Hainan International Island of Tourism

Opening Policies for International Island of Tourism: 
Implications of Air Transport development on Tourism

Dr. Andreas Wittmer
21st – 22nd March 2009

Goals of the action learning for the next 2 days!

• Know international and national regulations and policies concerning transport in tourism with a special focus on air transport.
• Understand safety and security.
• Understand what a sustainable development of air transport means.
• Know how airline business models have an impact on the destination.
• Know some impacts of airport development.
Content

- International Regulation and Policies of Air Transport
- Safety and Security of Air Transport
- Sustainability of Air Transport
- Business Models of Airlines and their Fit to Destinations
- Impacts on Airport Development

International organisations

World Tourism Organisation
World Travel and Tourism Council
International Air Transport Association
International Civil Aviation Organisation
European Aviation Safety Agency
Federal Aviation Administration
WTO: World Tourism Organisation

- Objective: development of responsible, sustainable, and universally accessible tourism, with the aim of contributing to economic development, international understanding, peace, prosperity, and universal respect for and observance of human rights and fundamental freedoms.

- WTO attempts to facilitate world travel through elimination or reduction of governmental measures for international travel as well as standardisation of requirements for passports, visas, and so forth.

- Improve the quality of tourism through trade liberalisation, access for travellers with disabilities, safety and security, and technical standards.

Introduction to international authorities

- Air transport is transfrontier and that's why common international rules are important.

- The production of airplanes (Boeing and Airbus) and airplane registration are not limited on a specific country and need standardised supranational standards.

- Air transport markets (Seitzerland, EU, USA und Asia) are closely linked with each other. This fact requires a harmonisation.

- Aviation needs international authorities because aviation is international!
Why are national authorities needed?

- Countries have flight specific details like mountains, sea, desert, jungle, etc.)
- Countries use different strictness with applying regulations, which results from politics (Emissions, Inmissions, Pictures from the air, etc.)
- International rules have to be implemented. This happens with a different extent (e.g. balck list of airlines, security controls)

Overview over Aviation Authorities

- China is an ICAO contracting State
- ICAO (Sub org. of UNO) releases worldwide laws and directives
- EASA (Europ. Av. Sav. Ag.) releases laws and directives in the European Union
- NAA (national authorities) are national regulators
Goal of these organisations

- Guarantee greatest possible safety in civil aviation.
- Adherence of environmental rules.
- Guarantee the free transport of goods, human beings and services.
- Worldwide spread of rules by cooperation among countries.
- Creation of standardised approval procedures for specific airplane types, power units and equipment.

Civil Aviation Administration of China (CAAC)

- Regulation for the operation and management of China civil aviation domestic air routes and flights.
- Regulation of business permission for public air transport enterprises.
- CAAC management regulations for the establishment of branches of airline companies.
- CAAC announcement to adjust the total flight quantity, the permission to be part of the air transport market, and the increase of transport capacity.

Influence of air transport:
- Military concerning flight area and air routes
  - Airlines cannot always use the best and fastest routes.
Ground transport policies in China

1. The ordinance of ground transport of the Peoples Republic of China.
2. Regulation of passengers transport and transport stations.
3. Regulation of bus transport.

and specifically for Hainan:

4. Regulations of Hainan tourism.

Content

• International Regulation and Policies of Air Transport

• Safety and Security of Air Transport

• Sustainability of Air Transport

• Business Models of Airlines and their Fit to Destinations

• Impacts on Airport Development
Definitions

Safety

To operate safely (Safety)

To be secure against terroristic activities (Security)

Safety: Air accidents per million departures

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<th>Region</th>
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1 Insufficient fleet experience to generate reliable rate.
### Black list of banned airlines in the EU and CH

#### Link to the list:
http://ec.europa.eu/transport/air-ban/list_en.htm

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In the early 17th century, Sweden was busy building an empire around the Baltic Sea in northern Europe. A strong navy was essential.

In 1625 the Swedish king Gustav II ordered new warships, among them the Vasa.

The Vasa was built by shipyard Henrik Hybertsson, an experienced Dutch shipbuilder.

the Vasa was to be the mightiest warship in the world, armed with 64 guns on two gundecks.

Around 700 sculptures and ornaments decorated the warship.

Crew of 437 men.

The construction added up to about 5% of gross national income.

Source: Maurer Simon, CASO, 2006

The construction of the Vasa happened due to Sweden's danger in the naval supremacy (through the Danish).

( pressure to succeed)

1625 the construction was accelerated because 10 Swedish warship were already lost.

( pressure transfer to the manufacture)

The king was demanding changes at the ship which were not forseen in the original specifications (2 gundecks, bigger dimensions, etc.).

( Untested deviation from specifications).

The constructing engineer tried several times to persuade the king of stopping these changes.

( Experts won't be listened)

1627 the constructing engineer died suddenly.

( Knowledge gets lost).

At a stability test in summer 1628 the Vasa almost capsized. Nevertheless the ship was given to the fleet by the admiralty.

( Admittance failure).

Source: Maurer Simon, CASO, 2006
Example Switzerland: SR111, Peggys Cove, Canada

Example Switzerland: Crash of CRX498 near Nassenwil, after take-off in Zurich

Source: Maurer Simon, CASO, 2006
Example Switzerland: Crash of CRX3597 near Bassersdorf, on the final approach to Zurich

Example Switzerland: Collision of the B757 and T154M over Überlingen, Germany
Accidents and heavy incidents are **System failures**

To improve safety, the following questions are raised:

**not**
- which single causes or cause chains did lead to the accident
- what part, what component or what person did possibly fail
- who is responsible for the failure or what are penal aspects

**rather**
- why did the system fail, or
- why wasn’t the system able to detect the failure or to prevent it, before the failure happened

**respective**
- what can be done to create a system which is insensible toward failures and resistant against accidents

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**Implications for Hainan**

- Safety first! (passengers highest priority).
- More air traffic requires more advanced security requirements on the ground.
- More air traffic requires more resources for air safety (airspace management).
- More air traffic requires a system, where everybody is allowed to say if something isn't working as it should.
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Sustainability framework

Sustainable air traffic development in destinations
(ecological damage ≤ economic and social utility)

Economy
(economic utility, market potential air traffic from Zürich)

Environment
(Potential of air pollutant and noise emissions)

Society
(Potential of social contacts, travel opportunities)
Questions

- What are different levels by which sustainability can be looked at?
- What level of sustainability is the most relevant for decision making at an airport in a destination?
- What is a most relevant factor, which influences a sustainable development?
- How does it work in China? …and in Hainan?

Big Picture concerning sustainability of air transport

- It is global and regional
  - global with respect to climate change
  - regional with respect to noise, smell and politics
- Three perspectives:
  - local around airports
    - Economic: employment, living location, business location, financial effects, development potentials, etc.
    - Ecologic: noise, smell
    - Social: mobility = quality of life
  - National
    - Economic: export orientation, location attractivity
    - Ecologic: noise and emissions
    - Social: mobility = quality of life
  - International
    - Economic: international competitiveness
    - Ecologic: global climate change
    - Social: global mobility needs
Aviation System

Social System

Ecological System

Political System

Economic System

Supply System

Demand System

Aircraft Manufacturers

Airlines

Ground Services

Regulators

Consumer Customers

Business Customers

Tour Operators

Travel Services

Technological System

Aircraft Manufacturers

Airports

Industry associations

Airlines

Ground Services

Regulators

Market

Air travel grew compared to other modes of transport…

Source: IDT-HSG Travelmarket Switzerland, 2005

Car, motor home etc.  Railway  Plane  Boat, Ship  Bus  Other

0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%


Shares w/r to means of transportation

Year
...despite severe market fluctuations

Air traffic flows 2000 - 2020

North America dominates scheduled world traffic today ...

Share of 2000 RPKs

... but by 2020 Asia-Pacific will take the lead

Source: Airbus
Economic effects of aviation (II)

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<th>Sector</th>
<th>Direct (within the industry)</th>
<th>Indirect/induced (industry supply chain)</th>
<th>Catalytic effects (impacts on other industries)</th>
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| **Air** transport **industry** | **Aviation sector** | Airlines  
• Passenger carriers  
• Air cargo carriers  
• Airline ticketing  
• General aviation  
**Airport & services**  
• Civil airports  
• General aviation airports  
• Handling & catering  
• Freight services  
• Aircraft maintenance  
• Fuelling on site  
• Retail  
**Air navigation**  
• Service providers  | **Suppliers**  
• Off-site fuel suppliers  
• Food & beverage  
• Construction  
**Manufacturing**  
• Computers/electronics  
• Retail goods  
**Business services**  
• Call centres  
• Accountants  
• Lawyers, banks  
• Computer software  | **Trade**  
**Tourism**  
**Location/Investment**  
**Labour supply**  
**Productivity**  
**Market efficiency**  
**Consumer welfare**  
**Congestion**  
**Social**  
**Environmental** |
| Civil aerospace **sector** | **Civil aerospace**  
• Airliners  
• Engines  
• Equipment  
• Off-site maintenance  | **Induced**  
(spending of direct & indirect employees)  
• Food & beverage  
• Recreation & leisure  
• Transport  
• Clothing  
• Household goods  |
Economic relevance of aviation

- 29 Mio Jobs worldwide
- 8% of global GSP
- 5% average growth per year
- 2 bill. passengers per year (Network, Charter, Taxi)
- 40 bill. CHF air freight per year accordingly 30% of the exported total value

It generates income!
It creates jobs!

The impact of air transport on the environment
In Europe Low Cost Airlines...

Ten years ago – only a few airlines transported in the „Low Cost Market Segment“

• 18 Airports
• 81 Airport-Pairs
• 884 FrequenzWoche
• 2 Mio. Pax
• 35 AC

Source: Lufthansa, Dr. Dietmar Kirchner

...grow at enormous speed

Five years ago – the „Low Cost Market Segment“ of Europe still waited to expand drastically

Source: Lufthansa, Dr. Dietmar Kirchner
Will/can growth go on? What are the limits?

Today – more than 570 Aircraft transport Europe’s „Low Cost Market Segment“

Source: Lufthansa, Dr. Dietmar Kirchner

Temperature is changing…

Source: Stern Report
The problem of emissions of air transport

- Growth in aviation
- The future pattern of globalisation
- Demand growth
- Increase in emissions from aviation
- Climate change can be combined with sustainable economic growth
- Key to the dilemma are pro-active foresighted policies, taken forward internationally - the Stern Report’s 3 legged framework:
  - Carbon pricing
  - Incentivising new technologies
  - Incentivising changes in behaviour

Source: David Thompson, Chief Economist, UK Department for Transport
Positive Social Issues

- Connectivity
- Social intercultural interaction
- Travel time saving
- Tourism
- etc.

Negative Social Issue: Noise and health impact

55 dB is about equal to the general noise level at day time.
Time for reflection!

- What are critical issues concerning air transport development in Hainan with relation to the following factors?
  - Economy of Hainan
  - Environment of Hainan
  - Society of Hainan

Content

- International Regulation and Policies of Air Transport
- Safety and Security of Air Transport
- Sustainability of Air Transport

  - Business Models of Airlines and their Fit to Destinations

- Impacts on Airport Development
Airline Business Models

- Mega-Carrier
- Flag-Carrier
- Regional Carrier
- Charter
- Low Fare

Networks
The wet lease/ niche market
Point to Point airline

Low Cost Carrier vs. traditional airline business model

Cost savings

Receives staff advertising & cabin crew pilots ground handling insurance & airport handling fees

Aircraft ownership cost air traffic control fees maintenance fuel

Quelle: easyJet
Time for reflection!

- What does the seating in Low Cost Carriers imply?
- At what kind of passenger market do Low Cost Carriers aim at?
- What are the implications for the destination?

Air transport and destinations

- Tourism is one of the main drivers of air transport
- But: Air transport is one of the main drivers of tourism

AIRPORT PUNTA CANA

AIRPORT INNSBRUCK

new tourism destination due to air traffic

new air traffic thanks to tourism
International tourist arrivals and air travel

- Tourist Arrivals in Mio.
- Int. Air Travels

Year

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Source: Int. Tourist Arrivals, WTO; Source: Int. Air Travels, IATA

System-Modell for Air Traffic and Tourism

Technical Environment
- Network/Alliance Environment
- Regulative Environment

Economical Environment of the domestic market

Political Environment
- Regulatory Environment
- Economical Environment

Social Environment
- Quantity of the visitors
- Attractive of the Destination

Ecological Environment
- Attractions of the Destination
- Destinations- atmosphere
- Destinations' Turnover Models/Business Model

Regulative Environment

Political Environment

Economical Environment

Social Environment

Economical Environment

Environmental

Airline Business Model

Password

Airport

Type of the Aircraft

Network Structure

Price Level

Frequency
Business Model of Airlines and their relation to Destinations

Degree of the Network Complexity/Commodification

- Low Fare Carrier
- Charter Carrier
- Regional Carrier
- Network Carrier

Degree of the commodification

- Resort Destination 2. Domicile-based
- Resort Destination Hotel-based decentrally managed
- Resort Destination Hotel-based Centrally managed
- Attraction-based Destinations

high suitability

Case Malta

Positioning

- Focus on mass tourism
- Average - Low price

- Charter Airlines and up class packages
- Low Costs Carriers
- Own Regional Airline: Air Malta
Case Sardegna

Positioning
• Focus on individual tourism
• High price

Charter Airlines and up class packages
No Low Costs Carriers

Case Mallorca

Positioning past:
• Focus on mass tourism
• Cheap holidays

Charter airlines and cheap packages
Low Costs Carriers

Positioning new:
• Focus on quality tourism
• Focus on families and up class individuals (boats)

Charter Airlines and up class packages
Regional airlines

Great investments in tourism infrastructure (bigger rooms, more beach, more pedestrian areas, less party, other agreements with airlines, etc.)
Time for reflection!

- Which are the most important effects of an increase in average aircraft size and increased air movements on a sustainable development of an Island destination such as Hainan?

- How can you take care for a sustainable development?

Content

- International Regulation and Policies of Air Transport
- Safety and Security of Air Transport
- Sustainability of Air Transport
- Business Models of Airlines and their Fit to Destinations
- Impacts on Airport Development
It is not only about the airport itself, but about how passengers get to and from the airport!

Traffic problems in a medium-sized city – The case of the greater Zurich area

Quelle: www.fugawi.de/karte-Schweiz.html
Public transport network greater Zurich area

Zurich Airport

Quelle: www.zvv.ch

Concept of new public transport supply

Quelle: www.vbg.ch
Development of long distance rail passenger movement in Switzerland

Quelle: www.visiun-porta-alpina.ch

Zurich Airport as a exemplary case

Bus station at the airport

Underground train station at the airport
International shopping opportunities, international restaurants and lounges are standard at international airports.

Time for reflection!

• How do visitors get to and from the airport in Hainan?
• Should an airport for international tourism be built?
• If yes, where should it be placed?
• What are consequences of an international airport for the destination Hainan?
Preparation for the Seminar in Switzerland in June:

- Please note your questions for discussion in Switzerland!

- Send the questions to me before your leave for Switzerland!