

RSB certification for SAF

And SAF opportunities in the region

ICAO webinar, 12 April 2022

ABOUT THE RSB
What we do



RSB's Vision

By 2050, industries across the globe have sustainably transitioned from being fossil-based to being bio-based & circular and having positive environmental and social impact.

CONVENING
Advancing innovation

CERTIFICATION
Ensuring scale-up of positive Impacts

IMPLEMENTATION
Guiding sustainability implementation



Foundational Framework
12 Sustainability Principles and Criteria

- Principle 1
Legality
- Principle 2
Planning, Monitoring & Continuous Improvement
- Principle 3
Greenhouse Gas Emissions
- Principle 4
Human & Labour Rights
- Principle 5
Rural & Social Development
- Principle 6
Local Food Security
- Principle 7
Conservation
- Principle 8
Soil
- Principle 9
Water
- Principle 10
Air Quality
- Principle 11
Use of Technology Inputs & Management of Waste
- Principle 12
Land Rights



- RSB member platforms relevant to SAF**
- SAF Policy Platform
 - PtX working group
 - Airports Platform

SAF Sustainability

Why it is important

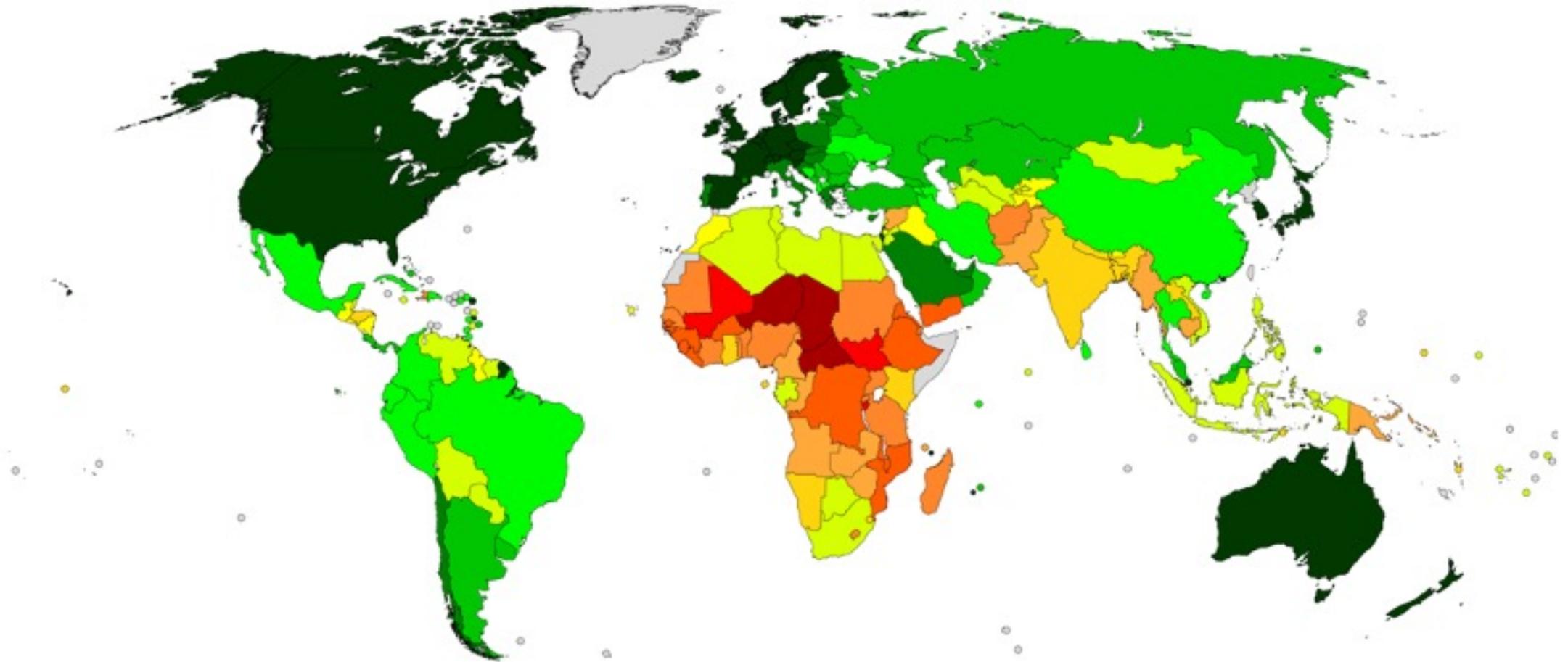
SAF SUSTAINABILITY
Why is it important?



KEY SUSTAINABILITY RISKS
IN SAF VALUE CHAINS

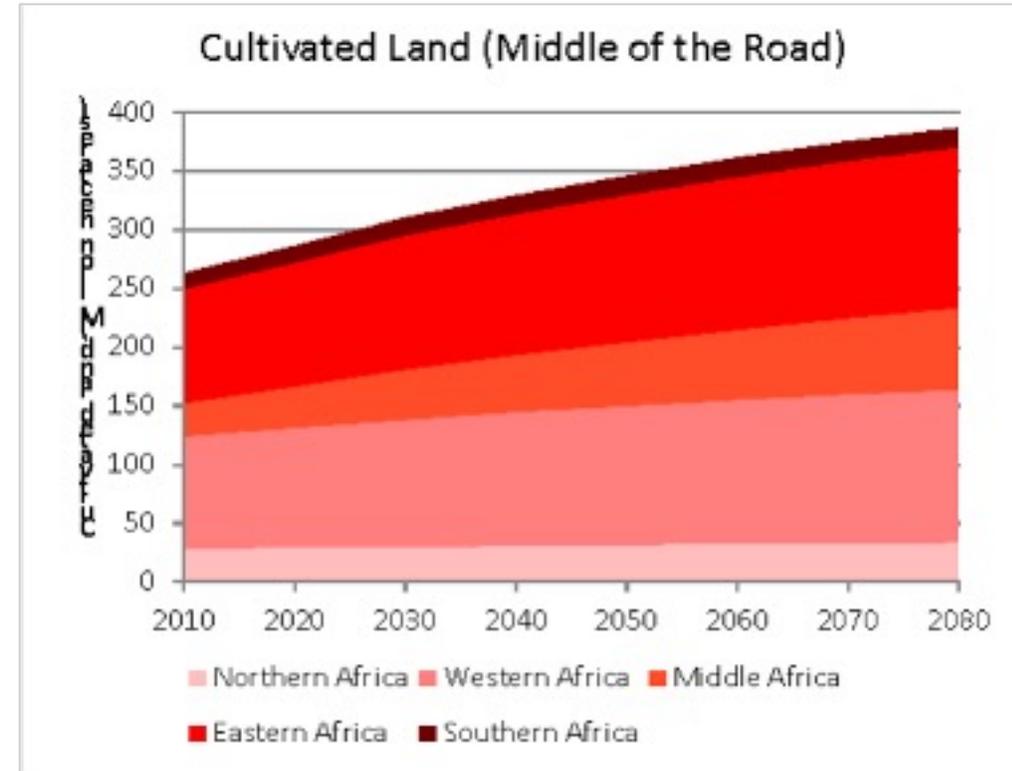
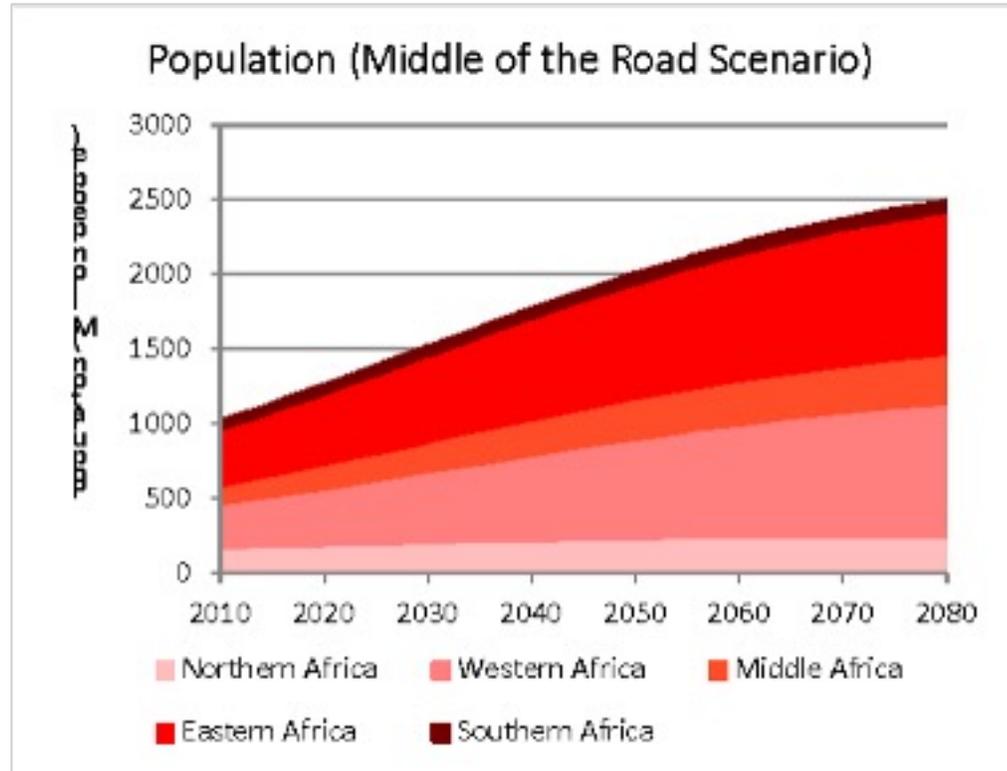
- Sustainable feedstock availability
- Direct / Indirect Land Use Change
- GHG Emissions
- Labour / Human rights
- Food security
- Traceability

SAF SUSTAINABILITY
Key sustainability risks: Social / Food security



A choropleth map showing countries and territories by Human Development Index, based on 2019 data from the [2020 Human Development Report](#). ■ ≥ 0.900 ■ 0.850–0.899 ■ 0.800–0.849 ■ 0.750–0.799 ■ 0.700–0.749 ■ 0.650–0.699 ■ 0.600–0.649 ■ 0.550–0.599 ■ 0.500–0.549 ■ 0.450–0.499 ■ ...

 [More details](#)

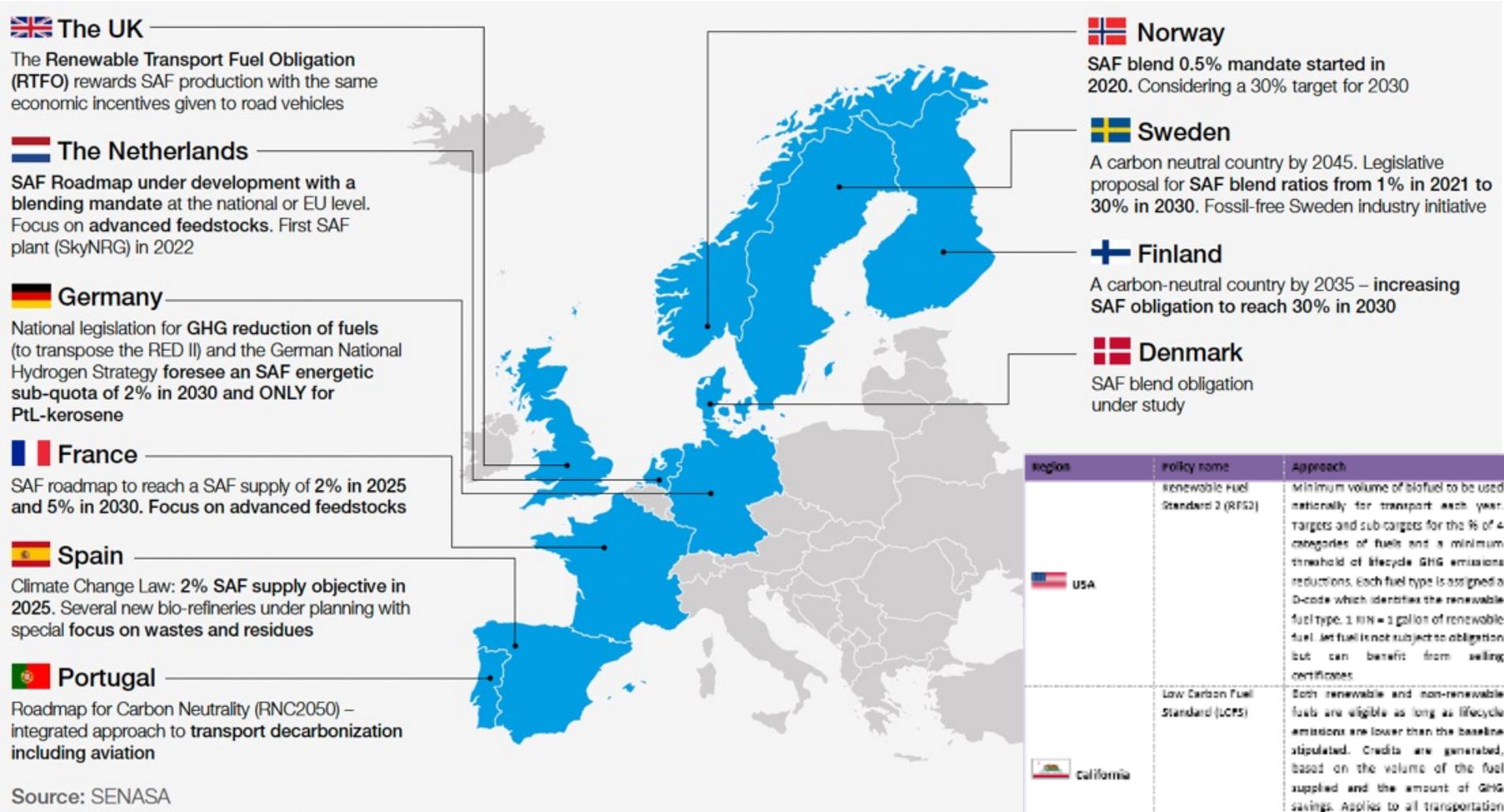


SAF SUSTAINABILITY

Policy targets and incentives



Renewable Energy Directive EU



Source: SENASA

Region	Policy name	Approach
USA	Renewable Fuel Standard 2 (RFS2)	Minimum volume of biofuel to be used nationally for transport each year. Targets and sub-targets for the % of 4 categories of fuels and a minimum threshold of lifecycle GHG emissions reductions. Each fuel type is assigned a D-code which identifies the renewable fuel type. 1 RIN = 1 gallon of renewable fuel. Jet fuel is not subject to obligation but can benefit from selling certificates.
California	Low Carbon Fuel Standard (LCFS)	Both renewable and non-renewable fuels are eligible as long as lifecycle emissions are lower than the baseline stipulated. Credits are generated, based on the volume of the fuel supplied and the amount of GHG savings. Applies to all transportation fuel providers, i.e. blenders, refiners, producers and importers.

SAF SUSTAINABILITY
Airline demand



SAF SUSTAINABILITY
Growing business demand



“Over 33% of the price premium associated with the global SAF volume target in 2025 will be covered by corporate demand alone.”

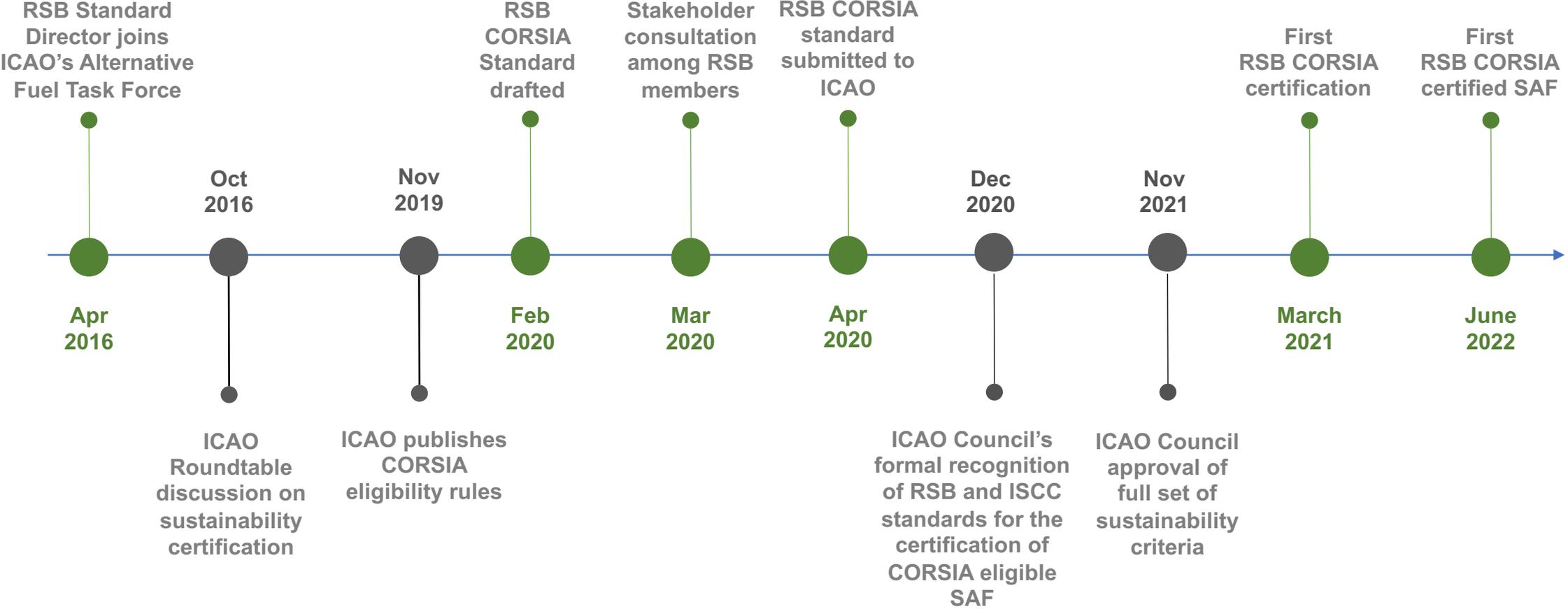
World Economic Forum's Clean Skies for Tomorrow research, unpublished





SAF Sustainability RSB certification

RSB CERTIFICATION
RSB CORSIA timeline



RSB CERTIFICATION
RSB Sustainability Framework



Principle 1 Legality	Principle 2 Planning, Monitoring & Continuous Improvement	Principle 3 Greenhouse Gas Emissions	Principle 4 Human & Labour Rights	Principle 5 Rural and Social Development	Principle 6 Local Food Security
Principle 7 Conservation	Principle 8 Soil	Principle 9 Water	Principle 10 Air Quality	Principle 11 Use of Technology, Inputs & Management of Waste	Principle 12 Land Rights

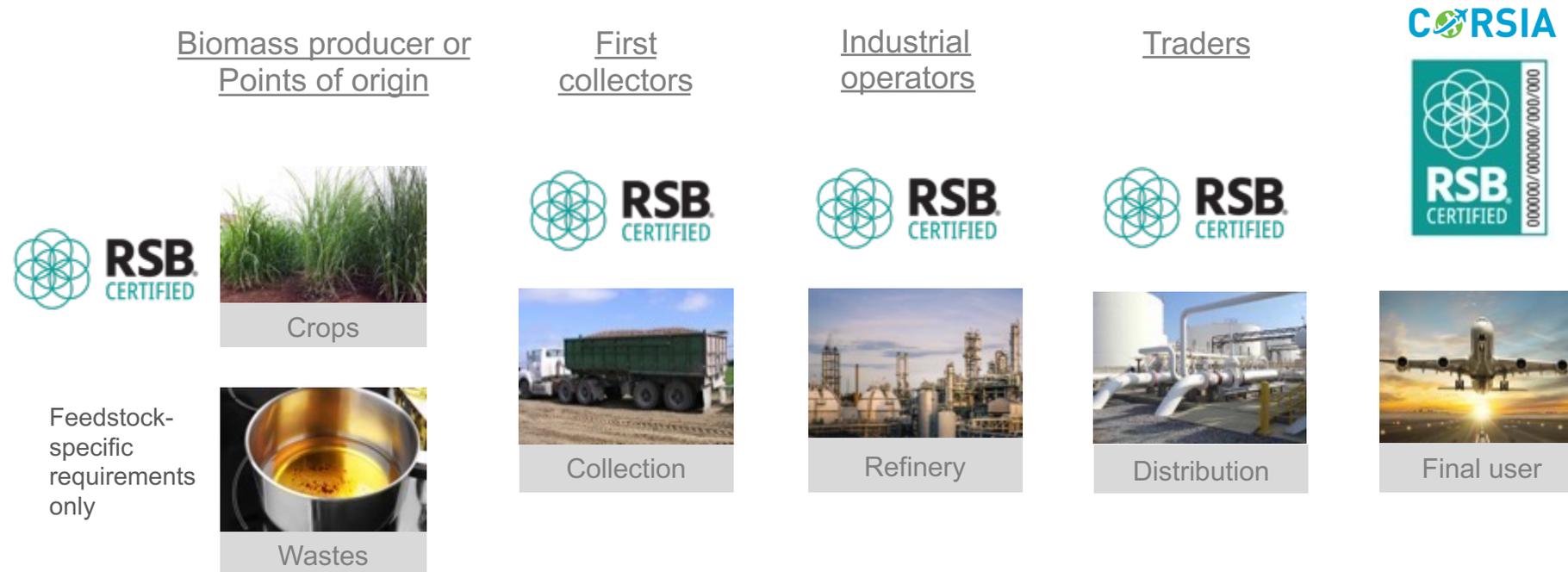


>50%
GHG Emission
reductions

RSB CERTIFICATION Who needs to be certified



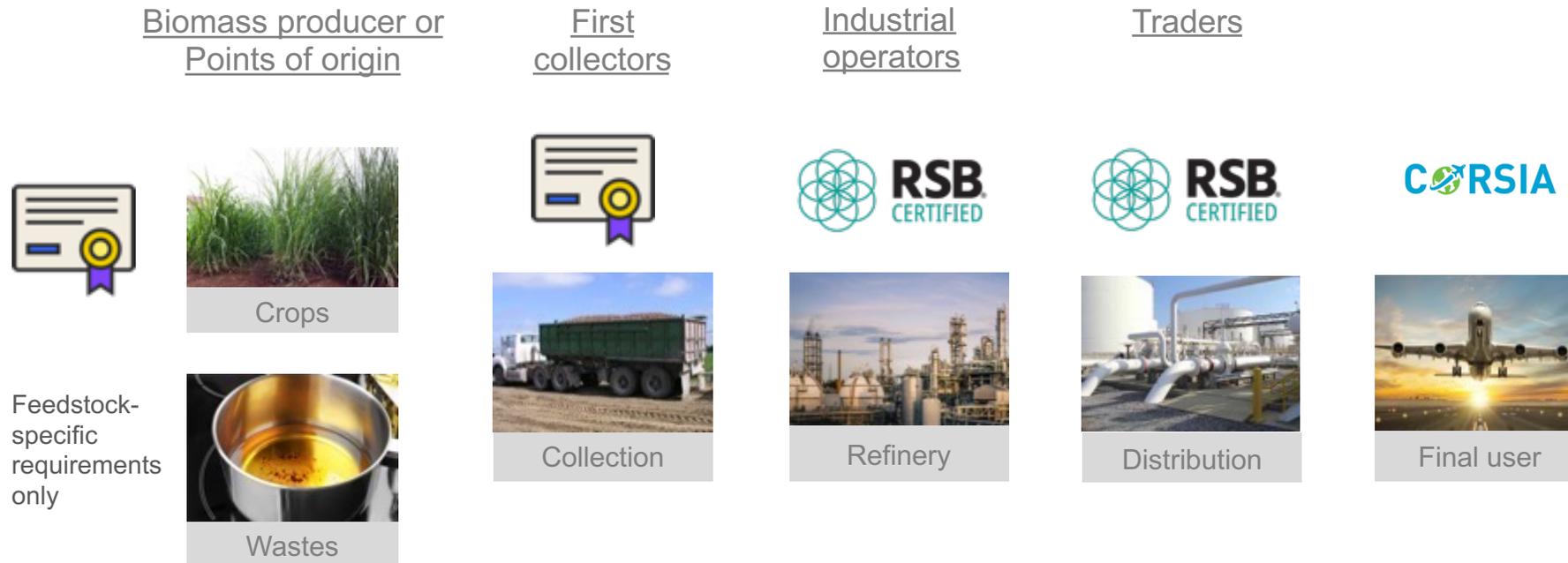
The entire supply chain must be certified for the final product to carry a sustainability claim (i.e., RSB CORSIA certified claim)



RSB CERTIFICATION Who needs to be certified



A mix of CORSIA-recognized sustainability certifications is allowed along the value chain for a CORSIA-eligible SAF

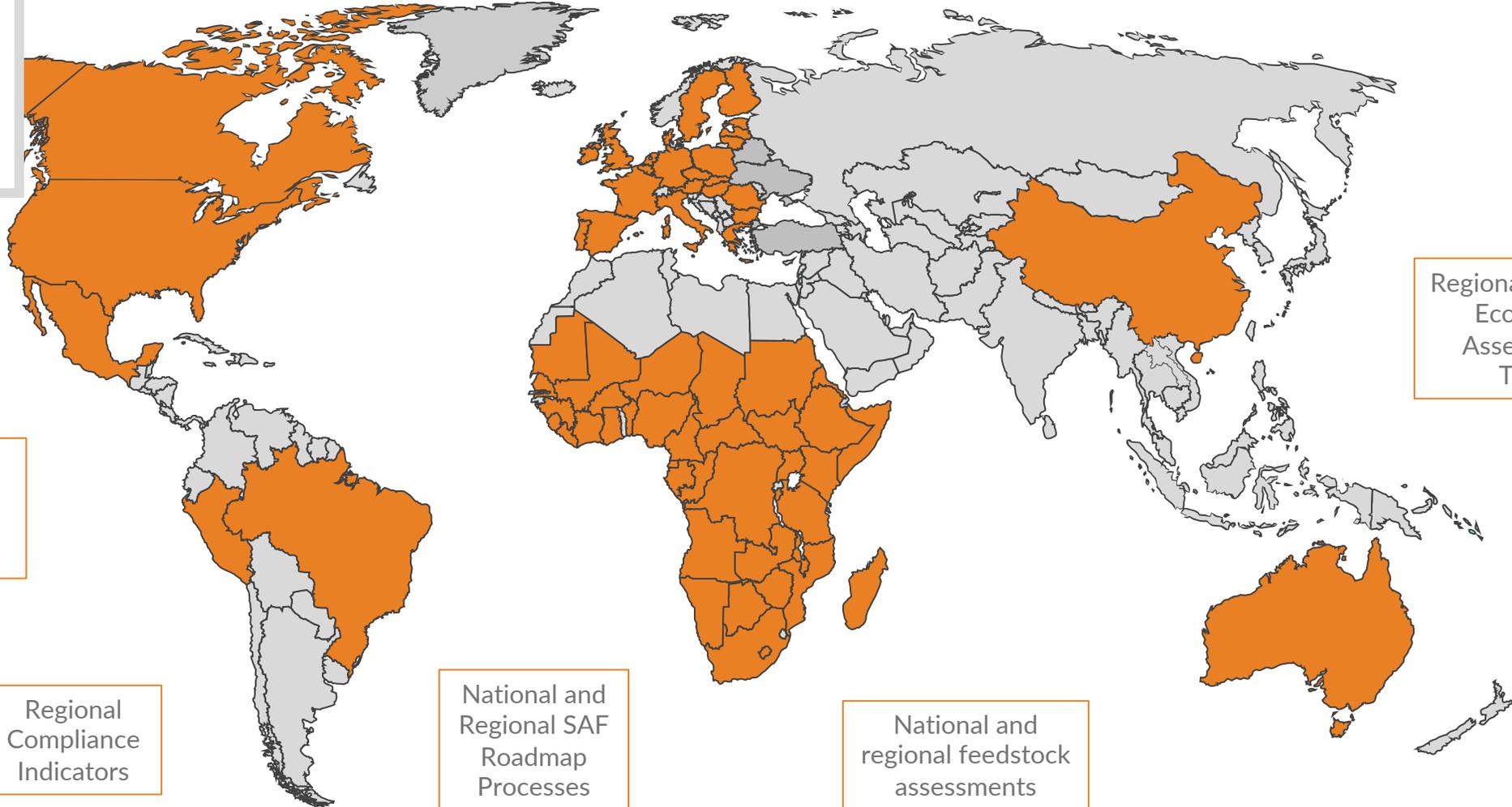


SAF Sustainability

SAF opportunities in Africa

SAF SUSTAINABILITY

Snapshot of RSB Landscape Level Programmes



Integrating Sustainability into Global and National Aviation Policy

Regional Compliance Indicators

National and Regional SAF Roadmap Processes

National and regional feedstock assessments

Regional Techno-Economic Assessment Tools

Feedstock assessment: Sub-Saharan Africa technical potential

Figure 10: Spatial distribution of crop residues from current cropland, in 2010

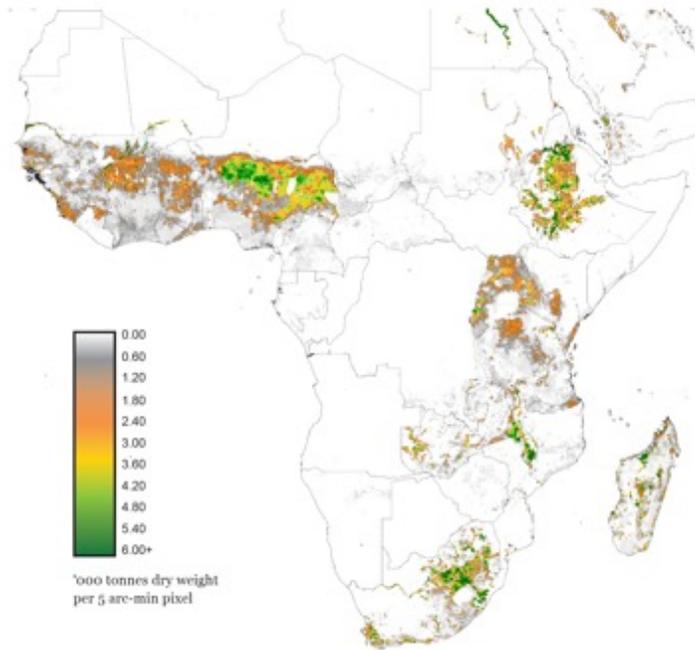


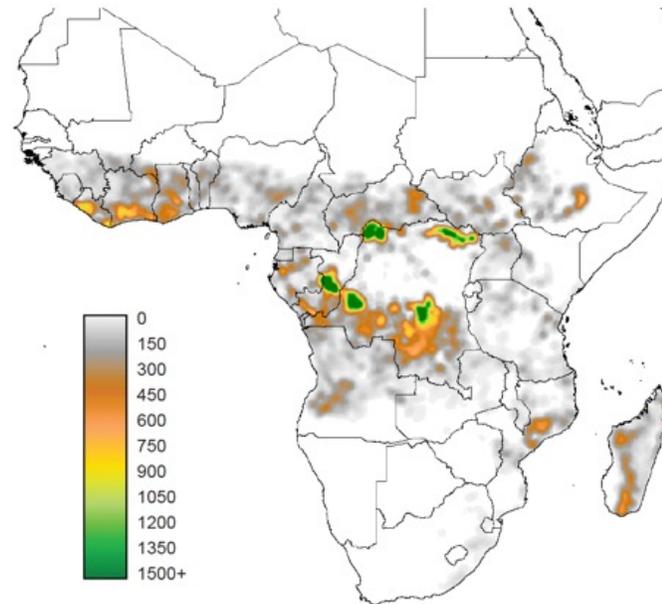
Table 10: Technical potential for RSB-compliant aviation biofuel from energy crops in sub-Saharan Africa relative to projected global demand for alternative aviation fuels

Alternative jet fuel demand by global international aviation in 2050	285 mt
Sub-Saharan Africa technical potential by 2050 from VS and S* land	93 mt
Sub-Saharan Africa technical potential by 2050 from VS, S and MS* land	260 mt
% of global international aviation demand that could be met by biofuels from sub-Saharan Africa	30–90%

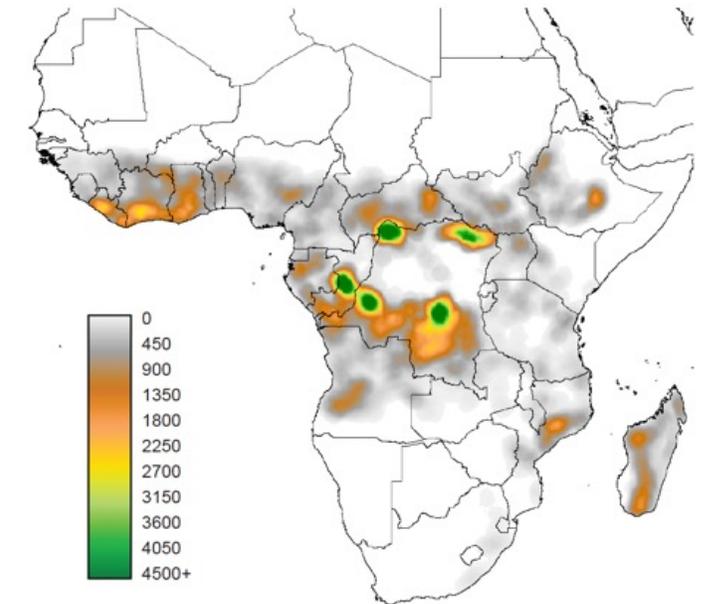
* VS = very suitable; S = suitable; MS = moderately suitable
Source: Own calculations

Figure 11: Present cumulative production potential of biodiesel (in TJ) from all rain-fed oil-producing feedstocks from REMAIN land in a radius of (a) 50 km and (b) 100 km*

a) Collection radius 50 km

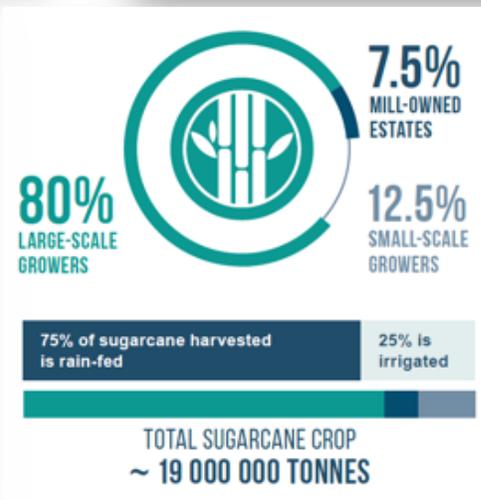
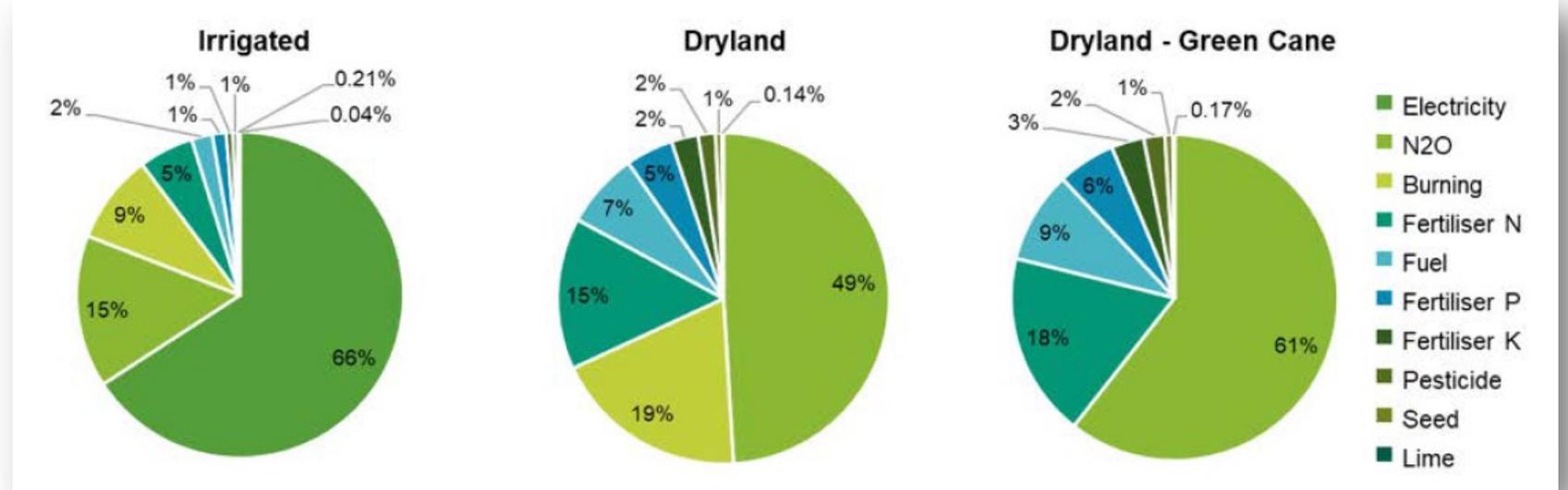
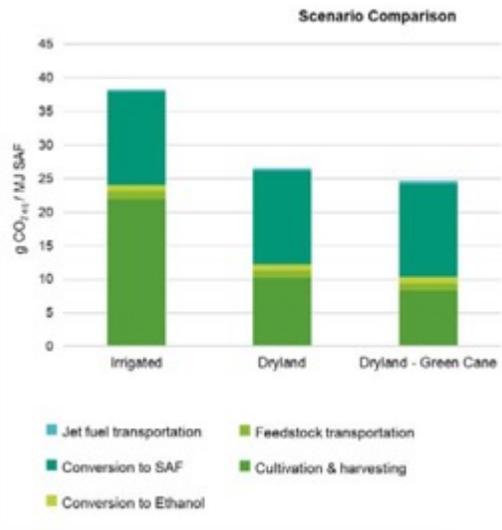


b) Collection radius 100 km



SAF OPPORTUNITIES IN AFRICA

Sugarcane in South Africa

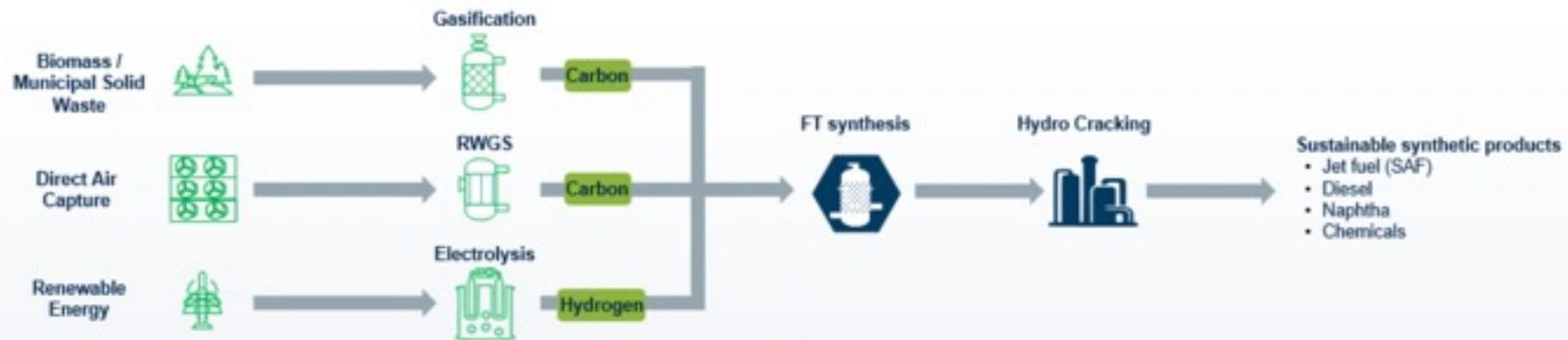


	EU Aviation Market Reduction threshold: Year of Production start: <2015 = 50% 2015-2020 = 60% >2021 = 65%	Global Aviation Market Reduction threshold: 50% core LCA 10% LCA + iLUC		
	GHG SAVINGS	QUALIFIES?	REDUCTION THRESHOLD:	QUALIFIES?
Irrigated cane	59%	No	50% core LCA 10% LCA + iLUC	Yes
Dryland cane	72%	Yes	60%	Yes
Dryland cane + green harvesting	74%	Yes	63%	Yes

SAF OPPORTUNITIES IN AFRICA

Sasol SAF project

Sasol can lead **PtX** based on proven FT experience and technology



UNDISPUTED MARKET LEADER

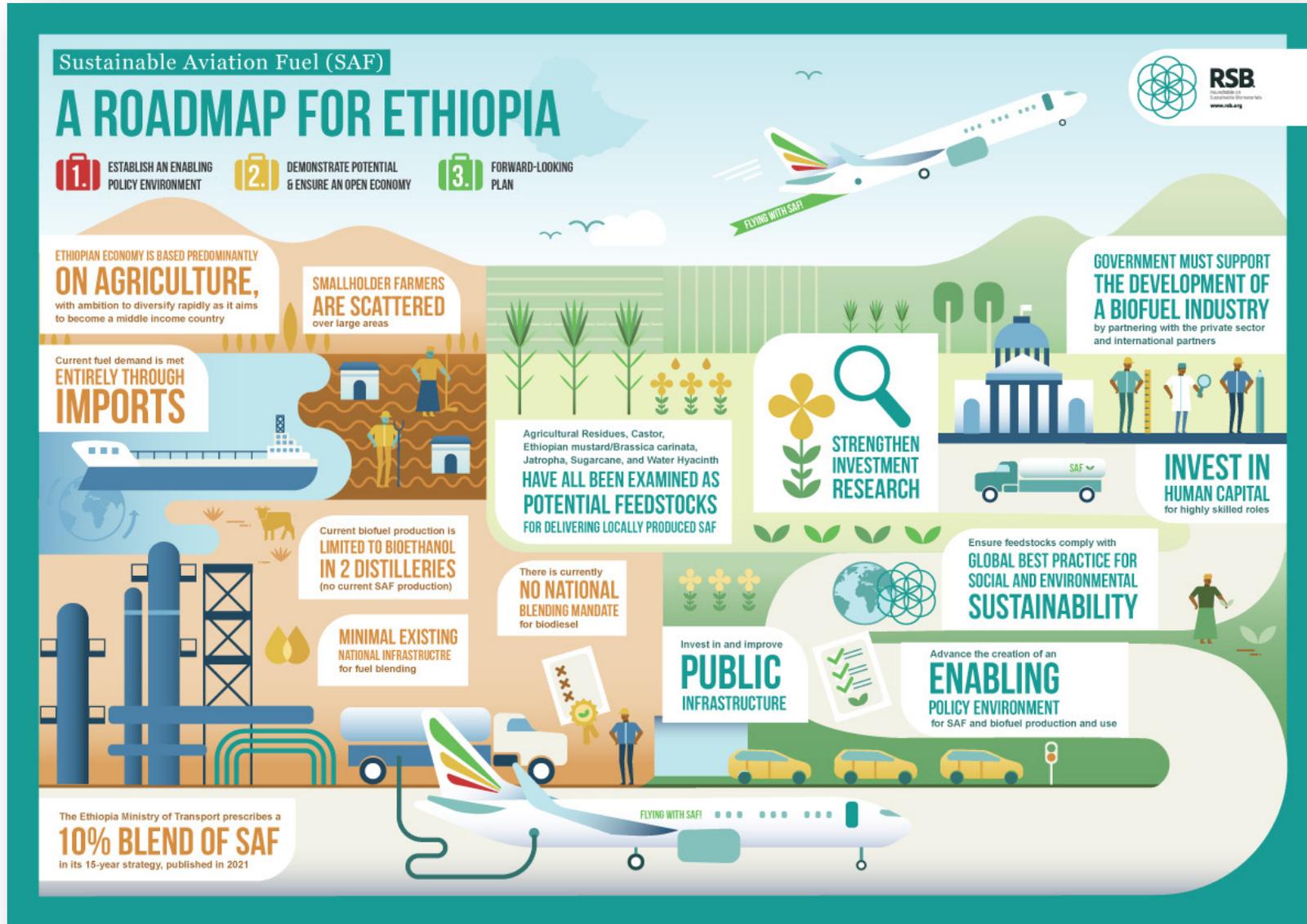
- 70+ years of FT innovation and operations - best talent
- Largest installed capacity - more than twice any other player's
- Experience with small & large scale plants - 10 to 150,000 bpd
- Experience with diverse feedstocks - coal, gas, biomass pilots

ADVANTAGED & DIFFERENTIATED TECHNOLOGY¹

- Wide product slate with unique FT design & catalyst options
- Highest kerosene yields with proven product slate flexibility
- Track record of technology development to commercialisation
- Partners with industry leaders - [Haldor Topsøe](#), [Technip](#)

SAF OPPORTUNITIES IN AFRICA

Ethiopian SAF Roadmap





RSB
Roundtable on
Sustainable Biomaterials
www.rsb.org



South African SAF Stakeholder Meeting

Radisson Hotel & Convention
Centre, Kempton Park

21st April 2022



An event hosted by the Roundtable on Sustainable Biomaterials (RSB)
as part of the Fuelling the Sustainable Bioeconomy Project supported
through a grant from The Boeing Company.



Thank you / Questions

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