

OVERVIEW

BY JANE HUPE, DEPUTY DIRECTOR ENVIRONMENT, ICAO

Since the 37th Session of the ICAO Assembly in 2010, ICAO has encouraged its Member States to voluntarily submit their Action Plans for emissions reductions from international aviation. In 2013, the 38th Assembly decided to further encourage ICAO Member States to submit their Plans, to update those submitted in 2012, to share their content on the ICAO public website and to cooperate with other States for their submission in June 2015.

Thus, for the past six years, ICAO has been working on a comprehensive strategy to strengthen national capacities on environment and, specifically, to reduce the impact of the international aviation on climate change.

All of the ICAO Member States wanted to take action, but some were not sure how. ICAO has therefore put in place an integrated strategy to support the States willing to take action. This included developing and promoting guidance, technical material, and offering capacity-building to facilitate the development of State Action Plans¹ on CO₂ emissions reduction activities. By June 2016, 94 ICAO Member States representing 88 per cent of international traffic voluntarily developed and submitted an action plan to ICAO, reaching the target of 50 per cent more action plans submitted in comparison with the last triennium (Figure 1).

ICAO Buddy Programme

One of the key elements of the ICAO strategy is forming partnerships to facilitate the development of Member States' Action Plans to reduce aviation emissions. It encourages States that submitted their action plans to build partnerships with other Member States that did not. The "Buddy Programme" is an instrumental step to enhancing the submission of State's Action Plans and to make sure that all avenues are explored to multiply their environmental benefits. It is increasingly gaining momentum amongst ICAO Member States. ICAO developed a sample agreement for direct use by States, in order to facilitate the establishment of such partnerships (Figure 2). ICAO has also been working directly with individual States and national action plan focal points to provide tailored, individual assistance to facilitate the preparation of action plans. Since September 2014, 400 contacts have been made with national action plan focal points.

ICAO-European Union Joint Assistance Project

Another important element of the strategy is to facilitate access to financial resources to enable the development of action plans and /or the implementation of measures to reduce CO₂ emissions.

In 2013, ICAO established the first partnership to develop and implement action plans with the European Union: a joint assistance project on capacity building for CO₂ mitigation from international aviation in 14 selected States, 12 of them from the African region and two from the Caribbean region (Figure 3).

The main objectives of the ICAO-European Union project are to support the development of voluntary action plans; set-up Aviation Environmental Systems (AES) to collect data; build emission inventories and monitor CO₂ emissions from aviation; and implement measures to reduce aviation emissions.

This first of its kind partnership on environment and aviation demonstrates that the impact of the States' Action Plans goes far



Figure 1. 94 States have submitted an action plan (June 2016)

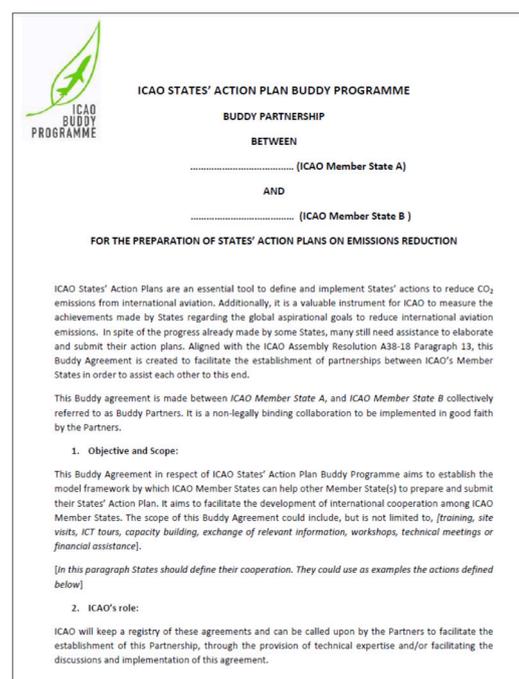


Figure 2. ICAO Buddy Programme agreement



Figure 3. The architecture of the ICAO-European Union joint assistance project

beyond initial expectations. It is rare to see an initiative with such a multiplier effect. This project has triggered powerful synergies to address the environmental issues at the national level in all the beneficiary States, which have established National Action Plan Teams to bring all aviation stakeholders around the table. The establishment of these teams has changed the way the States work toward environmental objectives. Action Plans are the result of an inclusive process that involves all the national stakeholders: civil aviation authorities, ministry of environment, ministry of transport, airports, airlines, air navigation services providers, and fuel suppliers, amongst others, each one contributing within their areas of expertise.

The project has enabled a shift in institutional culture regarding the environment in the selected States. Environmental action on aviation, that was not seen as a priority in the past, has now become increasingly relevant for these States, which have taken ownership, greatly increased awareness of environmental issues, and are enthusiastic to undertake concrete action.

The presence of ICAO through the local project offices and on-site missions (**Figure 4**) has been essential in engaging the civil aviation authorities of the selected States and for the commitment of all the relevant actors toward the common goal of environmental protection. In less than a year, the ICAO Secretariat project team visited each of the 14 selected States, encouraging them to work with the members of the National Action Plan Teams to complete the collection of historical data, prepare the baseline scenarios, and facilitate discussions on the potential mitigation measures available for the States to reduce fuel consumption and emissions from international aviation.



Figure 4. Meeting the team , a working group meeting in Santo Domingo, Dominican Republic

Aviation Environmental Systems: Automatic Emissions Monitoring

Prior to the implementation of the ICAO-European Union Project, none of the beneficiary States had an emissions monitoring system in place and therefore they were not able to efficiently collect and monitor CO₂ emissions from the aviation sector. The Aviation Environmental System (AES) is a monitoring, reporting and verification (MRV) tool, developed under the project and installed in all the selected State. It supports the automated collection and monitoring of data, providing the beneficiary States with the ability to assess, monitor and report CO₂ emission reductions obtained through the progressive implementation of the mitigation measures included in their Action Plans. In light of the success of this tool, many other Member States have shown interest and have requested ICAO to help them to integrate the AES into their existing monitoring systems as soon as possible.

Selection and Implementation of Measures

The ICAO-European Union project is currently entering its CO₂

mitigation phase, with the establishment of a series of pilot projects to reduce fuel consumption and emissions from aviation. These pilot projects will consist for example, of the installation of solar panels connected to an electric Pre-Conditioned Air unit and Ground Power Unit in two international airports of the selected States. This will enable the use of clean energy technology for the provision of ground support to the international operations at these airports and will therefore reduce fuel consumption and CO₂ emissions.

The project will also fund feasibility studies for the development of a sustainable alternative fuel production chain for the aviation sector in the beneficiary States, that could become instrumental for the States to mobilize further political and financial resources, should they wish to pursue the production and use of alternative fuels.

The results of the pilot projects will become practical examples of concrete actions to reduce CO₂ emissions. The availability of further financial contributions from donor States and international organizations would enable ICAO to replicate these projects in other States that require assistance to implement their action plans and to establish robust emissions monitoring systems. By doing so, other States will be able to also benefit from these capacity building activities and tools which have proven successful in addressing climate change in the aviation sector. Further financial and technical assistance will be crucial in environment to ensure that “No country is left behind” (see articles page 182 and page 184).

ICAO-UNDP-GEF Global Capacity-Building Project

Partnership was also established with the United Nations Development Programme (UNDP) with financing from the Global Environment Facility (GEF) to undertake a Global Capacity Building project – including the implementation of a pilot project on renewable energy in Small Island Developing States (SIDS) (see article page 191).

The ICAO-UNDP-GEF project is underpinned by the willingness to realize incremental CO₂ emissions reductions arising from the implementation of international aviation mitigation measures in developing countries and SIDS. This objective will be attained through the delivery of unique guidance material:

- on governance, in order to support States establish an effective organization within their administration for CO₂ mitigation activities in aviation;

- on the financing of clean energy projects for aircraft (drop-in sustainable alternative fuels) and airports; and
- on the cost-benefit assessment of the implementation of different mitigation measures.

A key component of the project is the implementation of a pilot project, which could be replicated in other SIDS, thus multiplying environmental benefits.

Norman Manley International Airport in Kingston and Sangster International Airport in Montego Bay, Jamaica, will be the testbeds for the implementation of clean energy projects. Different financing approaches are expected to be used. This experience will directly benefit the development of the solar energy component of the Guidance Material on financing and implementation of clean energy projects.

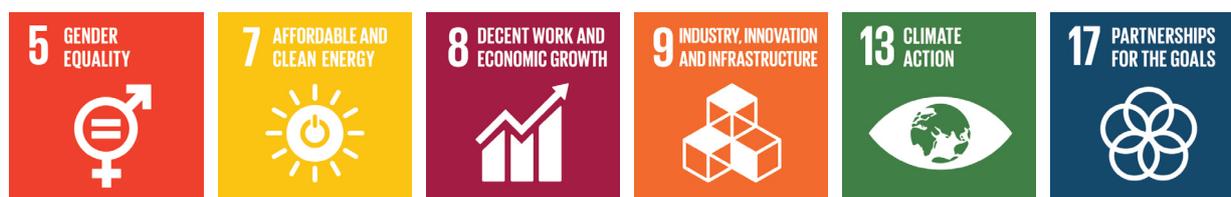
Again, the experience gained in the implementation of these pilot projects can be easily applied to other SIDS. This the practicability and the replicability of the model – financing, institutional approach, technology etc. - that allows for the maximization of environmental benefits. In addition, States can further use their own GEF national allocations for the implementation of similar projects at their airports.

Conclusion

The States’ Action Plan initiative fosters a highly cooperative culture in support to the establishment of inclusive and effective multi-stakeholder partnerships (SDG 17), while contributing to combatting climate change (SDG 13). States Action Plans also trigger technological or operational innovations, leading to more efficient infrastructure (SDG 9). Last but not least, knowledge-sharing is encouraged through the dissemination of good practices. The good practices promoted as part of the capacity-building activities contribute to the development of sustainable alternative sources of energy (SDG 7) and to creating new economic opportunities for local communities (SDG 8).

Going forward and building on the strong experience gained with its current two assistance projects, the potential for cooperation with other United Nations agencies and international Organizations continue to be explored, so that synergies are realized to the benefits of ICAO Member States and their sustainable development.

Sustainable Development Goals



References

1. http://www.icao.int/environmental-protection/Pages/ClimateChange_ActionPlan.aspx