

**2022 Global Aviation Dialogues (GLADs) on the
Feasibility of Long-term Aspirational Goal (LTAG)
for International Aviation CO₂ Emissions Reductions**

Dialogue Sessions - Day 2

COMPILATION OF VIEWS

Note: This document is a compilation of the views expressed, both verbally and in written format, during the second day of the five regional 2022 ICAO LTAG GLADs sessions, on the following two topics:

Topic 1: What might an LTAG look like?

The latest IPCC findings are unequivocal on the need for all sectors to contribute to the global temperature goals for 2050. In this regard, the LTAG scenarios are based on projected potential contributions of in-sector measures at the global level. What does this mean for your State and/or region and what level of international aviation's global CO₂ reduction and by which date should it be reached using in-sector measures?

Topic 2: What does it take to implement an LTAG?

As detailed in the LTAG report, there are many measures and innovations that can contribute to a future LTAG. What would be the possible means of implementation (e.g. capacity building) needed to support a long term aspirational goal of international aviation CO₂ emissions reduction? In which form should this support be provided?

The views are compiled in alphabetical order of States and Observers for each topic. Please note that some States and Observers provided views in more than one of the regional sessions.

Topic 1: What might an LTAG look like?

The latest IPCC findings are unequivocal on the need for all sectors to contribute to the global temperature goals for 2050. In this regard, the LTAG scenarios are based on projected potential contributions of in-sector measures at the global level. What does this mean for your State and/or region and what level of international aviation's global CO2 reduction and by which date should it be reached using in-sector measures?

Australia	<p>We believe the LTAG report is a comprehensive analysis that gives us the tools that we need to move forward on an LTAG. Australia believes that each of the three scenarios have been demonstrated to be feasible, noting that this is substantial difference in reductions by 2050 from the baseline and substantial difference in residual emissions. The LTAG report gives us confidence that the international aviation sector is able to contribute to reducing emissions to support these goals. Australia is also supportive of the next steps at this forum that will allow further constructive discussions among States to assess and agree in LTAG and the development of policies and guidance that will assist ICAO Member States to try to achieve agreed targeted emissions reductions. We definitely agree with Singapore's comments that LTAG needs to be practical and pragmatic. We also agree with New Zealand neighbors that we already know that climate change is here and it needs to be mitigated. We need to move forward and therefore we must come together constructively, and I keep saying constructively. But I really mean it that we need to talk about how to build our confidence and understanding of an LTAG rather than seeking to nitpick at it, I think, we really want to be progressive and work towards a long term aspirational goal for aviation as we understand the importance of actively addressing emissions in our industry.</p>
Belize	<p>Belize would like to congratulate you all for the initiative on this project that aims accomplishing these global aspirational long-term goals for the reduction of CO2 at the level of international aviation. These goals seem to be feasible and doable. However, it is important for the different States and Organizations to join these types of discussions. To hear the point of views from everyone and how the implementation of a certain initiative will affect your State. Furthermore, Belize would remain committed to support any initiative or projects that will cause a positive impact in the environment and which will also aim to achieve the United Nations sustainable goals.</p>
Brazil <i>(expressed by different experts in 1 session of the LTAG GLADs)</i>	<p>The process so far has been restricted to CAEP Members and Council members only, so this is an opportunity, especially for the SAM/NACC regions, to have access to such comprehensive and even complex information that was provided during these two-day GLADs. We still have some concerns. We have briefed on these concerns during the CAEP meetings, but it is important to share with our colleagues here from the region what Brazil has in mind when talking about an LTAG. Of course, we need to be ambitious, but it is important that any ambitious goal has the actual means to implement it, because it would be much worse to come up with a goal that is unachievable. So far we have three months for the High Level Meeting where all countries, all the 193 countries of ICAO will be discussing options or maybe non-options for an LTAG. And it is not clear yet the real cost for States. We know and understand the goal will be global, but we cannot be naive that the industry will pay this differently. So we are talking about the same goal, the same arriving point, but the departing point of each stakeholder is different and so are their capacities. And especially at this moment, we should recognize principles such as the common but differentiated responsibilities, which is the basis of the Paris Agreement. The COVID crisis has affected air transport but not equally. So developing countries, for example in our region especially, have not had the means to bail out our industry at the same level that developed countries did. So the level playing field at this moment is unequal</p>

	<p>and we are talking about pretty much costs on the industry for industries that in our region are suffering too much. So we need to keep in mind the information. Also that we have here only deals with in-sector measures and what we have seen in the three scenarios is that we can reduce emissions with in-sector measures, but we do not know yet how we can achieve that. And I think it is also very premature. I know that my colleagues mention gap filler to be more ambitious, but at this point it is very premature to set any goal depending on the gap filler because we do not know how it would impact different countries. The report is very restricted in this part, so in a nutshell I think of course as States we have the responsibility to discuss how we can position ourselves in the environmental agenda, especially considering the results at the Paris Agreement, but we need to be responsible and we need to know how each State will be in a position to contribute for this goal, considering the different responsibilities, the different capabilities and specially the historical emissions of each industry. We need to make sure that any goal is based on the three pillars of development, sustainable development, the economical, the environmental and the social ones. So it is different to respond to those questions at this point because specially for this region we do not have access yet for all the information that can be the basis of a negotiation process.</p> <p>I have to begin by fully supporting the intervention of Peru regarding what an LTAG means and what it should be. Intervention made by Peru is in line with what we have been saying over the past few months and years. I totally understand the comments on the global approach regarding the lack of information for each country for 2050, but it seems that this is contradictory. The lack of information is used to justify not considering the regional variances and countries' differences, but we seem to be pushed towards a long-term target, any long-term target, regardless of how such a target will be achieved in practice, and it is important that an LTAG is not only feasible, but also realistic. And if we do not have information to take into account countries' needs in the process of implementing the LTAG, we also do not have information to decide on an LTAG. Of course, I am not saying that we are not joining in discussion; on the contrary, we are joining in good faith and in a constructive spirit, but we have these reservations regarding how feasible and realistic this discussion is. For us it is important, as my other colleague from Brazil said that an LTAG is feasible in accordance with the technical studies made so far. And we agree with others that we should be guided by the best available science, which includes not only the IPCC findings but also the technical studies made by this organization applied to the international aviation sector and those studies and no scenarios so far analyzing net zero target. So Brazil understands that we should refrain from discussing such a goal, since we do not have an idea at this stage about the feasibility of such a target and what it might entail for countries in terms of costs and investments for its implementation. And net zero was not subject to technical assessment and it is premature, in our view, to assume that it should even be considered at this point. As for the level of ambition, which is also one of the items to consider, the report of the LTAG acknowledges that countries both face differences in implementing measures to achieve any scenario, which is why it does not make any sense for us to adopt a one-size-fits-all solution in this regard. We understand we should be able to consider maybe a mix of measures and a mix of some scenarios and a mix of levels of ambitions, taking into account the different contributions on technology, operations and fuels and the different availability of each of these elements in each region and in each country, according to different national circumstances and capacities, and those combining different levels, as I said, of ambition for different actors and also taking into account their historic responsibilities.</p>
Cambodia	I am glad to have a chance to join this dialogue session. I really appreciate for ICAO to initiate the long term aviation goal and CO2 emission reduction. Actually it is great for the world. I have no further comments, but as the representative of Cambodia we fully

	support this long term vision for growth for 2050 and Cambodia right now works with CORSIA as well.
Canada	On the level of ambition, Canada supports an LTAG, which is in line with the Paris Agreement’s long-term temperature goal and we also note the industry’s commitments towards net zero CO2 emissions by 2050. Furthermore, we believe that as we work towards an ambitious LTAG, we should aim for as much in-sector reductions as possible. However, that said, if we are unable to reach a goal that is in line with the Paris Agreement through in-sector reductions only, then we should also be considering out-of-sector gap fillers.
China <i>(expressed by different experts in 1 session of the LTAG GLADs)</i>	<p>I have two points about the LTAG and first of all, I think that LTAG should be developed and agreed by States in accordance with the principle of equality, Common But Differentiated Responsibilities (CBDR) and respective capabilities and based on the stocktaking of States nationally determined strategies under green low carbon aviation. As well, such a goal should be ambitious on the one hand, and pragmatic and balanced on the other. So as to make the global governance system of international aviation and climate change fair and more equitable. Secondly, on the other hand, the development of LTAG I think should take into full account the difference among States in terms of historical emissions, responsibilities and national circumstances, development stage and capacities. I think that it should be neither one size fits all goal nor was a goal without an integrity assistance mechanism. And the silence of those States cannot be taken as their agreement for LTAG. Also, I understand that there is a time limitation for the analysis above, I think that without analyzing the differences of States we are a little bit rushed to discuss the feasibility of LTAG.</p> <p>First of all, I remember the mandate of the last ICAO Assembly for the long term goal was to explore the feasibility of the long term global ideal goal of international aviation, including the impact on the growth and the cost of all countries, especially developing countries. We can say that the Council instructed the CAEP to do some work, but judging from this report there is a big gap from the resolution requirements of the last ICAO Assembly. I think that the data and views shown in the current report are small in number and mainly from developed countries and the models used are from Europe and the United States. They do not take into account the actual difference in development stages, resource endorsement and capacity levels of various countries in order to allow the impact and cost analysis of different stages of developing countries and don't reflect the opinions of experts from developing countries. At the same time, we would like to emphasize that today's climate change is mainly caused by the uncontrolled consumption and emissions of developed countries in the past 200 years. Whether developed countries can take the lead in significantly reducing emissions and provide developing countries with financial, technical and capacity building assistance needed for mitigation and communication is the key point for the success or failure of global cooperation to deal with climate change. ICAO’s emission reduction efforts should be consistent with this assistance to developing countries. The placement of a strong, effective, quantifiable, reportable assistance mechanism is an important part of the feasibility analysis of objectives and measures.</p> <p>I understand that we are talking about the sectoral goal. China supports the sustainable development of international aviation and we adopt many emission reduction measures. But I think that supporting international aviation emission reduction requires individual States’ financial resources, etc. and they are all based on States’ capacity and effort. So without talking about the feasibility of the States we cannot achieve the goal.</p>
Denmark	We support the views in the interventions from Sweden, Greece and the Netherlands and to reach net zero in 2050. We probably have

	<p>to look for out of sector measures, even in the IS3 scenario. And I have a question regarding in sector out of sector, just to clear any misunderstanding that I might have myself. I realized that out of sector initiatives are not part of the report, although I really don't know why, but for instance when looking through the LTAG report, I didn't find any mention of electric aircraft. Would electric aircraft be considered out of sector since their emission reductions relies on the use of green energy wind power, which is from another sector? Would out of sector actions with that for instance, be market based measures? So I would like a clarification of that. Thank you.</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Question 5.8.</i></p>
<p>Dominican Republic</p>	<p>We really thank the presentation of the LTAG report, we see it with good eyes that it presents in a transparent manner, financially speaking, the economic support and the contributions in three most important pillars, which require more attention and planning of the potential contributions. We understand the report presents ambitious goals and they remain as such so we can have a better understanding of future projections of both contributions and areas of mitigation that we need to implement. We have discussed this topic in our round-table, particularly some aspects we need to have more attention, especially capacity building in developing countries. This is mainly because there are elements or areas where the technical guidance on how to implement such initiatives or activities hasn't been provided yet. However, we understand that is a topic for discussion in this dialogue and this is also covered in the presented report.</p>
<p>Ecuador</p>	<p>Thanks to ICAO for organizing the GLADs and for presenting the LTAG report. My speech will be aligned to the opinion expressed by Brazil and Peru and you can clearly see that developing countries have similar positions to this topic. We acknowledge that a LTAG, undoubtedly, will be the best for the environment and address climate change; however, developing countries are currently facing a crisis and the economic situation unfortunately restricts us to implement an action plan and its measures.</p> <p>Ecuador will be grateful if ICAO starts to provide capacity building to us; however, the economic topic is complicated as expressed by Brazil and Peru. You have conducted an analysis of all Member States but without considering developing countries. The economic topic is critical to us in order to implement measures that would allow us to achieve the goals that you are proposing by 2050. But we need financial support/budget to go hand in hand with you, given that our baseline is different from yours.</p>
<p>France <i>(expressed in 2 different sessions of the LTAG GLADs)</i></p>	<p>I will try to answer the question of topic 1 on what might LTAG look like? For us, we should see an LTAG as an opportunity rather than a constraint. In fact, the adoption of an ambitious LTAG can no longer be postponed to put the sector on a sustainable path in line with the temperature goals of the Paris Agreement and the IPCC sixth assessment report. And the last part of this report is now available, and we can say it is alarming. For us it is of utmost importance for ICAO to reinforce its leadership, for promoting the sustainable growth of aviation. On the contrary, if the air transport sector is not able to commit to drastically reducing its CO2 emissions, the sector's growth could be at stake. So for us an LTAG is a permit to fly with the context of global warming rather than an obstacle to develop connectivity. Another point is that an LTAG is also about pushing aviation to innovate. So it can maintain its position as a purely cutting edge industry sector. In fact, it also will provide tremendous opportunities for developing countries in the field of SAF, for instance, where raw materials are available and cleanly produced can be generated especially from the sun. What</p>

	<p>about the level of ambition? Against this background, we need to be globally ambitious and being ambitious means that we should aim to drastically reduce CO2 emissions from international aviation by 2050 well below the 2019 level and the 2019 levels are the reference level taken in the LTAG report and for international aviation it was 600 million tonnes of CO2. In this respect, we believe that we should reduce CO2 emission as much as possible by using all available in-sector levers to get as close as possible to the integrated scenario 3 of the report, which means 200 million tonnes of CO2 in 2050 is around 35% of the level of 2019. Such a goal for 2050 should be complemented by intermediate steps. For instance in 2030 or the end of 2040. And the remaining emissions could be also offset by measures outside the sector. Moreover, as the entire report has clearly demonstrated, SAF is the most important lever for reducing CO2 emissions. We therefore believe that an ambitious LTAG goes hand in hand with an ambitious overall SAF target. Once again, the question of costs and commercial opportunity is a very important question and LTAG TG Cost Group Lead has already given a part of the answer. But it is important to come back to these questions. The cost presented in the LTAG report might seem daunting. For example, if you look at the figures for fuels, it is all almost 4000 billion dollars in the context of integrating scenario 3. But firstly, these figures are cumulative over a period of 30 years, and secondly, they need to be put into perspective. For instance, these figures should be compared with the airline revenues during the period as it was already suggested last week during the first day of the GLAD. And we also explained last week that the use of SAF in integrated scenario 3 would represent between 15% and 20% increase in ticket price. But it is very, very important to remember that last week we also ended talking about the cost analysis for fuels in the LTAG report which is based on old price, which is half the current price. This means that it's very likely that SAF will become affordable compared to fossil fuel in the coming years due to both industrial progress and rising prices. There is also an important point to underline. It is worth noting, back in the coming years, an easy absence of strong decarbonisation in the aviation sector is likely to lose access to many financing opportunities as more and more investors will demand that their money is spent on sustainable activities. I will end this intervention by saying that these changes represent fantastic opportunities in many areas, in particular, SAF is a way to develop underused territories to create jobs in innovation activities, and with the implementation of solutions, and that all over the world.</p>
<p>Greece</p>	<p>Climate change is a reality for our planet, and it's not only protected by IPCC findings. Therefore, including all sectors, including aviation, have to contribute to the goal, the global temperature goals. LTAG report shows that international aviation can significantly reduce its emissions by the middle of the century using in-sector measures. There are uncertainties in this report. However, it is also obvious that it's not sufficient to reach net zero emissions for aviation without out of sector measures. All States, jointly, should adopt policies and take measures to meet the aspirational goal of carbon neutral growth. So sustainability frameworks for developing alternative fuels have to be further developed and ensure that there are environmental benefits from SAF that are real and measurable. Greece welcomes the progress made and the report produced by CAEP and LTAG and encourages all States to take steps towards reducing aviation impact on climate change and set goals for quantified proportions of SAF in their aviation activities.</p>
<p>India <i>(expressed in 2 different</i></p>	<p>I would like to recall that before quoting the IPCC findings and all, we should follow the principles of the Paris Agreement, which called for the world to achieve a balance between emissions and removals in the second half of the century. The parties should cooperate to promote the supportive and open international economic system that could lead to sustainable economic growth and development in every State, particularly the developing countries. Measures taken to combat climate change, including unilateral</p>

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ones, should not constitute a means of arbitrary or unjustifiable disguised restriction on international trade. Regarding the scenarios, the States should be presented with all three scenarios and let them choose which level of commitment each one would take, and then have the sum of all the commitments resulting in the LTAG. Further, it is also logical that if we truly believe in the principles of CBDR and equity, we can only have the global net zero. It is equally evident that developing countries will take much longer to reach net zero given their overarching goals of poverty eradication and development. They will peak after the developed countries do. They will need to be given the additional time frame so we can go towards net zero which may be beyond 2050. Similarly, the international aviation sector in developing countries is yet to be anywhere near the peak levels, unlike those in the developed countries. Now if we talk about the gap fillers, we should be very clear what gap we would like to fill. It is not clearly specified and we need a reference to derive this gap. If we are going to consider out of sector gap fillers to discuss some much more aggressive LTAG, we must first discuss the problems of CORSIA and remove the market distortions embedded in the scheme as it stands today at the CORSIA 2022 periodic review. The current design of CORSIA is inadequate for consideration under the LTAG. We need more time to mature ourselves in this and cater the exact effect once the mandatory phase begins. Lastly, to conclude we are always very much serious about our climate and planet, but I believe the study for exploring the feasibility of LTAG should continue after the 41st Assembly so that an adequate level of information can be reached. Citing the time and data constraints, which cannot force an ambitious goal for our sector as well impact almost all the coming generations. And lastly, I will congratulate you for this LTAG GLADs, but I again, I seen that the GLADs was not much enough to discuss the problems of the States in hand. I would request you to please arrange another session of dialogues or we can come up with another suggestion how the more States can be brought up on speed. As you already said that only two or three States are taking the floor to express their views. So for them to understand much more the impacts of LTAG and for us to even consult everyone please we should be allowed much more time.

I would like to just flag certain concerns from India. I first support the comments given by the Russian Federation. Secondly, my friend from Sweden. Yes, we should follow the goal of 1.5 degrees, but we should not also forget the principles of CBDR and equity. And also not pull out the COVID pandemic impacts which our countries are facing. We have been pushed down our aviation to a level we don't know when we're going to achieve our same aviation growth rate as per the COVID pandemic impacts are going on. And shortly we will not achieve this before the developed countries do soon. It is equally evident that developing countries will take much longer to reach net zero given their overarching goals of poverty eradication and development. They will peak after the developed countries do. So yes, we know that the global zero has been agreed on, but it does not focus on individual zero. So there will be a need to give an additional time frame to peak so we can go towards net zero. Yes, surely some countries can go towards 2050 or even go beyond net zero, but there should be a certain time for the developing countries to be given. That we cannot go for the net zero by 2050, I'll just give you an example or an analysis with one of the developed countries that Indian aviation has cumulative emissions by 2035, both domestic and international will be of a level which the current developed country is having. Even though we have progressed or gone through the 5%, this in itself presents a very clear picture. Now talking about the level of ambition for an LTAG. There is much talk of an ambitious goal, but it must be recognized that it would be much worse to set an unachievable goal at this stage when so many doubts remain for developing countries. ICAO should also focus on putting an end to the regional patchwork of global market based measures schemes to establish a level playing field for everyone. We are not right now mature enough even for CORSIA and we are facing the regional patchworks too. So how can we go for an ambitious goal? It is important

	<p>that LTAG would be pragmatic, practical, realistic and feasible. Net zero was not subject to technical assessment and it is premature to assume that it should even be considered. As for the level of ambition, even the LTAG report acknowledged that countries will face differences in implementing measures to achieve any scenario. So it should be left on to the States at what scenario they will be, it will be suited to them as per their respective capabilities. In the end, we are not against an LTAG, but we surely believe that should we create it, it should not be adopted as one size fits all solution. We should be able to consider a mix of measures taking into account different contributions by each State, by each capability, different national circumstances and capacity. Thus combining different levels of ambition for different actors according to their historical responsibility. So again, while ending my speech, I would say that we should also look at the problems right now faced by the developing countries and see how far they are maturing in CORSIA. I believe that the study for exploring the feasibility of LTAG should continue even after the 41st Assembly so that we can get adequate time and level of information for having that confidence that it can be achieved. Fighting the time and data for States we cannot force an ambitious goal and talking about the potential CO2 emissions gap fillers, I don't know what a gap is right now. How can I suggest the fillers for that? So yes, we need a goal. We need a gap that has to be filled before suggesting any of the pillars. And as for my country, we are very much working ahead in the environment, whether it be solar energy or sustainable aviation fuel. It is still in the developing stage, but we are doing our bit.</p>
Indonesia	<p>As Indonesia, while we of course support this LTAG presentation here, I would like to underline the key words that have been mentioned by our colleague from ATAG. That word is flexibility. Although the experts in LTAG have make an excellent job for this LTAG document, I would like to recommend that we have to be flexible in the future in terms of in adapting or adjusting our scenario in the future if there is another new development in terms of technology or economic development that might interfere with or influence our LTAG scenario. This could be in terms of making the technology better or making the operations more efficient. Then we should explore this possibility, whether it's in sector, also out of sector.</p>
Iran (Islamic Republic of)	<p>I have few items to comment on. For the first item, the latest scientific understanding. I do believe that the share of aviation is just a little in the global production of CO2 and maybe the bigger players in the world in this area can contribute more to reducing, but it does not mean that we should not accept our responsibility to reduce CO2. So that is my comment on the first item. The second one, I do believe that the hydrogen is the final solution to our problem, so as long as these polluting aircrafts are in the sky, I think all we do is very good, it is very helpful, but you know, as long as the cleantech actual cleantech is not here, we cannot expect that we can really overcome the global warming problem. So I do believe that hydrogen is the final solution and we have to shift our resources. We have to invest our resources to reach that goal of making hydrogen, that prominent field in the world. For the fourth one, potential CO2 emission; I have seen two things in my State, Iran, that I want to share. First I thought that in the past years I thought that these are specific to Iran but now, I talked to different pilots, I see that this is not specific to my country and this is something more global. First is fuel tankering. I have seen that a lot. So, we are talking about reducing CO2 with a new engine and new design but there is something like fuel tankering. And this tankering of fuel adds extra weight to the airplane and it is not little extra weight it is a lot. It happens mainly due to the fuel being cheap in one country and being expensive in another country. But sometimes in our case sanctions cause fuel tinkering maybe because we cannot get the fuel in some different locations. It definitely increases the production of CO2 in flight for just some commercial thing, some marketing thing, I don't know. So it is worth money. I cannot accept it as a</p>

	<p>human; I cannot accept that we are polluting our environment just because of some money that we are saving. This is the first thing. The second thing is that for example, Iran has more than 15 airlines. Maybe they are 18 now and the numbers are growing more and more, but there is no code sharing between these airlines. This lack of code sharing contributes to excessive fuel use because each of these airlines wants to have its routes and then with these routes the flights sometimes are not ghost flights, but there are more seats that can be used, so code sharing in my opinion is my country's problem. If we can do it here, I think that we can take a good step towards reduction of CO2. Thank you.</p>
<p>Italy</p>	<p>We do believe that it is really important that the Council has been provided with this work with this technically developed material to allow them to decide or to take into consideration options and inform then the Assembly. But we do want to transform our world, our technocracy, while we do believe, as generally said, the first day of this dialogue is a change of our approach towards problems, problems that we ourselves have created. Therefore we should make a complete change of efforts and complete change of approach, which means the changes not only in terms of the technicalities, but also in terms of mental, philosophical, historical approach to such an important period, such an important problem. It is a problem in our common home. You heard that we are the administrators of this wonderful place and we have to take care of it. Therefore, we do believe this is an important opportunity to increase ICAO credibility, but to also help those countries which are not developed because part of the ICAO approach and guidelines will be so called capacity building. We do not want to create any kind of discrimination for those countries which have got debts in front of other countries. So we believe that this is a good pathway towards a great book.</p>
<p>Jamaica</p>	<p>Jamaica would like to thank ICAO and the 300 LTAG experts for putting together a technically sound and robust report. With the caveat that because of these reasons, I have not yet completed reading all of them. It is a State's opportunity to make a contribution to the process and I am very appreciative and thankful for this opportunity as I am sure my other colleagues and other States are. Jamaica would not at this time be opposed to supporting an LTAG GLADs that recognizes the special circumstances and respective capabilities of States to achieve the LTAG agreement. As a Small Island Developing State, Jamaica is intimately aware of and impacted by climate change, although our contribution to the global emissions is negligible. In consideration of all of these, these are some of the areas that I think I would need to have under consideration, especially for a Small Island Developing States such as Jamaica and other Landlocked Developing States and Least Developed States such as consolidation of goals where possible. For example, I know that the industry has set a CO2 emissions goal of net zero and at the moment ICAO is in discussion to decide what would be our long term aspirational goal. I am thinking that perhaps we should consider consolidating these goals so that everybody, if possible, where possible, consolidation of the goals would be appropriate or feasible. For the Small Island Developing States, capacity building and assistance is critical to this process, especially when it comes to implementation. And for some States, a more hands on approach might be even better because as Peru has indicated and also Brazil, that in some areas there is very little capacity in the countries; one person or two persons. And so you know that is a challenge in terms of the gaps that will not be filled by technology, operations and sustainable aviation fuels. What will the gap filler look like? CORSIA I would consider to be a gap filler because it is a complementary measure. It is slated to end in 2035 and are we contemplating an extension of CORSIA as that gap filler? Or are States still contemplating other gap fillers? I guess that is a lot of fruitful for thought for now and for us to all consider where we go in terms of the long term aspirational goals.</p>

Japan	Thank you. First of all, Japan fully supports the LTAG efforts of ICAO. Japan signed the Declaration International Aviation Climate Ambition Coalition at COP 26 last year. In this declaration, it is mentioned that; supporting the adoption by ICAO of an ambitious long-term aspirational goal and in view of the industry’s commitments towards net zero CO2 emissions by 2050. On adapting LTAG, long term goals should be ambitious and harmonized based on this declaration. Thank you very much.
Lebanon	Good morning, good afternoon to everyone. Thank you to ICAO MID for giving us this opportunity in order to discuss the main environmental or aviation environmental issues. To be quick and go through the targets, if we are talking about scientific understanding from my point of view, it should be dealt with at a level with all stakeholders, starting from the Ministry of Environment and the State and the universities, national universities and the institutions. And you know, in each State we have a lot of research and development regarding global warming and climate change. From my point of view, no big challenges at this level, but once we are talking about other potential contribution examples for technology, operations and fuels to take a case study, for example, for Lebanon, everybody knows the big extreme economic crisis. Although we have this economic crisis, we still have a big investment in technology and operations, but if we are talking about investment of SAF or LCAF or others, I think it will be go beyond the State itself needs a lot of collaboration between national and regional and international efforts in order to go to the target. Also, I think that all MID States have the will and to go through the LTAG but as my colleague from UAE said, there are big challenges for most countries due to the economic crisis. I think we can go through LTAG if we have a big support from ICAO and other States, especially in the ICAO MID region and especially in current situations, there are a lot of economic crises around all the States. For this, according to us or to Lebanon, we are still fighting in order and we also have the will in order to get the ambitious LTAG. And at the same time, we have a lot of challenges starting from capacity building from financial to technical and other problems. Thank you very much.
Malaysia	The initiative taken by ICAO in doing as much as we can to reduce or eliminate the impact of CO2 emission to the environment specifically despite the current COVID-19 situation. Malaysia will support all these initiatives. Malaysia, in fact, we have done our part in CORSIA and we have also done some work on the operational improvement especially on the shortening, improving the number of routes to reduce the fuel use by the international flights. And we are also working with our counterparts in various Ministries to start the Sustainable aviation fuel initiative. We hope that will help in supporting this LTAG goal by ICAO.
Netherlands	Thank you. So first of all, thanks so much to the LTAG working group for all the work that has been done. It has been a tremendous effort. So thank you so much and thanks for addressing the latest IPCC report and the cost of inaction because science is really clear 1.5 degrees and even 2 degrees of global warming are fast approaching. And civil aviation share of remaining emissions is expected to grow and grow and as an aviation sector in goal setting, we have the tendency to really focus on feasibility and of course that is good, but it is really our obligation to move towards goals that are needed to avoid a climate crisis. Instead of only focusing on what we see as pragmatic and false. But for this long term aspirational goal, it is key that it is built bottom up from ambitious, but also yet feasible in sector measures, and the CAEP LTAG report has provided precisely in analytical basis, which we can build on. This in-sector reduction should be as large as technically and economically possible, so we do not shift responsibility for our emissions to other sectors, while also providing fertile grounds for long term investments in radical innovation. The integrated scenario three is feasible and the only scenario in which emissions are reduced significantly below current levels and we see potential in hydrogen powered aircraft. But the report also shows very similar results can be obtained with drop-in SAF which is also very important. Even

	<p>in integrated scenario 3, there will be residual emissions from international civil aviation and it will be predicted to be around 200 megaton per year in 2050, and ICAO should address these too. For us it is really clear what the goal should be: NetZero CO2 in 2050. But as we have to take action now, the goal should also be supported by intermediate weight points with as much in-sector reduction as possible, and negative emissions to address what remains.</p>
<p>New Zealand</p>	<p>New Zealand considers the LTAG must be ambitious and the sector needs to set an aspirational goal that goes beyond business as usual. New Zealand was one of the States that signed the International aviation Climate Ambition Coalition initiative at COP 26. We did this because we believe it is important that this industry plays its role to reduce emissions. Pacific Island States, including New Zealand, cannot wait for the world to continue to ponder if something should be done. We must take action now, and this is a significant opportunity for this sector to sit down, what it will aspire to and to do its part. It is important because many of us will be impacted if climate change is not slowed. Many small islands face rising sea levels and if this is not stopped, those islands will begin to and have begun to disappear. The people living on them will no longer have a country of their own if the world does not rapidly progress to reduce emissions. The LTAG's ambition should be a given. We know climate change is real. We know we can take steps to mitigate it. Let's make this industry one that takes those positive and meaningful steps. New Zealand does not think that the integrated scenario one is an option because it is not ambitious enough. To help get this agreed, we need to ensure the material on LTAG is accessible, for example by providing more information on the cost for industry in a way that is accessible and relatable. We're all concerned with costs but having a better understanding of this across industries would be beneficial. New Zealand considers it would be useful if there was a breakdown of the likely investment needed over, for example, 3-10 year periods or otherwise, how the costs compared to business as usual, and what industry would usually be spinning on technological improvements and fuel. Additionally, understanding how those costs relate to the revenue that the industry generates would help to provide perspective for future needs. New Zealand would like more clarity on the proposed structure of the LTAG, including any mandated requirements to enable States to analyze and better understand the impact. Thank you again for the opportunity and we look forward to the development of an LTAG that is ambitious and aspirational.</p>
<p>Nigeria <i>(expressed by different experts in 1 session of the LTAG GLADs)</i></p>	<p>I want to make a few comments and clarifications on this topic. The topic is what might an LTAG look like? I want to take it up as some of the few comments made by Jane. And I think she mentioned that an LTAG is a goal and there's no commitments to States. So it's just like the name is a long term aspirational goal and that States we behave differently to the LTAG, which is clear from all the analysis and data that we have been looking at on this topic shows formation that States cannot have the same starting points. So I just want to start with those comments. However, if we look at the item to consider under discussion we mentioned potential CO2 emission gap fillers. So for me, when you say potential CO2 gap fillers, it means that there will be a reference to a particular time that is the gap fillers as we have a reference when does this start from? And I also want to take us back to some of the comments that have been made by developing countries at different fora, where some of these governments have mentioned that they will not be ready for the LTAG by 2050. But from this when we say gap fillers it seems as if we're saying that it has to be 2050 LTAG for everyone not considering if we're starting on different pages. So I'll just need clarification on this issue of potential gap fillers, when is the reference point? Secondly, the clarification that would like to know is that is an LTAG going to consider out-of-sector gap fillers.</p>

	<p>I have a few questions and clarifications. What I want to talk about now is the issue of capacity and the funding. We cannot all be there at the same time as we do not have the same capacity as attaining the feasibility. I don't know what can be done because some states, especially developing States, need to know more about the consequences of making the commitment to attend a goal. And then on the issue of funding, also something needs to be done as part of assistance for them to assess the funding. And then lastly, the issue of one thing that will make us attend; the issue of SAF. A lot of the developing countries do not have the capacity to develop the SAF. So I think something needs to be done for capacity building and also for attainment of feasibility.</p>
<p>Peru</p>	<p>Peru would like to thank ICAO and CAEP for this valuable information that has been shared with the developing countries, especially countries from South America. We don't have these opportunities very often and it is a luxury to have them right now for such important decisions such as a long term goal. Taking advantage of this forum and from the honesty that we have always shown, I would like to express some concerns we, developing countries, have. Particularly talking about Peru, we received the report just one week before these dialogues; and although I am not aware of the situation of other countries, in Peru we only have 2 people responsible for this topic; therefore it was very difficult to read the whole report due to its length. In the case of Peru, the pandemic has greatly impacted the transport sector and we have not been able to give incentives to airlines just like other countries did, even though we would have liked to do so but this possibility was out of our hands. So when I hear the word 'global', I always think that global implies to have, in a way, an equal initial standard. However, in Peru, we do not think we have the same starting point. We have also seen the economic analysis, with talks about USD billion. And when we read in the report that all of this is going to be reflected on the final users, we have the feeling that we live in a global world but with very different characteristics. In that sense, our main concern is focused on whether we are really applying the principle of different circumstances, respective capabilities of States. And if being global means a sort of equality among countries although we are not really equal. Therefore, we are afraid and we feel we are not 100% informed about this topic. This dialogue has been the first attempt to understand in a deeper manner the LTAG report. However, we consider we don't have all the necessary elements to adopt a final position about this topic. We continue with this anxiety to fully understand the impacts that an LTAG will have over the Region, without prejudging our commitment with the environment. Sometimes uninformed situations lead us to decisions that are not correct and we need a lot of information to have the same level of knowledge available in other countries also in South America. We would like to thank this forum and we will appreciate deeper information on the impacts of this long term ambitious goal.</p>
<p>Philippines</p>	<p>While the Philippines recognizes the importance of meeting our commitments with the Paris Agreement and supports the initiatives of ICAO in producing the contributions, the greenhouse gas emissions of the aviation sector, we would like to emphasize the need for States to conduct in-depth stakeholder consultations at the domestic level. So we note that several of these strategies indicated in the report involve considerable investment and involvement of various stakeholders from the market and as such there is a need to gather insights from airports, air navigation service providers, airlines and other relevant parties as this will also impact their long term plans. And we also have to check if the investments required from implementing this LTAG is feasible at the moment for our other parties, given the fact that a lot of us have been affected severely by the COVID-19 pandemic, so in turn, we believe that reaching out toward domestic stakeholders can also serve as an information, education and communication strategy and enter this could encourage the buying and support of this party. So that's all on behalf of the Philippines and we support the LTAG initiative of</p>

	the ICAO.
Qatar	<p>There are two main points as previous speakers stressed on: the urgency of the matter. It is very urgent and the aviation industry has to act now. I mean, the aviation industry has to act now and not tomorrow. That is two main points. That has to be in our back mind, also in the State of Qatar, we are taking this and we are doing all what we can in this direction, and just to mention that our flag carrier has committed to net zero by 2050. I have a question or a comment regarding the level of ambition for an LTAG. The tremendous work and effort that have been put into the report of the LTAG. It is a really big effort and a very well structured report. But now, as the LTAG work has led down the options for the civil aviation stakeholders and community to set up their level or its level of ambition here, when we come to the details it is difficult to make everyone happy. I mean those details that will make some let say not happy the others in between that because if we increase the ambition to reach our goal very fast then this will be on and the treatment of other State, let's say or region or then how the compromise in implementing what's in one option of the many that they that they are let down by the report on the ground. I mean how to reach a road map, implementation road map of the options let down in the LTAG report by having a consensus between all these stakeholders. All these States, let's say stakeholders and States because in achieving the LTAG target or ambition. We have States and we have stakeholders. We have economic stakeholders like the SAF produces etc. then how to reach that consensus in that detailed road map? As I said, we do not want to create a new market but we will help and agree, minimizing the emissions without destroying or killing an old market, a market and an infrastructure that has been there for years.</p> <p>Regarding the creation of new markets and destroying an old one. It is not destroying I mean. That comes from what I have said before, the details of the implementation of the LTAG report where we have to discuss in depth and I agree on steps because there is, I will give you just an example of the coexistence of the SAF and the LCAF. This is a way not to destroy an old market and create a new market harshly. This coexistence will help many players in aviation and outside aviation to build themselves with the new environment. The home phone and the cell phone. We did not cut off the home phone and start from day one with the telephone. It took decades. I mean that we are not using the home phone anymore and that's why this coexistence of SAF and LCAF in the transition period has to be used and has to be implemented. And in order to reach that ambition and those LCAF ambitions more as an aviation community, we need to support the needy States or stakeholders more. The ambitions are high, the efforts have to be high and also the capacity building has to be high and the requirement on our shoulders will be high.</p>
Russian Federation	<p>With regard to the building blocks. I will start with a general observation: Russia, together with China, India, Brazil and other countries note that the Assembly instructions set out in resolving close nine in the resolution A40-18 were not fully completed. In particular, studies on the possible economic consequences of the LTAG scenarios implementation for developing countries have not been conducted which is also appropriate for emerging economy countries with the high rates of growth in air transportation. Also the LTAG TG Report does not present an assessment of the possible risks to the flight safety in connection with implementation of the ambitious goal of LTAG. Second, I will combine two items together, recognition of the scientific understanding and the technical feasibility of LTAG scenarios. Of particular concern is apparent reassessment of the potential contribution of the sustainable aviation fuels to the achievement of the projected LTAG results under presented scenarios. It is obvious that in addition to estimating SAF</p>

production volumes, considering the existing raw material base. A comprehensive analysis of economic consequences of SAF use in the countries with a different level of economic development should be carried out. This should take into account the fact that, in addition to the certification of various types of SAF estimated internationally, for example the lengthy and expensive certification of aircraft engines and the fuel system for the safe use of 100% of SAF is required. A comparative analysis of the feasibility of investing in the production and SAF usage is also needed in view of its high cost with a low environmental efficiency and its life cycle CO2 emissions, rather than investing in the aircraft fleet renewal, which is in addition provides an increasing fuel efficiency together with a real reduction of the CO2 emissions. As well as contributes to increased safety and commercial efficiency of the flight durations. The conclusion about the possibility of widespread introduction of electric and hydrogen powered planes requires further scientific and technical development. Before including the expected results from their use in the LTAG scenarios it's not obvious that in medium terms it would be possible to achieve significant result in the increasing batteries capacity, expanding the effective temperature operative range as well as the safety of using hydrogen as aviation fuel taking into account its extremely high explosiveness [inaudible] level of LTAG ambition. It should be recognized that declared voluntary adoption of ambitious ICAO goals can be transferred soon into the mandatory requirements for the international flights at the regional. This was clearly manifested by the example of including in the European Union roadmaps as obligation to use a quantified portion of SAF in flying in the EU airspace. It should also be noted that despite the request of the Assembly the LTAG Report lacks analysis of the progress made by Member States in achieving their intermediate goals as outlined in their national plans on CO2 emission reduction. The LTAG report considers the temporary decline in air traffic volumes at the global level caused by the COVID-19 pandemic and other consequences, but does not take into account very difficult financial and economic status of the overwhelming number of operators for developing countries connected to the crisis state of the industry. At the same time, all three scenarios provided would be significant in sector investment against the background, traditional cost for the airlines, either the need for them to fulfill or saving obligation on the CORSIA. In this regard, more researchers are needed to identify sustainable sources of financing for introduction of advanced technology, the modernization and development of infrastructure, and subsidization of use of SAF in developing countries in the context of equitable consideration of their special circumstances and respective capabilities. The LTAG report mentioned insufficiency of intra-sectoral measures to achieve carbon neutrality by 2050. In this regard CORSIA continues to be the gap filler. In this regard a study should be conducted on the possibility of parallel implementation of CORSIA and measures envisaged by the LTAG scenarios. In the context of the excessive financial burden on the industry, with the high probability it will result in the stagnation of its sustainable technological development and as a result a decrease of the overall level of flight safety. In the view of work to be appropriately concluded that continuation of the work of LTAG TG is required in order to establish more realistic long term goals, aspirational goals taking into account the previously mentioned factor in relation to the various group of States in order to ensure the sustainable development of the world air transport system in the interest of the all ICAO Member States. I will have one more question during the discussion.

I would like to say that I love the latest IPCC findings where the need for all States to contribute to the global temperature goals for 2050 is highlighted. It means that there is no room for the CORSIA setting mechanism which borrows the emission reductions from other industrial sectors. But I'd like to touch on another option which we have discussed in ICAO. This option has a potential to compensate in-sector CO2 emissions of international civil aviation. I mean the creation of the United Nations mobile aviation forces to fight forest fires and other natural elements. My question. Why no one integrated scenarios do not include these options.

<p>Singapore</p>	<p>In terms of the long term aspirational goal, Singapore is generally supportive of practical and pragmatic but yet ambitious LTAG. We also believe that given the global pressure at the international movement it is important for ICAO to reach a decision on the long term aspirational goal at the upcoming Assembly to ensure that the aviation sector continues to be relevant and contributes its share towards climate change. In terms of the actual goal, we do believe that there should be some flexibility recognizing the differences amongst States and the differences among different stakeholders. Also, it is important that in the case of our deliberation that we can reach some level of compromise to have a common landing zone.</p>
<p>South Africa</p>	<p>As this is an opportunity for non CAEP Member States to speak, perhaps what should be considered in LTAG and I think what is good and dear to the region itself is the old notion of viability in the developing nations, and we have heard statements about out-of-sector emissions being considered and so forth. So what I do think what we do need is a bullet. I agree with all the bullets here obviously. What we do need is the economic aspect also as a bullet. And the impact that is going to have on developing nations because the concern does exist that at this stage that the method proposed for calculating the offsets is going not necessarily favor developing nations. It's going to rather favor the established big ones. So I do think us as a region we need to be cognizant of that aspect and stand up for what we believe our constraint is going to be in going forward and the economic side of things definitely has the potential of being a constraint if the aspiration becomes an accepted norm at some point going forward.</p>
<p>Spain <i>(expressed in 2 different sessions of the LTAG GLADs)</i></p>	<p>The latest IPCC studies leaves us in no doubt of the importance of all sector's contributions to achieve the global temperature goal in 2050. International aviation has been a pioneering sector for decades and is always anticipating new challenges of all kinds. Now we must act in the same way to be able to stop the climate crisis that we are facing today. The three fundamental pillars of the LTAG, sustainable technologies, operations and fuels, must continue to be dynamic tools to achieve this challenge objective. In order to achieve this objective, we must be ambitious and history has shown us that only with determination and the technical work of CAEP will we be able to make aviation truly sustainable and viable in the short and medium term. Otherwise, if we fail to take action now, aviation can become the focus of all eyes at an industrial and international level, rendering us as an outdated industry and a negative force.</p>
<p>Sweden</p>	<p>Sweden is of the view that science already told us what to do. We need to get to zero emissions in 2050 in order to fulfill the Paris Agreement and avoid the temperature increase, or more than 1.5 degrees. This means that all sectors, including international aviation, now must raise their ambition. We also know that the aviation industry already has taken a decision to reach net zero in 2050. So we believe that ICAO also should adopt an ambitious LTAG consistent with a 1.5 degree target of the Paris Agreement. And we understand that costs are a concern for many. And in that context, we would like to reiterate that the collective goal of global international aviation would not set obligations or targets to individual States. The long term aspirational goals should be seen as something we all should strive for together. And finally, one more comment regarding costs. The road, ambitious and will include for instance, an increased production of SAF, new propulsion technologies and the introduction of new materials and solutions in aircraft. This means that an ambitious LTAG also will create new business opportunities and new green jobs. So there are a lot of benefits including that not only that decreased climate impact.</p>

Trinidad and Tobago	<p>First I would like to thank ICAO for the report and for what has been said thus far in these meetings. Trinidad and Tobago remains committed to doing all part regardless of how small to the reduction of CO2 emissions from civil aviation. As a small island State, we know the impacts of climate change to our lives. And therefore it's important that we continue to do our work and our part in the reduction of CO2 emissions. We look forward to seeing the development of market based measures and sustainable fuels because in our view, that is what is important as Jamaica just said, to reduce the gaps to ensure that we can achieve these goals that we have set and as you said to the aspirational goals that we have set. So we look forward to seeing more details and guidance and so of course it is essential for developing States and as you have said to all States in general to achieve these goals.</p>
United Arab Emirates	<p>I have just a question and more you can clarify from your side. I feel you all aware that this region is not equal in terms of its immaturity and readiness toward the whole CO2 reduction scheme, therefore, like how the ICAO will ensure that we all globally will meet the global goals for CO2 reduction without having any drop in that goal and what will be the implications of such a differentiation in the readiness and immaturity? How will it implicate the whole scheme?</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Questions 1.9., 1.11.</i></p>
United Kingdom	<p>On behalf of the UK, I'd just like to start off by thanking all of the experts that contributed to this excellent report. ICAO for the opportunity to discuss and Jane thank you to you for facilitating this excellent session today. The UK firmly believes the time is right for international aviation to adopt an ambitious long term goal, a goal that puts it on a Paris consistent pathway. Of course, we recognize that while the costs of change are high. Surely, the costs of not acting are much higher and we look forward to enthusiastically working together to work on the opportunities that this will create for all States as we take this journey hand in hand, we remain committed to collaborating and providing support through ICAO to ensure that no country is left behind. The report itself is a thorough and comprehensive analysis that shows an ambitious LTAG is achievable globally, recognizing that individual States will each play a different role in realizing the aspirational goal according to their means. A single global goal will give clear direction to both States and also to industry. It will also signal that the sector is committed to sustainable growth. This will help to draw the necessary investment and focus the development of the necessary measures, including opening up new opportunities for growth, for example the production of sustainable aviation fuels. However, to ensure the target is both achievable and equitable, it will be very important to States to support each other, building the capacity for sustainable growth. It's absolutely clear that significant progress can be made through the in-sector measures examined in the CAEP technical study. However, the science tells us that the global economy must reach net zero emissions by around 2050 to stay on track for the 1.5 degree Celsius Paris Agreement temperature goal. As it is not possible for international aviation to reach zero CO2 emissions even by 2070 through in-sector measures alone. The UK supports an ambitious net goal through the inclusion of outer sector measures, by which I mean use of carbon removals in order to come as close as possible to net zero by 2050. COP26 in Glasgow last year was a huge success in showing support and the commitment of States from across the world and working together across sectors to tackle climate change. It also saw the launch of the International Aviation Climate Ambition Coalition, which brought together States from across regions to declare their commitment to ambitious action on aviation's climate impacts, including supporting the adoption by ICAO of an LTAG consistent with Paris agreement temperature limits in light of the commitment by industry to net zero emissions by 2050, this feels like a great achievement. Initially</p>

	<p>25 States have joined the coalition at COP 26, representing over half of global aviation emissions. Support is growing for aviation climate action and we welcome all States contributing their voice to the debate, which is why these GLAD sessions are absolutely crucial and important.</p>
United States	<p>The United States supports setting a long-term aspirational goal for CO2 emissions from international aviation. Just this last fall in 2021, we released our own United States Aviation Climate Action Plan. This document articulates, based upon our scientific understanding of the climate, solutions and international policies for our goal to reach net zero greenhouse gas emissions from the US aviation sector by 2050. So while this represents our vision, we recognize that other countries may have different perspectives, but our climate action plan makes clear our own ambitious goals, and we think that an international LTAG should also be similarly ambitious. A key supporting observation to this is at a global level, the industry stakeholders who will be key to making a lot of these investments in developing the technology, operations and fuel solutions we talked about on day one, have also set a net zero target in 2050 as well. So we believe this is another element supporting the LTAG should be set with a high level of ambition. One additional point I wanted to note before I yield the floor was around the gap fillers elements raised here on the slide. As we talked about on the first day, the LTAG study focused on in-sector measures only and showed great potential for CO2 emissions reduction from different measures while not achieving full carbon neutrality by 2050 from those measures alone. So we in the United States see market-based measures playing a role in making a net zero possible by 2050, including things like carbon capture and sequestration beyond what the LTAG analysis captured in its consideration of fuels and in-sector measures.</p>
Yemen	<p>Hello, I would like to ask about how our state” Yemen” as one of the developing countries can contribute towards the aspirational goals of LTAG in different ways despite the gap in financial and technological aspects?</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Question 2.3.</i></p>
OBSERVERS	
AACO	<p>My question was about the implementation. Because I was wondering, did you take into account what can be done in order to safeguard at a later stage when the long term goal is adopted because one of the most important things is that States have to transpose whatever to be agreed into the national laws. So how can we guarantee or safeguard that no discrepancies will happen in that transposition and that everybody will be implementing it without differences, similar to what happened or what we have seen in CORSIA.</p> <p>Can I ask another question? It is about the cost. Now this work has been really comprehensive and I would like to congratulate ICAO and all the contributors to that. But is it possible to focus more about the cost because as you know that. The study shows the estimated or forecasted the contribution by technology and the other pillars. But since we are still 30 years far ahead from 2050, the materialization of that contribution is difficult really to know if it will happen or not. And we know that no matter what we will be offsetting the residual emissions that will happen. Plus if any of those pillars did not contribute according to the percentage that is done in the study, then the remaining or the remainder will be also offsetted by the airlines. So that will increase the cost on the airline</p>

	<p>in addition to the cost of SAF add to that if it will be available at the quantities that are needed. Also the technology development also the cost will be passed to airlines so the cost element is very important in this process thank you.</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Questions on LTAG Costs.</i></p>
<p>ACI</p>	<p>I would like to share two points: in order to achieve goals such as LTAG, every country should have data and then establish alliances among the private sector, the public sector, and the Academia. I think there are good opportunities if these countries create such partnerships in order to design their roadmaps to achieve zero emissions by 2050. We can showcase how ACI, and particularly, here in the Airport El Dorado (Bogota) have worked to reduce emissions. We have identified that the more we know what other countries are doing, we will have more possibilities to establish partnerships and achieve short and medium term goals, with the view to achieve the long term goal of zero emissions.</p> <p>From what I heard from countries here in Latin America and other organizations, having mentoring programmes would help. I am talking exclusively about the ground operations of the airports. It would be good if we could share what we are doing in each of the countries, using the current data and establishing partnerships.</p> <p>Another issue is to review the role of CORSIA, although I know some airlines are establishing their roadmap to work under CORSIA. Regarding the operations in El Dorado, I would like to share that we have established a road map to achieve the goal of being carbon neutral by 2025. We have defined our baseline in 2018 and since 2015, measuring our carbon footprint. With this baseline, we have the capacity to reduce 57 per cent of the emissions by 2025 in the ground operations. This can be achieved by checking the market technology options in Colombia, establishing a partnership with the Government and private sector and Academia. This means to have the technical capacity to know how we can be more efficient in fuels and energy used to operate the airport. With the data we have since 2015, we have achieved a 25 per cent reduction of emissions in our carbon footprint (compared to our 2018 baseline) and we could do that 57 per cent reduction by 2025. But to achieve zero emissions, we need to have all the tools and teams to reduce our carbon footprint to be carbon neutral and at the same time, establish alliances with the airline operators so they can achieve their zero emissions goal.</p> <p>In conclusion, this is the context to understand how to help the international goal. If we, the airport operators, don't have the infrastructure needed by airlines, it will be challenging to meet the zero emissions goal. That is why it is key to have arrangements in each of the airports to enable that infrastructure that will be needed by the airline operators.</p>
<p>ATAG</p>	<p>I think the most important thing is that we have to remember we have the most important analysis already with us from the scientific community that we need to reach certain targets to help slow climate change. That is the most important thing we always have to bear in mind is one of the reasons why as an industry, we came together last year and agreed to raise the ambition on our long-term goal as an industry to net zero 2050. We did that for a number of reasons, but the point here is that we are comfortable with that approach. We understand the importance, we understand the challenge to meeting it as well. And I think if we go to the questions that we have got on the screen here about how we could design or look at a goal to be agreed by the States of ICAO. I think one of the most important things that we bear in mind as an industry is that any goal should be collective, but that we understand that</p>

	<p>individual airlines, that different States and different regions might be able to move towards decarbonization at different rates and at different points of time. But I think collaboration across the industry and across different States and around the world to collectively achieve that level of ambition is really important. So we understand that there are different speeds at which we might get there, but that collective ambition is incredibly important. And the other point is that any road map to decarbonization should be where possible flexible so it cannot be reliant on a single technology or a single pathway to get there, and that we have to have that flexibility to respond to best options as they develop overtime as new technologies come in and as different cost questions come about as well, it might be cheaper to do something that we have not thought of yet in less a years, but we need to make sure the goal that we are all trying to reach is the, same one as well. And also just say as we discuss the goal itself, we also have to think about the means of implementation to get to that goal. So it can be an important part of the discussion as we lead up to the Assembly as well. Important parts of being, including capacity building, including the question of financing of this as well, these all need to be taken into account. So I know we are going to have some good discussion today and hopefully over the next few months as we want ambition as an industry. We think that is incredibly important for the future of our industry, let alone the future of the planet. I am very willing to play our part as well.</p>
<p>ICSA <i>(expressed in 2 different sessions of the LTAG GLADs)</i></p>	<p>It has been a fascinating discussion so far and such on this and the detail what it takes, but I did want to sort of go back to the original question and reiterate some of the things that you and Neil both said but to offer sort of you know civil society support and NGOs support what is taking place and what we are trying to do here. So we definitely agree that the science is clear that the urgency and in tackling emissions is also clear. It is a very sort of start message that States have been given and you know aviation does need to play its part. I think you know the need to decarbonize across the economy. Globally and it is going to be a rapid challenge and you know, every sector has to make a contribution and aviation will be no exception. But I guess what we also need to think about is that a lot of the potential solutions that we have identified and being discussing this morning from SAF to hydrogen to electric, yes the innovation is there, the potential is there, but it is very unlikely to happen unless we have the investment in that investment requires certainty and that is you know for us one of the primary reasons why you need an LTAG you need to create that certainty. That will encourage both investors and encourage innovation to come forward it will not happen. But there are other things you need but you certainly need LTAG for that process. So if you need certainty from an innovation point of view, you also need confidence from a State point of view that is deliverable and you know we have participated fully in the CAEP's on LTAG and you know we think the evidence of the potential that has been forthcoming both of the stakeholder events and also in LTAG work helps to provide that that confidence to State. So I think you know they should be very much reassured that this has been a thorough and in depth look at the solution. So we think we have the foundations we certainly need LTAG and we only have the need for now, thank we have the foundations to, that discussion and then I think you invited us to think very much about, you know what do States need? And I do not have much to add to that other than things that I have already been identified. But you know I think we appreciate that States need to think about their capacity. What best take is in this debate? So it is a help to identify their role. You mention Action Plans as a contributor to that but you know we all need to play a role but to have that confidence you know we need to have state sharing and helping with capacity building and I think that is the key thing. But you know, collectively, if you have all those ingredients that I think we should have a common level of ambition that can help respond to that IPCC challenge which as you say was reinforced very much yesterday with the Working Group 3 report and then I think finally the thing I would like to add is it is where we need to get</p>

to and certainly from civil societies point of view you know, whether it is at a State level or whether it is at an industry level, there is this convergence around net zero. You know we have seen industry commit to it and that is a fantastic foundation to get States' confidence as well, but there is an industry that thinks it can get there and it can deliver. And so you know we think that looks like minimum level ambition that net zero is not where we need to be at the end of the Assembly but you know whether you subscribe to that or something different it does not change the fact that we need the certainty and the confidence in any LTAG you need that to drive this innovation. I think that is really our message for these GLADs workshops that is the way to approach it and to develop that common ambition.

The analysis was comprehensive, with sufficient evidence to respond to the tasks provided in the terms of reference. The task group requested that the integrated science group quantify how much carbon could be emitted globally between now and 2050, consistent with limiting climate change to 1.5°C degrees or 2°C degrees. ICSA recommends that an LTAG being in the format of a cumulative emissions target, as well as a designated year to peak emissions as an interim milestone. This approach would ensure that the aviation sector makes early and proactive investments in new technology to achieve emissions reductions and does not consume its share of a global carbon budget too quickly. We also recommend that an LTAG would be routinely reviewed with respect to the latest scientific understanding of available carbon budgets, as well as non CO2 impacts. This will be essential to guide choices regarding future technology, fuels and operations based on finding optimal climate solutions. Finally, while domestic aviation emissions will not be covered under an ICAO's goal, an LTAG should assist States and place their aviation sectors on the path towards Paris Agreement compliance. An LTAG should be seen as complementary to inclusion of aviation in States' Nationally Determined Contributions.

Topic 2: What does it take to implement an LTAG?

As detailed in the LTAG report, there are many measures and innovations that can contribute to a future LTAG. What would be the possible means of implementation (e.g. capacity building) needed to support a long term aspirational goal of international aviation CO2 emissions reduction? In which form should this support be provided?

Australia

Australia is supportive of the creation and implementation of road maps for an LTAG. Additionally, I think the regional forums such as the ones under CORSIA would be incredibly useful in an LTAG implementation, creating a better understanding amongst different States about what it means for them. But also so that we can learn from each other, especially our neighbors in our own regions, and use the learnings of initiatives that have taken place to further support our own steps towards sustainability. For example, there has been a lot of discussion amongst Australian Airlines and industry regarding SAF development and its use, and there is a lot of enthusiasm out there. It is clear that it is a really important pathway towards aviation sustainability and we in Australia are keen to learn from others how to develop and support our producers to develop that industry. We are aware that SAF, with other measures under the LTAG, do have their costs, but they could also really reap incredible economic benefits as well as environmental outcomes. And we have seen that in some of the markets that are fairly progressed in this area. So I think we should consider the possible costs under an LTAG in the lens of the long term economic benefits that we could also achieve as well as the main thing that we're here for is the environmental benefits. So I hope that assists to facilitate the discussion.

Brazil (expressed by different experts in 1 session of the LTAG GLADs)

The level of emissions of any goal depends highly on the means of implementation. And when we talk about capacity building, I believe we are talking about actually building infrastructure. Cooperation activities that go beyond workshops and seminars. So we believe that it goes even beyond the TCB as it is now. We must consider how States and the industry can implement best practices, improve their operations and achieve efficiency in their national aviation plans. And in this sense, we must make sure that all countries will be in the same position to implement any goal, allowing them to fully develop their industry. Besides capacity building, we are also talking about funding, extensive funding actually. This means establishing the link between ICAO and international development banks and allowing developing countries to have access to the Green Funds from the Paris Agreement, for instance. We have to perhaps establish a green fund specifically for the aviation sector. Those funds are essential for developing, for instance, the SAF industry in developing countries. We know the potential for SAF in the SAM/NACC region, but unfortunately, our governments do not have the means to support and promote this industry yet. Also means of implementation must consider technology and knowledge transfer in substantial amounts. The industry frontier in terms of technologies is still concentrated in some regions. So we must make sure that all these technologies are available to all countries. Those three pillars, capacity building, funding and technology transfer are of paramount importance for truly not leaving any country behind. So developed countries in this case, should take the lead not only in terms of ambition of the goal, but also in terms of supporting others to achieve their level of development as well. Finally, after these two days of discussions, we are also seeing some studies that are coming from the CAEP that show for example that CORSIA is potentially distortive for small operators, which are highly concentrated in developing countries. In our region, for example, we still have a lot of small operators and we know we

	<p>need to go deep in those studies in the LTAG report and what is coming from the CAEP. So from now to the high-level meeting and to the next Assembly, our region must make sure that any decision does not jeopardize growth and does not create any additional distortions in the market. We must make sure that 193 countries know what we are agreeing to, if agreeing something.</p> <p>Even though this GLAD is super important to share information with States, we are very short of time and we need more of this. We have three months for the high-level meeting, five months for the Assembly and still the report is not very well known by States. So this is a starting step in the sharing of information with States and we know that this is very restricted at this point to only CAEP and Council members. Initiatives like this should be more intense from now to the high level meeting. We cannot stop here and go directly to the high level meeting. I think you should think about other GLADs, other events to share this information and to collect the experts from all States, their views and their concerns. And this should be presented to the Council. I think we had very good discussions at the Council and the report was presented, but what was said here in the NACC/SAM region, and I can imagine other regions as well, should be delivered in complete to the Council. If we can have other meetings like this, I think it would be much appreciated. As Veronica (Peru) has said, the report unfortunately was only made available one week before the GLADs, and we know the reasons behind it. But still, it is a short time for countries to analyze it in depth as it is required. So this is my final suggestion to see if it is possible to come up with events like this and even in person events, which is much better than virtual events, before the high-level meeting. Brazil is part of the CAEP and of the Council and we are more than available to all the experts that participated in the seminar to share information with them and help as well.</p>
<p>China <i>(expressed in 2 different sessions of the LTAG GLADs)</i></p>	<p>As for the implementation of a global emission reduction goal, I think that it is important to facilitate developing countries' access to technology, finance and capacity building. The last four sessions of the Assembly and the relevant resolutions have kept mandating the Council to set up such a mechanism. However no tangible progress has been made, which is disappointing to developing countries, and is hampering this country's confidence in the process to deal with international aviation. We will again request the ICAO Council to report to the upcoming session of the Assembly on how it would help, how it would develop such an assistance mechanism in a detailed manner, which should be ambitious and can be monitored, reported and verified. Some developing countries lack financial support and also aircraft technology. It is necessary for them first to receive capacity building assistance to achieve such support and then to implement the technical measures.</p> <p>I think the formulation of the emissions reduction targets and the goal of the global aviation industry should comply with the principle of CBDR formulated by the UNFCCC and consider the respective capabilities of developing countries, and respect the right to sustainable development of all parties. I think that ICAO can consider the differences in the development stage, condition, speed and the technical level of air transport among its Member States and regions when discussing the setting of global unified industry emissions reduction targets. I also would like to point out that international</p>

	<p>aviation, when addressing climate change, needs to practice multilateralism; any unilateral action will not work as it will affect global cooperation. We call upon all countries to abide by international regulation when implementing emission reduction issues related to international air transport, strengthening communication and consulting with all parties as a way to further understanding and political mutual trust. I also want to express that we support Indian and Korean opinion and also we want to express that you can give us the financial and technical support. For example, sustainable aviation fuel and how to use and what kind of system fuel to use.</p> <p>I have noticed that so many countries are carrying out very remarkable emission measures and try their best to achieve emission reduction in the aviation industry. I have also noticed that countries are setting goals based on their own conditions and capacity. For example, the US and the EU set zero emission goals. Other countries should also set goals based on their own situations. I think that the aviation industry is a sensitive industry and as the Lebanon expert just mentioned, some countries are facing financial crises. We believe that in the post pandemic era, the biggest challenge of the aviation industry is how to restore and achieve sustainable recovery and development to find a path towards carbon neutrality that is consistent with the aspirations for growth and improved living standards that is essential for States in which the aviation sector still requires space for development. We also believe that climate change is the consequence of the massive accumulation of CO2 emissions since the industrial revolution and therefore to achieve emissions reduction in the aviation sector, countries with a history of high emissions should take the lead in implementing aviation emission reductions. As previous experts have mentioned, capacity building is very important, and so we suggest that ICAO could analyze an assistance mechanism to achieve transfer of technology and financial access to help developing countries to achieve their goals.</p>
Côte d'Ivoire	<p>I'd like to thank the LTAG TG for the quality of the work and the report on the feasibility of a long term LTAG. We realized that SAF have a very important role to play, so we realized that some states have already some experience in the production and use of SAF. Other states don't have any experience at all. So those which don't have any experience will need some support. Now my question is. How these steps in developing states will have benefit from support for the production of SAF at affordable cost?</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Question 4.4</i></p>
Dominican Republic	<p>We would like to speak about the action plans and how using them have been an excellent tool in the implementation of our mitigation initiatives. We have found excellent support from our stakeholders that has enabled the implementation of mitigation strategies. We support the creation of ACT-SAF, because our action plan also considers the development of sustainable aviation fuels. However, this initiative has been limited due to several external conditions out of our control such as competition at development and production stages of SAFs. The feasibility study conducted by the Dominican Republic shows we have the capacity to produce SAFs, however the main limitation is the technology needed as well as the technical capacity. Another topic we support is to have capacity building to develop the knowledge on green finance.</p>

	<p>We are interested in having this capacity to be developed in DR. Some stakeholders have also expressed interest in creating mechanisms for carbon offsetting that in a near future can be used for offsetting under CORSIA.</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Questions 2.2, 2.3, 5.6, 5.10.</i></p>
<p>Egypt <i>(expressed in 2 different sessions of the LTAG GLADs)</i></p>	<p>First, I would like to talk about the implementation steps that depend on the transparency and open dialogue. We need to be frank and put everything on the table of discussion. When we talk about LTAG in a country like Egypt, we need to know what would be the economic and social repercussions once we commit to this goal. ICAO encourages each State to use the report as a guidance material to implement the LTAG. Here, I have a question; can all States do this economic and social impact evaluation? In my view, and in all frankness, not all the States can do this impact analysis, not all States can do it on an equal footing. Second, we are all committed to work together to combat climate change ...we have all witnessed how climate change is affecting our economies and our sustainable growth. This is why we need to rely on general principles CBDR and capacity building activities are fundamental, especially for developing countries. When we talk about SAF, are we sure that all States have the capacity to produce biofuels? Alternatively, the technology is limited to certain countries and then the operator is obliged to buy these biofuels and pay a high price to sustain its operations. Some States cannot help its operators; this is why we need to have a clear vision on how all States will reach the LTAG: some will be faster than others, but we will all strive to reach that goal because it is crucial for us to combat climate change.</p> <p>I will focus on two things. The first one is the principle of CBDR and respective capabilities. When ICAO sets a global aspirational goal, there will be a commitment for the Member States and I think this does not mean that all ICAO Member States should achieve the target at the same time because as you know, the developed and developing countries are different due to the differences in the national conditions, capital, ecology, resources, policy, etc. For example, here in Egypt, before we decide to commit to anything we should have the feasibility study at the State level. We wish to have such a feasibility study to determine if there are some challenges that should be overcome and need capacity building. The second item is to establish the ICAO capacity building and assistance mechanism that could support the States on the LTAG, which is very important. The LTAG report is a success story with more than 300 experts working for about two years to develop such scientific background, which is very important. When we come to the State level, each State, including Egypt, would like to have such a feasibility study in order to decide which investment it will make. When we speak about operations it is fine, but when we speak about technology and the fuels, not all States have the same technology level or resources and not all States have the same resources to make SAF. Even if they have the resources, they could not use such resources just to have one of the elements that they can build upon in the future. So we need all together to speak in an honest and transparent manner and to highlight all the challenges before having a long-term aspirational goal that is mandatory to all.</p>

France
(expressed in 3 different sessions of the LTAG GLADs)

As regards implementation, I would like to come back to two points: first the means of implementation and the roles of various stakeholders, and second if you are monitoring and reviewing the LTAG. As for the first one, I would like to come back to an important point raised by IATA, namely if an LTAG should be technology neutral. This is very important because in terms of implementation, it would be up to each State, to each stakeholder to decide which way to go. And there is no one size fits all implementation scheme. Let me take an example in the field of technology. It was projected that an aircraft should be operational by 2035 for narrow-body aircraft. Therefore, in 2035 an air carrier, or operator would have the choice between a SAF, fossil fuel or hydrogen for the aircraft. It would be up to this operator to make his choice of reducing its CO2 emissions. And the same goes at State level. But in this respect, I really think that ICAO has a key role to play, as we have to be ready to implement all the technologies available in the world. For example, in the area of regulation, if we have to make the use of hydrogen possible at airports by airlines soon then all the SARPs that are required must be adopted. So there is a lot of work in front of us and we have to do it as soon as possible. As regards the second point, I would like to add something on monitoring and review, because once an LTAG is agreed, we really should consider a periodic review like the one we have for CORSIA. During the review we could assess how the LTAG is implemented by the different States, if the target is globally on track, if it is possible to speed up the process, if it is possible to increase the level of SAF, or if we need, for instance, to cover other emissions in an LTAG. I think about NOx, for instance, and it could also be a possibility to evaluate the potential of the book and claim system, so we could assess a lot of things and maybe new things in the LTAG. So I think we have to think about the monitoring aspect on the one side and the review part on the other side; both are really important for LTAG.

We are in favor of an ambitious global objective for net zero in 2050 in order to be in line with the Paris Agreement and the last IPCC report, which is really alarming. I just want to provide you with an example for us, we see this subject as two steps. First is the political step; we decide on an objective. Then there is the implementation of the objective. For instance, in France, the Government decided at the end of 2019, on the development of sustainable biofuels which sets SAF blending trajectory of 2% in 2025, 5% in 2030 and 50% in 2050. So this was the first step. Two years later, the French government launched a call for projects for the development of a French production sector for SAF, in line with the SAF annual blending mandate. These projects could be public projects, private projects or a public-private partnership. So it's really interesting because there are a lot of different means of implementing an LTAG and I think you have already said that, but one size does not fit all and it really depends on the choice of each State. I have one question today because very often we hear in the GLAD sessions that we need capacity building, we need funding, and we need transfer of technology. I would like to understand what we mean by transfer of technology. There are some things which are possible and open, such as transfer of knowledge in order to provide assistance to develop a SAF production somewhere. I think it is possible, but there are some other areas where it is not possible to transfer technology. So do you have some feedback on that? My last point of clarification: I think I heard at the beginning of the GLAD that one can make a reservation on the report. We believe that the report is really an amazing piece of work and regarding hydrogen, I understand we need more study in order to assess its potential. But the report is very cautious on hydrogen because if I remember correctly, hydrogen 2050 is only 1.9% of the total of international energy. So it's really, really low and we can say that the report

	was very cautious in this area.
Gabon	<p>Hello everyone. Actually happy to be together today to discuss these issues that concerns us all. I would like to make some comments to come back on the cost of implementation. The costs we see are very high and for the developing Countries it will be a big challenge to achieve ambitious objectives of an LTAG. We are still struggling to establish national carrier and also to get our airports up to standard. So are we going to have enough means? Are we going to have enough means to implement an LTAG? It is a major concern we have. And I think other States, might have a similar concerns. For my question now. Would it be possible for you to tell us about the role voluntary action plans for the states to set up the actions to support an LTAG. And how can this action plan be improved and further supported by ICAO in order to reach the objectives, thank you very much.</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Questions 2.3, 4.4, 4.7, 5.6</i></p>
Greece	<p>In our opinion, the road map for the implementation of an LTAG drives through alternative fuels and clean energy development. Therefore, a global aspirational goal on SAF development should be established based on comprehensive sustainability studies. For the coming years, we should further consider how to explore the full basket of measures in order to achieve a long term aspirational goal and how it could be monitored and analyzed by State Action Plans. Greece recognizes the need for capacity building to support the implementation of all emission reduction measures. It is obvious that the transfer of knowledge and associated technical support will enable States to explore business and revenue opportunities in new innovative markets like the development of SAF. This will also support no country left behind and provide aspirational opportunities for less developed countries.</p>
India <i>(expressed by different experts in 1 session of the LTAG GLADs)</i>	<p>I will start with the means of implementation. We should think on one of the main principles of the climate regime, including UNFCCC and the Paris Agreement, which is the CBDR and is associated with the concentration of equity, fairness, and national circumstances. This principle should be considered in LTAG since it has to consider the different levels of development of States and associated industries. So for the means of implementations from our perspective, we propose that ICAO should provide guidance and other technical assistance to enhance the capability, capacity building and the technology transfer foreseen in the A40-18, paragraph 17 for the means of implementation. The reason why we want to emphasize on technology transfer is that as we can see in the study of LTAG, technologies that have the potential to further reduce emissions do not come for free, as we all know. New airplanes will be more expensive, operational technology implies the investment in ATMs and traffic management. Alternative fuels, if you take example of SAF, LCAF, hydrogen etc. will hardly reach the price of common kerosene. And airports need to adapt to non-drop in fuel which is the only goal where we can reduce emissions after 2050. ICAO should clearly draft a roadmap on how the</p>

developed countries are going to assist in the technology transfer to developing countries. We want to understand what is the plan of developed countries to financially assist the developing countries to implement an additional action toward an LTAG. In this context, at the climate discussion under the UNFCCC and its Paris Agreement, developing countries have been abundantly clear that any increase in ambition must be matched by the means of implementations. Will ICAO propose dedicated climate finance for developing countries to address additional measures associated with the increase in ambitions including the adoption of an LTAG? Before I move to the second point on the State Action Plans and roadmaps, India wants to update the house that we have updated and submitted our updated State Action Plan last year in 2021. With respect to the support to the States with action plan and road map, as we know, the SAP describes the market based measure adopted by an individual State to pursue reductions for which the financial capacity of the State has been taken into consideration with LTAG. The LTAG provides for the upcoming and new innovations for which developing countries may not be financially prepared. That is what we have to put forward today in house. Secondly, the State Action Plan is voluntary in nature and deals with the domestic emissions on the larger picture; though the LTAG is a global goal. Just developing a State Action Plan may not be a solution. With respect to the LTAG, the path being decided to achieve this goal is based on the complete revolution in technology, operations and fuels as we can see in the LTAG report, which has been published on the ICAO website. There will be a need for considerable costs for these transformations, which include capital expenditure, infrastructure costs, fuel costs, asset value costs, R&D costs, new technology costs, price gap versus conventional costs. This has already been described in the cost prospective if we go to the LTAG report in detail. For the uncertainty in the path of the technology transfer and capacity building and funding, we will have heavy cost implications on Indian aviation; this is our point in this. Now I will move forward to the third building block that is monitoring progress to achieve LTAG. Here we want to mention that we are aware of the time constraint, but the impacts are really important topic that have to be evaluated as for the LTAG studies. In the case that the answer is that there is no time to conduct the analysis that will inform at minimum level of discussions, including information on the impact of developing States, what should continue after the 41st Assembly to reach the adequate level of information, I will echo the same as what my colleague Ekta has reiterated in the first speech of Topic 1, in which she has mentioned that we need to explore the feasibility study after the 41st Assembly also. For some States, several emission sectors might be more impacted if we implement LTAG. I will conclude my speech by stating that India is very much concerned about the global environment and will continue to work toward it. But we cannot pay for the emissions of historical emitters.

Refer to the [“Compilation of Questions and Answers”](#) from Day 1 of 2022 GLADs, specifically Questions 2.3, 4.4, 4.7, 5.1, 5.6

I do agree with the comments of Korea and China. And to provide the Indian status on the technology on SAF required for the decarbonization here they are at the development stage. There is no certainty about what time our technology on SAF will be commercially viable. As to when it becomes available given the state of the aviation industry, it is natural that it will become available in the countries that are already in the progress of it. The resources required for the deployment of this technology are not that much accessible in our developing States. Also on the question of capacity

	<p>building, before assessing the road map for capacity building, ICAO needs to assess the capacity, what capacity each State has and what will be required before beginning any goal or any kind of resource. So it should not just be limited to training, but first the assessment on what capacity States have and then a detailed analysis is required for the road map to build. So these are my points for your road map that you first need to assess what the States have in them and then only we can work on their capacity building.</p> <p>This is an opportunity, but we should not forget also that this is a dialogue session. So is it a burden or is it an opportunity, this is quite debatable. But if you see the cost implications, I believe all my colleagues from different States will support the work that has been done by ICAO with respect to LTAG for the CO2 reductions. But it is not only about the LTAG. ICAO has already implemented more platforms like CORSIA and State Action Plans. Being from developing countries we understand the aspect for implementation of these opportunities can give us, but there will be cost implications. So it is better if we think about how to neutralize the impact of the cost in a positive way and come up with the opportunity.</p>
Jamaica	<p>I want to say that I am looking forward to the ACT-SAF because I believe that it is going to be critical for the achievement of the long term aspirational goal. I also believe that these particular sustainable aviation fuels can be utilized by all States. In terms of the implementation aspect of the LTAG, capacity building is a critical success factor. Some States, for example Jamaica and others that we have heard from, are extremely challenged because of the lack of support, the absence of infrastructure and framework in the State in order to undertake this type of work. And I am giving it a little context here. Just from this consultation alone, look at the number of documents, reports that we had to go through. Look at the technical complexity of the documentation that we have to review. That is just one small consultation meeting. When you look at the broader picture, Environmental Protection is a strategic objective of ICAO and it is exceedingly large. There are four volumes in Annex 16. I believe it is one of the most challenging strategic objectives at ICAO. It is complex and therefore in order for the States to achieve what is required under this long term aspirational goal, it is imperative that the States have a structure and a framework so that we can achieve this and properly support ICAO in undertaking this work, or else it is almost impossible. I don't know what can be done to encourage all 193 ICAO Member States to take a more forward thinking approach to address how we put the LTAG place to ensure that we achieve our goals.</p>
Japan	<p>In Japan's view, to achieve the goals it is essential that no States are left behind and all Contracting States are to achieve the goals. For this purpose, support regarding technical development, implementation to society and personnel are essential. On implementing LTAG, all contracting States sharing and transferring information such as advanced airports by some States are effective. For example, materials pertaining to examples of political measures or best practices might be necessary. Partnership programmes, like the current ACT-CORSIA, might be effective. Regarding SAF, which have large CO2 emissions reduction potential, developments not only in the aviation industry but also in fuel supply side is necessary. Also skills to share and challenges and solutions beyond the aviation industry segment are necessary.</p>

<p>Kenya <i>(expressed by different experts in 1 session of the LTAG GLADs)</i></p>	<p>Kenya could support the LTAG. For developing States, I think the most important thing is capacity building because most developing States particularly in Africa are willing to implement the LTAG as long as they get support. For example, in Kenya we have already developed the action plan that has aspirational goals and we are in the final stages of the approval of the reviewed action plan, in which we have put many measures that will be in line with the LTAG. We know that ICAO is working with regional bodies, like AFCAC, so that we are not duplicating efforts. When the AFCAC approached us, we wanted to make sure that the assistance provided was in the same line as the ICAO efforts. We support the LTAG and we are looking forward to implementing it. We are also looking at other encouraging measures like SAF. Based on the EU/ICAO project we did a feasibility study on the development of SAF and we are trying to push it through the Ministry of Energy so that we attract any investors interested in investing in SAF. It will be one of these goals to be achieved in the action plan.</p> <p>Kenya is really happy to be part of the LTAG during its development and indeed we are saying there is need for further collaboration like on data with international partners. During COP26 there was a declaration that was signed by Kenya called the international vision climate ambition coalition. If many countries join the coalition, it will end up supporting the implementation of the Paris Agreement, especially Article 6, which will strengthen CORSIA. So based on this international vision on climate ambition, which is backed by the UK, Member States can support the implementation of the LTAG report.</p> <p>Kenya implemented a project with ICAO and EU on solar for one airport. This is one of the sustainable initiatives each country can take. We have that project running, supporting and replacing the use of fossil fuels in many areas of that airport. But this is not the only example we have. For solar, we have one airport in the northern part of Kenya which is purely operated on solar. Also all of our RDMS stations are now on solar as the first priority energy, while other forms of energy are on standby.</p>
<p>Lebanon</p>	<p>I have two questions: Do you think that States that have developed their voluntary State Action Plan in a quantitative and qualitative manner, will help us and facilitate reaching the LTAG? Is it necessary for the countries to have in place an integrated circular economic system or sustainable system in order to reach an ambitious LTAG?</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Question 5.6</i></p>
<p>Mexico</p>	<p>I would like to share the points, which in my view, can contribute to the discussion on the need for capacity-building. We have identified four areas that we need to keep working: the first area is the incentives; it is true that countries can design a road map, however, there are several drivers and external aspects that are left out of our national framework such as fuel prices. This is an international issue, as we know we are in a global market but only 7 or 8 countries are producing 60 per cent of the jet fuel and prices are a key topic so the countries can start implementing measures to produce SAFs. This is</p>

	<p>an example of how we can work together to design regulatory, fiscal or economic incentives. The second topic is green finance. As mentioned by other colleagues, we need to promote mechanisms of green financing that allow us to incentivize all stakeholders. Another topic is technology transfer, which is key. Finally, we need to look at the topic of offsetting. We want to widely promote offset mechanisms at national level, at the same time we would like to receive capacity building on how to operate these mechanisms in the future and also understand their role under CORSIA.</p>
<p>Netherlands</p>	<p>We think that, to some extent, the LTAG should end up looking like a mini Paris target for one sector. Obviously, I don't mean in terms of being a temperature goal, but CO2 in our case. But I think there's a bit of a parallel in terms of hoping to agree on a shared aspirational global target, but not on which actor in which country is going to do what when. So there are maybe some parallels in terms of how to keep track of the progress. Looking at the realized CO2 reductions backward, I think we could probably keep track of it using the existing CORSIA MRV. For example at the end of 2030 we could look at the 2030 CO2 emissions. Such an approach would work well to keep track of the emissions of operators and ICAO Member States. However, monitoring and predicting expected reductions from future national measures seems to be a bit more difficult. I also think that many of us would probably agree that it would be nice to do as much as possible through global instruments like CORSIA to work towards a future LTAG. But as we heard in the first session from India, there is quite a good chance of different regions and different nations going at different speeds to get to one aspirational goal. So there's a lot of room and necessity, I think, for regional national measures towards the future. So this is where we see a large role for a renewed State Action Plan process. That could be a bit more of a standardized format and may be somewhat inspired by the NDCs. That would make sense for us and we might need to discuss and agree in the future on an accounting method. Otherwise the secretariat might be stuck adding up 193 different apples, oranges, pears and grapes and other fruit types year round. So if we are talking about accounting methods, we could end up looking at reporting plans and emissions. In the future, reduction plans related to emissions from our national operators could be similar to the CORSIA scheme or maybe we would end up looking at incoming flights through departing flights or half, half. Maybe we should look at bunker fuel uptake in our countries, similar to the way it was done under Kyoto. So obviously this is a potential future discussion, but just to indicate our current preference nationally that would be to look at bunker fuel uptake and kind of focus our reporting that way. In essence, CORSIA is the same thing as CO2 emissions from departing flights because the bunkers are even consumed on flights. We also think that this might help focus our measures on drop-in SAF, which the report is showing is probably the biggest building block for a future LTAG.</p>
<p>New Zealand</p>	<p>New Zealand considers that the LTAG will set the aspirational goals that the sector needs, and that, as you mentioned and others, there will be a road map of actions that States can take to contribute towards the goal. This road map will be really key and really important. New Zealand would like to set out a couple of ideas for the information implementation aspects of the LTAG and actions that will be part of it. I will note we will need to build milestones into the LTAG that can be used to help us measure the success or otherwise of LTAG and the road map. Measuring achievement will keep us on track. CORSIA has already been established and we should consider what aspects of it for monitoring purposes could be</p>

	<p>used to avoid duplication of efforts and reduce administrative burden on States. The CORSIA MRV process provides a robust foundation to build on. Capacity building will be important to ensure all States are taken forward on what the LTAG is and how they might contribute. CORSIA set up the ACT-CORSIA scheme, potentially something along these lines might work if it is well resourced, as the LTAG may be more complex. The LTAG has the potential to accelerate global utilization of SAF, which will require a robust and globally standardized accounting framework. This is to ensure the sustainability credentials and lifecycle assessment of the SAF and to incentivize emissions reductions rather than low cost compliance. There are emerging tools like book and claim where SAF certificates could be recognized to enable countries without domestic production to claim the environmental attributes of SAF. The book and claim technology could help countries with SAF not yet developed or produced domestically. New Zealand appreciates that there are discussions ahead and we agree with Singapore and other countries that an LTAG needs to be practical, pragmatic and ambitious.</p>
<p>Nigeria</p>	<p>I want to address what would be needed to assist the implementation of an LTAG for developing countries. ICAO needs to help States to fast approve a regulatory and organizational framework based on which a set action plan will work. If States have the regulatory framework, then they have all the various stakeholders in the same place to implement the agreed action plan. In addition to the regulatory framework, States also need assistance in the development of feasibility studies. Only when an LTAG is feasible, States can start thinking of a roadmap or funding. I would recommend that ICAO also deals with the collaboration with regional aviation organizations, like AFCAC. If States have assistance and collaborative efforts on the continental level, it will be much faster for them to do what they are trying to achieve.</p> <p>I just want to share what we have done in Nigeria in terms of air navigation services to also align with the LTAG goal. In Nigeria now we are able to implement Performance-based Navigation (PBN) strategy in two of our airports. And we have also implemented the free route airspace.</p>
<p>Peru</p>	<p>I would like to invite you all to South America to have these dialogues. We understand that due to COVID19, these dialogues have to be organized virtually. But I think the way the GLADs were conducted in the past in South America , in person, will allow better participation and exchange of views. Some of us prefer in person interactions, and this would allow to have access to more direct information from the CAEP experts and ICAO and at the same time, have a forum where we can share our views, concerns and express the lack of information on such relevant topics. I would like to highlight again that it would be extremely valuable to have in person GLADs. As you saw during this meeting, only 3 countries in the South American region expressed their opinions, but I am sure there is a lot to share by all of us here in South America. However, we need an adequate forum to do so and at the same time get all the information we need to decide.</p>
<p>Qatar</p>	<p>The possible means to take stock of LTAG and the future monitoring and review are two points that are related. We have to continue the process in order to be aware about the developments in the field, in each field and each scenario, and</p>

	<p>continue to take stock of the LTAG in order to be able to review which part of the road map has moved or developed, and, in some cases then we can take measures. Taking CORSIA as a pilot project, the review of CORSIA that we are doing this year is a good example. In my mind it will be the same for the LTAG process, which has to continue in order to review the LTAG in a periodic way, or other agreed way. We need to have available all the information to enable us to take the necessary action. If we do not have the information on the development of the scenarios or developments of things in the field, then we cannot take the action required by our review. In my mind these two points are very related and both have to be implemented at the same time.</p>
<p>Republic of Korea</p>	<p>The global scenario can be fully supported. However, because of the different capacity by each State, the level of ambition for the LTAG would vary. This is especially the case for fuels and technology. Although it seems like a long way to go, we believe with information sharing and more effort with each other, we can achieve the CNG 2020 and beyond. Korea will support the monitoring of the LTAG scenarios and the reduction measures. Especially for the SAF, the production of SAF is related to the NDC under the Paris Agreement; when producing SAF, it can have a negative impact on NDC, and when using SAF, it must be divided between domestic and international flight segments. For monitoring, it is necessary to distinguish how a reduction measure such as SAF can affect each country. My question is: could you share the timeline for a plan to low carbon aviation fuel? Compared to the SAF, the LCAF information is very limited on the website of ICAO. Also, the LTAG shows LCAF is very small in the global scenarios. It seems that carbon reduction capacity using an LCAF was less estimated. Is there any specific reason? The other point is the technology presented here has a very large regional gap. In particular in the case of developing countries, the applicable conditions are very limited. The States do not only operate at the international aviation sector alone, but also address the entire aviation industry in the country, along with domestic air transportation. It is absolutely necessary to find a way to assist developing countries, not only through information exchange, but we hope that ICAO can contribute to business opportunities with developing and developed countries. For instance linking the industrial relationship between the country, the producer of the raw materials, and the country that makes SAF.</p> <p><i>Refer to the “Compilation of Questions and Answers” from Day 1 of 2022 GLADs, specifically Questions 1.15, 4.9, 4.10.</i></p>
<p>Singapore</p>	<p>Singapore is very supportive of ICAO’s initiative and pushing ahead on SAF adoption and implementation. Next year there will be a facility that is coming on stream in Singapore to produce SAF and many of you would know that Singapore was never an oil producer. But I think it shows the economic opportunity that comes with SAF production. Singapore as a non-oil producing State is now able to have the capability to produce sustainable aviation fuels domestically. So I think we wanted to share this to just highlight that there are economic opportunities available. On top of that, I think in terms of the ACT-SAF proposal, we think it is important to look at potential new partners on our part. We are aware that the World Economic Forum has a Clean Skies for Tomorrow program that has done a lot of work around SAF implementation, including the development of a policy toolkit for regulators. I think it would be good for us to also tap into some of these</p>

	third party efforts.
South Africa	<p>What I just wanted to add over and above what the other airports has said is that in South Africa we are in support of the LTAG. Pre-COVID, we already had the roadmaps that we approved on the strategies to reach carbon neutrality by 2030. But due to COVID impact, we are advising that it will move probably to 2035 or 2040. I wanted to share that inside South Africa some of our airports are operating on solar. We have five airports that during the day are operating solely on solar and only after 4:00 o'clock in the afternoon they rely on the grid due to non-storage capability. Three of our international airports have approved the business case for gas to power tri-generation and that is going to completely reduce the dependence on the grid, and hence reduce their emissions immensely. We also have in the pipeline two wind farms at two of our international airports and there's also a consultation that is going ahead that I just wanted to share with the rest of the platform something that they might consider some of the efforts that we are going into agreement with the tenants that want to do self-generation. Some of our stakeholders, they had a small scale they want to implement their own solar plants on the airport land that in that way they are also assisting the airport to reduce the emissions as much as it would also by saving them on PEGs(price/earnings-to-growths). One last thing to mention is that South Africa is looking into hydrogen and we want to collaborate with the airlines. We are in support of the Paris Agreement. We want to be ACI Level 3 accredited for three of our international airports. So in terms of where we are going we want to have an agreement with the airline to be able to look into their Scope 1, Scope 2 and Scope 3 emissions and see how we can reduce them so that we can get the infrastructure ready as we are going forward. If there is any replacement cycle on their fleet we collaborate on those too.</p>
Spain <i>(expressed in 2 different sessions of the LTAG GLADs)</i>	<p>As detailed in the LTAG report, there are many measures and innovations that can contribute to the establishment of this LTAG. Capacity Building actions, as has been shown in the past on numerous occasions (Action Plans/CORSIA/SAF), are a fundamental tool to be able to achieve the LTAG in this case. These capacity building actions should serve as a positive channel of help, towards various states to implement the LTAGs, while at the same time helping to transmit the knowledge acquired and shared between states. The support to all states that require assistance in implementation will always be carried out based on the state action plans developed over the years. Plans that now guide them to achieve this LTAG and the deployment of the SAF. We believe that achieving this LTAG requires strong cooperation and commitment between developed and developing countries. The latter can now take advantage and develop their industry and generate wealth, for example, in the deployment of SAF, since they have enormous potential for the exploitation of raw materials that can transform SAF. Given that the LTAG is a global and long-term objective, it is essential to establish a roadmap, constantly monitored to measure the success of objectives achieved, and the necessary adjustments put in place when necessary.</p>
Sweden	<p>I will start off with the industry perspective on Topic 2. The many examples of the airlines and the industry show that the green transition of aviation is happening. If I may take the Swedish aviation industry as an example, they have committed to a road map for fossil free aviation and in this roadmap the aim is to make domestic flights fossil free by 2030 and by 2045 this will include all flights starting at Swedish airports. I want to emphasize that this commitment from industry is</p>

	<p>not optimistic; it is based purely on the objective to maintain the industry's competitiveness in a fossil free future through the use of competitive fossil free road maps. For an ambitious LTAG it is key to have international and national policy frameworks that facilitate and promote ambitious initiatives. Such frameworks should be comprehensive, ranging from support, research, development and demonstration, incentives for a market introduction on new green solutions. The SAFs are one of the most effective ways to reduce greenhouse gas emissions in the short term. If I may use Sweden again as an example, last year Sweden introduced a greenhouse gas emission reduction scheme in order to increase use of SAF and promote an increased production of SAF. This reduction obligation implies that fuel suppliers of aviation fuel have to reduce their greenhouse gas emissions from jet fuel by blending it with renewable fuels. By 2030 the reduction scheme will lead to roughly 30% renewable fuels in aviation. This step by step increased reduction is decided by law. Finally, Sweden supports CORSIA, but we think that other market based measures are needed to reduce the climate impact of aviation. The pricing instrument should be used more and Sweden believes it should be possible for States to tax fossil jet fuel used in international aviation. For this, however, there is need for an amendment of relevant ICAO policies that was also raised by the Swedish Minister of Transport during the last Assembly.</p>
<p>United Arab Emirates</p>	<p>I want to emphasize a few points that have been raised by my previous colleagues from this region. It is important that we understand that this region has, if I am allowed to talk on behalf of them as well, as a person who's been working with everyone in the last 12 years, that this region moved from a very low understanding of that aviation climate change and aspirational goal to a very promising and proud phase where I have many experts from the region understanding the need to act immediately when it comes to the aspirational goals or any other international requirements with regards to climate change. So emphasizing on what's being said by my colleagues, we need to understand the maturity is not the same within the region itself, and we all sometimes struggle to talk to our even decision makers or high level people to take the right approach or support us and moving forward with all these implications that we have. Having said that, I want to emphasize on the next High Level Meeting which is coming because this is important that we want to implement as experts from this region, we want to be part of this. We want to pave the future but the high level meeting is a very important platform where we will have a number of decision makers from this region, hopefully, who should listen and understand the challenges that we have as experts from this region. So I will really emphasize that we utilize this platform to make sure that everyone leaving this High Level Meeting, understanding what is next and what is needed to happen to assure that we are on the right track. Again, as my colleagues have said, we are fully supportive of the result of the LTAG and we were proudly part of it in the last three years. It is a very comprehensive package, a balanced package that we will continue supporting. I just want to comment on one of the earlier comments and has alerted my attention that the LTAG report emphasized that the SAF is the important element to achieve the aspirational goal. I think that the LTAG is a very balanced document that shows all the energy modes are welcomed once they are meeting the sustainability criteria, which means LCAF as well. So I just want to make sure that we are not confusing people here in the discussion and LTAG is a balanced document that supports all options that are already mentioned in the package. When it comes to net zero, yes we did not officially mention any of this talking to the government. None of the governments here has announced officially aviation net zero within this region. We are working on it, we are discussing it with our stakeholders, we are talking to our</p>

	<p>governments because this is the level of let's say commitment that we are showing the world, but it is a bit premature to say that we are committed. But we are exploring aviation net zero to be the next discussion or exploratory subject in the UAE as well as the region. One of the important points that has been raised is the regulation. ICAO Secretariat gave a good example and I will use the same example of CORSIA. Ten years ago, we did not know what CORSIA is and how we can implement it or what is needed and it is still a challenging process. One of the challenging processes of implementing CORSIA is the regulation. Despite that we approved the package in 2018 still within the government we are working on the regulations and setting the legal platform so it is not an easy one. We want to avoid such a tiring process when it comes to the implementation of the goals. I know that it is a top down approach, but we want to show that the bottom up process also feeds the other way around. Qatar representative was also very clear that it is very important to understand that this is a transition period. One of my leaders said, on a very international platform immediately after COP 26, that investing in the future does not mean that we need to forget about today. So we understand that this is a transition period, the energy sector is moving forward to a cleaner energy phase and we are all supportive of that. But it is a cautious transition where we need to understand the implication and we need to invest heavily. This is not going to happen within one or two decades. But the governments of this region are working together, not just one State, it is many of the States of this region working together to ensure that the transition is happening in a very stable manner.</p>
<p>United Kingdom</p>	<p>On the impact of LTAG on specific States, which I think has been raised by a few participants on the call so far, I think the CAEP report makes it really clear that a single global aspirational goal does not place specific obligations on specific States. Rather it provides the focus for future policies and measures that could be implemented by individual States and by ICAO as well. What is also really clear is that there are significant opportunities for all States for aviation decarbonization. Many States are already developing their sustainable aviation fuel industries. This is going to be required in all regions and making really positive strides on new and innovative aviation technology. We have already had a long discussion about hydrogen as well. We know that industry is already leading in this area and that they are driving a lot of the development in new technology and in SAF development and deployment across the globe. It was really great to hear from IATA about the progress that has already been made in the MID region. Finally, one area where we have heard a significant agreement between many States on this call already is around the issue of capacity building and assistance to developing States. The UK fully agrees that if a goal is adopted, it will be incredibly important to consider what support can be offered across all regions and to make sure that States can play their part in meeting the goal.</p>
<p>United States</p>	<p>As these discussions emphasize, to implement a global goal takes global coordination and we do see ICAO's leadership as the key to facilitating these discussions, information sharing and best practices to implement a goal like this successfully. One key element to implementing such a goal, as the slide mentions, is the ability to quantify, measure or monitor what is being done in terms of our progress. Reductions from the technology and operations solutions that the report identified can be more directly measured in terms of the fuel and energy consumed by an aircraft. But lifecycle reductions, especially from sustainable aviation fuels, can be more complex to measure. So without prejudging a decision by the Assembly on the role of offsetting beyond 2035, we did want to recognize that the CORSIA framework, particularly</p>

	<p>with an emphasis on the R for reductions, provides a mechanism that could be applied globally for tracking and accounting of emissions of reductions for fuels. This may be needed given the large size of the potential emissions reductions from fuels illustrated in the LTAG analysis scenario results. So I just wanted to remind that we already have the tool for capturing that aspect of measuring and monitoring.</p>
<p>Yemen</p>	<p>My question is that the three scenarios need large financial potentials. The developing countries cannot afford such potential which means that the scenarios would be obstacles for airlines, companies of developing countries to enter global markets, unlike modern countries. How can ICAO help these companies to enter the global market?</p>
<p>OBSERVERS</p>	
<p>ATAG</p>	<p>It is lovely to hear the news about the Federated States of Micronesia joining CORSIA. It is always really important for us to see more and more States joining the program, filling in different parts of the world and allowing us to build out what is really a unique sectoral approach that has been developed through CORSIA. One of the things that we are hearing a little bit more through this section is the question of financing and it is going to be incredibly important. I think we look at it as industry, as investment and particularly when it comes to the buildup of SAF production across the world, we look at this of course as an issue as human beings as this being something that we need to do by 2050, which always sounds like a long way away but of course it is only 28 years away and we have a lot of work to do before 2050 to make sure that we have the production capacity required for the amount of sustainable aviation fuel coming into the system that we need by then. So a lot of investment will be needed in the production facilities to be able to deliver that sustainable aviation fuel and it needs to start relatively quickly and so we need capacity building to make sure that States are aware of what they can do. There is an enormous opportunity that exists in States all across the world to develop clean energy industries. But of course, they need to understand how to implement that at a statewide level. And then we need financing to make sure that the investment can be made, but one of the important things that all investors, whether they are private investors, whether they are multilateral development banks, whether it is the industry ourselves needs, is certainty. And of course, having that long term goal across the world having the backing of governments to the industry goal provides that certainty and allows us to access financing and investment to deliver those things as well. So I think that's a really important part of the discussion as well.</p> <p>We need to stop seeing this as a burden and need to start seeing it as a real opportunity. It is a challenge to be sure, but it is a real opportunity for the industry to play its role in broad climate action. It is an opportunity for a lot of countries, particularly to develop new energy industries when it comes to SAF production to look at energy security as well. And so there are upsides to this that we cannot forget. The most important one of which is actually climate action and making sure that we reduce our impact on climate change. So it's just a sort of general comment that we cannot keep thinking of this just as a burden, just as the costs, there's also a lot of costs to inaction as well.</p>

<p>ECAC</p>	<p>I have followed with a lot of interest, specially the concerns expressed by our African States colleagues on the means to implement long-term goals and the need for capacity building. I will refer in particular to a question raised by Gabon. Will we have sufficient means to implement long-term aspirational goals? So to answer that question, I would like to share an idea that sustainable aviation fuels can be the main enabler for those long term aspirational goals. I think if there is a region on the planet with enormous potential for the development and supply of sustainable aviation fuels is Africa. I mention this based on all the previous work on the field of sustainable aviation fuels. I just raise to your attention two important resources that Africa has and that will be the basis of the future sustainable aviation fuels, The first is the sun. Many sustainable aviation fuels in the future will be based on solar energy, and Africa is a continent with an enormous potential of solar energy resources. The second is biomass that respects sustainability criteria like the ones that have been developed by ICAO. Africa has an enormous potential also for making use of biomass and waste. So I just share with you the idea that in terms of Africa having sufficient resources, maybe the long term aspirational goals also bring an enormous economic and social opportunity for Africa through the development of sustainable aviation fuels. In that framework, I think the idea shared by ICAO Secretariat on an ACT-SAF based on the enormous success of the ACT-CORSIA program, coordinated by ICAO is an excellent idea. And just to conclude, there was a reference by Nigeria on the regional organizations and then you have referred to the regional offices. So I think there is also a very good opportunity for cooperation among them. I will just share with you the European case, I have the chance and the pleasure to organize together with Blandine Ferrier (EUR/NAT RO) the Joint Workshop on Sustainable Aviation fuels, to build capacity within our European States. I think this kind of regional cooperation, both at the regional organizations and regional offices, is a good example of maybe helping our States jointly.</p>
<p>IATA</p>	<p>IATA fully supports the results of the report, and we are very grateful for the efforts of the experts that contributed to the work, including IATA and member airlines. As for our position, we support the adoption of a long term aspirational goal by ICAO that is aligned with the aviation industry commitment to achieve net zero emissions by 2050. We believe that any target adopted by the Assembly should be a collective target set for international aviation. It should not assign any specific targets, the individual States or operators. It should instead emphasize the importance of collective action and collaboration, as you mentioned earlier through capacity building, notably, which is fundamental to sustain progress given the complexity of the industry itself. That implementation of policies to support the eventual LTAG must not result in market distortions or constrain the growth of aviation in any way possible. As for technologies and fuels, we support the adoption of a long term aspirational goal that recognizes the contribution of all pillars of industry, climate actions and the central role that civil aviation fields will play in the sector’s decarbonization. The rate of decarbonization that is identified as likely by the ICAO LTAG process, even in the most ambitious scenarios, should clearly recognize the uncertainties around technologies, fuels and operational improvements that have not yet been deployed or tested at scale in normal airline operations. In addition, we should not prescribe to any specific technology or a set of technologies to ensure that the industry has allowed the flexibility to pursue emissions reductions through the most cost effective and efficient means available to the State itself.</p>

	<p>A question from IATA: How would the multilateral road map that we would potentially agree, be coordinated with regional initiatives? I am thinking specifically about the EU's Fit For 55 and the refuel initiative that are sort of in parallel you could argue, but not really. I would be curious to hear your views on this.</p>
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