|--|---|--|
| French Global Environment Facility (FGEF)— sovereign fund | <p>The FGEF was created by the French Government in 1994. Its remit is broad, ranging from developmental objectives to financing mitigation action via the CDM, JI and REDD+ projects.</p> <p>The facility invested approximately €65 million between 2003 and 2009 in 51 projects across 20 countries.</p> <p>The facility directly finances new projects in primary markets. It also co-finances with other parties including multilateral banks and private institutions.</p> <p>The FGEF is involved in French foreign aid, as a part of French Official Development Assistance.</p> | <p>The FGEF operates through three interacting bodies.</p> <p>An inter-ministerial Steering Committee, which is made up of five government departments and is chaired by the French Treasury, makes decisions on</p> <ul style="list-style-type: none"> • general policy • timeliness of projects • financial commitments. <p>The Scientific and Technical Committee, a consultative body comprising about 10 experts:</p> <ul style="list-style-type: none"> • makes recommendations and observations on projects • conducts and leads work dealing with the scientific, technical and socioeconomic issues • participates in capacity-building for stakeholders. <p>The Secretariat comprises about 10 permanent staff members and performs the following functions:</p> <ul style="list-style-type: none"> • project appraisals and follow-ups • preparation and implementation of decisions made by the Steering Committee • sectoral relations with institutional, scientific, economic and associate partners, bilateral and multilateral donors and other stakeholders. | <p>The FGEF supports mitigation through:</p> <ul style="list-style-type: none"> • financing projects via UNFCCC schemes including the CDM, JI and REDD+ • providing lines of credit or guarantees • providing specialised investment funds for energy efficiency and renewables. <p>The FGEF encourages projects for climate change mitigation projects that reduce or curb the use of fossil fuels and greenhouse gas emissions by promoting:</p> <ul style="list-style-type: none"> • uses of renewable and low-emissions energy • biomass-to-energy systems • energy-efficient production systems • improved energy efficiency in housing, transport, industry and agriculture • carbon storage in forests, soils and subsoils. <p>The FGEF co-finances projects across Latin America, Africa and Asia.</p> |

Sources: FGEF 2014, 2014b; UNCCD 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|---------------------------|---|--|---|
| Norway— sovereign fund | <p>The Norwegian Government has been active in the market since 2000, prior to the CDM and JI rules being ratified. In the first phase Norway participated through multilateral funds, and as from 2007 as a direct market participant.</p> <p>As from 2007 the purpose of the Norwegian Procurement Program was to exceed Norway's commitment in the first Kyoto Period (2008-2012) by 10 per cent</p> <p>Norway's purchase program is not linked to the EU ETS but Norway is a participant in the EU ETS. In the second phase of EU ETS (2008-2012) Norway exchanges a certain number of AAU for EUAs, and EUAs surrendered by the installations regulated by the EU ETS are used in the Norway's Kyoto accounts. In the third phase of EU ETS this arrangement is yet to be negotiated between the EU and Norway.</p> <p>The Norwegians have engaged carbon markets in a variety of ways including:</p> <ul style="list-style-type: none"> • direct purchasing through brokers and tenders • contributing to multilateral carbon funds such as the Prototype Carbon Fund and Nordic Environment Finance Corporation (NEFCO) • purchasing via the NEFCO Norwegian Carbon Procurement Facility. <p>Norway is likely to require 120 Mt CO₂-e of emissions reductions for the second commitment period, and is looking to purchase this via tender and NEFCO funds. This includes the 'NEFCO Norwegian Carbon Procurement Facility', which is seeking about 30 Mt CO₂-e of emissions reduction units.</p> <p>The Norwegians have been pioneers in the carbon market and participated in innovative multilateral funds such as the Prototype Carbon Fund, which invested in projects before the CDM was established. This pioneering approach continues via its participation in the BioCarbon Fund, which invests in schemes such as REDD+ under the new market mechanisms.</p> | <p>The Norwegian purchase program has involved many governance arrangements and administrative structures over the years.</p> <p>These have included self-managed funds, partially outsourced projects and fully outsourced initiatives, including the projects managed by the World Bank.</p> <p>Currently, the Norwegian program is run internally by a small number of staff. Most of the core procurement and legal services are outsourced.</p> | <p>Historically, Norway has accepted all types of units for purchase in order to meet its Kyoto targets including CERs, EUAs and AAUs.</p> <p>However, for the second commitment period, Norway unilaterally decided to implement the same quantitative limitations on its purchase program as applied in the ETSs, including:</p> <ul style="list-style-type: none"> • HFC projects • N₂O credits from adipic acid production • some large hydro-electric projects over 20MW. <p>Norway excludes coal projects that do not involve Carbon Capture and Storage technologies.</p> <p>For the second commitment period, Norway will restrict unit purchases to those projects that are:</p> <ul style="list-style-type: none"> • at risk of discontinuing their operations due to lack of financial support • newly developed. <p>Norway may consider further investment in new market mechanisms via multilateral funds including the Carbon Partnership Facility.</p> |

Sources: BioCarbon Fund 2014; NEFCO 2014; World Bank 2010, 2010b, 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|----------------------------|--|--|---|
| Belgium— sovereign fund | <p>Under Belgium's 2007 burden sharing agreement to meet its Kyoto target, the three regions of Belgium: Wallonia, Flanders and the capital Brussels have separate emissions-cutting goals. Each region had its own credits purchase policy for the first Kyoto Protocol commitment. The Federal state also contributed to the reduction by undertaking domestic reductions and purchasing additional international units from the market.</p> <p>The Flanders region has participated in World Bank funds such as the Carbon Fund for Europe to obtain units. They have also run tenders.</p> <p>The Walloon and the Brussels-Capital regions have contributed to the World Bank's Carbon Fund for Community Development to procure CDM units.</p> <p>The Walloon region will soon establish a fund that will address a range of climate objectives, including the purchase of international units.</p> <p>At the Federal level, a 'Kyoto Fund' was established in 2002, which is primarily financed by consumer contributions on electricity bills in the order of €25 million per annum. This fund was set up to finance the federal climate policy and was therefore also used to finance the federal carbon credit purchase program. The fund had a purchase target of 12.2 million units, however almost 15 million units were purchased due to low prices.</p> <p>Federal purchases have been made via 2 tenders targeting the primary market, 1 tender targeting the secondary market, a bilateral carbon fund with the German development bank KfW, an investment in the Hungarian Green Investment Scheme, and a partnership agreement with the Chinese province of Hunan.</p> | <p>The Belgian programme has been varied as both the Federal and individual regions have participated in the market for international units.</p> <p>The Belgium burden sharing agreement in 2007 established a National Climate Commission which was the focal point for JI projects and also the Designated National Authority for CDM projects.</p> <p>The regions have mostly devolved purchasing to multilateral funds. The exception to this is Flanders who has engaged the market directly through tender programs.</p> | <p>Belgium uses, ERUs and CERs units for compliance with both the EU ETS and the EU Effort Share Decision. AAUs are also used in Belgium for compliance under the Kyoto Protocol</p> <p>Units purchased for compliance must now comply with EU ETS restrictions: no HFC-23 projects, N₂O credits from adipic acid production, and some large hydroelectric projects over 20MW.</p> <p>Similarly, as the Belgium is party to the EU Effort Share Decision, units purchased for compliance must comply with EU Effort Share restrictions. However, while the Effort Share does not exclude HFC-23, Belgium has voluntarily restricted the purchase of these units.</p> <p>Individual regions have also imposed additional restrictions. For instance, in a recent tender, the Flanders region also excluded coal projects that do not involve Carbon Capture and Storage technologies.</p> <p>The Federal government has also applied strict criteria based on the Gold Standard to evaluate the projects' contribution to the sustainable development of the host country. The inclusion of this criteria meant that these units attracted a premium over others units.</p> |

Sources: Belgian JI/CDM Tender 2014; Kollmuss, A et al. 2010; Van Hecke, K et al. 2010

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|---|---|---|---|
| The Swedish CDM and JI Programme—sovereign fund | <p>The Swedish CDM and JI Programme has been operational since 2002 and has a total budget of about €300 million.</p> <p>The objectives of the programme are to further develop the flexible mechanisms to help lay the foundation for continued and expanded international climate cooperation, achieve cost-effective greenhouse gas reductions and contribute to sustainable development in the host countries of the projects.</p> <p>The programme is administered by the Swedish Energy Agency and operates through Sweden's International Climate Investment Programme (SICLIP).</p> <p>To date, SICLIP has participated in over 80 CDM and 2 JI projects in 47 countries in Asia, Africa, Latin America and Eastern Europe, as well as through a number of multilateral funds. More than a fifth of the contracted volume comes from projects in LDCs.</p> <p>Sweden has also contributed to several multilateral CDM and JI funds, including the Prototype Carbon Fund, Nordic Environment Finance Corporations Carbon Fund and Asia Pacific Carbon Fund, and has invested about US\$95 million in these funds.</p> <p>SICLIP will fund up to 40 Mt of CO₂-e emissions reductions through the CDM and JI as part of Sweden's national target for 2020. To date, more than half of that volume has already been committed.</p> | <p>The Swedish Energy Agency has been responsible for the Swedish CDM and JI Programme.</p> <p>The agency administers projects and undertakes policy work internally for most things (to undertake procurement, project management normally associated with bilateral tenders) but also engages consultants for specific tasks in relation to due diligence or legal services</p> <p>Other parts of the Swedish Programme were devolved entirely to third parties, including participation in the multilateral funds.</p> | <p>CER and JI units purchases are intended for Sweden's national target and do not need to comply with the EU ETS restrictions.</p> <p>Sweden chooses, however, to adopt similar restrictions in the bilateral part of the portfolio including no HFC-23, nuclear, or large-scale hydro.</p> <p>The Swedish purchase programme has also not engaged in purchases of palm-oil related CDM projects.</p> <p>The programme has focused on renewable energy, improved energy efficiency and more recently methane utilization (waste management).</p> <p>The purchases have focused on small and medium-sized projects.</p> <p>To encourage broader geographical distribution of CDM and JI activities, the units are purchased from a range of regions.</p> <p>Temporary CERs (tCERs) are allowed if renewed or replaced by an eligible unit prior to expiry. To date, the programme has bought tCERs from one afforestation sequestration project in the form of a string of tCERs.</p> |

Sources: NEFCO 2014; SEA 2012, 2014; World Bank 2010, 2010b, 2014

| COUNTRY/ FUND | DESCRIPTION | GOVERNANCE AND ADMINISTRATION | UNITS PURCHASED, RESTRICTIONS AND PREFERENCES |
|----------------------------|--|---|---|
| Netherlands—sovereign fund | <p>The Netherlands Government has operated a purchase program since 2001–02. Its initial target of 100 Mt was gradually reduced to only 30 Mt for compliance in the first commitment period of the Kyoto Protocol.</p> <p>The Netherlands is not looking to purchase units in the second commitment period.</p> <p>The Netherlands has engaged in carbon markets in a variety of ways, including:</p> <ul style="list-style-type: none"> • direct purchasing through tenders • contributing to multilateral carbon funds (via the World Bank and other organisations) such as the Prototype Carbon Fund, the Netherlands CDM Facility and the Netherlands European Carbon Facility • private institutions (via Rabobank) • a bilateral agreement with Indonesia. | <p>The Netherlands program has involved many governance arrangements and administrative structures over the years.</p> <p>These have included self-managed funds, partially outsourced projects and fully outsourced initiatives, including the projects managed by the World Bank.</p> | <p>The funds purchased units from most types of UNFCCC-eligible project types, and from the CDM and JI, including HFC23 credits.</p> <p>The program has also purchased some HFC23 units; however, these have not been retired against Kyoto commitments and are still sitting on the national registry.</p> <p>The Netherlands has a pioneering history in the carbon market. For instance, through the Prototype Carbon Fund it contributed to projects before the CDM and JI rules were ratified. The Netherlands is also supporting capacity-building in developing countries in their efforts to reduce emissions. This is being achieved via REDD+ projects and the Forest Carbon Partnership.</p> |

Sources: UNCCD 2014; World Bank 2010, 2010b, 2014