Working Document on a post-COVID-19 recovery path

I. Setting the Scene

The aviation industry bears the weight of the consequences of the COVID-19 outbreak heavier than other industries as its *"raison d'etre"* is the transport of people and goods all across the globe for travel, tourism, business and trade. The drastic reduction in air traffic demand amplified by travel restrictions have resulted in significant negative impacts, including severe revenue and cash flow pressure on all stakeholders, including but not limited to airlines, airports, air navigation service providers and aircraft manufacturers.

Since the initial news of the outbreak, the air transport industry has been in a steep stall and the horizon is currently difficult to identify. Unlike previous pandemic outbreaks, such as SARS or the MERS flu, whose recovery took approximatively 6 months with a sharp V-shape scenario, the COVID-19 recovery scenario may extend beyond this time horizon due to the inherent economic recession.

Stakeholders from the aviation industry as well as from other industries, such as travel and tourism, have jointly recognized the unprecedented nature of the COVID-19 crisis in the world, the significant economic impact on air transport and civil aviation at large, the challenging financial situation of the aviation industry and the uncertainty faced by stakeholders at all levels. They have come together in these times to share their knowledge and expertise and to coordinate actions empowering the aviation industry to survive and to continue playing its instrumental role as a worldwide enabler in times of crisis.

With regards to the urgency of the moment, the aviation stakeholders jointly with other UN agencies and international organizations have resolved to design and develop recovery mechanisms and action plans towards stabilization and expedited recovery from these economic hardships.

Recognizing the major threats faced by the aviation industry in light of the economic impacts of COVID-19, this document proposes possible recovery guidance (short, medium and long-term) with respective influencing factors and foreseeable challenges associated. In this regard, each State should play a primary role in the recovery of its own air transport through the implementation of globally-harmonized, efficient public policies and strategies while ensuring that any regulatory actions and measures should not negatively impact the growth of international air transport.

Analysis of the economic impact of COVID-19 on civil aviation

Initial impacts of COVID-19 were limited to certain outbreak countries from late January to February 2020. Since March, as the outbreak continues to expand affecting countries and people all over the world, governments have closed boarders and imposed more stringent travel restrictions as one of the containment measures. This has driven drastic flight cancellations by airlines and dramatic declines in air travel demand, creating severe revenue stream and cash flow pressure on all stakeholders in the aviation sector.

ICAO monitors the extent of the economic impacts of COVID-19 on civil aviation and keeps updating its analysis on a regular basis. Due to the spread of COVID-19 globally and severity of travel restrictions, the updated estimates indicate the COVID-19 impact on scheduled international passenger traffic during first half 2020, compared to originally-planned by airlines:

- Overall reduction of 37 to 48% of seats offered by airlines;
- Overall reduction of 411 to 535 million passengers; and
- Approx. USD 90 to 118 billion potential loss of gross operating revenues of airlines.

Biggest overall impact is expected in Europe and Asia/Pacific, followed by North America and Middle East. At the State level, for example, airlines would lose a total of USD 19.4 to 22.5 billion gross operating passenger revenues from international operations from/to China for the same period.

These estimates were based on the scenarios of V-shaped path (recovery from late May) and U-shaped path (continuous stagnation till the end of 2nd quarter), which are differentiated in terms of supply (output) and demand (spending) conditions, mainly; a) the timing and scale of airline capacity decline and recovery, and b) the degree of consumers' confidence for air travel that can be translated into demand or load factor. Given a rapidly changing environment, these scenarios are indicative of two possible paths out of many. The exact path will depend upon various factors, inter alia, duration and magnitude of the outbreak and containment measures, availability of government assistance, consumers' confidence, and economic conditions.

II. Challenges faced by the aviation industry amid the COVID-19 crisis

The effects of the spread of the disease are directly felt by the air transport industry as a whole. Operating in such a highly interconnected and complex industry, stakeholders depend upon each other mutually and to a high extent, and in consequence they suffer the impacts jointly.

a. Consequences of decrease in demand and supply

Widespread shutdowns, heavy travel restrictions, consumer's unwillingness to travel are among many factors affecting the aviation industry by significantly decreasing the passenger's demand and consequentially the supply as well. The recovery of consumers' confidence in travel may require a substantial period.

Due to this sharp decrease in passenger demand amplified by the growing number of travel restrictions, airlines have been forced into the significant number of **grounding their fleet**. The extensive groundings of fleet require immense aircraft storage facilities or parking space, creating also an additional cost burden for airlines. Furthermore, grounding aircraft for a certain period of time could lead to huge maintenance costs to airlines for the aircraft to resume normal flights.

b. Liquidity and cashflow

The severe decline in traffic creates immanent financial threats to the aviation industry globally. Airlines, for example, are facing **severe financial stress**, which in some cases may **lead to bankruptcies**. While so far only a handful of airlines have filed bankruptcy protection in relation to COVID-19, it is estimated that airlines' cash reserves, without external financial aid, will dry out in a short period of time, which will in return impact other stakeholders dependent on these cashflows.

Airports and Air Navigation Service Providers (ANSPs) are also being hit on cash flow, as their income of revenue is directly linked to the volume of air traffic. As revenues plummet rapidly, many airports and ANSPs are already deploying cost containment measures wherever possible to preserve financial stability and increasing number of them will inevitably face issues with the continuously evolving situation.

For the same reasons, other stakeholders in the aviation, trade, travel and tourism industry find themselves in difficult financial and operational times as well. From ground handlers, catering companies, aircraft manufacturers to travel agents, airport retailers and others, this unprecedented crisis causes existential problems for all sectors supported by aviation directly and indirectly.

In this regard, governments are called upon to support the industry through **loans and loan guarantees, direct capital injection;** and **tax alleviation** including relief on fuel, payroll, income, ticket taxes and other levies**.** Several States have already devised assistance plans consisting in, inter alia, a) stopping the collection of taxes on domestic airlines; b) direct financial aid to airlines; and c3) other governmental support. Other States have also indicated considering deeper measures of support such as nationalization of their air carriers.

c. Employment

Closely linked to all factors related to the impacts of COVID-19 is also the **forced reduction of workforce** by airline companies, ground handlers, airport operators, travel agents and many others. Airlines have announced temporary furlough measures of a high percentage of pilots, crews, maintenance teams as well as managers.

d. Airport slots

A strong case had been articulated by the airline industry to exempt carriers from having to comply with the so-called **"grandfather rights" rule,** by which airlines need to utilize their assigned slots at an airport to at least 80 per cent or they may lose this slot in the future. Recently, many regulators, including ones in the United States and the European Union (EU), have temporarily suspended this requirement to protect the financial health of air carriers and mitigate negative environmental impacts of flights operated only for the purpose of maintaining airport slots.

e. Travel and trade restrictions

Travel restrictions have become the reality of the air transport industry as States seek to protect their citizens and national interests amid the COVID-19 pandemic. The situation is changing regularly in light of different approaches adopted to contain the spread. Approximately 143 States have reported to have a certain degree of travel restrictions from quarantine requirements and partial travel bans to border closures.

These travel policies also result in removing significant **cargo capacity** provided via the bellies of passenger aircraft from the system, which is vital to keep supply chains functional, including deliveries of humanitarian aid and equipment. Actions have been called for to: a) clarify or amend travel policies to exempt air cargo; b) exempt specific crews from quarantine requirements; and c) grant temporary traffic rights to ensure efficient cargo operations in support of the global supply chain.

III. Issues likely to be encountered on the recovery path

Growth and recovery prospects are still very uncertain. The downside risks, if materialized, will significantly reduce the chances and means for recovery. In the short-term, the major downside risk is the impacts and consequences of COVID-19 proving more intensive and lengthier than assumed in the projections.

The underlying global integration of the aviation industry, the inter-dependence of the global economy and the customer/leisure culture are elements likely to help the recovery of the aviation industry. The below-outlined recovery scenarios are high-level and subject to many changes. The base assumption is that for any recovery path of aviation to be laid out the health-crisis need to be mitigated and to a significant extent resolved.

FACTORS (Assumptions)	Short-term "Swift" Recovery (3-6 Months)	Medium-term "Progressive" Recovery (6 - 12 Months)	Long-term "Slow" Recovery (1-2 Years)
Travel Restrictions	Complete lift of travel restrictions when permissible	Progressive alleviation of travel restrictions - probable scenario will involve lifting restrictions on a domestic/regional level, followed later by international traffic	Heavy restrictions on international travel in place for an extended period of time; Majority of travel is domestic /regional.
General Economic Conditions	Economic activity gradually resuming and recovering to pre-crisis level	Partial economic damage; slow improvement in business activities and consumer spending	Global economic recession; widespread of weakness in economic sectors with severe budget cuts and reducing workforce

Airlines Capabilities	Operational Capabilities not affected (fleet, etc.); Workforce is available for hire-back; Free-interest loans and Government cash injection used to maintain current capabilities;	Capabilities are slightly affected; most airlines are still operative; Airlines significantly downsize operations to limit risks and focus more on domestic flights; Cash injections/bank loans are necessary to maintain the minimum level of capabilities;	Capabilities are significantly affected pushing several airlines into default and/or bankruptcy; Airlines downsize operations drastically (very limited passenger international travel)
Air Travel Demand	Passenger demand resumes with low interruption resulting in low prices	Travel demand is decreased, but lower offer (due to decreased operational capabilities) may lead to increased prices;	Reduced and limited operations result in higher prices, which do not stimulate demand
Aviation Industry Health	Fast recovery of the industry	Aviation industry is significantly affected with less traffic generating less revenue and leading to less employment support s a result	High impact with significantly reduced operations, reduced number of players on the market, high unemployment
Foreseeable Challenges per Scenario			
Financial Capability	Decreased Financial Capability;	Significantly reduced financial Capability	The financial capabilities of air transport stakeholders will be critical which may lead to a shift in the model of commercial aviation as we know it today (extensive nationalizations and State subsidies, disappearance of premium travel, shift from hub-and-spoke scheme to a point-to-point scenario)
Employment	Hiring freezes for 1 year, limited expansion on human capital	Medium to high levels of unemployment in the industry due to forced permanent reduction in workforce and/or unwillingness of employees to return due	Extensive unemployment in the industry resulting in shortages of pilots, crews, ground handlers, controllers, etc.

		to uncertainty or less attractive conditions	
Investments	No additional investment or expansion in projects and/or commercial offerings	Cutbacks on investments on existing projects and current activities (reduced routes, fleet, etc.)	Significant lack of investment, priority focused on safety and security, all other investments deemed non-essential and therefore not supported
Trade and tourism	Trade and tourism can be expected to recover by Q4	Extensive financial aid from States will be required to support the recovery and promotion of tourism	The recovery of trade and tourism will largely depend on States, support not limited to financial aid
Air Cargo	The sudden removal of belly capacity has disrupted air cargo flows, but the sector is quickly adjusting and might soon return to levels just above pre-COVID19 situation with slightly enhanced demand for cargo deliveries	A presumably stable element in the recovery scenarios, air cargo will play a significant role in supporting the recovery of the global supply chain and the economy; Conditioned by the facilitation and flexibility of rules;	Air cargo will be a major player in the global economy's recovery in the long-term .
Industry Standards and Procedures	Little to no additional procedures in the industry – e.g. unaltered passenger's experience	Establishment of temporary to mid-term industry procedures -e.g. health-screening at airports, distancing in aircraft, etc.	Establishment of permanent industry procedures for the prevention of similar crises in the future – specific crew trainings, cargo standards, etc.
Consumer Confidence	Consumer confidence will be restored through effective marketing campaigns and stimulating offers	Passenger Confidence will be impacted by prolonged periods of uncertainty and anxiety as well as a general distrust towards international travelling.	Passenger Confidence will be at very low levels with passengers preferring regional travels or choosing other means of transport.

IV. Key concepts for the preparation and implementation of recovery measures

a. Recovery mechanisms: States' responsibilities

Each State has the primary responsibility for its own aviation development and recovery; and the role of national-level recovery mechanisms and action plans cannot be overemphasized. Taking into consideration the direct and indirect economic benefits generated by civil aviation to their national economies, States need to develop recovery mechanisms and action plans, as a matter of urgency and in close cooperation with other transport authorities and ministries in charge of related portfolios, to establish a path towards stabilization and expedited recovery.

b. Observation of established principles: cross-industry collaboration

In developing and implementing recovery mechanisms and action plans, there should be an appropriate balance between the respective interests of service providers (airports and ANSPs) on one hand and of users (airlines) and end-user on the other. ICAO's Policies on Charges for Airports and Air Navigation Services (Doc 9082) state that:.

> "The financial situation of airports and of ANSPs, as well as of their primary users, fluctuates with the performance of global, national and regional economies. Airports and ANSPs have a high proportion of fixed costs, mainly funded by traffic, and therefore in times of decreased demand are challenged to maintain high standards of safety, security and quality of service. Aircraft operators seek to reduce the charges they pay. It is recognized that it is difficult to reconcile the long-term planning horizon of airports and ANSPs with the shorter-term requirements of aircraft operators. Therefore, a mutual understanding between providers and users is important in addressing these challenges."

A majority of airports and ANSPs are not privatized and are operated by government owned entities, and the cost of providing the services and infrastructure are mainly funded by user charges (as well as non-aeronautical revenues in case of airport). ICAO's Policies on (Doc 9082) emphasize the four key charging principles, i.e. non-discrimination, cost relatedness, transparency and consultation with users. Recognizing that airlines face restrictions with regard to their choice of particular airports and of routes to be flown, caution should be exercised when attempting to compensate for shortfalls in revenue and that account be taken of the effects of increased charges on aircraft operators and end-users.

c. Observation of principles: governmental and institutional support

There may be some instances where State assistance can produce economic and social benefits in terms of restructuring of air carriers and assurance of services. Even in such special cases, however, States, should take transparent and effective measures accompanied by clear criteria and methodology to ensure that aids/subsidies do not adversely impact on competition in marketplace (Recommendation of the fifth Worldwide Air Transport Conference refers).

In addition, aviation was estimated to generate USD 136 billion in tax revenues in 2018, which is equivalent to 45 per cent of the industry's GVA (firm-level equivalent to GDP), paid

to local, provincial and national authorities through passenger duties, domestic value-added tax, customs and immigration levies, etc. It is recommended that the priority of allocation of the tax revenues generated through aviation should be given to aviation itself.

States, international institutions and donors such as international financial institutions, each with its own comparative advantages, should examine the best means of supporting sectoral stakeholders, without prejudice to fair competition and by ensuring transparency. Depending on their individual circumstances and subject to the basic principle of transparency and non-discrimination, the economic stimulus (i.e. indirect assistance) provided by the States could be a basket of measures, ranging from tax breaks, reducing borrowing costs, deferring repayment tenures of borrowings, the provision of grants to other fiscal privileges.

In summary, State assistance for airlines, airports and ANSPs should be one comprehensive package by: a) striking an appropriate balance between the respective interests of service providers (airports and ANSPs) on one hand and of users (airlines) and end-user on the other; b) paying special attention to the difference in ownership structure between airlines (vast majority private), airports (majority government-owned but commercialized) and ANSPs (government-owned or part of it except a few and purely cost-recovery); c) taking transparent and non-discriminatory measures to ensure any assistance measures do not adversely impact on competition in marketplace; and d) applying the principle of proportionality in the scale of assistance, i.e. proportional to the economic benefits generated to their national economies.

d. Additional consideration on the emergence of innovation as a response to the COVID-19 crisis

The current crisis has created unprecedented economic impacts in the aviation industry and may have highlighted the shortfalls of air transport as we know it – low operating margins of air carriers, reliance on premium revenues from business passengers, excessive inter-dependencies among various players in the supply chain, etc. The path to recovery of the air transport may therefore call for unprecedented measures as well by leveraging innovative solutions and their adoption by governments. We can expect a catalyzed growth in e-commerce and same-day deliveries, more resilient, distributed and trackable supply chain through IoT and blockchain, a shift in business models towards collaborative economies, a rise in autonomous low-capacity/private aircraft among others.