

Innovative Technologies for Automated Sustainability Assessments

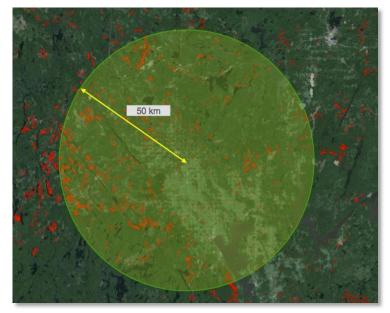


GRAS Global Risk Assessment Services

Utilize & Develop Technologies for Sustainability Risk Assessment

globally on different levels, depending on specific strategies, goals and local conditions







Administrative level and cluster analysis

Sourcing areas with a specific radius

Detailed field analysis

Risk approach







Supporting sustainable sourcing for many different crops globally



Coffee



Sugar beet



Soybeans



Timber



Palm oil



Canola



Sugar cane



Tea



Oranges



GRAS uses remote sensing technology to identify land use change, deforestation and degradation of land cover



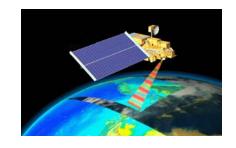
Sentinel-2



Landsat



SPOT



MODIS

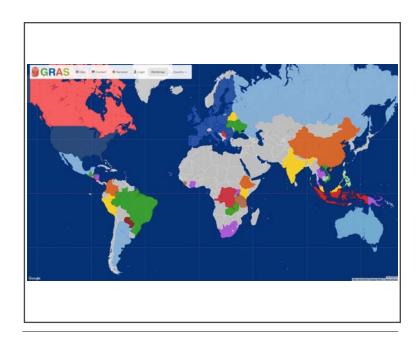


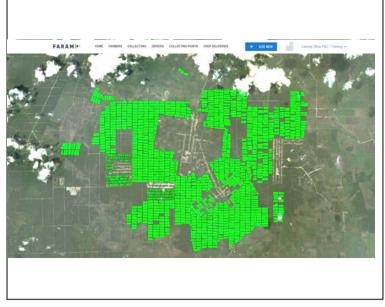
PALSAR

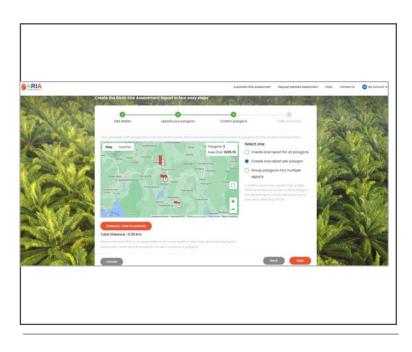


LiDAR

GRAS offers a variety of systems for risk assessment to support certification processes







GRAS Tool

FARAMO System

ARIA Platform

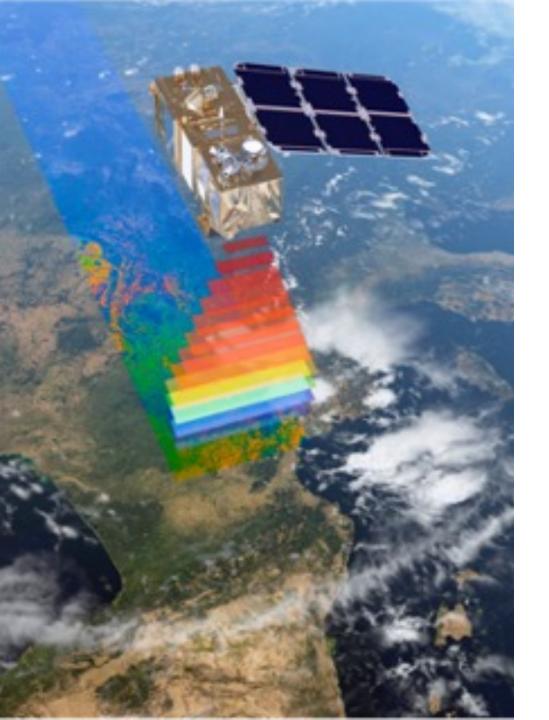




ARIA by GRAS

Fully automated risk assessment platform

- for compliance with
 - ISCC Principle 1
 - EU Renewable Energy Directive (RED II)
- comprehensive risk reports at the plantation level within just a few minutes
- for Palm in Indonesia and Malaysia

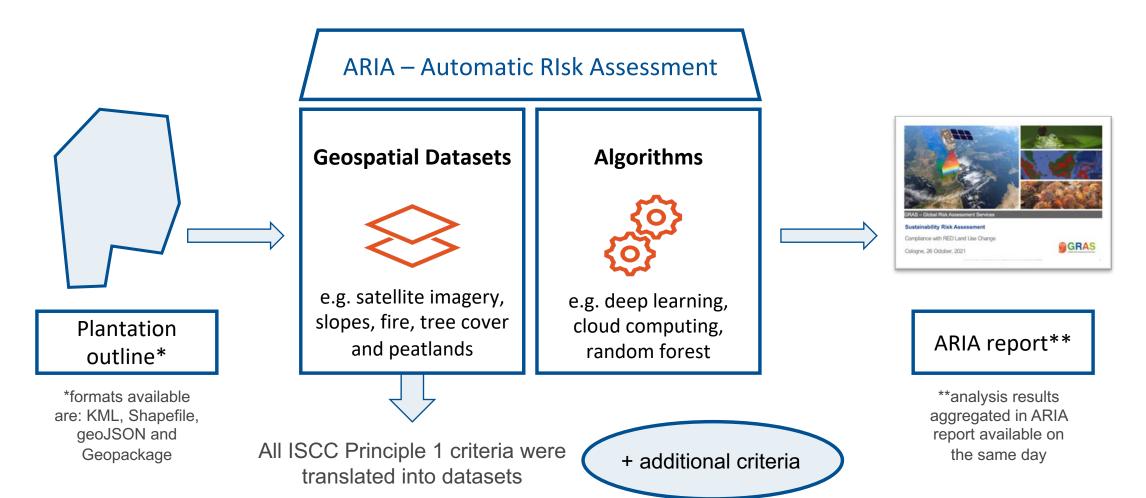


GRAS ARIA: Automatic Risk Assessment Platform

A Level Playing Field

- Systematic and objective evaluation of potential risks.
- Increase efficiency,
- Reduce the risk of human error,
- ensure consistency in capture & analysis of all relevant information
- ISCC system users can use ARIA to generate fully automated, comprehensive risk reports at the plantation level within just a few minutes.
 - complementary to on-site audits
 - demonstrate compliance with the ISCC standards

Based on the plantation outline, the report contains geospatial datasets which have been processed using advanced image processing algorithms





GRAS has translated all ISCC Principle 1 criteria into geospatial datasets

Criteria for land use change

Criteria for land with high biodiversity value

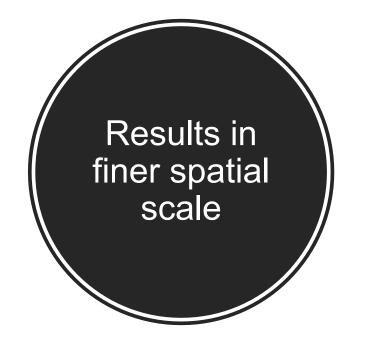
Criteria for land with high carbon stock

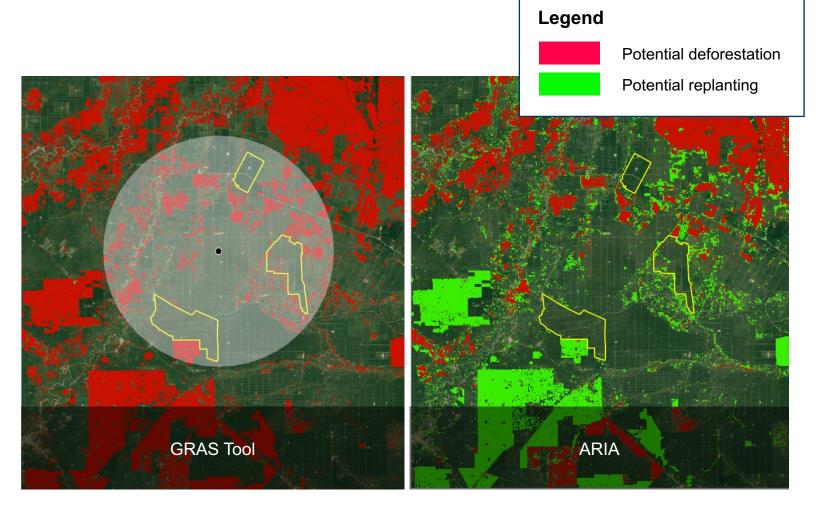
Criterion for peatland



RED II requirements/ISCC Principle 1









The ARIA risk assessment report assigns a risk level to each plantation according to the occurrence of potential deforestation and replanting

Risk level	Overlap with the potential repland	Overlap with potential defo restation	Description
Low Risk			The plantation does not overlap neither with the potential replanting map nor with the potential deforestation map
Medium Risk	X		The plantation overlaps with the potential replanting map
High Risk	(X)	X	The plantation overlaps with the potential deforestation map



Workflow for ISCC System Users to use ARIA

Receive coupon code via email from ISCC

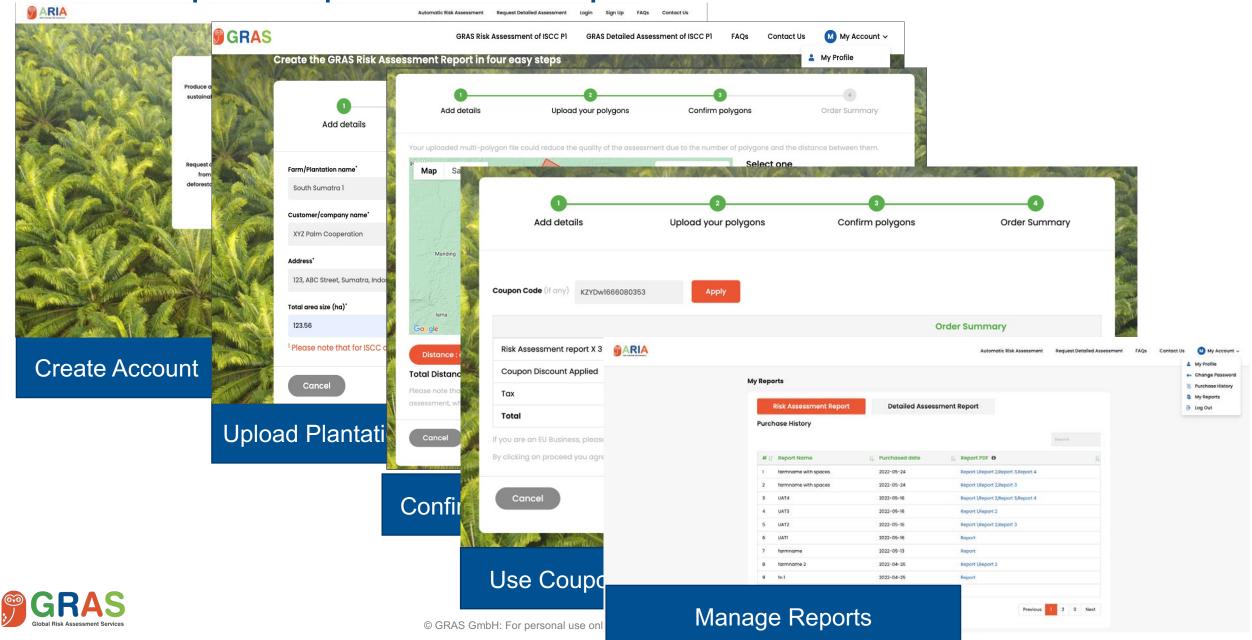
- 3 months before recertification
- Upon site registration

Create an account with ARIA/login to ARIA

- Upload plantation outlines
- Decide on the number of reports
- Apply coupon code
- Download the report(s)
- Send ARIA reports along with other documentation to their CB



Few Simple Steps to ARIA Report



Workflow for CBs upon mandatory ARIA Phase

Register and complete Online ARIA Training

- self-paced
- Successfully completion before the audits is must

Integrate reports into audits

- Apply the learnings from the training to analyse the results shown in the reports
- Use the reports as a starting point to guide the audit





Thank you for your attention!

Check out ARIA at https://aria.gras-system.org/

GRAS Global Risk Assessment Services GmbH Hohenzollernring 72, 50672 Cologne, Germany

Email: info@gras-system.org, Website: www.gras-system.org