

**Submission by Nauru on behalf of the
Alliance of Small Island States (AOSIS)**

AWG-KP

Consideration of further commitments for Annex I Parties under the Kyoto Protocol

10 May 2012

By decision 1/CMP.7, the Parties were invited to submit information on their QELROs by 1 May 2012 for consideration by the AWG-KP at its 17th session.

AOSIS welcomes the opportunity to present its views on behalf of the forty-three (43) members of the Alliance of Small Island States on the establishment of QELROs, and quantified emission limitation and reduction commitments (QELRCs) from these QELROs, for the second commitment period of the Kyoto Protocol. AOSIS respectfully asks the secretariat to compile these views with those brought forward by other Parties in response to this call for submissions.

1. Annex I Party Ambition

Over 100 Parties to the UNFCCC, including many of the countries most vulnerable to climate change impacts, have expressed their support for a limitation of temperature increases to **well below 1.5°C** above pre-industrial levels, and long-term stabilization of greenhouse gas concentrations in the atmosphere **at well below 350 parts per million** of carbon dioxide equivalent.

According to the IPCC's Fourth Assessment Report, a **25-40%** reduction in emissions from 1990 levels is needed from Annex I Parties collectively by 2020, together with a substantial reduction below business as usual emissions in developing country Parties by 2020 (estimated at 15-30% below BAU), to limit long-term temperature increases to 2.0 to 2.4°C above pre-industrial levels. AOSIS is therefore of the view that a **greater than 45% reduction** in aggregate Annex I emissions is needed by 2020 to limit warming to well below 1.5°C above pre-industrial levels. Limiting warming to this level will require a peaking of global GHG emissions by 2015 or soon thereafter.

Given the particular vulnerability of many developing countries to the impacts of climate change, Annex I Party commitments for the second commitment period must be consistent with the achievement of the ultimate objective of the Convention and the long-term goal of limiting temperature increases to well below 1.5°C above pre-industrial levels.

2. Characteristics of quantified emission reduction or limitation commitments for the second commitment period

AOSIS is of the view that an amended Annex B must contain legally-binding, single number, quantified emission reduction and limitation commitments for a five-year commitment period from 2013 to 2017. In the view of AOSIS, it is unacceptable to lock in for eight years targets that are grossly inadequate and that in some cases represent business as usual emissions or even targets above expected emission levels.

AOSIS believes that conditional commitments, or commitments presented as possible ranges of emission reductions, are not appropriate for consideration as amendments to the Kyoto Protocol. It is also inappropriate to propose the inclusion of footnotes that render Annex B commitments conditional, in the manner presented in the proposed amendments attached as Annex I to decision 1/CMP.7. Instead, it is essential that the international community have complete clarity on the effective emission reductions that can be expected to result from the commitments taken under the Protocol's second commitment period. Such clarity requires consistency with the form and structure of the commitments taken in the first commitment period. For this reason, the upcoming session of the AWG-KP must simplify the presentation of the commitments to be adopted in an amended Annex B.

3. Rules for the calculation of QELROs for individual Annex B Parties

The translation of pledges to QELROs, and QELROs to quantified emission limitation and reduction commitments (QELRCs) for individual Parties, should follow a number of common rules, recognizing the need for urgent and ambitious emission reductions, and recognizing the dramatic fall in emissions after 1990 for many Parties:

- a) **commitments must be adopted that are either consistent with the most ambitious end of Parties' pledged emission reduction ranges, or even more ambitious, to deliver the lowest emissions possible over the commitment period.**
- b) **second commitment period QELRCs and assigned amounts must be established using a linear trajectory from the first commitment period QELRC, to maintain consistency between commitment periods and allow for transparency with respect to what subsequent periods deliver from each Party with respect to base year emissions.**
- c) **no Annex I Party should be permitted to present a second commitment period QELRO for adoption that is either: (1) above its 1990 emission levels; or (2) above the most recently verified year of emissions inventory data, whichever is lower. 2008 is currently the most recent year for which all Parties have verified emissions inventory data.**
- d) **commitments must be established for a five-year commitment period from 2013 to 2017 to avoid locking in insufficient ambition from Annex B Parties for an 8-year period.**

The table below translates pledged emission reduction targets into QELRCs for the second commitment period, using 2010 verified CRF data (2008 data) and the applying the set of rules listed above.¹

Commitments made in accordance with this rule set would deliver ***an aggregate reduction of 23% below 1990 emission levels over a 5-year second commitment period*** for the listed Parties that have expressed willingness to participate in a second commitment period, excluding LULUCF emissions.

¹ This table uses the same assumptions the secretariat has used in technical paper FCCC/TP/2010/3/Rev.1, p. 17, paragraphs 5(d), 6 and 7, but with 2008 verified emissions data. These assumptions are: for base year, this is the level of total GHG emissions excluding LULUCF in the base year, as included by Annex I Parties in their verified 2010 (2008 data) inventory submissions, using the provisions of Article 3.7 and 8 of the Kyoto Protocol, and assuming the decision by Parties to use 1995 as the base year for their HFCs, PFCs and SF₆ remains unchanged. For current emissions, emissions data was used for total GHG emissions excluding LULUCF.

Table

Party	Quantified emission limitation or reduction commitment (2008-2012) (percentage of base year or period)	Quantified emission limitation or reduction commitment (2013-2017) (percentage of base year or period)¹
Australia ¹	108	93²
Austria	92	81
Belgium	92	81
Belarus+	92	65
Bulgaria*	92	81
Canada	94	Withdrawn
Croatia* ²	95	81
Czech Republic*	92	81
Cyprus		81
Denmark	92	81
Estonia*	92	81
European Community ³	92	81
Finland	92	81
France	92	81
Germany	92	81
Greece	92	81
Hungary*	94	81
Iceland ²	110	81
Ireland	92	81
Italy	92	81
Japan	94	No QELRC
Kazakhstan^	100	73
Latvia*	92	81
Liechtenstein	92	81
Lithuania*	92	81
Luxembourg	92	81
Malta		81
Monaco	92	81
Netherlands	92	81
New Zealand	100	90
Norway	101	81
Poland*	94	81
Portugal	92	81
Romania*	92	81
Russia*	100	No QELRC
Slovakia*	92	81
Slovenia*	92	81
Spain	92	81
Sweden	92	81
Switzerland	92	81

Ukraine*	100	46
United Kingdom of Great Britain and Northern Ireland	92	81
United States of America ^{&}	94	No QELRC
Aggregate reduction for participating countries (relative to 1990 levels)		77 (23% reduction)
Aggregate sought by AOSIS		67 (33% reduction)

¹ Decision 1/CMP.6 agreed that a reference year may be used by a Party on an optional basis for its own purposes to express its QELRO as a percentage of emissions of that year, that is not internationally binding under the Kyoto Protocol, in addition to the listing of its QELRO in relation to the base year in the second and third columns of this table, which are internationally-legally binding.

² This commitment would be 90 if calculated instead as a percentage of emission reductions relative to Australia's reference year of 2000.

³ The commitments for the European Union and its Members States for the second commitment period under the Kyoto Protocol will be fulfilled jointly by the European Union and its Member States, Croatia and Iceland, in accordance with Article 4 of the Kyoto Protocol.

* first commitment period target has been adopted but has not entered into force

[^] proposed first commitment period target

[&] has not yet ratified the Kyoto Protocol

The aggregate emission reductions achieved by application of this rule set remains below the aggregate level of emission reductions consistent with limiting warming to below 1.5 or even 2°C of temperature increase above pre-industrial levels, and only reflect pledged targets for a sub-set of Annex I Parties. They also fall far short of reduction pathways consistent with the **30% reduction** in Annex I emissions by 2020 that the EU has called for in the past under the AWG-KP for Annex I Parties², the IPCC's 25-40% range noted by Kyoto Parties in 2007³, or the **more than 45%** reduction by 2020 that AOSIS believes is necessary and appropriate (which would translate to a 33% reduction over the course of a five-year commitment period using a linear trajectory approach). For these reasons, more ambitious emission reductions will be needed beyond the upper end of the scale of the pledges brought forward to date.

4. Rationale for rule set

A. Top end of pledged ranges

Most Annex I pledges for the Kyoto Protocol's second commitment period were brought forward in 2007, some five years ago. Since that time, scientific studies have observed and projected ever-more alarming climate change impacts resulting from global warming. These include accelerating sea-level rise that threatens the existence of small island developing states in the Pacific, Caribbean and Indian Oceans, coral reef bleaching, ocean acidification, declining agricultural yields in countries already suffering from food insecurity, increasingly intense extreme weather events, including droughts and floods, and increasing risk of species extinction. We now face the very real possibility of runaway climate change.

The IPCC's Third Assessment Report noted in 2001 that it is likely that the 1990s have been the warmest decade and 1998 the warmest year of the millennium.⁴ Since 2001, however, we have

² See, e.g., FCCC/KP/AWG/2009/MISC.8 at 62 ("the overall emission reduction should be **30% below 1990 levels by 2020**. The expression of this figure would depend on the choice of commitment periods (e.g., length and number of commitment periods)" (emphasis added).

³ Applying the same rule set to an 8-year commitment period would result in an aggregate reduction to 26% below 1990 emission levels.

⁴ IPCC Fourth Assessment Report, Working Group I, Figure 1.

seen 8 more recent years make the list of the top ten warmest years on record since records began in 1880.⁵ The World Meteorological Organisation recently confirmed 2011 as the 11th warmest since records began - and the warmest on record ever with a la Niña. According to the WMO's preliminary findings, dramatic sea ice decline in the Arctic was one of the most prominent features of the changing state of the climate during the decade, and global average precipitation was the second highest since 1901.⁶

In 2007, in presenting their ranges of possible emission reductions, Parties must have regarded achievement of the top end of their proposed ranges to be technically and economically feasible. Hence political considerations, rather than practical impediments, have prevented or delayed their adoption. Since 2007, climate impacts have accelerated and renewable energy technologies have fallen greatly in price and increased greatly in availability,⁷ making GHG reductions more readily achievable.

B. Starting point - mid-point of first commitment period

In the interests of transparency and fairness, the mid-point of the first commitment period is the appropriate starting point for the calculation of second commitment period QELRCs.

Some Parties have instead argued for use of recent actual emission levels as the starting point for the calculation of second commitment period QELRCs and assigned amounts (e.g., 2008 emission levels), rather than a clear reduction relative to 1990 levels and first commitment period QELRCs.

Using recent emission levels as the starting point would confer an unfair benefit on Parties whose domestic industrial emissions have continued to climb in the first commitment period well above their QELRCs and who will meet Kyoto targets only by acquiring and retiring additional

⁵ NOAA, *State of the Climate, Global Analysis* (available at <http://www.ncdc.noaa.gov/sotc/global/2011/13#gtemp> and <http://www.ncdc.noaa.gov/sotc/global/2010/13>)

⁶ "WMO annual statement confirms 2011 as 11th warmest on record, Climate change accelerated in 2001-2010, according to preliminary assessment", WMO Press Release No. 943 (23 March 2012): "Numerous weather and climate extremes affected almost every part of the globe with flooding, droughts, cyclones, heat waves, and cold waves. Two exceptional heat waves hit Europe and Russia during summer 2003 and 2010 respectively with disastrous impacts and thousands of deaths and outbreaks of prolonged bush fires.

Flooding was the most reported extreme event during the decade with many parts of the world affected. Historical widespread and prolonged flooding affected Eastern Europe in 2001 and 2005, Africa in 2008, Asia (in particular Pakistan) in 2010 and India in 2005, and Australia in 2010.

A large number of countries reported extreme drought conditions, including Australia, eastern Africa, the Amazonia region and the western United States. Humanitarian consequences were significant in eastern Africa during the first half of the decade, with widespread shortage of food and loss of lives and livestock. Forty-eight out of 102 countries (47 per cent) reported that their highest national maximum temperature was recorded in 2001-2010, compared to 20 per cent for 1991-2000 and around 10 per cent for the earlier decades.

The decade saw the highest level of tropical cyclone activity on record for the North Atlantic basin. In 2005 category 5 hurricane Katrina was the most costly hurricane to hit the United States, with a significant human toll of more than 1 800 deaths. In 2008, tropical cyclone Nargis was the worst natural disaster in Myanmar and the world's deadliest tropical cyclone during the decade, killing more than 70 000 people."

⁷ See *Renewables 2011 Global Status Report* (available at http://www.ren21.net/Portals/97/documents/GSR/REN21_GSR2011.pdf; "Tracking Global Clean Energy Progress" (IEA 2012) ("substantial cost reductions over the past decade and significant annual growth rates have been seen for onshore wind (27%) and solar photo-voltaic (PV) (42%)").

offsets or generating land-based credits. **Australia, New Zealand and many individual EU Member States** are in this situation. Using recent emissions as the starting point would have the effect of giving these Parties a larger AAU budget with which to start the second commitment period than would be given to another Party with the same 1990 emissions and the same first commitment period QELRC, but that had managed to keep its domestic emissions within or below its first commitment period Assigned Amount. This is well-explained in the secretariat's technical paper on the translation of pledges to QELROs and in other documents reviewing these kinds of proposals.⁸ Neither New Zealand nor Australia should need this extra benefit, despite advocating for it, because both already have a substantial surplus of AAUs from the first commitment period to apply toward their second commitment period commitments.⁹ These surpluses should instead make it easier for New Zealand and Australia to adopt and achieve QELRCs at the top end of their pledged target ranges.

C. The more ambitious of: (a) 1990 emission levels; or (b) the most recent set of verified emission levels (2008), whichever is lower

QELROs should be presented that will deliver effective emission reductions below a Party's 1990 emission levels and below a Party's most recent set of verified emission levels, whichever is lower. This rule is intended to ensure real and ongoing emission reductions from all participating Annex I Parties.

QELRCs for successive commitment periods must reflect emission reductions from 1990 levels. It is not appropriate for Annex I Parties to bring forward for international approval pledged **increases** in their emissions for 2013 to 2017 relative to 1990 emission levels, given the agreed objectives of the Convention and its Article 4.

Similarly, QELRCs must also anticipate real emission reductions from current emission levels. It is inappropriate for Parties to now pledge an increase in emissions **above** the level of emissions with which they began the **previous** 2008-2012 commitment period. Nor is it appropriate for Parties to propose targets for themselves that will generate **surplus units** in order to remove any need for actual emission reductions. To reach the agreed long-term global goals, global emissions must peak and decline in the next few years, and Annex I Parties have committed themselves to taking the lead in this mitigation effort.

D. Commitment period length - 5 years

In Durban, it was agreed that the second commitment period would be either five years (2013 to 2017) or eight years (2013 to 2020) in length. Five years is the appropriate length for the Kyoto Protocol's second commitment period. Emission reduction commitments proposed thus far by Annex I Parties are unequivocally inconsistent with the achievement of a stabilization of GHG gases at a level that will avoid dangerous climate change, and inconsistent with aggregate emissions pathways capable of limiting temperature increases to well below 1.5°C or even 2°C

⁸ See, e.g., FCCC/TP/2010/3/Rev.1 (Issues relating to the transformation of pledges for emission reductions into quantified emission limitation and reduction objectives: methodology and examples) (4 November 2011); *Creative Accounting and the Climate Negotiations: New Zealand's Approach to Quantified Emissions Limitation/Reduction Obligations (QELROs)*, February 2012 (WWF-New Zealand) (noting that use of current gross emissions as a starting point for the calculation of QELROs could enable New Zealand to end the commitment period with a surplus of over 20 million AAUs without having to take any further action to reduce emissions) (available at http://awsassets.wwfnz.panda.org/downloads/creative_accounting_02_12_wwf_nz.pdf).

⁹ See Section 5 B.

above pre-industrial levels. It is therefore inappropriate and environmentally irresponsible to lock in these proposed emission reduction targets for an 8-year period, which risks closing the door to emissions pathways consistent with the achievement of our agreed long-term global goals.

The IPCC's Fourth Assessment Report has found that emissions would need to peak by 2015 or soon thereafter to meet the agreed long-term global goals. The IPCC's Fifth Assessment Report will be issued in 2013 and 2014. This report is likely to highlight accelerating climate impacts, a range of mitigation options, and underscore the need for more urgent and immediate reductions in greenhouse gases from all Parties. A five-year commitment period would permit consideration of a new set of more ambitious commitments that would commence in 2018, taking into account the latest science reflected in the IPCC's Fifth Assessment Report. An 8-year commitment period would, by contrast, delay any response to the latest science for a further three years - until 2021 - time we do not have.

A 5-year commitment period has a clear mid-point of 2015 with which to calculate QELRCs, measure progress and enable early warning of non-compliance. This avoids the delay in assessing compliance that would come with an 8-year commitment period.

The G-77 has expressed its support for a 5-year commitment period. Many Annex I Parties have also stated that they are willing and able to work with a 5-year commitment period, even though they may have a preference for an 8-year commitment period. The EU, for example, is able to calculate its QELRO for any length of commitment period.¹⁰ The calculation of QELROs is a technical exercise and the length of the commitment period does not affect the emissions trajectory leading to a Party's 2020 target.

5. More ambition is technically and economically feasible from all Annex I Parties

A. The 27 Member States of the European Union, Croatia and Iceland

The European Union is able to meet and exceed the top level of its pledged range. According to research commissioned by the United Kingdom's Department of Energy and Climate Change (DECC), it has been assessed that the EU could move to more ambitious 2020 carbon reduction targets of 30% below 1990 levels **at a cost of €7 to €9 per person annually**, which "would be equivalent to the cost of a few cups of coffee per person".¹¹ The same report found that moving to a 30% reduction by 2020 would cost only an estimated 0.03-0.04 per cent of EU GDP,¹² and that many EU Member States would actually **benefit** economically from a move to 30%, including Belgium, Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Poland, Romania, Slovakia and Slovenia. Countries facing the highest additional costs (UK, France, Germany, Italy) would face a maximum impact of 0.05 per cent of GDP.¹³

The European Commission's "**Roadmap for Moving to a Competitive Low Carbon Economy**" (March 2011) found that a 25% domestic reduction is the economically optimal route

¹⁰ See Commission Staff Working Document, Preparing the EU's Quantified Emission Limitation or Reduction Objective (QELRO) based on the EU Climate And Energy Package, Brussels, 13.2.2012, SWD (2012) 18 final.

¹¹ "Bloomberg: Stricter EU Carbon Target Would Cost You a Few Cups of Coffee", <http://www.businessgreen.com/bg/news/2170482/bloomberg-stricter-eu-carbon-target-cost-cups-coffee>

¹² Id.

¹³ Id.

to the EU's 2050 emission reduction target.¹⁴ The roadmap notes that the EU's emissions, including international aviation, were estimated already to be 16% below 1990 levels in 2009 and that "[i]f the EU delivers on its current policies, including its commitment to reach 20% renewables, and achieve 20% energy efficiency by 2020, this would enable the EU to outperform the current 20% emission reduction target and achieve a 25% reduction by 2020."¹⁵ "The analysis also shows that a less ambitious pathway could lock in carbon intensive investments, resulting in higher carbon prices later on and significantly higher overall costs over the entire period."¹⁶

A more recent 2012 European Commission Staff Working Paper titled "**Analysis of options to move beyond 20% greenhouse gas emission reductions: Member State results**", analyzed the costs and benefits to individual EU Member States of a move to 30% reduction below 1990 levels by 2020.¹⁷ The study found that assuming that 25% of this target is met domestically and that 5% is met from the purchase of international units, moving to a 30% reduction by 2020 would actually be **in the EU's best interests**, both as a whole and at the Member State level. The Working Paper concluded that all Member States would benefit financially, with benefits coming from carbon market revenues, the saving of up to **31.3 billion Euros** in fuel expense, from savings on public health costs and from new job creation.

In the context of calculating its proposed QELRC, the European Commission has noted that the accounting rules in Durban will lead to the realisation of net LULUCF credits for the EU as a whole equivalent to about **1% of base year emissions**.¹⁸ Hence, these newly agreed rules make it easier for the EU to meet any QELRC and to take on a more ambitious QELRC.

The Commission has also noted that Croatia and Iceland intend to fulfil their commitments jointly with the EU in the second commitment period, and that the inclusion of these two countries will not require a change in the EU's QELRO and may even benefit the EU.¹⁹

It is clear that a more ambitious EU target would tighten supply in the currently struggling EU Emissions Trading Scheme, and give a lower-carbon policy signal to the private sector, whose decision-making Parties should be trying to influence. A more ambitious target may also incentivise greater ambition from other countries, both developed and developing.

Given that it is in the EU's own economic and financial interest to increase its ambition, and in the interest of its individual Member States, there appear to be no conceivable reason for the EU not to move to a QELRC consistent with, or even more ambitious than, a QELRC on a straight line trajectory to a 30% reduction by 2020.

¹⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Roadmap for moving to a competitive low carbon economy in 2050, Brussels, 8.3.2011, COM(2011) 112 final
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0112:FIN:EN:PDF>

¹⁵ Id. at 5.

¹⁶ Id.

¹⁷ Commission Staff Working Paper, Analysis of options beyond 20% GHG emission reductions: Member State results, Brussels, 1.2.2012, SWD(2012) 5 final,
http://ec.europa.eu/clima/policies/package/docs/swd_2012_5_en.pdf

¹⁸ Commission Staff Working Document, Brussels, Preparing the EU's Quantified Emission Limitation or Reduction Objective (QELRO) based on the EU Climate and Energy Package, 13.2.2012, SWD(2012) 18 final, http://ec.europa.eu/clima/policies/international/negotiations/docs/swd_13022012_en.pdf

¹⁹ Id. at 10.

B. Greater ambition is also possible beyond the EU

New Zealand will have a substantial surplus of AAUs in the first commitment period, despite its rising industrial emissions.²⁰ As of March 2012, New Zealand was reporting a **23.1 million tonne** surplus in Kyoto units. This comes from its generation of RMUs from removals in the land use sector, which are fungible with AAUs under Kyoto rules. New Zealand's 20% top-end pledge for 2020 is only slightly more than the sum of business as usual emissions plus the country's first commitment period surplus. Hence New Zealand should move to a QELRC consistent with a 20% reduction by 2020 and beyond for real reductions below business as usual emission levels.

Australia will also have a substantial surplus of Kyoto units. Point Carbon has reported that Australia is on track for a **125 million tonne** Kyoto unit surplus by the end of the first commitment period, due to changes in its land use sector.²¹ At the same time, energy sector emissions increased by more than 44% above 1990 levels by 2009, and emissions at industrial processes increased by more than 20%.²² Australia could increase its effective ambition by not including deforestation emissions in the calculation of its base year emissions, thereby increasing the reductions that the atmosphere actually sees as a result of its mitigation effort.

Belarus will have a vast surplus of AAUs in the first commitment period if its first commitment period amendment is ratified and comes into force. In addition, Belarus's 2020 pledge is far above the country's business as usual (BAU) emissions. The surplus resulting from the first commitment period target is not likely to be fully absorbed by its more ambitious second commitment period target, hence a much more ambitious target should be brought forward for the second commitment period. Under the rule set applied in the Table set out above, even a QELRC of 65, based on 2008 emissions levels, would require Belarus to reduce emissions to a level only slightly below BAU.²³

Ukraine similarly holds a massive AAU surplus, as its emissions will have **almost halved** relative to 1990 emission levels by the end of the first commitment period. Yet its proposed target is only slightly below 1990 levels. This large amount by which the proposed target would allow for an assigned amount above likely emission levels must be closed.

Kazakhstan has proposed a first commitment period target that would generate a substantial volume of surplus AAUs - a surplus of sufficient size that it is not likely to be absorbed by the country's proposed second commitment period 2020 target, even though that 2020 target appears to be below BAU²³. Kazakhstan could propose a far deeper first commitment period QELRC, propose a far deeper second commitment period QELRC, or release its proposal for a first commitment period target and focus on an ambitious second commitment period QELRC.

While **Japan** and **Russia** have stated that they will not be bound by a QERLC in the second commitment period under the Kyoto Protocol, AOSIS urges these countries to reconsider. Failure to take on binding commitments for the second commitment period will disqualify these

²⁰ Government of New Zealand website, <http://www.mfe.govt.nz/issues/climate/greenhouse-gas-emissions/net-position/>

²¹ "Australia on track for 125-mln Kyoto unit surplus: Deutsche", 2 March 2012 (Point Carbon) available at <http://www.pointcarbon.com/news/1.1779342>

²² Id.

²³ PRIMAP Baseline Reference, Potsdam Real-time Integrated Model for Probabilistic Assessment of Emission Paths (PRIMAP), www.primap.org at <http://sites.google.com/a/primap.org/www/the-primap-model/documentation/baselines>.

Parties from using Kyoto units against their post-2012 mitigation targets and prohibit them from engaging in emissions trading under Article 17. Under the above rule set, Japan's 5 year QELRC based on the top end of its target range, would be **85**; Russia's 5-year QELRC would be **67**, based on the level of its 2008 emissions. If both Parties participated in a 5-year second commitment period with this rule set, aggregate effective emission reductions relative to 1990 emission levels for participating Parties would reach **25% over a 5-year second commitment period** for the listed Parties that have expressed willingness to participate in a second commitment period, excluding LULUCF emissions.

6. Implications for treatment of surplus Kyoto Units

A substantial volume of surplus AAUs was created in the Kyoto Protocol's first commitment period. The availability of this tradable surplus has already placed downward pressure on prices for Kyoto units. It is poised to undermine the environmental effectiveness of both the Kyoto Protocol's first and second commitment period targets, and if carried forward and traded, it would effectively allow other Parties to increase their domestic emissions.

This will particularly be the case if this surplus is traded by Parties that hold a surplus of Kyoto units well beyond what they would need to use toward meeting their Article 3.1 commitments in the second commitment period, or traded by countries that plan **not** to take binding emission reduction limitation or reduction commitments themselves in the second commitment period.

This surplus must be addressed:

- 1) through deeper Annex B emission reductions in the second commitment period to fully absorb this surplus; or
- 2) by drastically limiting the volume of surplus units in the trading system.

Parties must find a simple and environmentally sound solution, in recognition that the Kyoto Protocol is a mechanism intended to facilitate cost-effective emission reductions, rather than a tool to generate profits in the absence of permanent reductions.

AOSIS has proposed a variety of reasonable structural and textual options for addressing surplus,²⁴ including quantitative caps on the carryover or use of Kyoto units, domestic use restrictions, and the establishment of a **Previous Period Surplus Reserve** for affected Parties, to manage this surplus in the second commitment period. AOSIS looks forward to resolving this issue at the earliest possible opportunity.

²⁴ See., e.g., AOSIS Proposal on Surplus/Carryover, Presented by St. Lucia on behalf of AOSIS, 5 December 2011 with accompanying textual proposal (presented during the sixteenth session of the AWG-KP in informals); Revised Surplus Approach (presented by St. Lucia on behalf of AOSIS during the sixteenth session of the AWG-KP in informals); Options to address surplus AAUs and carryover, Presentation by St. Lucia on behalf of AOSIS, 6 December 2010 (AWG-KP workshop) (available at http://unfccc.int/files/meetings/ad_hoc_working_groups/kp/application/pdf/aosis.pdf); Presentation by AOSIS at the Workshop on the scale of emission reductions to be achieved by Annex I Parties in aggregate and the contribution of Annex I Parties, individually or jointly to this scale, held during the thirteenth session of the AWG-KP (available at http://unfccc.int/files/kyoto_protocol/application/pdf/aosis.pdf); Presentation by AOSIS during the twelfth session of the AWG-KP (available at http://unfccc.int/files/meetings/ad_hoc_working_groups/kp/application/pdf/aosis_awgkp12.pdf)