

THE DEVELOPMENT OF BURKINA FASO STATE ACTION PLAN

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Burkina Faso is a Sahelian country located in the heart of West Africa, without a sea coast. Therefore, the most developed means of transportation are buses and trains, connecting it to the six neighboring countries of Côte d'Ivoire, Mali, Niger, Benin, Togo, and Ghana.

Alongside these means of transportation, there are a large number of air passengers. In fact, more than 13 international airlines and one national airline are operating from and to Burkina Faso.

Air Burkina, the national carrier, started its flights in the 1960s with small piston engines aircraft. It has contributed to opening up the country through its domestic flights, landing all over in Burkina Faso, formerly known as "Upper Volta".

Nowadays, the airline is using two Brazilian Embraer ERJ170 and is planning in the nearest future (in the next 5 years) to diversify its fleet in order to meet a fast growing demand.

Statistics show that Air Burkina carries between 25 and 30% of passengers from the departure and arrival airports of Ouagadougou and Bobo-Dioulasso, the two international airports.

Passenger traffic has experienced a fairly steady increase between 2004 and 2013, a traffic decrease in 2014 and 2015 and a slight recovery from the last quarter of 2015. The most significant traffic growth was observed in 2012 with an increase of more than 12%, and the lowest rated traffic in 2015 with a decline of about 10%.

On average, 500.000 passengers transit annually through Burkina Faso and 6.000 tons of freight upon arrival and departure.

To manage the civil aviation sector's activities, the Government of Burkina Faso has created the National Civil Aviation Agency, with statutory powers to regulate and supervise safety and security. To achieve this, the civil aviation sector is working jointly with State or private organizations in Burkina Faso, which are:

- the Agency for the Safety of Air Navigation in Africa and Madagascar (ASECNA);
- the National Delegation for Aeronautical Activities (DAAN);
- the Administrative Board of ground handling Services (RAC-GAE);
- the national carrier, Air Burkina.

Like most African countries, it is in 1960 that Burkina Faso was proclaimed independent and as an independent State, Burkina Faso ratified the Chicago Convention in 1962, marking its commitment to participate in the safe and orderly development of the international civil aviation.

To show its commitment to ICAO policies, Burkina Faso has voluntarily adhered to the objectives of Resolution A38-18 adopted at the 38th session of ICAO Assembly, including the

development and submission of an action plan on international aviation CO₂ mitigation activities.

Action Plan and Assistance

With that willingness, Burkina Faso is one of the 12 States in Africa selected to receive the support from the ICAO-European Union joint Assistance project "Capacity building for reducing CO₂ emissions from international aviation". This project was funded with 6.5 million Euros in fourteen States: twelve in Africa and two in the Caribbean. Starting in January 2014, the project is scheduled to be completed in June 2017.

At this point, Burkina Faso has met its commitments as part of the project:

1. two focal points from the Civil Aviation Authority were officially appointed by Burkina Faso to be trained with the necessary tools to carry out an action plan;
2. a national action plan team, a multidisciplinary team of 16 members, was constituted to develop the action plan; in addition to the civil aviation authority representatives, it is composed of airline, airports, and air navigation service providers representatives.
3. the first action plan of Burkina Faso was sent to ICAO in December 2015. The Action Plan of Burkina Faso is available on the ICAO public website¹.

To achieve its objectives, Burkina Faso has benefited from the support of ICAO experts and from the Action Plan and Assistance seminars organized by ICAO.

Challenges

More than two years after the project inception, Burkina Faso can already draw some lessons from the process. Indeed, looking back, some difficulties have paved the way of the development of the plan.

One of the major challenges was mastering calculation tools available to the States (ICAO Fuel Saving Estimation Tool, ICAO Carbon calculator, Environmental Benefit Tool).

Another challenge was related to the organization of the national action plan team meetings: meeting regularly with 16 experts from several ministries has not been easy. However, this logistics hurdle was overcome by the use of Information and Communications Technology (ICT) and on-line file exchanges enabled the team to work in an orderly and rational way.

Summary of Burkina Faso Action Plan

The action plan for the reduction of CO₂ emissions from international aviation is built on three pillars:

1. presentation of the civil aviation environment of Burkina Faso;
2. reduction measures adopted and the quantification of expected results;
3. needs for assistance.

The first pillar has been presented above. Regarding the second pillar, Burkina Faso has identified 12 measures in its Action Plan to help reduce emissions from international aviation:

1. Purchase of new aircraft;
2. Measures to improve taxiing;
3. Continuous Descent Operations (CDO);
4. Continuous Climb Operations (CCO);
5. Single engine taxi;
6. Engine wash;
7. Aircraft wash;
8. Construction of taxiways;
9. Installation of fixed electrical ground power and pre-conditioned air allow aircraft Aircraft Power Unit (APU) switch-off;
10. Reduce distance travelled;
11. Conversion of support equipment to use cleaner fuels (biodiesel)
12. Studies on the use of alternative fuels in civil aviation

This last measure aims to use the high production potential existing for bio fuel in Burkina Faso. An operating factory already exists and produces bio fuel from jatropha for local and sub regional consumption.

The implementation of all the mitigation measures identified in the action plan of Burkina Faso has the potential to reduce over 23% of the average CO₂ emissions from aviation between 2016 and 2025.

In 2014, the CO₂ emissions from international aviation were 19,003 tons. These calculations did not take into account the co-benefits associated with the implementation of measure N°3 and N°4 (CCO and CDO) and N°9 (reducing the use of ground power unit).

In order to strengthen national capacities to monitor and report the aggregated CO₂ emissions data, ICAO, through funding from the ICAO-European Union Assistance Project, provided the National Civil Aviation Agency with ICT equipment and a software (Aviation Environmental System). The software is compatible with ICAO database systems and ICAO Environmental tools and aims at collecting emissions data. The National Civil Aviation Agency has already reported to ICAO the emissions data of January and February 2016.

To summarize, Burkina Faso is proud to be part of this ambitious joint assistance ICAO-European Union project and will especially, let other countries of Western Africa, and why not of the entire African continent, benefit from its experience and from the positive results that will come from participation in this project, as part of the ICAO “Buddy Programme”.

This project gives Burkina Faso the opportunity to pave the way in this area, to strengthen the regional cooperation and to trigger interest in neighbouring national civil aviation authorities to get more involved on CO₂ emissions reductions at their national level.

It is to be noted that some measures are under implementation (washing of engines, washing of aircraft, reducing distances) and others (CDO, CCO, constructions of additional roads and feasibility studies for the use of bio fuel) could not be implemented without the support of the international community.

By providing Burkina Faso with IT equipment and the AES, the ICAO-European Union joint assistance project has enabled the State to report to ICAO, their expected trend for fuel consumption and associated CO₂ emissions. In addition, the AES will provide airlines with real data on fuel consumption, which airlines can use to perform more efficient operations and realize economic benefits.

References:

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