

Civil Aviation and sustainability.

Update 2015

1. Summary

In 2008, the first report entitled “Civil Aviation and Sustainability” was published. This was based on background studies on civil aviation in three sustainability dimensions: economy, environment and society. The reference year for the data was 2004.

This updated assessment of the sustainability of civil aviation in Switzerland is based on the 2014 dataset (i.e. data collected 10 years later) and is structured as follows:

- Examination of postulates relating to sustainability in civil aviation, and review of the criteria and indicator system applied in the previous study.
- Description of traffic trend up to 2014 and outlook up to 2030.
- Description of the development along the indicators divided into the three sustainability dimensions: economy, society, environment. Here, the aim was to determine whether the trends anticipated in the 2008 report proved to be accurate, as well as to evaluate the trend up to the present day and thus derive a new trend assessment.
- The findings can then be used to identify the challenges facing the civil aviation sector in each sustainability dimension.

With respect to the economic dimension, the trends may largely be regarded as positive. The main challenges concern capacity restrictions at the national airports and maintaining the competitiveness of Switzerland’s civil aviation sector, both of which have an influence on the country’s degree of attractiveness as a small, open economy.

With regard to the environment dimension, despite the fact that improvements have been made in the past few years, deficits continue to exist, primarily relating to noise and impacts on the climate. However, the fact that these environmental impacts have not increased at the same rate as the passenger transport may be regarded as a positive trend. As a consequence of two regulatory amendments in the revised Federal Noise Abatement Ordinance that entered into force on 1 February 2015, there is a tendency for more people to be exposed to aircraft noise in residential zones.

In the social dimension, the assessment is mixed: while the safety and security situation has improved, there are still some deficits regarding public health and the options for residential development in the vicinity of the national airports.

As the overall analysis makes clear, any assessment of civil aviation always has to be made with reference to its spatial impacts. In view of this, the findings that are obtained when all three sustainability dimensions are examined from the point of view of spatial impacts are of particular interest. Different conflicts of interests and fundamental issues can be identified depending on the spatial level (regional, national, international):

1. The local perspective encompasses the region surrounding individual airports, as catchment areas for places of employment on the one hand, and locations for residential development on the other. From this perspective, the main conflict area (potential conflict of interests) with respect to the development of civil aviation concerns the regional growth opportunities for the industry and the development potential of municipalities that are exposed to aircraft noise.
2. From the national perspective, the focus is on the contribution to the national economy and the “user pays” principle. Here the main conflict area concerns the contribution towards the development of Switzerland as an export-oriented and attractive business location, minimising the environmental impacts such as noise and air pollution, and demand for recreation. Here, the internalisation of external costs is an important postulate. The foreseeable capacity restrictions at the national airports represent a considerable challenge that could hamper the further development of Switzerland as an attractive business location and a small, open economy. This is also of relevance from an international perspective.
3. The main conflict area at the international level is between international competitiveness and the impacts on the world’s climate due to increasing global mobility demand. Global accessibility and prosperity conflict with increasing greenhouse gas emissions and the resulting threat to the global climate. Here, in view of the identifiable infrastructure bottlenecks at the national airports, the maintenance of Switzerland’s competitiveness and attractiveness as an export-oriented economy is an important postulate.

The analyses reveal the following challenges for civil aviation policy:

To maintain the existing strengths

- From the point of view of sustainability, the high degree of importance attached to safety and security has been confirmed.
- Pursuing a demand-oriented aviation policy with the objective of achieving true cost pricing, and declaring a commitment in a liberalised environment to the national airports and the main providers of civil aviation services in Switzerland (easyjet Switzerland and – with a special role – hub operator SWISS International Airlines), secures the high economic importance of civil aviation in Switzerland.
- The regional distribution of aviation infrastructure guarantees a high level of availability and equal accessibility to air travel for the Swiss population.

To eliminate deficits

As before, there is a need for action in the area of environmental protection in association with sustainable spatial development:

- To address foreseeable challenges that arise for the Swiss economy from capacity restrictions at the national airports, and to look for sustainable ways of securing essential accessibility via air travel and maintaining the high degree of attractiveness of Switzerland’s small, open economy in the medium term.

- In view of the significance of climate change in political debate and the ongoing activities at the international level, the importance of stabilising greenhouse gas emissions attributable to air travel will increase sharply in the period up to 2030. The civil aviation industry has drafted a corresponding four-point strategy:
 - To speed up technological progress
 - To improve the infrastructure (including beyond the country's borders; European Single Sky)
 - To enhance the efficiency of operations
 - To implement economic measures
- Within the scope of its international commitment (ICAO, ECAC, EU), Switzerland is strongly supporting measures aimed at bringing about the consistent implementation of this strategy. Based on the "ICAO Action Plan on CO₂ Emission Reduction", the FOCA and the various involved players have developed a Swiss action plan entitled "Civil Aviation and Climate Change", which outlines how Switzerland will contribute towards the attainment of the global objectives in the above mentioned areas, together with the other European countries.

To exploit opportunities

- Opportunities for intensifying sustainable development arise through the consistent utilisation of technological progress, by means of which it will be possible to increase the level of efficiency in the civil aviation sector. Opportunities also arise through the adoption of an intermodal approach to mobility demand, which the various operators can implement according to their own strengths.
- The development of regional airfields (above all the conversion of former military airfields such as Dübendorf and Buochs for civil aviation operations) simultaneously opens up opportunities for the economy, environment and society in that the various interests can be taken into account in a balanced process.

To avoid risks

- In an uncertain economic environment and a situation in which international competition is growing stronger, maintaining the competitiveness of Switzerland's civil aviation sector is a major challenge.
- The degree of dependency on global decision-makers is increasing, including that for airlines, and this means that there is a risk that the orientation of companies' decisions on national interests could be reduced.

