



3rd HUMANITARIAN AVIATION ENVIRONMENTAL SUMMIT

14 Nov 2024 ✈️ Nairobi, Kenya

REPORT

THE 3RD HUMANITARIAN AVIATION ENVIRONMENTAL SUMMIT

EXECUTIVE SUMMARY

The World Food Programme Aviation recognizes the significant environmental impact of humanitarian aviation and, in 2022, embraced the responsibility to lead efforts in addressing this challenge. Since then, it has prioritized discussing best practices, proposing policies and guidelines, fostering innovation in sustainable practices, enhancing collaboration, and delivering tangible results. These steps are crucial in mitigating aviation's environmental impact and ensuring timely action to protect our planet.

The summit held on 14 November 2024 was organized by the World Food Programme and supported by 748 Airservices, was attended by more than **90 HIGH LEVEL DELEGATES** from CAAs, International organizations, operators, manufacturers, fuel companies and others. The one day summit included opening ceremony, presentations sessions and panel discussion. During the opening ceremony the moderator and guest speakers highlighted the importance of having an effective plan to consider the environmental impact aspect during the humanitarian aviation operations.



The moderator highlighted that We must act urgently to address accelerating climate change, as rising temperatures, extreme weather, and vanishing ecosystems signal the need for immediate and collective action to protect our planet and future generations. Following the opening ceremony, the technical sessions were presented and had 9 guest speakers' presentations followed by panel discussions.

Two areas were discussed:

AREA 1: Our Environmental Impact Now and How Can We Be Better

AREA 2: Sustainable Humanitarian Aviation through Innovation and Technology

Key outcome:

- The key outcome and takeaway was the agreement to establish a Humanitarian Aviation Technical Environment Team (HATET).
- The team will be tasked with developing procedures, and guidelines that reduce the environmental footprint of humanitarian aviation operations while maintaining efficiency and safety. The team will also foster innovation, collaboration, and tangible results to present at the next summit in 2025

- **Collaborate:** Establish a platform for shared knowledge, resources, and expertise among stakeholders.
- **Monitor and Report Progress:** Ensure regular updates on progress and challenges.
- **Deliver Tangible Results:** Present a comprehensive environmental framework and pilot results at the next summit.

"IF WE DON'T PROTECT OUR NATURE, WE CAN'T PROTECT OURSELVES"

The summit was highly appreciated by all stake holders, and the feedback collected showed great support to such work and recommended to continue on improving the summit to reach bigger audience.

- The main objective of the team is to:
 - **Develop guidelines:** Create actionable and practical guidelines to promote environmental sustainability.
 - **Encourage Innovation:** Explore and integrate environmental friendly technologies and sustainable practices.



REDUCING THE IMPACT OF HUMANITARIAN AVIATION ON THE ENVIRONMENT IS A KEY CHALLENGE, WE ALL HAVE TO WORK TOGETHER TO FACE IT

As of recent estimates, humanity emits approximately **40 billion metric tons (gigatons) of CO₂** annually, and following the supreme decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC) COP 28 outcomes provided a strong foundation for the industry's future, highlighting the importance to translate commitments into concrete action. Scaling up SAF production, investing in new technologies, and adopting operational improvements, the aviation industry can play a vital role in achieving a sustainable future.



LOOK HOW BIG A 1 TON OF CO₂ IN PROPORTION TO A MINIVAN

WHAT HAVE WE DONE ?

WHAT CHANGE DID WE MAKE ?

DID WE DO ENOUGH ?

Global temperatures have already risen 1.1°C above pre-industrial levels, and at the current rate of emissions, scientists project warming could reach 3°C.

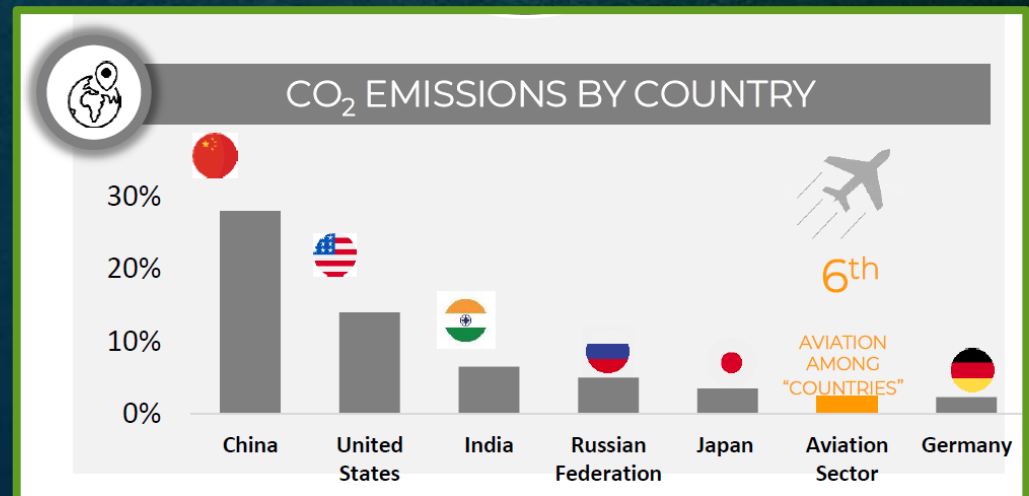
To mitigate the impacts of climate change, it is crucial to urgently and significantly reduce greenhouse gas emissions.



AVIATION has a significant environmental impact, contributing about 2-3% of global CO₂ emissions, from burning fossil fuels in jet engines.

Beyond CO₂, aviation also emits nitrogen oxides (NO_x), which contribute to ozone formation at high altitudes, and water vapor that forms contrails, both of which increase the warming effect.

The total radiative forcing of aviation is estimated to be 3-5 times greater than its CO₂ emissions alone. As air travel grows, its emissions could triple by 2050 unless major efforts are made to reduce carbon output.



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AT GLANCE

The aviation industry embracing environmental sustainability at all levels (Operators, ground handlers, fuel providers, facilities management, etc.), the shift toward greener operations has gained momentum and humanitarian aviation has gone a long way with it. In 2022 the 1st Summit was held to explore possible solutions and plans to measure, reduce and offset the environmental impact and make humanitarian flights adopt and implement more sustainable and environmentally friendly approach.

The 3rd Humanitarian Aviation Environmental Summit held in Holiday Inn Two Rivers – Nairobi, Kenya – 14 November 2024, was led by the World Food Programme aviation, as since the summit inception WFP aviation took on the challenge to lead the act upon finding best practices and solutions to the imperative needed steps to take before it's too late.

The summit was attended by more than 90 elite representatives from various stake holder of air operators, aircraft manufactures, international organizations (ICAO, Wings for Aid, etc.), civil aviation authorities, fuel providers among others who discussed various ways to reach sustainable environmental humanitarian aviation and built on the plans and highlighted the challenges and opportunities during the implementation process.

The summit day including the opening ceremony, covered 9 presentations from keynote speakers to cover two grouped topics each was followed by panel discussion to receive questions and comments from the audience.

It also included various networking breaks that brought together all delegates at gatherings to connect at a different level.

OPENING CEREMONY

The moderator Mr. Ayub Hussein welcomed all delegates and thanked them for taking the lead by being at the summit and working towards a better future for the generations to come.

"It is a moral imperative, it is a mindset, and a responsibility we owe to our planet and future generations"



He then called upon the summit founder **Capt. Samir Sajet, the Regional Aviation Safety Officer in Sharjah,**

Capt. Sajet highlighted that in our field, we have committed to minimizing our environmental footprint through accurate Environmental Management Systems focused on measuring, reducing, and offsetting emissions. We recognize that real progress means moving beyond greenwashing and taking tangible steps to reduce our impact, a commitment we uphold by continually strengthening our standards and practices.

He concluded by leading the delegates into a food for thought

What will you personally commit to, to make Earth a better place to live?

Mr. Ayub highlighted that the day before the summit UNHAS celebrated its 20th anniversary, on the other hand, he reminded the audience that November 2024 also marks 25 years of a wakeup call, of an unfortunate event that changed the history of humanitarian aviation of the Kosovo accident when we lost 24 humanitarian aid workers and asked all for a minute of silence in remembrance of those lost souls.

He then presented videos showing the magnificence of nature and showed again the UN guest "The Dinosaur" who urged us all not to fund the asteroid that can lead to our extinction.

"Our inaction today has come to endanger our tomorrow, and we've had enough of it."

Take it personally, Think deep inside, and find what would you do to transform this world."

To highlight the largest humanitarian organization saving lives and changing lives worldwide – The United Nations World Food Programme, accomplishments of proving that the sky is not the limit anymore and underscoring the unbreakable chain of help utilizing the best environmental options may Dr. Franklyn Frimpong, the Director of Aviation Services,



Dr. Franklyn highlighted that the summit aims to strengthen the momentum of previous humanitarian aviation efforts while emphasizing the importance of sustainability, as it demands urgent environmental responsibility in disaster response.

“Humanitarian efforts and environmental responsibility can—and must—go hand in hand”

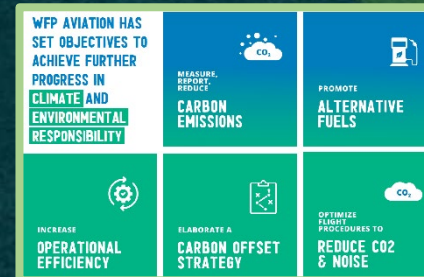
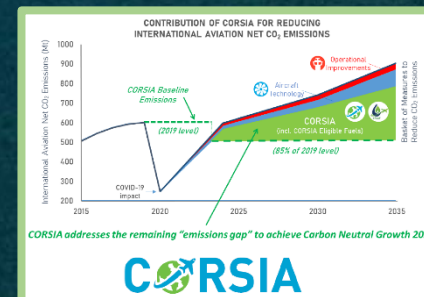
He added that at WFP Aviation we recognize the unique challenges of humanitarian aviation, including operating in remote areas, and the need to balance innovation with operational realities, moreover the importance of collaboration with stakeholders like ICAO, IATA, and ACI which is vital to set clear emissions standards for Scope 1, 2, and 3. He underscored that Carbon offsetting can complement our efforts, though it must be approached carefully to avoid unintended harm. We remain committed to sustainable growth and urged all to continue using this summit as a platform to drive positive change.

The MC then handed over the moderation to the technical sessions moderators to continue on their presentations and panel discussions.



AREA 1: OUR ENVIRONMENTAL IMPACT NOW AND HOW CAN WE BE BETTER — MODERATED BY BARRY KOPPARBERG

- **ICAO - Limiting and reducing the impact of international aviation on the global climate** - Chinga Mazhetese, ICAO ESAF Regional Office
- **Kenya's Actions on Aviation Environmental Protection** - Winstone Gicheru, Kenya CAA
- **Our Environmental Impact Now and Betterment** - Henry Ogoye, Kenya Airports Authority
- **Innovation and sustainability** - Susan Nambusi, Kenya Airways
- **WFP Aviation Service** - Luca Palermo, WFP



KAA Decarbonization Program	
LEVEL 1	Mapping - Footprint measurement
LEVEL 2	Reduction - Carbon management towards a reduced carbon footprint
LEVEL 3	Optimisation - Third party engagement in carbon footprint reduction
LEVEL 3+	Neutrality - Carbon neutrality for direct emissions by offsetting
LEVEL 4	Transformation - Transforming airport operations and those of its business partners to achieve absolute emissions reductions
LEVEL 4+	Transition - Compensation for residual emissions with reliable offsets



AREA 1: PANEL DISCUSSION

Mr. Barry Kopparberg moderated the panel discussion and directed the various questions from the audience to the panellists and speakers. From the panel discussion it was agreed that panel agreed that reducing the environmental impact of aviation requires a multi-faceted approach and includes:

- Widespread adoption of sustainable aviation fuels (SAF) and investment in new technologies.
- Improved air traffic management and operational efficiencies.
- Carbon offsetting as a complementary strategy, with careful monitoring to avoid unintended consequences.
- Strengthened international collaboration to ensure that sustainability efforts are aligned and effective across regions and stakeholders.
- Continued innovation in both ground and flight operations to reduce emissions across the entire aviation value chain.



AREA 2: SUSTAINABLE HUMANITARIAN AVIATION THROUGH INNOVATION AND TECHNOLOGY MODERATED BY KAVAL SHAH

- **Sustainable Aviation Fuel** - Christian Loggia, ENI Kenya
- **Embracing Environmental Sustainability** - George Oduor, 748 Air Services (K) Ltd
- **Cargo Drones** - Barry Koperberg, Wings for Aid
- **Our Environmental Impact Now and Betterment** - David Tonks, PWC



AREA 2: PANEL DISCUSSION

Mr. Kaval Shah from Pratt & Whitney moderated the panel discussion and directed the various questions from the audience to the panellists and speakers. Mr. Shah summed the presentations with a vision that can be achieved...

“ Let’s end with a vision of what success looks like.

Imagine a humanitarian mission in 2040. The aircraft is powered by efficient engines and burning 100% Sustainable Aviation Fuel, and the route is optimized using advanced AI, all reducing unnecessary emissions. The supplies it carries are delivered faster, with a smaller carbon footprint, and the mission contributes to reforestation efforts through offset programs. Electrified drones carry the supplies as needed for the ‘last mile’.

This is the future we are working towards – ***where every flight not only saves lives but also protects the planet for future generations.***

The path to sustainable humanitarian aviation isn’t easy, but with the innovation and technology discussed, tools can be made available to make it possible.”

He then asked all to continue to push boundaries, collaborate, and lead the way in making every mission a force for good, both for humanity and the planet.



SUMMIT ACTION POINTS

Following the successful summit, the key action point was the agreement to establish a **Humanitarian Aviation Technical Environment Team (HATET)**. Please advise if you like to join and support the formation of the HATET

Purpose

The HATET is tasked with developing procedures, policies, and guidelines that reduce the environmental footprint of humanitarian aviation operations while maintaining efficiency and safety. The team will also foster innovation, collaboration, and tangible results to present at the next summit in 2025.

Objective

The HATET will focus on promoting environmental sustainability within humanitarian aviation operations by:

1. **Developing Policies and Guidelines:** Establish procedures, policies, and best practices to reduce the environmental impact of aviation activities.
2. **Innovating Sustainable Practices:** Encourage the adoption of green technologies, fuel efficiency measures, and sustainable operations.
3. **Enhancing Collaboration:** Act as a platform for stakeholders to share knowledge and coordinate efforts toward common environmental goals.
4. **Delivering Tangible Results:** Produce actionable recommendations and tools to support humanitarian aviation entities in meeting environmental objectives.

Roadmap for the Team

1. Formation of the Team:

- Identify and nominate key stakeholders, including representatives from humanitarian organizations, aviation operators, regulators, and environmental experts.
- Define roles and responsibilities.

2. Initial Planning Meeting:

- Conduct the first meeting to agree on priorities and timelines.
- Develop a detailed Terms of Reference (ToR) for the team.

3. Development Phases:

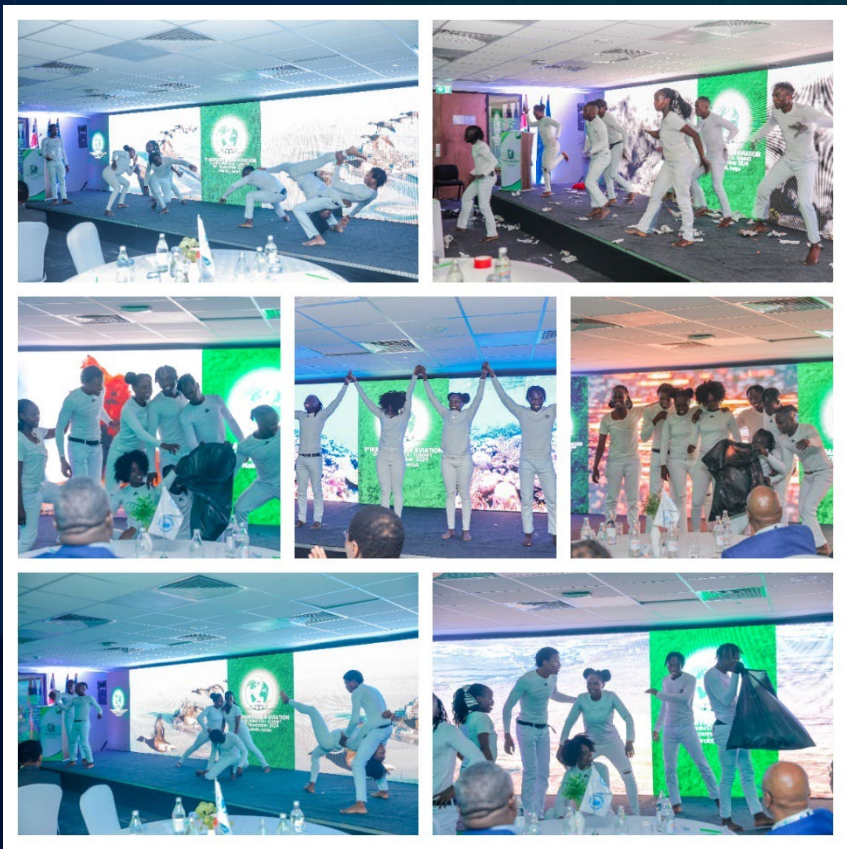
- Phase 1 (First 6 Months):
 - Assess current environmental challenges in humanitarian aviation.
 - Draft initial procedures and guidelines.
- Phase 2 (Next 6 Months):
 - Finalize and pilot-test the proposed policies and guidelines.
 - Gather feedback from stakeholders.

Deliverables for Next Summit

- **Comprehensive Environmental Framework:** Policies, guidelines, and best practices tailored to humanitarian aviation.
- **Operational Tools:** Checklists, training materials, and templates for implementing sustainable practices.
- **Pilot Results:** Findings from initial implementation efforts, highlighting successes and areas for improvement.

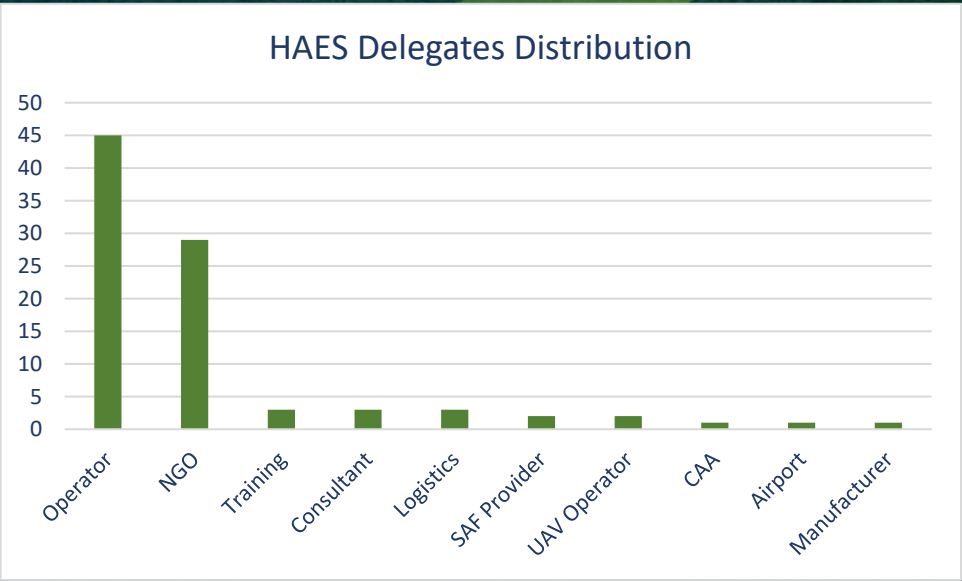
SUMMIT CLOSURE

Local art performers brought the environmental message to life by creatively showcasing the urgency of addressing climate change and the need for a sustainable future. Through dynamic performances combining music, dance, and visual storytelling, they depicted the consequences of environmental neglect, such as deforestation, pollution, and rising global temperatures. Their art highlighted the interrelation of humanity and nature, emphasizing the responsibility we all share in protecting the planet. By blending traditional cultural elements with modern sustainability themes, they inspired the audience to envision a future where harmony with nature is restored through collective action, innovation, and respect for the environment.



SUMMIT ATTENDEES

The summit was attended by more than 90 delegates representing entities categorized as in the figure below:



SUMMIT COLLABORATORS / SUPPORTERS

The summit was held in collaboration with ICAO, Kenya CAA, Kenya Airport Authority, UAE GCAA, and was supported by World Food Programme, and 748 Air Services.

SUMMIT FEEDBACK

From the feedback received it's clear that the summit met its objectives, however it was pointed out that the summit length was a bit short, and wanted to attend the next summit to explore greener ways forward.

There were various related topics proposed such as:

- Smart objectives and key performance indicators for EMS
- The public contribution in achieving net zero by 2050
- Electric and hybrid aircraft, and drones in last mile deliveries.
- Offsetting programs that adheres to recognized standards
- Key considerations when choosing an offset program
- Accredited carbon offset programs that meet international standards
- Business opportunities in greener aviation, and recycling aviation components and waste
- Adapting airports and their facilities to withstand the impacts of climate change while reducing emissions
- Availing sustainable aviation fuels for humanitarian missions
- The role of AI in enhancing sustainable aviation practices
- Tools and frameworks for accurate emissions tracking and reduction



CHALLENGES

- Availability of speakers due to workload priorities
- Hotel facilities and IT equipment limitations
- Local Stakeholder Engagement
- Sustainability Considerations by ensuring the summit requires adheres to sustainable practices

CONCLUSION

The 3rd Humanitarian Aviation Environmental Summit was a successful continuation to activities leading to friendly humanitarian aviation era. Although such operations always take place on the front line of natural or human made disasters, but let's not forget the origin of them.

The various perspectives addressed throughout the summit 9 presentations showed the opportunities that can be explored and utilized to reduce the humanitarian aviation ecological footprint taking in consideration the nature of such operation and cruciality of it.

The formed humanitarian aviation technical environment team with the framework outlines put together, will certainly help the operators and stakeholders to have clearer approach on the way forward to have an environmentally friendly operations.

The feedback received conveyed a clear message, that the summit has successfully equipped the attending delegates with the knowledge, skills, and mindset needed to explore possibilities and chart a path toward environmentally friendly humanitarian aviation. It empowered participants to take actionable steps and collaborate in driving sustainable practices in the through out all of their operations and activities.



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