



Feasibility Study on the production and use of SAF Rwanda

Second Phase of the ICAO Assistance Project with the EU Funding :
“Capacity Building for CO₂ Mitigation from International Aviation”

25th July
Online



Jon McKechnie
Professor of Engineering
Sustainability,
University of Nottingham, UK



- 1) Workplan and Timeline
- 2) Update on kick-off and stakeholder meetings
- 3) Q&A



ICAO

ENVIRONMENT

NO COUNTRY LEFT BEHIND



Work-plan and Timeline





1. Workplan

- Workplan preparation and approval

2. Stakeholder meetings and initial research

- Identify relevant stakeholders
- Kick-off meeting and individual stakeholder meetings
- Conduct initial research
- Prepare first draft

3. Continue assessment with stakeholder inputs and data

- Ongoing stakeholder discussions
- Data collection from stakeholders and information sources
- Prepare second draft document

4. Implementation roadmap

- Consultation with national stakeholders
 - Identify obstacles
 - Propose solutions
- Prepare first draft of SAF implementation roadmap
- Update roadmap with input from ICAO

5. Final reporting

- Final report preparation
- Review by State
- Final report delivery
- Closing workshop



	June		July		
	w/c 19th	w/c 26th	w/c 3rd	w/c 10th	w/c 17th
1. Workplan					
<i>1.1 Work plan preparation, submission and approval</i>		M1	D1		
2. Stakeholder meetings and initial research					
<i>2.1 Identify relevant stakeholders</i>			M2		
<i>2.2 Kick-off meeting and individual stakeholder meetings</i>				M3	
<i>2.3 Conduct initial research</i>					
<i>2.4 Prepare first draft document</i>					D2

Milestones						
M1. Submission of draft workplan for approval						
M2. Agreed agenda and meeting schedule						
M3. In country meetings: 10th July DG Rwanda CAA; 11th July kick-off meeting ; followed by individual stakeholder meetings						

Deliverables						
D1. Approved workplan (3rd July)						
D2. First draft document (20th July)						



	July		August				September			
	w/c 24th	w/c 31st	w/c 7th	w/c 14th	w/c 21st	w/c 28th	w/c 5th	w/c 12th	w/c 19th	w/c 26th
3. Continue assessment										
3.1 Stakeholder discussions	D3									
3.2 Data collection from information sources										
3.3 Prepare second draft document										
4. Implementation roadmap										
4.1 Consult national stakeholders		M4								
4.2 Prepare first draft roadmap for review										
4.3 Finalise roadmap with minimum 3 revisions from ICAO						D4				
5. Final reporting										
5.1 Review and incorporate comments on previous drafts							D5 M5			
5.2 Review of report by State										
5.3 Final preparations and completion of report										
5.4 Present findings to the national authorities										

Milestones					
M4. Submission of draft roadmap for first review					
M5. Presentation of findings to national authorities					
Deliverables					
D3. Second draft document (3rd August)					
D4. Final implementation roadmap (31st August) <-- confirm if final or first draft by this date.					
D5. Ready to publish document (1st October)					



Kick-off and Stakeholder Meeting Updates





Kick-off Meeting – Tuesday 11th July - Kigali





Stakeholder meetings and key topics

Ministry of Infrastructure (MININFRA)

- National context – energy, transport, waste
- Solid waste management strategy
- Follow up meetings planned with Transport section



Stakeholder meetings and key topics

Rwanda Environmental Management Authority (REMA)

- National context – climate change mitigation, energy, transport, waste
- Nationally Determined Contributions and role for SAF
- Environmental impacts of SAF production



Stakeholder meetings and key topics

Rwanda Agriculture and Animal Resources Board (RAB)

- National context – agriculture strategy, food security
- Potential for crop yield improvements
- Availability of marginal land for SAF feedstocks
- Animal fats/tallow and agricultural residues availability



Stakeholder meetings and key topics

Rwanda Utilities Regulatory Authority (RURA)

- National context – energy, waste management
- Fuel supply chain
- Waste collection and management



Stakeholder meetings and key topics

Rwanda Green Fund

- Capacity development needs
- Investment support for emerging and green technologies
- Existing projects relevant to SAF feedstocks – utilising agricultural and food processing residues, solid waste



Stakeholder meetings and key topics

Rwanda Airports Company

- Climate change mitigation strategy and role of SAF in future carbon accreditation
- Perspectives on SAF
- Policy and regulation to encourage SAF use



Stakeholder meetings and key topics

RwandAir (National carrier)

- National context
- Challenges and opportunities for SAF
- Enabling policy and regulation to encourage SAF use



Stakeholder meetings and key topics

Aviation Travel and Logistics

- New airport
- Projections for future passenger and cargo demand
- Projections for future aviation fuel use



Stakeholder meetings and key topics

The National Industrial Research and Development Agency (NIRDA)

- National context – R&D in agriculture, low carbon fuels
- Past Rwanda experiences with biofuel production and biomass cropping
- Collaboration with Eni on oil seed development



Stakeholder meetings and key topics

Societe Petroliere (SP) Aviation

- Current aviation fuel supply chain
- Logistics associated with SAF, considering 1) domestic production, and 2) import
- Fuel blending infrastructure
- Fuel certification needs



Stakeholder meetings and key topics

Rwanda Development Board

- Investment support for green industries
- Opportunities and challenges for SAF production in Rwanda
- Potential for regional co-operation in feedstock and fuel supply chains



Stakeholder meetings and key topics

Eni Rwanda

- Collaboration with NIRDA – development of oil seed varieties
- Eni SAF strategy
- Feedstock production potential in East Africa Region
- Potential for regional co-operation in feedstock and fuel supply chains
- Enabling policies and regulations



Stakeholder meetings and key topics

University of Rwanda

- Initial introduction of SAF feasibility study
- Planning to follow up with relevant experts in agriculture, transport research



North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU