PUBLIC COMMENT ON ICAO EMISSIONS UNIT PROGRAM REVIEW

EXECUTIVE SUMMARY

If the aviation sector were a country, it would be one of the top 10 emitters of carbon dioxide on Earth. To help deliver its promise of carbon-neutral growth from 2020, international aviation is looking, in part, to carbon offsets. CORSIA (Carbon Offsetting and Reductions Scheme for International Aviation) could become the largest market for offsets in the world, generating demand for up to 3 billion metric tons of emission reductions over CORSIA's 15-year span.

The cap on emissions at 2020 levels agreed by ICAO member states is a significant achievement for international aviation and for the climate. We recognize the enormous work, both technical and political, that has gone into CORSIA to date. Fourteen offset credit programs have applied for CORSIA eligibility in the first round. The applications showed a range of thoughtful responses to the Emissions Unit Criteria (EUCs). It's also notable that all but two of the programs included methodologies for natural climate solutions, which can offer at least 30% of the mitigation needed globally but currently receive less than 2% of the investment. Several program applications included methodologies for reducing emissions from the forest sector, which has the largest mitigation potential of the natural climate solutions.

Key Program Comments

We reviewed all program applications and have commented below on those that include or otherwise address forests or other nature-based activities. Several of the programs demonstrated technically sophisticated, and advanced programmatic design, as well as including elements aimed at ensuring high offset integrity. Our assessment is that the following programs have undertaken extensive efforts to design their programs and include elements to ensure offset integrity; they also have a base of experience implementing those elements: Verra, The Gold Standard, Climate Action Reserve, American Carbon Registry, and British Columbia Offset Program.

However, in some cases, responses represented aspirational or planned elements to meet the Emissions Unit Criteria, instead of already-implemented elements. For example, the Forest Carbon Partnership Facility plans to have a registry in place by the end of this year, but does not currently have one. The Thailand program would need to clarify key elements including policies to address double claiming, as indicated below. If these, or any, programs submit significant revisions to their applications to address these elements, the revised applications should be re-posted for public review and comment.

We have significant concerns about the remaining programs, which would, as detailed below, require substantial strengthening to their programmatic design in order to meet the EUCs established by ICAO. We recommend that these programs address key programmatic and offset integrity elements and apply again in a later application period: The Carbon Forest Program (Poland), Global Carbon Trust, Nori, REDD.plus, CCER, and myclimate. Finally, we were **not able to review** the Clean Development Mechanism, as the program did not submit a complete application. We recommend against any recommendation or decision on this program until further details are provided and made available for public comment.

We would like to reiterate our support for the EUC review process, and thank the Technical Advisory Board (TAB) for their work in ensuring CORSIA only allows high-integrity offsets into the soon-to-be world's largest offset market.

Reflections on Greenhouse Gas Program Applications

This public comment period represents a significant and positive step towards the operationalization of CORSIA. There is great interest and commitment from civil society and across the private sector, non-profit organizations, and governments to see CORSIA's promise fully realized, with environmental integrity. While the fourteen emissions unit programs that applied represent years of combined experience, each includes distinct governance and implementation mechanisms, not all of which appear to meet the EUC. Our review of these approaches is further explained below.

It is also important to address some misleading statements about Reducing Emissions from Deforestation and forest Degradation, and sustainable management of forests, conservation of forest carbon stocks and enhancement of forest carbon stocks (collectively referred to as REDD+). REDD+ is a framework developed under the United Nations Framework Convention on Climate Change (UNFCCC) to address deforestation by supporting the protection of forests for their carbon sequestration, storage and other services. One application, put forward under the name of "REDD.plus," claims that:

> *...any forestry units generated under voluntary standards, such as the World Bank's FCPF, VCS, GS, CAR, ACR, Plan Vivo, etc. are not REDD+ by definition as they do not fulfill the necessary requirements outlined within relevant UNFCCC decisions.*

REDD+ activities must follow UNFCCC guidance adopted by the Conference of the Parties to the UNFCCC. This guidance is called The Warsaw Framework for REDD+. Therefore, any activity that meets the Warsaw Framework requirements is REDD+, by definition. Of the programs that have applied, the World Bank's Forest Carbon Partnership Facility (FCPF) and the Verra VCS Jurisdictional and Nested REDD+ Program (JNR), among others, require all REDD+ emission reduction units in their programs to be consistent with the Warsaw Framework. For example, to ensure that all the emission reduction units for which they seek CORSIA eligibility are compatible with the Warsaw Framework, Verra excluded from its application methodologies for standalone[1] REDD+ projects. Other applicant programs are taking similar steps.

We have analyzed each of the fourteen program applications for their technical merit in fulfilling the EUCs. In the sections below, we highlight specific concerns and positive aspects of the different

[1] Standalone REDD+ projects are local level REDD+ activities that are not linked to a country's national REDD+ strategy or other elements of the Warsaw Framework for REDD+. Site-scale REDD+ activities can be implemented in line with the Warsaw Framework for REDD+ if they are "nested" or integrated into the national or subnational REDD+ program.

program approaches to specific EUCs, including those relating to program governance, additionality, leakage, and more.

We would also like to note that this review is done on a program basis, not an activity basis. These comments are not a reflection on REDD+ as a mitigation activity, as we have already conducted technical analysis on the potential eligibility of REDD+ and concluded that well-designed [REDD+ programs can meet the EUCs].

Incomplete or Unfinished Programmatic Design or Offset Integrity Elements, *EUCs 3.1 - 4.8*

Several programs have submitted applications that include incomplete or unfinalized program design and offset integrity elements. One cannot review the environmental integrity of these programs, as nothing substantive has been submitted. These programs, if approved, represent a high-risk to public trust in CORSIA and a high-risk to the integrity of CORSIA itself. We do not recommend the TAB approve any programs where the program design elements remain unfinished during the TAB review. Instead, we recommend that these programs apply again at a later time, once these design elements have been finalized.

In some cases, the program states that some design or offset integrity elements will be completed within this TAB review period. If that is the case, we call for another public comment period to allow for an additional review of those newly-added elements. These elements, which were checked as finalized on the application, but later included explanatory text to the contrary, include:

- Programs with incomplete peer-review methodologies;
- Programs without registries;
- Programs without on-the-ground projects or programs that have issued offsets; and
- Programs without permanence or leakage plans for specific methodologies.

As a specific example, Global Carbon Trust (GCT) mentioned that it plans to develop a carbon capture and storage methodology but has “not taken decision on how the potential reversal will be addressed.” This is a clear example of something that should already be developed before the TAB approves such a program. It is difficult to evaluate the approach to permanence within this methodology without such text already being made public. We would recommend that the TAB does not approve this or other proposed new methodologies submitted after the initial application to the TAB; rather, GCT and other programs in a similar position, should reapply for consideration by the TAB once these methodologies have been finalized.

The application for the Carbon Forest Program (Poland) is also incomplete and does not currently meet some of the EUCs. The proponent claims that the program is based on a pilot project that started in 2017 and that, if the program were approved, it will ensure compliance with CORSIA’s guidance on reversals, transparency, public participation and double issuance, use and selling -- but does not provide any timelines for accomplishing these crucial elements. Thus, this assertion provides only weak assurance and no evidence that the program would actually meet the criteria in the future.

Finally, *all* programs had uncertain double claiming policies, as these rules depend largely on the outcomes of the Article 6 negotiations. We would like to see the TAB address this comprehensively; or allow another review period for double claiming only, once the Article 6 decisions have been finalized.

Authority Over Programmatic Design and/or Offset Integrity Elements, *EUCs 3.1 - 4.8*

Several programs seemed to submit applications on behalf of other programs that operate within the UNFCCC negotiating space, the voluntary, and/or the compliance markets. This raises both a concern and recommendation: the TAB should only review programs that have authority to make key programmatic design and offset integrity decisions.

For example, myclimate refers a majority of questions around program design and offset integrity to the programmatic rules developed by the CDM, Plan Vivo, the Gold Standard, and the Federal Office of the Environment of Switzerland. Myclimate does not appear to have authority over any future design or integrity decisions within those programs and makes no reference to having a mechanism in place to develop its own policies when needed.

Similarly, the REDD.plus program refers extensively to the UNFCCC decisions in the description of its programmatic and offset integrity design. However, as a private sector Limited Liability Corporation (LLC), the program is a separate entity from the UNFCCC and has no agency over that process, including any future decisions about REDD+. The program makes no reference to having a mechanism in place to develop its own policies when needed and does not provide evidence of any staffing structure (such as a board, CEO or president, or other staff) who would undertake such policy development.

GOVERNANCE, *EUC 3.7*

Despite the fact that there is an explicit requirement that each program must have been continuously governed and operational for at least the last two years, there are several programs that do not meet this criterion.

In particular, the TAB should take a closer look at the governance details of the REDD.plus submission. For REDD.Plus, it appears that the LLC that is registered for this program was only created in 2019. Similarly, there does not appear to be a board, president or any staff, which puts the governance of the program into question; nor is there a clear plan for what might happen if the REDD.plus program ends (the program only refers to the UNFCCC decisions around REDD+, which are separate from the REDD.plus LLC).

In contrast, other programs have been operational for much longer than two years, and have not only established program governance and other EUC elements, but also a wealth of useful experience in updating and refining these criteria over time. These programs include: Winrock International's ACR (since 1996), CAR (since 2001), the Gold Standard (since 2003), CDM (since 2006), Verra (since 2006), and FCPF (since 2007).

DO NO HARM AND SAFEGUARDS, *EUC 3.9, 4.8*

All REDD+ programs must follow local laws and regulations as well as guidelines under the UN Framework Convention on Climate Change, including the REDD+ Cancun Safeguards.[2] These globally-agreed REDD+ safeguards require:

a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;

[2] UNFCCC. (2010) FCCC/CP/2010/7/Add.1 Appendix I: "Guidance and safeguards for policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries." https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=12.

b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;

c) Respect for the knowledge and rights of indigenous peoples and members of local communities;

d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities;

e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that actions are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;

f) Actions to address the risks of reversals; and

g) Actions to reduce displacement of emissions.

Greenhouse gas programs that include REDD+ activities, such as the FCPF, Verra's VCS JNR and REDD.plus, all require safeguard implementation in line with these safeguards agreed in UN decisions in Cancun.

Further, FCPF requires additional safeguard operational rules and regulations from the World Bank. Both Verra's VCS JNR and FCPF require that REDD+ programs include grievance redress mechanisms for any individuals or communities who feel their rights have been violated. Finally, both these programs require that the REDD+ program must report on the implementation of their safeguards against rights violations in order to receive credit for reduced deforestation results.

SUSTAINABLE DEVELOPMENT, *EUC 3.10*

In addition to delivering high-quality emission reductions, REDD+ and other natural climate solutions also provide significant environmental co-benefits—such as improved soil quality, cleaner air and water, higher coastal resilience and biodiversity conservation—and social co-benefits for a myriad of stakeholders, including indigenous peoples and local communities. These can include strengthened recognition and respect for customary land and resource tenure rights as well as support to rural smallholders with transition to more sustainable and productive agricultural practices. Each REDD+ initiative that successfully reduces deforestation and delivers emissions reductions is designed to address locally-specific drivers of deforestation in a manner that ensures local livelihoods are maintained and enhanced. By helping to maintain natural habitats and ecosystem services at scale, as well as providing sustainable and diversified livelihoods, REDD+ initiatives are also uniquely positioned to support adaptation to climate change.

The greenhouse gas programs that include REDD+ activities – including FCPF and Verra's VCS JNR – require that the Cancun Safeguards are addressed and respected, ensuring that REDD+ actions enhance other social and environmental benefits. They also require that information must be provided on how this has been achieved, with FCPF additionally calling for monitoring and reporting of co-benefits, thereby demonstrating and detailing the contributions made to sustainable development.

ADDITIONALITY, *EUC 4.1*

Additionality is a key component of credible carbon offsets. All programs must include strong additionality criteria. Programs typically ensure additionality by requiring projects to meet an additionality test. Common additionality tests include a legal or regulatory test (to ensure project activities are not already required by law); a financial test (to ensure the activity would not be profitable without carbon offset revenue); a barriers test (to ensure the activity would not happen due to other non-financial barriers); and the common practice test (to ensure the activities differ from other commonly-used practices).

Most of the programs appear to have adequate additionality requirements. The American Carbon Registry, for example, has procedures in place to ensure that projects demonstrate additionality. The validation and verification bodies evaluate each project's additionality assessment to ensure that all claimed emission reductions are indeed surplus to "business as usual." All ACR projects must either: exceed an approved performance standard and a regulatory additionality test, or pass a three-pronged additionality test. If a project is found to be non-additional after offset credits are issued, then the project would be required to compensate for any over-issuance.

The REDD+ methodologies advanced by Verra, FCPF, REDD.plus also meet these criteria, as the baselines are developed in line with rigorous UN guidance that considers historical deforestation rates and business-as-usual projections from which to measure results and demonstrate additionality. All countries engaging REDD+ must also develop a national REDD+ strategy and action plan to communicate their approach for implementing REDD+ and delivering results. This national strategy considers the country's national context and identifies the drivers of deforestation that would have led to an increase in emissions if the REDD+ activities had not occurred.

PERMANENCE, *EUC 4.5*

Many programs acknowledge that permanence can be a concern for all sectors and provide additional requirements to mitigate potential reversal risks of terrestrial sequestration projects and carbon capture and storage projects. Some programs, including the Thailand Greenhouse Gas Management Organization and British Columbia Offset Program, chose to exclude forest-related methodologies, such as "Deforestation and forest degradation and enhancing carbon sequestration in forest area project level," citing that these project scale activities "present a potential risk of reversal of emission reductions." Similarly, Verra excluded methodologies for standalone REDD+ projects from their application to ensure that all of their eligible units are compatible with the Warsaw Framework.

GCT states that it plans to develop a carbon capture and storage methodology, but it has "not taken decision on how the potential reversal will be addressed." We would like to be able to review these GCT's plans before this program is considered for CORSIA.

In contrast, Verra, for example, requires an assessment of the potential risk of reversal of emission reductions, avoidance, or carbon sequestration. These findings are used to calculate the contribution of each project, nested VCS REDD+ project and/or VCS JNR program to a respective pooled buffer account. The jurisdictional pooled buffer account holds non-tradable buffer credits to cover the risk of reversal associated with JNR programs and nested REDD+ projects.

All national and subnational REDD+ programs are required to address potential risk of reversals under the REDD+ Cancun Safeguards adopted under the UN. The scale of REDD+ implementation, in line with national strategies, promotes long-term sustainability and permanence of REDD+ emission reductions. REDD+ programs have years of experience and guidance on mitigation measures to address any potential risk of reversals. For example, some REDD+ programs, including the FCPF and Verra, employ a buffer system (i.e., reserves of reductions which are not transferred but which can be accessed to compensate for any reversals).

Other programs that include activities in Agriculture, Forestry and other Land Uses (AFOLU) that are not REDD+ also include adequate procedures to ensure permanence. The American Carbon Registry, for example, mitigates reversal risks through legally binding AFOLU Carbon Project Reversal Risk

Mitigation Agreements and Buffer Pool Terms and Conditions. The Agreement outlines requirements to: assess risk, mitigate risk through the ACR mechanism, comply with risk mitigation requirements, and compensate for reversals as applicable. These buffer pool and risk mitigation procedures allow ACR to demonstrate that permanence provisions can fully compensate for the reversal of emission units used under CORSIA. The Gold Standard and the Climate Action Reserve also utilize buffer pools to ensure permanence in this way.

LEAKAGE, *EUC 4.6*

The UNFCCC Warsaw Framework safeguards against leakage by requiring the establishment of a national forest monitoring system and the preparation of national REDD+ strategies and action plans that address the drivers of deforestation and forest degradation, land tenure and forest governance issues, as well as reversals at the national or subnational scale.

By implementing REDD+ at the national scale, countries are required to address the drivers of deforestation and to adopt policies and regulations to ensure inter alia that there is no potential increase in emissions within the country. Further, as correctly outlined in the REDD.plus application, the UNFCCC REDD+ Framework also “requires national-scale reporting, GHG Inventories, and Forest (Emission) Reference Levels.”

Leakage from non-REDD+ agriculture, forest, and other land-use (AFOLU) activities can also be addressed at a site-specific level. For example, VCS submitted its REDD+ and Improved Forest Management methodologies as part of its JNR program; however, it also submitted stand-alone activities under its Afforestation, Reforestation and Revegetation (ARR), Agricultural Land Management (ALM), Avoided Conversion of Grasslands and Shrublands (ACoGS), and Wetlands Restoration and Conservation (WRC) methodologies. For those methodologies, the projects must address the risk of emissions leakage, market leakage, ecological leakage and activity-shifting leakage. The program includes a requirement to monitor leakage, as part of the monitoring plans for all projects for which there is a potential risk.

IMPORTANCE OF ENSURING NO DOUBLE COUNTING OR CLAIMING OF UNITS, *EUC 4.7*

Double Counting

In 2015, countries under the United Nations climate negotiations adopted the Paris Agreement, agreeing to limit global temperature rise to well below 2° Celsius and to increase resilience to climate change. Each country has put forward their proposals for meeting these global goals in their nationally determined contributions (NDCs). Consequently, all emissions reductions proposed for emissions trading with other countries or airlines under CORSIA must be recognized by the national government and transparently accounted for in order to ensure the avoidance of double counting. CORSIA requires programs to have provisions to ensure that emission reductions are only counted once towards a mitigation obligation, which is applicable to all sectors and offset types.

In line with the EUCs, all greenhouse gas programs must have a functioning registry for tracking emission reductions issued and claimed in order to ensure the avoidance of double counting. However, REDD+ activities must meet an additional requirement across all programs: UNFCCC decisions require that REDD+ results be recorded in the Lima REDD+ Information Hub. This provides a mechanism to ensure that all REDD+ results, including those transferred to CORSIA, can be identified and tracked against national progress under the Paris Agreement.

Utilizing an additional registry to track emission reductions as they are generated and claimed is compatible with the Warsaw Framework for REDD+. For example, REDD.plus utilizes IHS Markit is as their registry administrator, but falsely claims that the registry systems of other greenhouse gas programs are insufficient:

> *"Thus, unless such [voluntary standards, such as the World Bank's FCPF, VCS, GS, CAR, ACR, Plan Vivo, etc.] units have been canceled and exchanged for REDD.plus results units (RRUs) under REDD.plus they will effectively be double counted and fail to meet CORSIA environmental safeguards."*

REDD+ units generated under other programs will not "effectively be double counted." Just like any other offset program, REDD+ units delivered under specific greenhouse gas program standards, including FCPF and Verra's VCS JNR, must be transparently recorded in a registry and be subject to additional provisions to ensure no double claiming of emission reductions, including double issuance, use or selling.

For example, the Verra's VCS Program also requires projects (from "nested" REDD+ or other sectors) or JNR programs to provide evidence that the emission reductions or removals have not and will not otherwise be claimed under a greenhouse gas program or mechanism. REDD+ units included in VCS's application are assigned serial numbers, recorded in their project database and registry, subject to automatic check and periodically screened for discrepancies or duplication.

Double Claiming

All greenhouse gas programs should develop and institute updated rules to ensure no double claiming of emission reductions post-2020 in the context of the Paris Agreement and countries' NDCs. Double claiming is extremely problematic, as it creates the illusion that we are getting twice as many emission reductions as we actually achieve.

The EUCs and Appendix A to the CORSIA application are clear: Programs should provide attestations from governments indicating that the underlying mitigation "is not also counted toward national target(s) / pledge(s) / mitigation contributions / mitigation commitments."

Verra, the Gold Standard, ACR, CAR and GCT all note their willingness to do so in their applications and provide specific examples of how they intend to begin addressing this risk (in many cases, noting that final approaches will depend on the outcome of the Article 6 negotiations).

The GCT, for example, has discussed a letter of attestation with the government of Qatar. It also recommended ICAO hold capacity-building workshops with CORSIA-signatory countries and airlines to address double claiming and accounting issues, which we would also support.

The Gold Standard, CAR, and ACR all claimed to be working towards alignment with the Guidelines on Avoiding Double Counting for CORSIA (www.adc-wg.org). It should be noted that the civil society participants in the working group that developed the guidelines are of the view that to maintain integrity, host countries need to make corresponding adjustments when authorizing the use, for CORSIA, of credits issued for emissions reductions and removals whether those originate inside or outside the scope of NDC. This view is summarized in the executive summary of the guidelines. Gold Standard and CAR estimate their procedures will be made public by December 2019. CAR also mentioned it will develop a new website with CORSIA-specific information, including guidelines about procuring a Letter of Authorization and other key elements to address the risk of double claiming. Verra did not reference specific rules, but mentioned it is willing to update its current rules to address double claiming risks to better address those challenges post-2020.

Conversely, several submissions did not provide evidence of any relevant policies and procedures to ensure credits are only claimed once towards a mitigation obligation. This includes Nori, myclimate, British Columbia Offset Program, and The Carbon Forest Program (Poland). Thailand's T-VER mentions that it expects to have policies in place to avoid double claiming by the end of 2019, but does not provide specific examples or text for this. Similarly, the FCPF mentions that its section 6.2 provides "transparency" that there is no double claiming of the emissions reductions, but does not specify how it will ensure no double claiming.

The CCER program application raises a further double-counting concern. It appears that the majority of the CCER program methodologies are also CDM methodologies. It is possible that the CCER program could be issuing credits for the same projects and same reductions that have already been certified by the CDM. The CCER program application should be strengthened by providing clear, independently verifiable information that such double-issuance (and double-cancellation) has not occurred, and should describe the steps the program is taking to ensure that these do not occur in the future.

CONCLUSION

If the aviation sector were a country, it would be one of the top 10 emitters of carbon dioxide on Earth. To help deliver its promise of carbon-neutral growth from 2020, international aviation will have to look, in part, to carbon offsets. Experts estimate that nearly three fourths of the anticipated increase in international aviation emissions above 2020 levels could be covered by the market-based measure, CORSIA.[3] This could generate demand for up to 3 billion metric tons of carbon credits over CORSIA'S 15-year span.

With such demand, it is unsurprising that many programs seek to transition their carbon offsets into CORSIA. However, while many of the 14 applications have plans to address CORSIA's EUCs, not all have implemented them. Based on our review of these programs, we would recommend that the TAB take careful note of the relatively technically sophisticated and advanced programmatic design and offset integrity elements, as well as the base of experience put forward by Verra, The Gold Standard, Climate Action Reserve, American Carbon Registry, and British Columbia Offset Program, and request that these programs supplement their applications with greater detail on how they plan to assure, through attestations, that their units are not also being counted by host countries.

We would recommend the TAB request the Forest Carbon Partnership Facility and the Thailand program to supplement their applications with additional actions as indicated above, and post the revised applications for public review.

We recommend that these programs address key programmatic and offset integrity elements and apply again in a later application period: The Carbon Forest Program (Poland), Global Carbon Trust, Nori, REDD.plus, CCER, and myclimate.

Due to the incomplete nature of the application put forward by the Clean Development Mechanism, we were **not able to review** the program. We recommend against any recommendation or decision on this program until further details are provided and made available for public comment.

[3] *Environmental Defense Fund. "Reducing aviation's climate impact".* *https://www.edf.org/climate/aviation*

It is our assessment that ICAO and airlines can depend on REDD+ to provide a significant volume of robust offsets to help meet its emission reduction targets as well as a multitude of additional benefits in developing countries — including sustainable development, biodiversity conservation and improved human well-being — and to do so with environmental integrity.

REDD+ has a long track record of delivering high-quality emission reductions while also providing significant social, economic and biodiversity co-benefits. REDD+ programs support multiple Sustainable Development Goals, improve community livelihoods and enhance ecosystem health. Nature offers at least 30% of the solution to climate change but receives less than 2% of the funding. That needs to change if we are going to achieve global climate goals.

If implemented by robust programs that meet all of the EUCs, offsets from REDD+ traded under the CORSIA would provide a triple benefit: a secure supply of high-quality offsets that can help aviation meet its climate goals, a significant support for investment in forest protection, and benefits to local communities and developing countries.

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