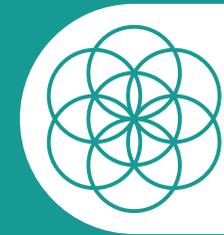


COLLABORATING ON SUSTAINABILITY REVIEWING 2020



RSB
Roundtable on
Sustainable Biomaterials
www.rsb.org



EXECUTIVE DIRECTOR'S WELCOME

It is impossible to reflect on 2020 without acknowledging the devastating impact of the COVID-19 pandemic on lives and livelihoods around the world.

The pandemic led to a global state of emergency, exposing the vulnerabilities of our societies and forcing governments worldwide to respond in the blink of an eye with drastic short-term measures to flatten the pandemic's infection curve and stabilise their economies.

While the initial virus outbreak overshadowed action and collaboration on the climate crisis, it is now widely acknowledged that future pandemics are made even more likely by the global climate emergency.

Witnessing the impacts of climate change and the pandemic in parallel made it very clear that we need immediate global intervention on a scale never seen before.

The time is now for companies, governments, academia, and civil society to align their activities with climate and sustainability imperatives — supporting a just transition to a bio-based and circular net zero economy.

Lessons learnt from responses to the pandemic must be incorporated into existing strategies so that we can effectively build global action to mitigate the climate crisis and build more resilient societies.

Together with our community, RSB plays a crucial role



in ensuring a sustainable transition of the economy, and despite the impact of the pandemic on the sectors in which RSB works, the dedication to sustainability of our many partners, members, and stakeholders continues undiminished.

The response to our member poll in October 2020 was overwhelming: while 96% said their organisation changed the way it does business in response to the pandemic, 96% also said their organisational focus on social and environmental sustainability increased or remained unchanged, with only 4% noting a decrease. Overall, RSB emerged in a strong position — despite the challenges of the year.

The inevitable disruption to RSB's planning — closely aligned to global supply chains and sustainability agendas

EXECUTIVE DIRECTOR'S WELCOME

impacted by the pandemic — did not prevent RSB from responding, adapting, and continuing to grow under difficult circumstances.

Necessary adaptations implemented included updating our audit procedures, incorporating requirements which ensure robust remote audits to reflect restrictions on movement and social contact, and replacing our Annual Meeting with a Virtual Assembly of Delegates in 2020.

With that in mind, this report provides an overview of RSB's activities in 2020 to support our stakeholders in advancing their exemplary commitment to social and environmental sustainability in the face of unprecedented global upheaval.

The report also closely examines RSB's work in three key areas — namely (1) Certification, (2) Collaboration, and (3) Convening Our Community — as well as summarises RSB's finances, which present a strong financial outlook for RSB in 2020.

I am proud to present the highlights of what, by any definition, was a remarkable year, as well as say that RSB continued to grow and refine its focus throughout.

In addition to our 2020 Monitoring & Evaluation Report, which delves into details, I invite you to read further to see the highlights of our work in 2020, all of which was underpinned and made possible by what we express in our central theme — “Collaborating on Sustainability”.

RSB's work is made possible by you: members, participating operators, funders, and other partners dedicated to supporting the sustainable growth of the circular and bio-based economy.

While we could not meet in person in 2020, please know that you inspired us with your continued support and encouragement during trying times.

We look forward to 2021: a crucial year for global collaborative action to mitigate climate change.

Thank you for your continued support.

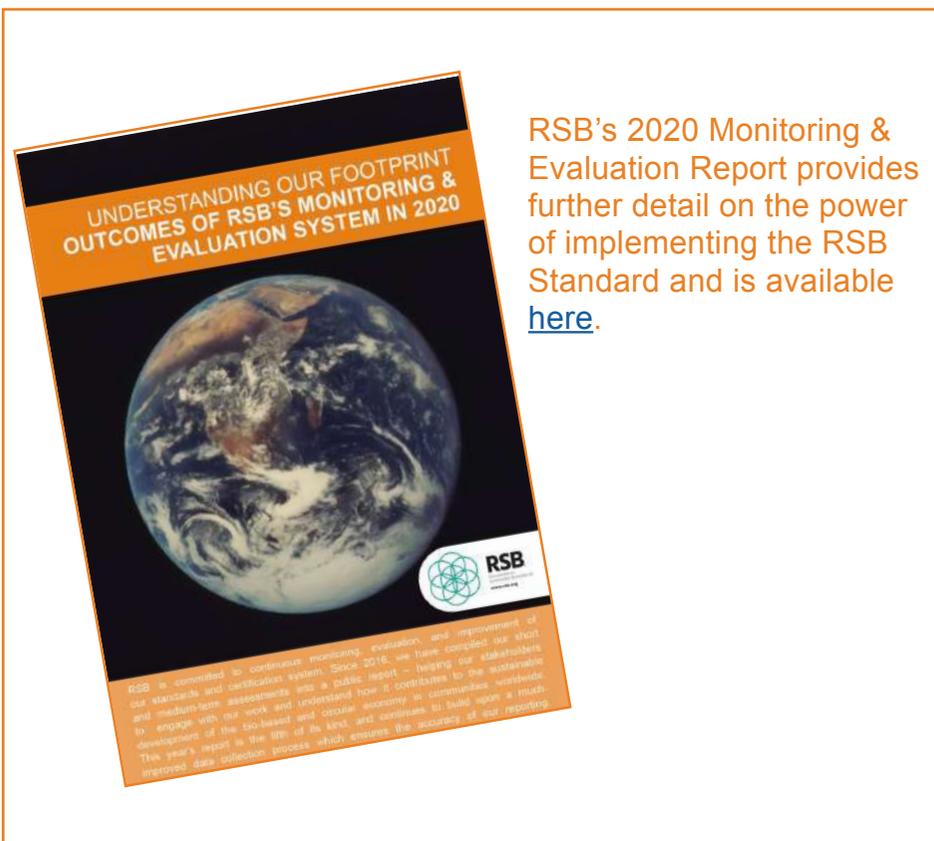


Elena Schmidt
Executive Director (interim), RSB



RSB observes the impact of its certification system via its monitoring and evaluation activities and publishes a detailed evaluation annually. The 2020 Monitoring & Evaluation Report is available as an annex to this Annual Review.

RSB certification is a powerful tool for implementing the RSB Standard into agricultural and industrial production and the supply chains of bio-based and recycled fuels, energy, and materials. A successful certification to the RSB Standard enables an operator to carry an RSB label and make powerful claims around sustainability, climate impact, and fossil resource savings.



RSB's 2020 Monitoring & Evaluation Report provides further detail on the power of implementing the RSB Standard and is available [here](#).

A Robust Certification System

Ensuring the clarity and usability of the RSB system for operators in any circumstances is a key goal of RSB and is essential to supporting its ongoing impact. Key updates to the system in 2020 included:

- A revised **RSB Procedure on Communications and Claims** to launch updated logos and labels for certified operators and members, reflecting growing demand for clear on-product labelling.
- New versions of the **RSB Procedure for Risk Management** and **RSB Risk Assessment Tool** were launched for a one-year pilot to test if they were fit for purpose to support RSB system users in identifying and mitigating risk.

Advisory Services

RSB's Advisory Services are designed to ensure the impact of RSB's best-in-class sustainability Standard by assisting our members and partners in understanding and implementing sustainability in a variety of settings. Through technical and strategic advice, hands-on implementation, and staff training and research, we work with organisations applying the principles of our world-class sustainability Standard across policies, projects, and operations.

With 10 contracts signed during 2020, our experts provided hands-on sustainability expertise on the ground across five continents, with income from advisory services increasing by 26% from 2019.

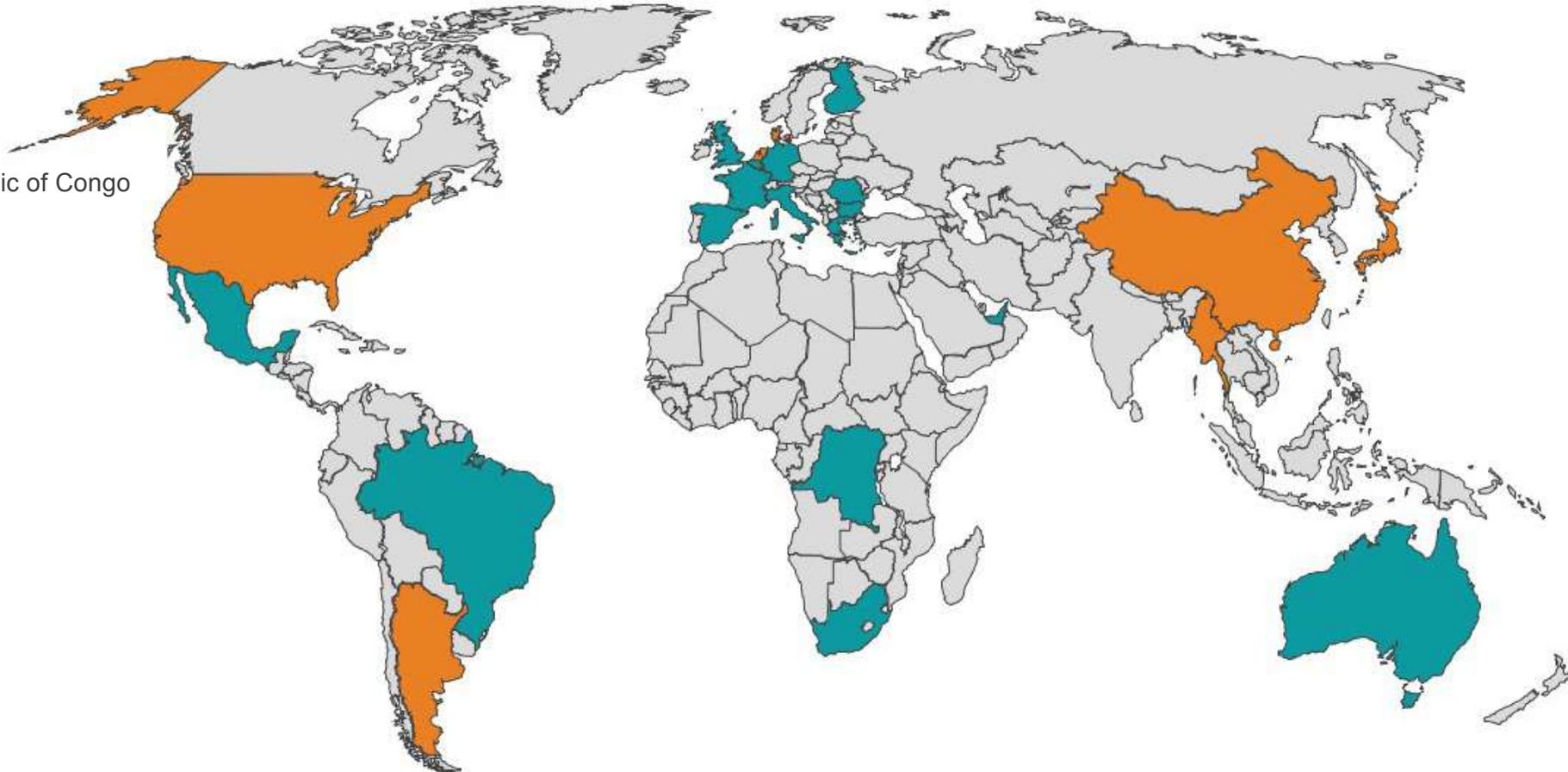
CERTIFICATION

RSB's Advisory Services amplify the impact of the RSB Standard by assisting partners to prepare for certification and implement best practices described in the Standard, ensuring that RSB has made a tangible impact in multiple areas.

RSB Advisory Services projects since 2016

Projects in 2020

- Argentina
- Australia
- Belgium
- Brazil
- Bulgaria
- China
- Democratic Republic of Congo
- Denmark
- Finland
- France
- Germany
- Greece
- Italy
- Japan
- Mexico
- Myanmar
- Netherlands
- Romania
- South Africa
- Spain
- UAE
- UK
- USA



CERTIFICATION: HIGHLIGHTS IN 2020

RSB Receives CORSIA Recognition

In December 2020, RSB was officially recognised by the International Civil Aviation Organisation (ICAO) for the certification of CORSIA-eligible Sustainable Aviation Fuels (SAF) with its new RSB CORSIA Standard.

SAF producers and airlines can now demonstrate compliance with Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) requirements and RSB's sustainability, widely recognised by NGOs and other groups as the most robust, credible, and practical approach for sustainability in the bio-based and circular economy.

RSB Japan FIT Standard Recognised by Japan's Ministry for Economy, Trade and Industry (METI)

RSB adapted its best-in-class sustainability Standard to enable biomass producers and traders to demonstrate compliance with the sustainability requirements of RSB and to unlock access to Japan's Feed in Tariff (FIT) system. FIT sets out a system of incentives to produce renewable electricity in Japan, including subsidies for the procurement of biomass such as vegetable oils, various agricultural and industrial residues, and end-of-life products. RSB's approach was recognised by METI.

Canopy Recommends RSB for Agricultural Fibres

SURVIVAL, Canopy's Action Plan for Saving Forests and Climate, recommends RSB Certification for agricultural fibre products to ensure sustainable removals, maintain soil carbon, and ensure overall social and environmental sustainability.

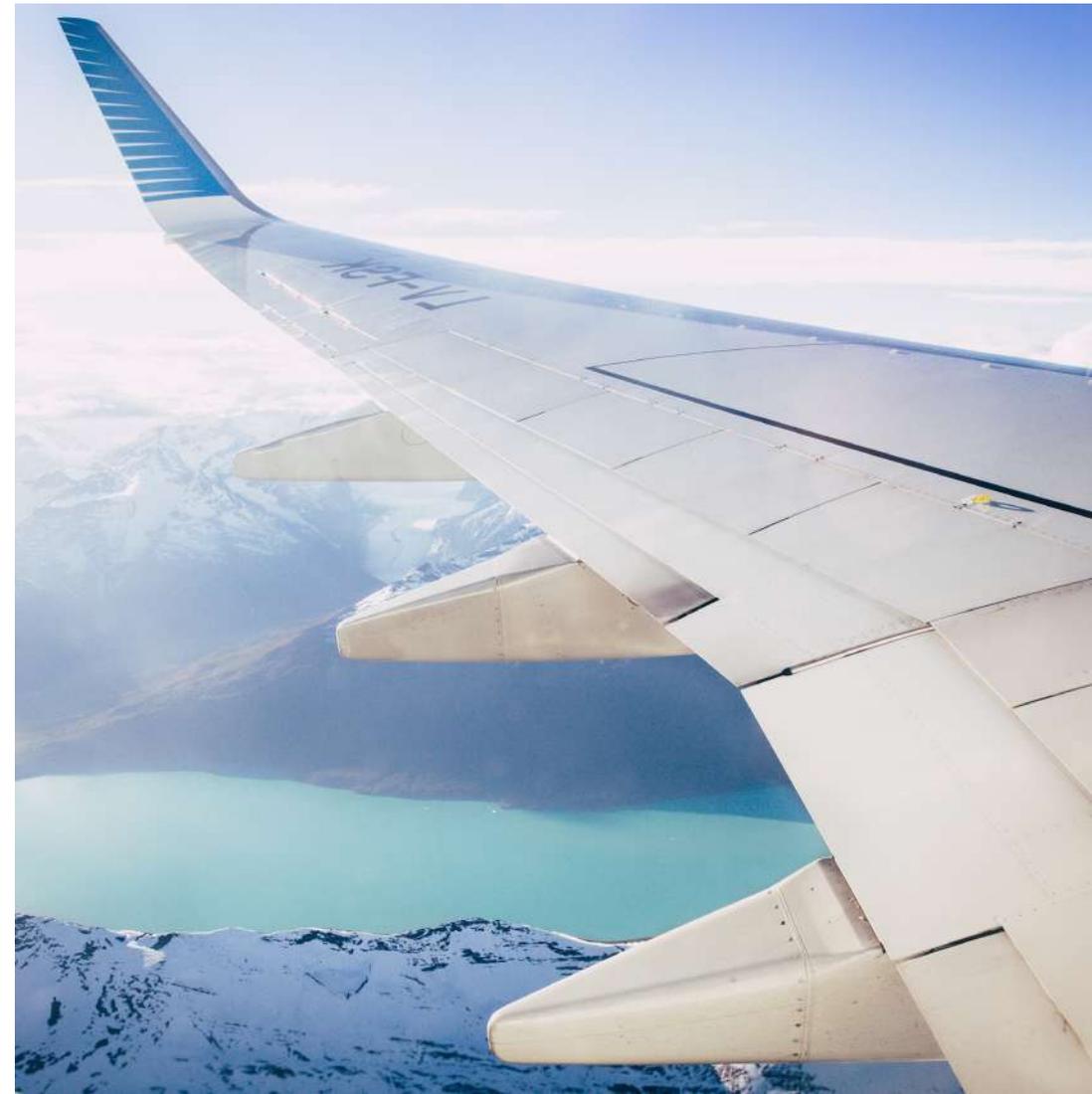
UNEP / Consumers International Recommends RSB's Label for Bioplastics

In their report, *Can I recycle this? A global mapping and assessment of standards, labels and claims on plastics packaging*, UNEP and Consumers International recognised RSB as the only reliable label

for bioplastics packaging that addresses feedstock sustainability.

RSB in Japan to Support Uptake of New Standard

In February, RSB hosted a workshop in Tokyo on RSB biomass certification for operators producing, procuring, and importing biomass into Japan under Japan's FIT system. In April, Japan recognised RSB's Japan FIT (Biomass) Certification.



CERTIFICATION: HIGHLIGHTS IN 2020

New Certificates

RSB observes the impact of its certification system via its monitoring and evaluation activities and publishes a detailed evaluation annually. The 2020 Monitoring & Evaluation Report is available as an annex to this Annual Review.

In 2020, RSB issued 9 new certificates – more than double those issued in 2019. Of these, 1 was an RSB EU RED certificate while the rest were RSB Global (six for products and two for fuels). This took our total certificates in 2020 to 24. Since RSB's approach enables multiple sites to be included within a single certificate scope, these 24 certificates include 110 different sites as well as 171 farms covering a cultivated area of 18,989 hectares.

New Feedstocks in the RSB System

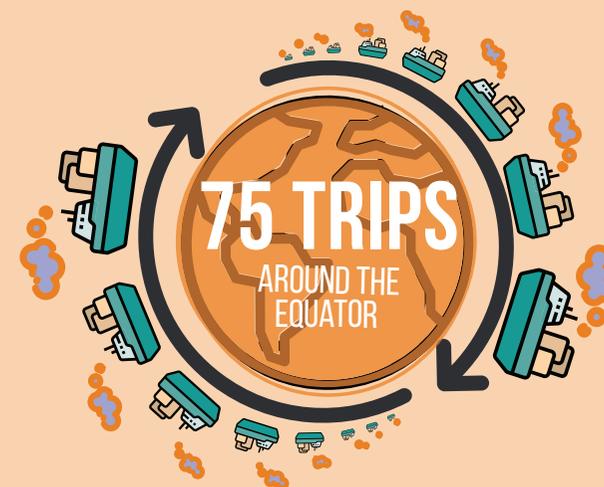
New feedstocks certified by RSB include corn, C-grade molasses, and a range of polymers with bio-attributed or recycled content. With 46% of our supply chains working with waste and residue materials, the trend towards circularity continues to grow.

Emissions Savings

The volume of RSB-certified fuel produced in 2020 contributed to an emissions saving of 375,016 metric tons of CO₂eq. Cumulatively since 2012, RSB-certified fuels have contributed to a total saving of 2,573,031 metric tons of CO₂eq emissions. These figures demonstrate fuels can be produced both sustainably and with significant positive impact on climate.

Since RSB's beginning (2012)
TOTAL EMISSIONS OF

2,573,031
metric tons of CO₂eq
were prevented



The greenhouse gas emissions avoided through fuel production by RSB-certified operators since 2012 is equivalent to the emissions released by a large container ship travelling the length of 75 trips⁷ around the equator!

A large container ship (average cargo capacity = 68,600 tonnes) with a CO₂ efficiency of 12.5 gCO₂/tonne-km (Source: 2nd IMO GHG study: <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Documents/SecondIMOGHGStudy2009.pdf>)

RSB is a mission-driven organisation, working to support, enable, and facilitate the transformation to a sustainable bio-based and circular economy. RSB's impact is increased through collaborations with policymakers, industry, and civil society at the local, regional, and global level on projects and partnerships to support the development of sustainable solutions.

Impact Through Projects

RSB's project work impacts three key areas:

- **Advancing** national and regional policy initiatives.
- **Promoting** sustainable regional potential.
- **Supporting** sustainable feedstock production, processing, and trade.

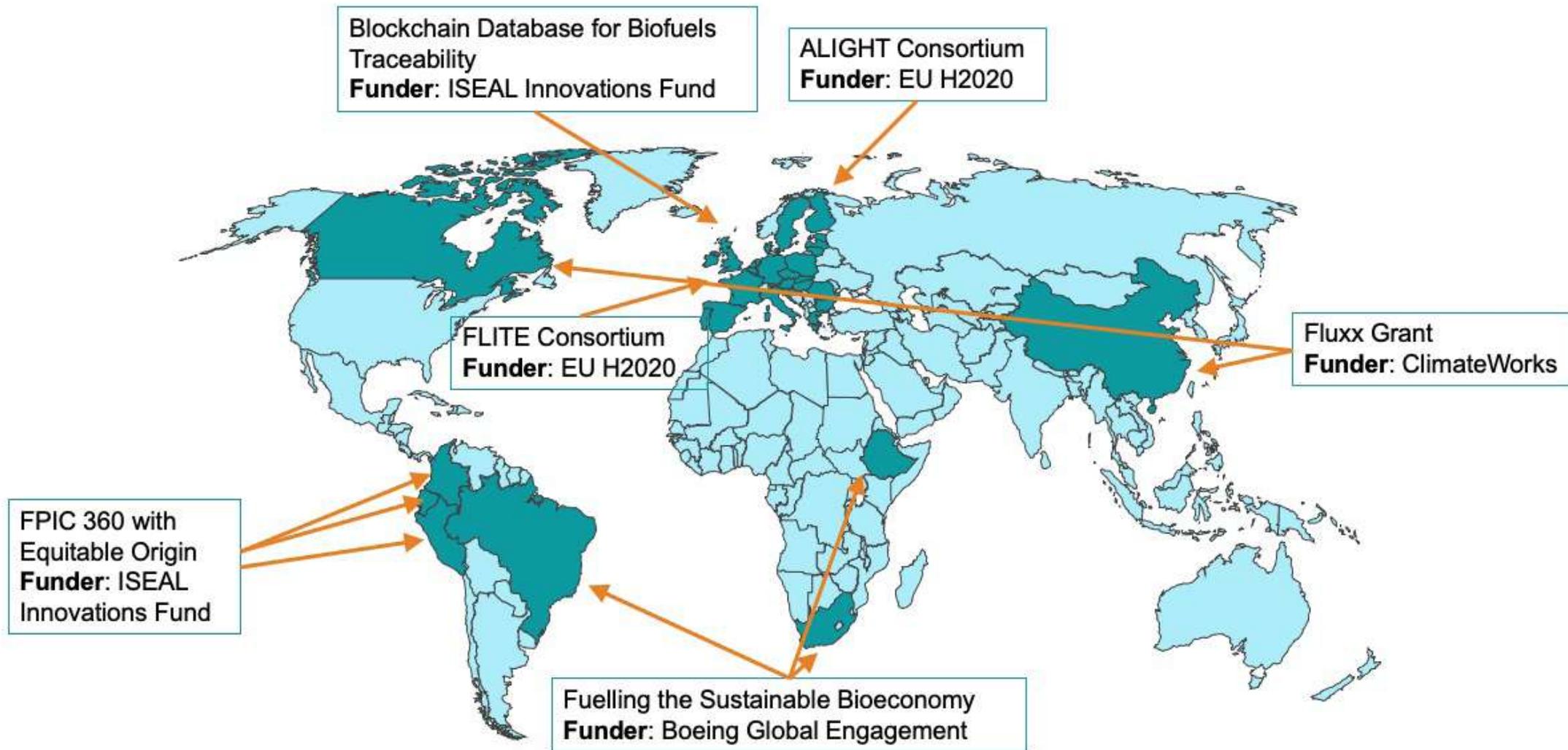
In 2020, RSB continued to work in a range of collaborative partnerships to further advance the impact of the Standard — far beyond certification of individual operators. During the year, RSB conducted project work on four continents (Africa, Asia, Europe, and South America).



RSB's published results of a joint assessment with the South African Canegrowers Association of feedstock viability for SAF in 2020. The results are available [here](https://www.rsb.org).

COLLABORATION

RSB Projects in 2020



COLLABORATION: HIGHLIGHTS IN 2020

Fuelling the Sustainable Bioeconomy: a project powered by Boeing's Global Engagement Portfolio

Launched in 2019, Fuelling the Sustainable Bioeconomy is an RSB project powered by Boeing's Global Engagement Portfolio. By supporting the development of Sustainable Aviation Fuel (SAF) — and the broader bioeconomy — based on the RSB Principles & Criteria, the project aims to help the aviation industry play a leading role in tackling the threat of climate change, creating jobs, stimulating economic growth, developing rural livelihoods, and protecting the environment. 2020 saw enormous progress in each country where the project operates, with the development of a replicable framework for shaping the sustainable bioeconomy through feedstock assessments, techno-economic assessments, national road mapping processes, and more.



Sustainable Macaúba Cultivation in Brazil

Promoting the sustainable cultivation of Macaúba in Brazil towards commercial viability is a key goal of the Brazilian arm of RSB's Fuelling the Sustainable Bioeconomy project. Producing a high value product from a highly productive feedstock on degraded land offers a range of potential sustainability benefits. Our new partnership with Soleá will develop recommendations and guidelines to advance the cultivation of Macaúba in line with the rigorous sustainability requirements of the RSB Standard. RSB will work closely with Soleá, utilising their data and knowledge to create a comprehensive handbook for the industry in Brazil.

Assessing Feedstock Viability for SAF in South Africa

RSB worked with the South African Canegrowers Association (SA Canegrowers) to identify opportunities for South African sugarcane ethanol to access local and international biofuels markets, particularly through the production of Sustainable Aviation Fuels (SAF) for the aviation sector.

Convening Experts for Transformation in Ethiopia

2020 saw RSB consult specialists and industry expertise, advancing the development of a local SAF industry to promote economic development and the low-carbon transition by examining and uncovering strategies and scenarios for the future development of a sustainable biofuels industry in the country. In June we shared the preliminary results.

COLLABORATION: HIGHLIGHTS IN 2020

Developing a SAF Roadmap in China with ClimateWorks Foundation

RSB worked with our partners to initiate the development of a roadmap for Sustainable Aviation Fuel (SAF) in China to guide growth in the country along a sustainable path. In 2020, this project identified key local and international stakeholders and brought them together for a workshop to lay the groundwork for the development of a SAF roadmap as well as the next steps advancing SAF production and uptake in China.

Assessing Blockchain Technology to Combat Fraud in Biofuel Supply Chains with ISEAL Innovation Fund

In 2020, RSB worked with member and partner Bioledger to research a blockchain database to enable verifiable proof of origin, secure consignment creation, process simplification, audit efficiency, data integrity, and central governance for biofuel supply chains. The approach was prototyped and trialled with project partners, and was made possible by a grant from the ISEAL Innovations Fund, supported by the Swiss State Secretariat for Economic Affairs (SECO).

¶ We are continually working to find more ways to reduce the impact of flying on our environment, and sustainable fuels are a key piece of this — that's why we're proud to support this critical research by the Roundtable on Sustainable Biomaterials and the South African Canegrowers Association. Sustainability is a priority for our company, and Boeing is committed to continuing to support programs like this as we innovate and operate to make the world better for our industry and our communities. ¶

Bernard Dunn
Vice President of Boeing International and President,
Boeing Middle East, Africa and Turkey.



CONVENING OUR COMMUNITY

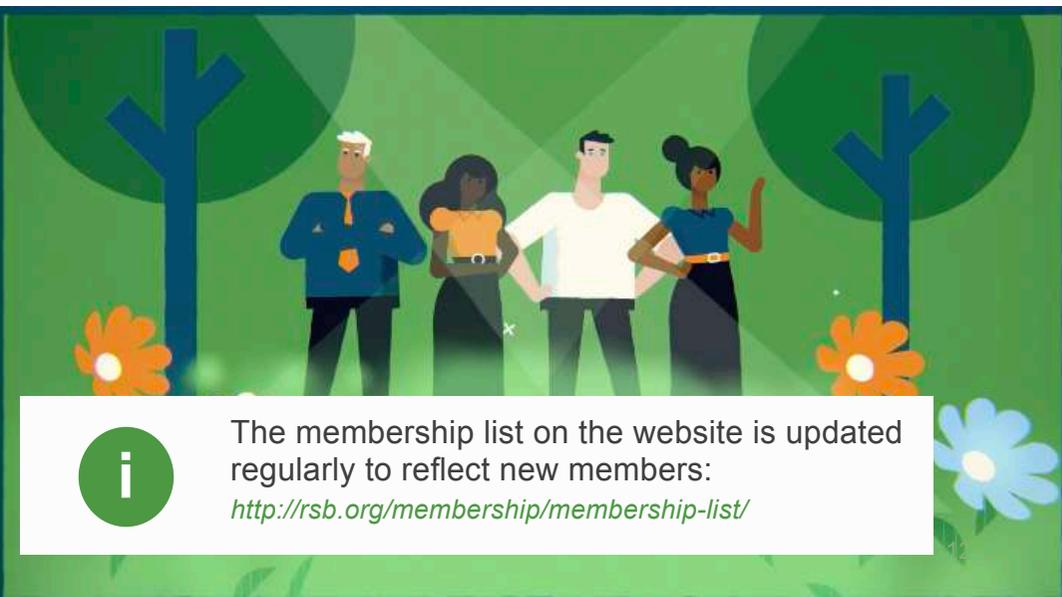
RSB's multi-stakeholder community comes together to discuss and advance systemic change of the global economy via the uptake of bio-based and circular solutions, with RSB members governing the organisation. Through consensus-building and the construction of new knowledge on cutting edge innovations, they participate in our ongoing Standard development and support RSB in exploring and understanding new markets.

Membership Community

RSB grew its membership community in 2020, ending the year with 100 members, and focused on increasing opportunities for engagement via webinars, standards development, and other outreach.

Air Transport Action Group (ATAG) Recommends RSB Membership

In ATAG's Waypoint 2050 report on balancing aviation growth with tackling the climate emergency, they identify joining RSB as the easiest action that the aviation industry can take today to help accelerate an energy transition.



New Members in 2020

Bioledger, Boom Technology, Celtic Renewables, INEOS Europe, Kisii University, Nuseed, SA Canegrowers Association, Saipol, Soleá, Stahl Holdings, Tasma Bioenergy, Tensei, United Airlines, WESAF Energy Solutions, and Xpansiv CBL Holding Group.



CONVENING OUR COMMUNITY

Standards & Policy

Key work of RSB's community is the ongoing development of the RSB sustainability standards. RSB initiated a General Standards Working Group for its members in 2020. This group supports the RSB Standards team, providing ongoing feedback and input to the annual standards work plan, core standards revisions, and new developments; and examining feedback from RSB system users and results from certification oversight.

The Working Group leads work among RSB members on a Standard Amendment for Woody Biomass to reflect both the growing demand for woody and wood-derived biomass for electricity, heat, and fuel production and increasing concerns around its climate and ecosystem impact. Finalisation of RSB's approach is expected in 2021.

▮▮ ICAO Council's approval of RSB as an eligible Sustainability Certification Scheme is both an outstanding achievement for RSB and a major milestone for ICAO CORSIA, which completes CORSIA's SAF framework. RSB CORSIA Standard also represents a paradigm shift, moving from RSB's original focus on sustainable biofuel volumes to a new focus on emissions reductions from the use of SAF for carbon markets. ▮▮

Pedro Piris-Cabezas
Director of Sustainable International Transport and Lead Senior Economist
Environmental Defense Fund



CONVENING OUR COMMUNITY

RSB's Board of Directors

The Board of Directors is responsible for the management of the RSB. Directors also represent RSB at various functions and conferences, and reflect its commitment to the ethics and principles it stands for. Regular meetings are held where board members collaborate and decide on changes to policy, as well as the effective management of the RSB's activities.

RSB BOARD DIRECTORS AS OF 31 DECEMBER 2020

Chamber 1	Maiju Helin – Neste Oil (Chair); Laurel Harmon – Lanzatech (Vice Chair)
Chamber 2	Robert Boyd – IATA (Treasurer)
Chamber 3	Arturo Barrit – Associated Labor Unions; Trade Union Congress of the Philippines (ALU-TUCP)
Chamber 4	Jayant Sarnaik – Applied Environmental Research Foundation (AERF)
Chamber 5	Bing Xu – Heriot-Watt University



Maiju Helin
Chair
RSB Board of Directors



Laurel Harmon
Vice-Chair
RSB Board of Directors



Robert Boyd
Treasurer
RSB Board of Directors



Arturo Barrit
RSB Board of Directors



Jayant Sarnaik
RSB Board of Directors



Bing Xu
RSB Board of Directors

CONVENING OUR COMMUNITY

RSB Assembly of Delegates

The Assembly of Delegates is the highest decision-making body of RSB. Chamber Delegates represent their chamber at assembly meetings and they engage there with the Delegates of other chambers to deliberate on issues of governance and standard development — and in some cases to vote. The Assembly approves modifications to the RSB Standard and appoints the Board of Directors to run the affairs of RSB.

LIST OF RSB DELEGATES AS OF 31 DECEMBER 2020

Chamber 1	Romain Lebas – SAIPOL Liisa Ranta – UPM-Kymmene Corporation Srinivasan Ramachandran – Joil (Singapore)
Chamber 2	Steven Le Moing – Airbus Jaco Sterling – A.P. Moller – Maersk Valentina Vecchio – Boeing
Chamber 3	Jesus Deberson – Ethical Sugar Fongoh Eric – ICENECDEV Leonardo Rosario – Trowel Development Foundation
Chamber 4	Tjaša Bole-Rentel – WWF South Africa David DeGennaro – National Wildlife Federation (NWF) Neva Murtha – Canopy
Chamber 5	Joseph Githiomi – Kenya Forestry Research Institute Patrick Lynch – Bioledger Richard Olliver – Aplethora Energy Services

FINANCES

In 2020, RSB operated with a surplus of 260,947 CHF, marking the third consecutive year of positive financial results for RSB. The COVID-19 pandemic did not negatively impact RSB's financial result due to careful management of revenue trends and a cautious approach to expenses.

All revenue categories (membership fees, advisory services, grants, and certifications) performed as expected despite the less certain COVID-19 operating environment.

RSB ended the calendar year in strong financial health with a debt-free balance sheet and a healthy cash position, leaving RSB well positioned to seek opportunities to build upon progress from recent years and expand our influence further.

Revenue

Total revenue in 2020 was:

1,483,333.58 CHF

Category	Amount (CHF)	Percent
Membership Fees	168,228.33	11.29%
Donations & Grants	1,033,375.20	69.35%
Services	200,441.07	13.45%
Sponsorship	16,164.00	1.08%
Certification	71,976.63	4.83%
<i>Diminution of revenues</i>	<i>-6,851.65 CHF</i>	

The largest revenue contribution was grant income from the Boeing Corporate Citizenship Programme, as well as significant contributions from the Packard Foundation and ClimateWorks Foundation. The major grant programs continue to deliver positive outputs per the terms of these agreements.

Expenditure

Total expenses in 2020 amounted to:

-1,222,385.62 CHF

Category	Amount (CHF)	Percent
Project & Professional Fees	- 245,419.03	20.10%
Salaries & Social Charges	- 694,339.36	56.80%
RSB Meetings	- 25,302.83	2.10%
Marketing Expenses	- 33,383.08	2.70%
Travel Expenses	- 19,408.27	1.60%
Administrative & Office Expenses	- 110,492.95	9.00%
Taxes	- 1,284.90	0.10%
Other Expenses	- 92,755.20	7.60%

2020 Financial Result

The financial result for 2020 was:

260,947.96 CHF

Extraordinary income of 1,704,554 CHF was recorded, relating to the forgiveness of a subordinated loan dating back to 2014 and an accounting correction of 251,602 CHF. As of the end of the 2020, RSB remains debt free.

CREATING IMPACT TOGETHER



By creating solutions to ensure the sustainability of evolving bio-based and circular production, agricultural and energy systems, RSB is helping to drive a just transition to a net positive world.

Certification

Through its most trusted certification scheme, RSB enables companies across the bio-based, advanced products, and circular economy to demonstrate the real and credible sustainability attributes driving a just transition to a net positive world.

Collaboration

RSB works with partners around the world to maximise the impact of its best-in-class sustainability standard through projects and programmes, as well as work on policy, legislation and other areas of global impact.

Community

RSB members are part of a worldwide movement of businesses, NGOs, academics, governments, and UN organisations that demonstrate their commitment to best practice in the bio-based and circular economy.

CONTACT DETAILS

Have questions about RSB and the work we are doing in the sustainable bioeconomy? Reach out to us to learn more!

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Standards Director
Lead: Chemicals & Polymers

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Yitatek K. Yitbarek
Project Manager - Ethiopia
Lead: Energy

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UNDERSTANDING OUR FOOTPRINT OUTCOMES OF RSB'S MONITORING & EVALUATION SYSTEM IN 2020



RSB is committed to continuous monitoring, evaluation, and improvement of our standards and certification system. Since 2016, we have compiled our short and medium-term assessments into a public report – helping our stakeholders to engage with our work and understand how it contributes to the sustainable development of the bio-based and circular economy in communities worldwide. This year's report is the fifth of its kind, and continues to build upon a much-improved data collection process which ensures the accuracy of our reporting.

Executive Summary

2020 was a year like no other — for RSB and its operators, members, and partners around the world. In spite of this, commitment to sustainability remained strong, or even increased. While the year presented challenges to the market, with certified volumes dropping from 2019, RSB also saw healthy growth in the number of sites, workers, and overall hectares covered by an RSB certificate, reflecting enduring sustainability commitments in the face of difficult market conditions for many operators. This is reflected in continued support, and engagement with, RSB’s projects and advisory services, where RSB’s impact goes beyond individual operators.

RSB worked hard to support operators during the pandemic, by refining our approach to virtual audits, developing guidance and guides on certification to help operators prepare for their audits, and specifying RSB requirements for new feedstocks and processes.

RSB’s overall impact goes beyond certification and the data recorded in the certification system. RSB’s activities in **certification, advisory services, and collaborative partnerships** all have a long-term impact on the transformation to a sustainable bio-based and circular economy by:

- ensuring sustainable feedstock production and processing practices;
- changing the way organisations do business by supporting them with RSB expertise grounded in the RSB Standard;
- influencing policy at local, regional, and global level; and
- supporting decision-making informed by the sustainability embedded in the RSB Standard.

RSB is a mission-driven organisation and our work on projects and solutions that will create real positive change enables us to ensure that our impact is long-term and global. In 2020, RSB’s project work covered four continents and incorporated activities on policy mechanisms, regional technical assessments, support for the production of sustainable feedstock, and more.

RSB’s Advisory Services are being used worldwide to embed best practice in diverse supply chains — often at the project design or pilot level. This is particularly meaningful, as RSB is able to support improved practices in many different sectors and regions in order to assist operators achieve RSB certification in the future. With

13 advisory services projects conducted during 2020, our team were able to provide hands-on sustainability expertise on five continents, with income from advisory services increasing by 26% from 2019.

RSB Cumulative Advisory Services projects since 2016

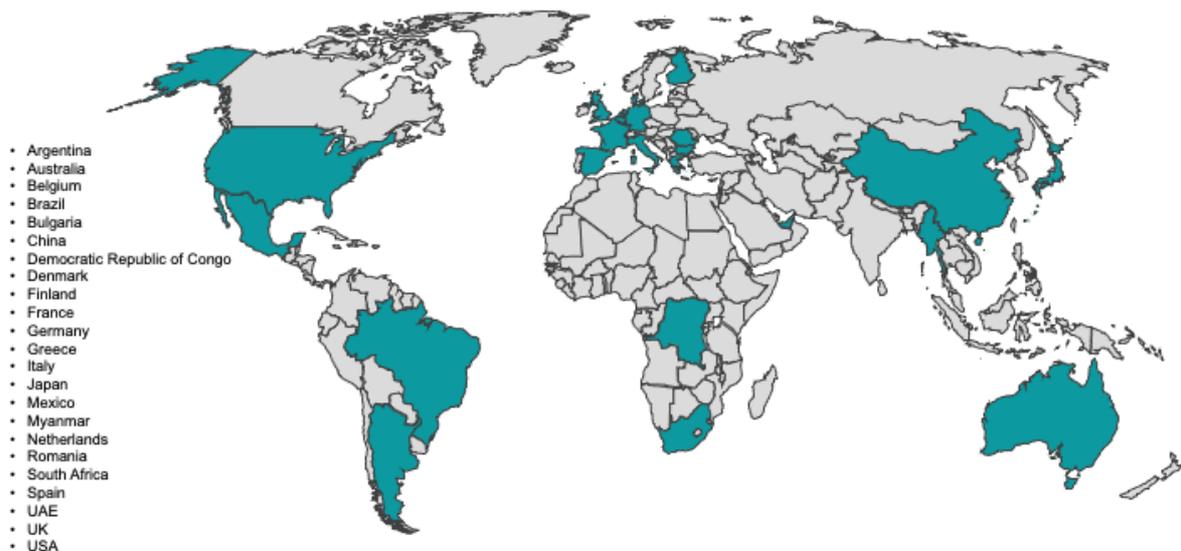


Figure 1: Locations of RSB Advisory Services projects since 2016

Looking to certification impacts, the volume of RSB-certified fuel produced in 2020 contributed to an emissions saving of **375,016 metric tons of CO₂eq**. Cumulatively, RSB-certified fuels have contributed to a total saving of 2,573,031 metric tons of CO₂eq emissions since 2012. These figures demonstrate that fuels can be produced both sustainably and with a significant positive impact on climate.

With nearly 50% of operators processing or trading waste and residues in their supply chains, RSB-certified products are significantly reducing pressure on agricultural land. Focusing on fuels produced from wastes and residues, RSB-certified fuels **have the potential to reduce pressure on the equivalent of over 190,696 hectares of agricultural land** (if the same volume of fuel had been produced from a dedicated oil crop) in 2020. This figure is comparable to almost the same area of total arable land available in Slovenia in 2018.¹

¹ <https://data.worldbank.org/indicator/AG.LND.ARBL.HA>

The RSB Standard for Advanced Products, launched at the end of 2018, was implemented during 2019 and consolidated with new certificates in 2020. Six new certifications for the RSB Standard for Advanced Products were issued in 2020 and 10 were underway at the end of the year, with the market showing considerable enthusiasm towards the RSB certification — in particular for bio-attributed polymers and recycled polymers for packaging. Reflecting the growing importance of the materials market, RSB developed and launched new labels and logos for use on final products.

Within the RSB Principles & Criteria — applicable to farms and industrial units — we found that 20% of all non-conformities among operators were related to social aspects, and 38% to environmental aspects (including GHG emissions reduction requirements). By requiring that all non-conformities are dealt with within defined timeframes, RSB has a tangible impact on the social and environmental performance of biomass and industrial producers.

Overall, 2020 saw a varied year for the RSB system, with an increase in the number of sites, as well as growth in certified area. The outlook is broadly positive, covering the maturing market in the fuels sector and the new market in the chemicals and polymers sector. Emerging interest from other regions, such as biomass for energy in the Japanese market — who are increasingly seeking solutions for their sustainability commitment — should enable RSB to continue growing its certification system.

RSB's Standard and certification system continues to be recognised by global and national organisations — including governments, NGOs, and companies — as a best-in-class sustainability standard for the bio-based and circular economy. This is in large part due to the continuous improvements made by RSB and its member community towards ensuring their applicability in the real world.

Table of Contents

Table of Contents	5
Introduction	6
About RSB’s M&E System	7
Evaluation Objectives and Scope	10
About the RSB Standard	11
RSB Projects	13
Case Study: Brazil	16
RSB Advisory Services	17
RSB Certification	19
Evolution of the RSB Standard	30
Continuous Improvements to the RSB System	32
Public Recognition	33
Conclusions	34

Introduction

Regular monitoring and evaluation of RSB's system outcomes enables RSB to continuously work on improving our standards and programmes.

The RSB Monitoring & Evaluation (M&E) System is designed to measure RSB's success in ensuring sustainable practices in bio-based and circular supply chains. RSB's approach recognises that certification is one part of a broad picture of impact covering outcomes from projects, programmes, advisory services, membership, and the certification system.

RSB monitors its performance by analysing data collected from its certification system, project reporting, and advisory services management system, as well as from stakeholders across these impact areas — through a set of indicators which cover environmental, social, and economic issues, along with the context in which operators work.

Covering the 2020 calendar year and employing continuous data collection methods, this report evaluated actual data on project type, advisory services outcomes, certified volumes produced, GHG emissions reduced, hectares covered, and workers protected in the scope of certification — as well as data about areas in which non-conformities have been identified. In recording and evaluating non-conformities, RSB is able to identify measurable improvements in operators' sustainability and management practices.

RSB also examines the cumulative totals of several indicators since measurement began. These cumulative totals demonstrate both the broad applicability of the RSB Standard by region as well as the diversity of feedstock and products.

About RSB's M&E System

RSB Standards and Programmes are applicable globally, to all types of bio-based or advanced fuels and products from bio-based feedstocks, as well as end-of-life products and production residues — including fossil waste.

RSB's M&E System not only collects actual data on volumes produced, hectares covered, and workers protected in the scope of certification, but also data about where non-conformities have been issued during the certification process. This information helps RSB to draw conclusions about the areas of change and the impacts of the RSB certification system. The results of this M&E reporting period feed into the organisational learning process and help RSB to analyse its evolving footprint in greater depth.

The impacts achieved by RSB-certified operators and other stakeholders implementing the RSB Standard are expected to bring social, environmental, and economic improvements with the certification cycle.

Results from the M&E System feed into the continuous improvement of the RSB Standard, including the policies, guidance, and tools of the certification system, as well as RSB's strategies and activities. Committed to transparency, RSB prepares M&E outcome reports annually and circulates these among RSB stakeholders for commentary and further improvements to the system.

Methodology

Data Collected

RSB monitors its performance by processing data collected among its certified operators and RSB records through a set of outcome indicators that cover environmental, social, and economic issues.

Methods to Collect

The data points required for the RSB M&E System are collected through ongoing certification processes. This data collection method allows the RSB Secretariat to continuously collect actual and third party verified data.

Interpretation and Evaluation

The results obtained through the aggregation of data from certified operators and RSB activities are interpreted and evaluated considering the expected outcomes.

Authors' Qualification

A multi-disciplinary team from the RSB Secretariat is involved in data collection, data analysis, and M&E reporting:

- George Deslandes, RSB Certification Officer (Corporate Responsibility and Sustainability Masters student at the University of London): data collection.
- Aurea Nardelli, RSB Certification Manager (Doctor in Forest Science): data aggregation, analysis and reporting.
- Elena Schmidt, RSB Executive Director (Master's degrees in Environmental and Political Sciences): data analysis and report review.
- Hannah Walker, RSB Marketing & Communications Manager (Bachelor's Degree in International Development and Geography): report content, narrative, design, and publication.

Internal and External Influencing Factors

Influencing factors are factors that influence the effectiveness of RSB activities, but that are out of the direct control of the organisation.

During 2020, the major influencing factor on RSB's activities and outcomes was the coronavirus pandemic. While this reduced the demand for fuel products, decreasing the reported volumes of sales of RSB-certified fuels and thus the amount of GHG reductions by those operators, anecdotal feedback suggests that the changes brought in by lockdowns and new ways of working cemented many companies' commitment to RSB and sustainability.

During RSB's virtual Assembly in October 2020, we polled our members and 96% said that while their organisation had had to change the way it does business in response to the crisis, 96% said that their organisational focus on social and environmental sustainability had increased or remained unchanged.

While the impact on RSB's certification figures (particularly for fuel products) was substantial, demand for RSB advisory services and project work continued to be strong — suggesting that these two areas of impact were less affected.

Potential Limitations Due to Data Uncertainty

Data used in the M&E for evaluating the areas of non-conformities are from the audit reports. Potential limitations are those inherent to any audit process and may be influenced by the sampling selected during the audit, the audit team experience, and

specific operations under development during the audit, among other factors. Data used in the M&E report are extracted from 100% of audit reports, covering all types of operators participating in the RSB system, as well as all CBs and auditors active in the period — reducing the risk of the sampling only covering a limited number of audit documents.

It is important to highlight that RSB's audit procedure requires a reasonable assurance level, meaning that the degree of confidence in the audit findings and certification statement provides a high but not absolute level of assurance regarding historical data and information.



Evaluation Objectives and Scope

Objectives

This report aims to evaluate the results obtained by RSB and evaluate them against the **outcome indicators**, as defined in RSB's Monitoring & Evaluation System.

Specific objectives of this report are to:

- Aggregate data from certified operators and RSB records in order to analyse it and draw conclusions;
- Evaluate RSB's achieved outcomes;
- Feed findings into RSB's general strategic discussions; and
- Comply with the ISEAL Impact Code.

Scope

This evaluation includes all operators certified by RSB, as well as all RSB activities during 2020. It was conducted internally by the RSB Secretariat staff, and is based on data collected by independent third party auditors. Production volumes were calculated for the period of 1 January 2020 to 31 December 2020.

Outcome Indicators

The outcome indicators that guide this report are made up of different data points, which guide our data collection and analysis. These indicators cover each of our Principles and help RSB to ensure that every aspect of the Standard is continuously measured and evaluated.

View the outcome indicators [here](#).

Complying with the ISEAL Alliance Impact Code

The International Social and Environmental Accreditation and Labelling (ISEAL) Alliance lays out an Impact Code which all members of the alliance must comply with. This code specifies the requirements for the development and implementation of a Monitoring and Evaluation system by member Standards. The Impact Code is underpinned by five Credibility Principles, which are the foundation of our Monitoring & Evaluation System:

1. Sustainability
2. Improvement
3. Rigour
4. Transparency
5. Truthfulness

About the RSB Standard

12 Principles for Sustainable Production

The foundation of RSB’s Standard is its 12 Principles which describe how to produce fuel, biomass, and material products from bio-based and recycled carbon, including fossil waste, in an environmentally, socially, and economically responsible way. Because of RSB’s unique decision-making structure — based on consensus among all relevant stakeholders — the RSB Principles & Criteria are recognised as best-in-class for addressing key sustainability issues in a comprehensive way.

The RSB Principles & Criteria are based on a management and risk-oriented approach. Together with RSB’s online tools and related guidance documents, the RSB Principles & Criteria help operators to identify and manage sustainability issues in a specific context and therefore reduce risks for operators, brand owners, and investors.

Structure of RSB’s Certification Schemes

To support the applicability and uptake of RSB’s approach to sustainability around the world, RSB has produced regulatory standards, adaptations, and voluntary modules in addition to its main Global scheme. These different ‘certification schemes’ support operators in different contexts to demonstrate compliance with the best-in-class sustainability outlined in RSB’s 12 Principles & Criteria.

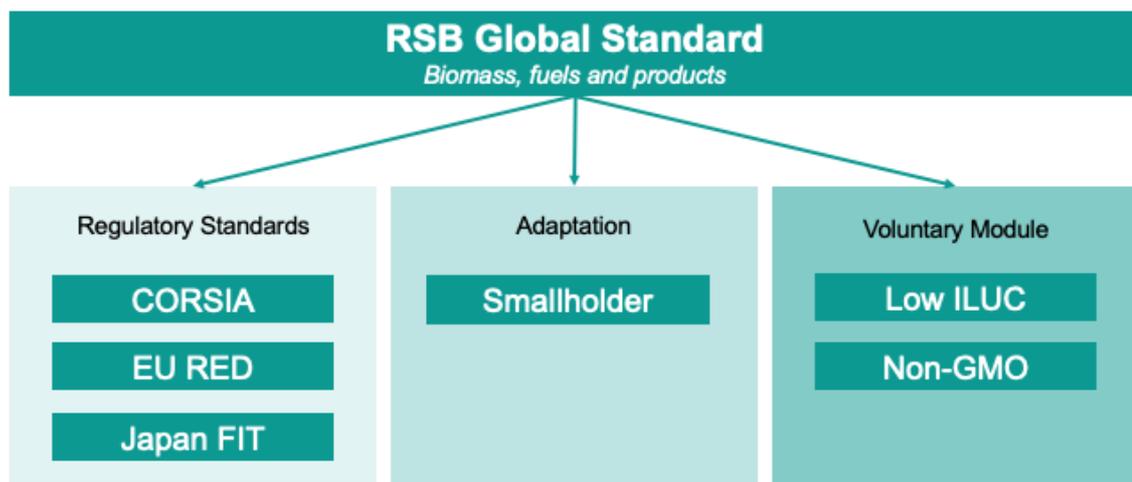
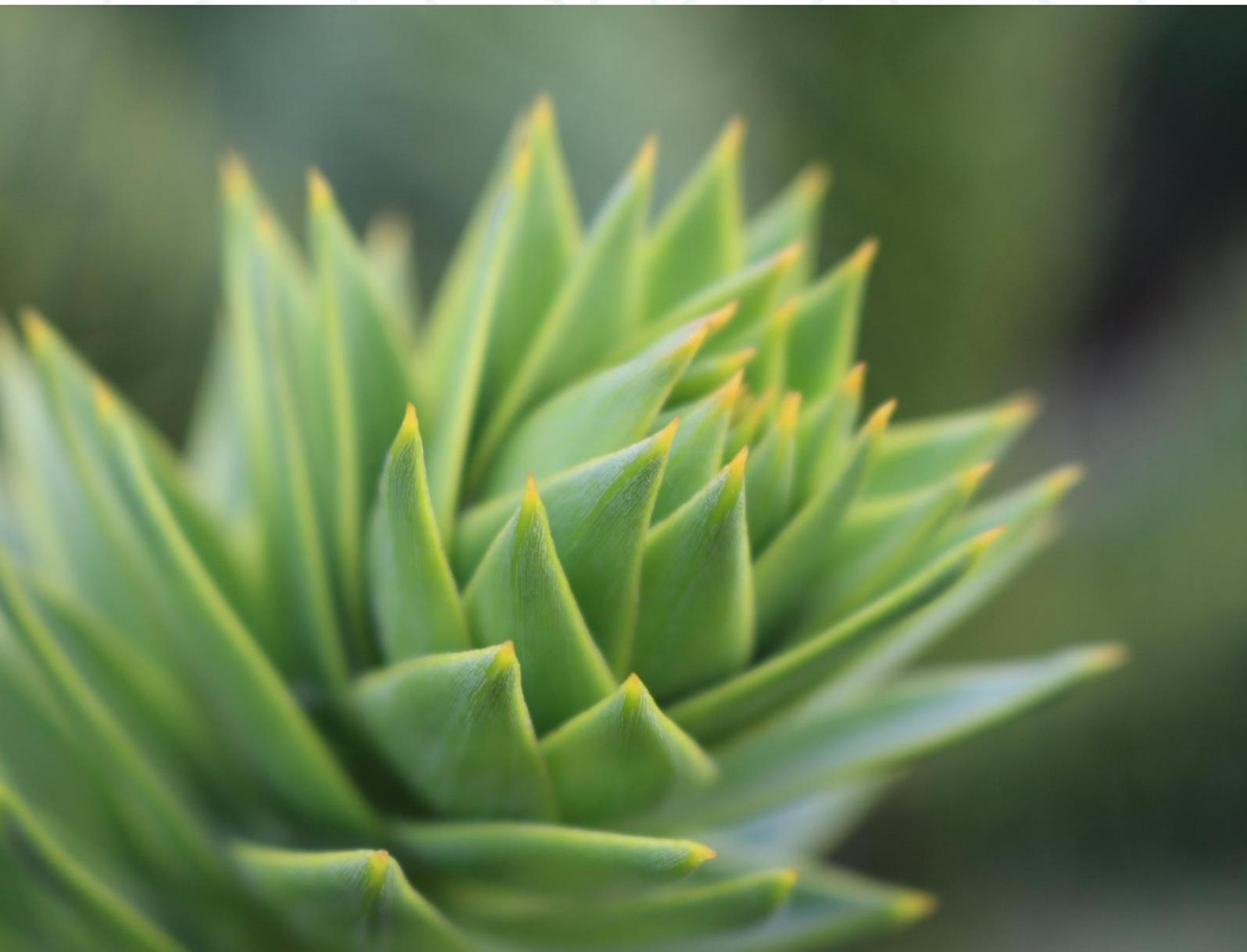


Figure 2: Structure of RSB certification schemes

Implementation of the RSB Standard

RSB recognises that the impact of its Standard goes beyond the realm of certification. Ensuring that RSB's approach to sustainability — widely recognised as the most robust, transparent, and trusted — is incorporated into global and national policy, procurement programmes, impact projects, and more, will support broad-based transition and transformation towards a sustainable bio-based and circular economy.

Implementing the RSB Standard is a journey with certification as one potential end point. This is why RSB reports on certification impacts as well as how the Standard supports outcomes in project work, how RSB Advisory Services are supporting partners to improve and develop new systems and approaches based on RSB's approach, and how the continuous improvement of the Standard via RSB's multi-stakeholder community is building partnerships, consensus, and understanding to further its impact.



RSB Projects

RSB is a mission-driven organisation, working to support, enable, and facilitate the transformation to a sustainable bio-based and circular economy. By working on projects and innovations that unlock practical solutions to challenges faced by policymakers, industry, and those communities most likely to be adversely impacted by this transition — at local, regional and global level — RSB’s impact is increased.

Impact Through Projects

RSB’s project work impacts three key areas:

- Advancing national and regional policy initiatives.
- Unlocking regional potential.
- Supporting sustainable feedstock production, processing, and trade.

Projects in 2020

In 2020, RSB continued to work in a range of partnerships to further advance the impact of the Standard — far beyond certification. During the year, RSB conducted project work on four continents (Africa, Asia, Europe, and South America).

RSB Projects in 2020

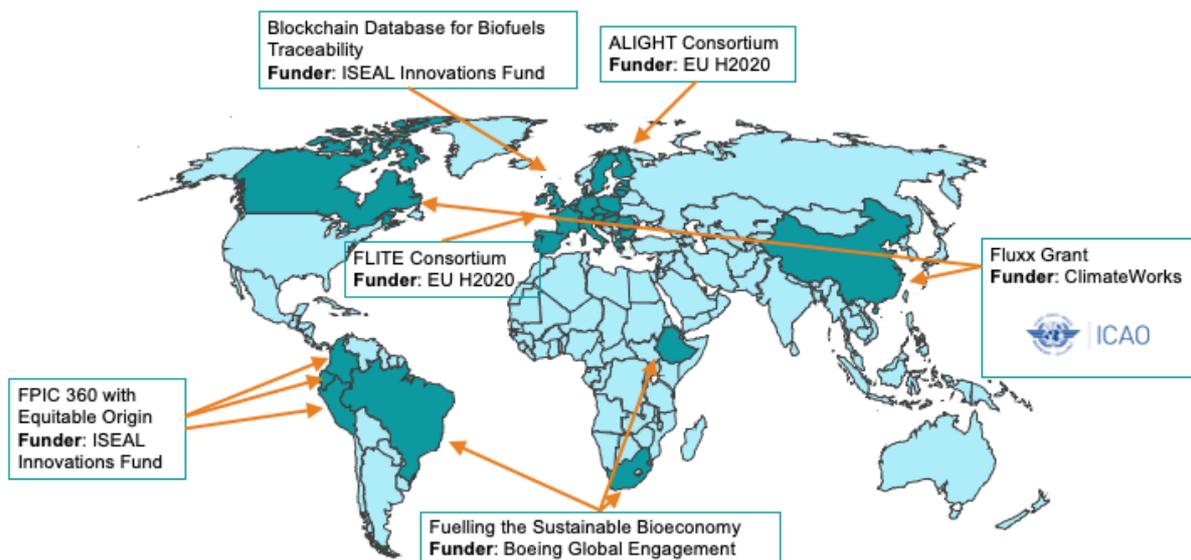


Figure 3: RSB Projects in 2020

Project work in 2020 included:

Fuelling the Sustainable Bioeconomy: a project powered by Boeing's Global Engagement Portfolio

Launched in 2019, *Fuelling the Sustainable Bioeconomy* is an RSB project, powered by Boeing's Global Engagement Portfolio. By supporting the development of Sustainable Aviation Fuel (SAF) — and the broader bioeconomy — based on the RSB Principles & Criteria, the project aims to help the aviation industry play a leading role in tackling the threat of climate change, creating jobs, stimulating economic growth, developing rural livelihoods, and protecting the environment. The year 2020 saw enormous progress in each country where the project is in operation. Highlights include:

a. Laying the groundwork for a SAF roadmap in Ethiopia

In Ethiopia, where the project is leading the development of a SAF roadmap while supporting the development of regional low carbon industry and exploring the economic growth and job creation potential of a local biofuel industry, 2020 saw RSB convening experts and expertise to advance this goal — by examining and uncovering strategies and scenarios for the future development of a sustainable biofuels industry in the country. In June 2020 we [shared preliminary findings](#) from this work.

b. Assessing feedstock potential in South Africa

In South Africa, where the project aims to help establish a low carbon economy to create jobs and stimulate economic growth, RSB worked with the South African Canegrowers Association (SA Canegrowers) to identify opportunities for South African sugarcane ethanol to access local and international biofuels markets, particularly for the production of Sustainable Aviation Fuels (SAF). Research conducted jointly by RSB and SA Canegrowers (an RSB [member](#)) confirms that South African sugarcane — a crop grown in significant quantities in the north eastern part of the country — provides a wholly viable feedstock for the production of SAF.

c. Partnering on feedstock development in Brazil

In Brazil, the project aims to assess SAF production routes from diversified feedstocks, develop regional supply chains and incentivise the socio-economic growth of smallholders, and support the overall development of the SAF sector. RSB is also working with Soleá, a Brazilian startup aiming to address global challenges in food, energy, and sustainability through the cultivation of macaúba.

Developing a SAF Roadmap in China with ClimateWorks Foundation

RSB is working with its member and partner MotionECO to initiate the development of a roadmap for SAF in China that will help guide growth in the country along a sustainable path. In 2020, this project identified key local and international

stakeholders and brought them together for a workshop to lay the groundwork for the development of a SAF roadmap as well as point out the next steps in advancing SAF production and uptake in China.

Assessing Blockchain Technology to Combat Fraud in Biofuel Supply Chains with ISEAL Innovation Fund

In 2020, RSB worked with member and partner Bioledger to research a blockchain database that could enable verifiable proof of origin, secure consignment creation, process simplification, audit efficiency, data integrity, and central governance for biofuel supply chains. During the year the approach was prototyped and trialled with project partners. The project was made possible by a grant from the [ISEAL Innovations Fund](#), which is supported by the Swiss State Secretariat for Economic Affairs (SECO).

Case Study: Brazil

RSB has a long-term commitment to advancing the bio-based and circular economy in Brazil. RSB has worked on projects there since 2013, when the RSB Smallholder Standard was piloted on-site with a soybean cooperative, leading to the finalisation and approval of the standard. RSB has had fully certified operators, including smallholder groups, in the country since 2014.

During 2020, work in the country focused on developing SAF pathways that support local socio-economic development, reduce greenhouse gas emissions, and ensure the survival and regeneration of ecosystems.

2020: RSB's Work in Brazil		
Advancing national & regional policy initiatives	Unlocking regional potential	Supporting sustainable feedstock production
Launched development of a SAF calculator to evaluate the technical and economic feasibility of production routes.	Assessed the availability of waste and residues for SAF production in the country.	Worked with Soleá, a Brazilian startup that aims to address global challenges in food, energy and sustainability through the cultivation of macaúba.
Worked with the Brazilian Association of Bioinnovation (ABBI) to support public policy development and action on decarbonisation.		Engaged with Omega Green, the first commercial-scale facility in Latin America for SAF production, to encourage uptake of RSB certification.

RSB Advisory Services

Amplifying the impact of the RSB Standard by assisting partners to prepare for certification and implementing best practices described in the Standard, RSB has made a tangible impact in multiple areas.

Companies	Governments	Partners
<p>Growing and embedding real sustainability in operations by:</p> <ul style="list-style-type: none"> • assessing sustainability risks in operations and investment decisions; • assessing availability of sustainable feedstock and alternative fuels as a basis for alternative fuel strategies; • providing input on sustainability strategies; and • assisting with preparations for RSB certification. 	<p>Integrating sustainability into legislative approaches.</p>	<p>Developing platforms for stakeholders from across industry, civil society, and government to work together.</p>

Since 2016, through its advisory services, RSB has assisted 32 organisations — representing eight sectors in 23 countries — to improve their practices on the ground. Some of these projects will lead to RSB certification, while others, like the development of RSB indicators in various regions, remove barriers for other operators.

There were 13 Advisory Services projects active in 2020, covering 10 countries and six sectors: Shipping, Ground Transport, Energy, Aviation, Chemicals & Polymers and Retail.

Through these 13 projects, our experts were able to provide hands-on sustainability expertise on the ground on five continents, with income from advisory services increasing by 26% from 2019.

Through training for implementation of RSB standards, analysis of sustainability standards or management practices in the supply chain, development of sustainable sourcing protocols — and more — we have assisted the organisations and companies we work with to navigate the new challenges and opportunities presented by the development of a sustainable circular and bio-based economy.

- **Countries that we worked in:** Argentina, China, Denmark, Japan, Myanmar, the Netherlands, and the US.
- **Type of services we offered:** Certification preparation and training, sustainability protocols, GHG emission calculation, gap analysis, and supply chain mapping

From these projects, four resulted in new RSB certifications or new applications in 2020, and six in improvements to sustainability strategy, policies and/or practices.



RSB Certification

Key Indicators

Year on year changes

Indicators	2019	2020
<i>Percentage of operators processing or trading waste and residue materials</i>	56%	46%
<i>Total amount of RSB-certified products (fuel and advanced products) sold by the certified operators (metric tons)</i>	432,620	274,303
<i>Amount of alternative fuel produced by certified operators (metric tons)</i>	322,375	218,971
<i>Savings on CO2 emissions from fuel (metric tons)</i>	582,202	375,016
<i>Workers protected</i>	4841	7052
<i>Certified cultivated area (hectares)</i>	16,841	18,898

Cumulative Totals:

Number of certificates since 2012	48
Number of countries since 2012	42
Number of feedstocks since 2012	25

Diversity

RSB is a feedstock-agnostic standard which can certify complete supply chains, as well as novel biomass and bio-based or advanced material technologies, including fossil-based waste and end-of-life materials. As such, RSB's system can include oil and sugar-based biofuels, cellulosic ethanol and chemicals, renewable diesel and alternative fuels for aviation, bio-based and advanced plastics, lubricants, and other chemicals. In 2020, 18 different types of feedstock were covered by current certificates — an increase from the 15 covered in 2019.

The total number of feedstocks that have been certified by RSB since 2012 is 25. This diversity highlights RSB's applicability for a wide range of feedstocks and means that operators with a variety of feedstocks, processes, and products can demonstrate their sustainability within a single certification system.

Feedstocks that have been certified by RSB since 2012 include:

Crop / plantations-based feedstock	Wastes & residues feedstocks	Intermediary products used as raw materials in RSB certified supply chains
Camelina	CO flue gases	Renewable naphtha
Carinata	Crude glycerin	Bio-attributed Ethylene
Coconut	Starch from industrial wastewater	Bio-attributed Benzene
Corn	Tall oil	Bio-attributed Styrene
Hybrid poplar	Tallow and other animal fat residues	Bio-attributed polymers
Jatropha curcas	Used cooking oil (UCO)	Polymers with recycled content
Macaúba (<i>Acrocomia aculeata</i>)	Grease trap oil	
Sugar cane	Molasses (C-grade)	
Solaris (tobacco)	Waste plastics	
	Gliricidia tree sticks	

Certification Types

In 2020, 33% of all of RSB's certifications were to the EU RED Standard (RED I), while 67% of certifications were to the Global Standard.

RSB's EU RED certification consists of a set of RSB standards documents recognised by the European Commission for certifying biomass and biofuels as compliant with the requirements of the EU RED (European Renewable Energy Directive on the promotion of the use of energy from renewable sources).

The RSB Global Standard includes fuels for the non-EU market, as well as non-energy products (“Advanced Products”).

Waste and Residues

Due to the important role of wastes and residues in the circular economy, RSB began to monitor the specific volume of these feedstocks amongst our operators in 2018. In 2020, 46% of certified operators were direct processing or trading end-of-life products and/or production residues. When the advanced products that use intermediary chemicals or polymers originally produced from wastes or residues are also considered, this percentage increases to 71% — a continued growth that highlights both the applicability of the RSB system to this type of feedstock and the importance of waste and residue materials in achieving sustainable growth in a multitude of markets.

By producing fuels or raw materials for advanced products from wastes and residues, certified operators are able to significantly reduce pressure on agricultural land and natural resources. The 221,970 metric tons of RSB-certified products generated from wastes in 2020 would have required the equivalent of 190,696 hectares of agricultural land if the same volume been produced from a dedicated oil crop (e.g., biodiesel from rapeseed plantations).

RSB has defined a credible approach for using waste and residue material for fuels and products, and is supporting participating operators in entering this developing market with clear sustainability and traceability objectives.

Diversity of Product Types

The diverse feedstocks in the RSB certification system in 2020 were used to produce a variety of products to be used across industry sectors — from aviation to road transport, chemicals, and packaging. Some products (the chemicals listed below) are sold as raw materials into other certified supply chains to be used in intermediary and final products.

- Epichlorohydrin
- Renewable naphtha
- Renewable diesel
- Ethanol
- Biodiesel
- Biogasoline
- Biogas
- Ethylene
- Propylene
- Butadiene
- Benzene

- Toluene
- Polyethylene (HDPE and LDPE)
- PVC (polyvinyl chloride)
- Polypropylene
- Styrene and polystyrene
- Steam/heat (utilities for other industry)
- Sustainable Aviation Fuel (SAF)
- Vinyl flooring
- Packaging using bio-attributed and recycled polymers

Operator Coverage

The RSB M&E System measures certified operators, operational sites included in the scope of certification, and countries of operation. RSB saw an increase in the number of industrial sites and trade offices covered by the certification system from new certifications during 2020 — with much of this attributed to uptake of the RSB Advanced Product Standard by industrial operators.

	Certificates	Industrial Sites & Trade Offices*	Farms	Countries
<i>October 2014</i>	17	23	166	14
<i>December 2016</i>	20	49	472	18
<i>December 2017</i>	23	58	464	19
<i>December 2018</i>	18	44	291	20
<i>December 2019</i>	18	52	101	20
<i>December 2020</i>	24	110	171	36

* excludes “points of origin” for wastes and residues.

Understanding Uptake of the Standard

The increase in the number of sites and countries from 2019 to 2020 was driven by the high number of new Advanced Products certificates issued in 2020 (six) along with the expansion of current certificates covering multiple industrial sites and a number of trading offices and distributors within the certification scopes.

The number of farms increased as a result of the new certificates issued, including biomass producers and an extension of the scope of existing certificates to include additional farms under RSB certification.

The certification termination rate in 2020 was 4.2%, with 2020 being the first year that RSB measured the retention of operators in the certification system.

In 2020, the average longevity of RSB certificates was two years and four months. The oldest certificates (renewed through successful re-certification cycles) were first issued in 2012.

Since 2012, RSB has issued 48 certifications for Operators with sites or trading offices in 42 different countries for 25 different feedstocks.



GHG Emissions

In 2020, RSB-certified operators sold **221,970 metric tons of alternative fuels**.

The volume of RSB-certified fuels sold in 2020 decreased by 31% when compared with 2019. This was driven by internal factors like company prioritisation and external factors such as decreased demand for certain products and the impact of coronavirus lockdowns on operator workflows. This included:

- The termination of the certification of a big fuel producer in 2020 (an internal decision made by the operator).
- The impact of the coronavirus pandemic which resulted in a decreased demand for fuels — leading to reduced production and sales of certified fuels.
- Participating Operators, faced with new working conditions as a result of the pandemic (such as staff working from home), found it more challenging than usual to close non-conformities raised during audits. This resulted in the temporary suspension of the certificate of one of RSB’s largest fuel producers.

All operators comply fully with RSB’s Principle 3 on Greenhouse Gas (GHG) emissions, meaning the produced amount of RSB-certified alternative fuels corresponds to an **emissions reduction of 375,016 metric tons CO₂eq**. This figure represents a year-on-year decrease in the volume of emissions avoided — for the first time since RSB began to collect this data in 2016. The emissions saved are directly proportionate to the volume of fuels produced, which has dropped in 2020 due to the external factor explained above.

The GHG emissions avoided through fuel produced by RSB-certified operators in 2020 are equivalent to the emissions of almost 1480 flights between London and Tokyo.

Avoided GHG emissions in 2020 were equivalent to 1480 flights from London to Tokyo. A reduction on previous years, based on the 31% decrease explained above.



Figure 4: GHG emissions avoided as flights from London to Tokyo

Since 2012, RSB-certified operators have produced GHG emissions savings of 2,573,031 metric tons of CO₂eq — equivalent to a large container ship making 75 trips around the equator².



² Based on a large container ship (average cargo capacity = 68,600 tonnes) with a CO₂ efficiency of 12.5 gCO₂/tonne-km (Source: 2nd IMO GHG study: <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Documents/SecondIMOGHGStudy2009.pdf>)

Environmental and Social Aspects

18,898 hectares of cultivated land is protected by RSB certification — an increase from 2019's 16,841 hectares.³

On this land, responsible and sustainable practices are implemented as per RSB's Principles & Criteria:

- Soil erosion reduction and soil conservation practices
- Improvement of soil quality
- Water management
- Protection of conservation values

RSB Certification ensures that **7052 workers are protected by our requirements** for human and labour rights, including:

- Freedom of association
- No slave labour or forced labour
- No child labour
- No discrimination
- Minimum wage
- Safety and health
- Grievance mechanisms for workers

³ A note on calculations: in previous years the number has indicated the total area of the farmland within the operation (including non-farmed areas). Since 2018, this calculation is based only upon cultivated lands where the RSB Principles have been implemented.

Non-Conformities

A non-conformity can be raised during an RSB assessment when the auditors find that an operator is not conforming with an RSB requirement. Once identified, the operator is given time to correct the issue. Depending on the severity of the non-conformity, the operator will be allowed between three and 12 months in which to reach conformity.

The requirement that all non-conformities must be closed by certified operators in the defined timeframes means that RSB has a direct impact on improving the social and environmental performance of these operators and driving the implementation of good practices at farms and industrial facilities.

An analysis of valid certificates in 2020 found the following regarding non-conformities raised during RSB audits⁴ against the RSB Principles & Criteria:

- 38% of the non-conformities were related to Environmental requirements (GHG reduction, conservation, soil, and water and air).
- 20% of the non-conformities were related to Social requirements (labour and human rights, rural development, food security, and land rights).
- 25% of the non-conformities were related to RSB's requirement for Planning, Monitoring, and Continuous Improvement under Principle 2.
- The remaining non-conformities were related to legal, technical, and other requirements.

This distribution of the types of non-conformities remains much the same as in previous years and indicates the key areas where RSB continues to have a tangible impact in ensuring improvement.

⁴ Number of non-conformities and observations raised during the main and surveillance audits, considering the certificate validity period.

Planning, Monitoring, and Continuous Improvement

RSB is committed to achieving positive impacts across the entire bio-based and circular supply chain. By supporting operators and auditors with tools and guidance to identify risks and non-conformities, RSB is helping to deliver measurable improvements in sustainability.

RSB's Principle 2 on Planning, Monitoring, and Continuous Improvement has been specifically developed to support operators in making ongoing improvements to their operations. Principle 2 requires that: "Sustainable operations are planned, implemented, and continuously improved through an open, transparent, and consultative impact assessment and management process and an economic viability analysis".

RSB observed that 25% of total non-conformities in the RSB system were related to Principle 2.

By supporting operators in continuously measuring and improving their sustainability performance, through our unique sustainability management system that helps operators to achieve and maintain their certifications, RSB is able to ensure a measurably positive impact for our operators — and to reduce risks for brands, investors, and the rest of the value chain.

This management system ensures that operators:

- undertake an impact assessment process regarding their social and environmental impacts and risks, and ensure sustainability through the development of effective and efficient implementation, mitigation, monitoring, and evaluation plans;
- implement good practices for stakeholder engagement and consultation;
- implement and maintain a transparent and easily accessible grievance mechanism for directly affected local communities; and
- make adequate resources available to ensure compliance with the RSB Standard.

Sustainability at Industrial Sites

In addition to Principle 2, RSB's other [sustainability principles](#) are applied at industrial sites. With the growing uptake of waste-based production (where primary production may not require sustainability certification), this is particularly important as RSB ensures that working conditions, health and safety, and air quality — as well as GHG emission reductions — are assured **in the industrial setting**.

Non-conformities at industrial sites in 2020:

- 29% Principle 2 on Planning, Monitoring and Continuous Improvement
- 15% Principle 3 on Greenhouse Gases
- 22% Principle 4 on Human & Labour Rights⁵
- 5% Principle 10 on Air Quality

This indicates that RSB's system was able to contribute to improving the implementation of Human and Labour Rights at industrial site level in 2020.

By supporting industrial sites in resolving issues related to these RSB Principles and encouraging industry to improve sustainability using the RSB framework, a tangible improvement is assured.



⁵ Specifically, the main source of Human & Labour Rights non-conformities are related to training, use of protective equipment and the implementation of health & safety policy.

Evolution of the RSB Standard

RSB is committed to maintaining its position as the most innovative standard for operators looking to demonstrate their commitment to credible sustainability.

Importantly, continuous improvement extends to RSB's own standards, which are evolving to best reflect the needs of operators around the world — in many different contexts and considering new sustainability challenges.

RSB Membership

Work to update the Standard is led by the RSB Secretariat, with the direct involvement of RSB's multi-stakeholder community of members. Ensuring that the voices of civil society and business are given an equal footing is vital for ensuring the credibility and practicality of the RSB Standard. This continuous improvement of the Standard continues to build partnerships, consensus, and understanding to further the impact of this uniquely robust approach.

By the end of 2020, RSB had 100 members.

New members joining RSB in 2020 were:

- Bioledger Ltd.
- Boom Technology, Inc.
- Celtic Renewables Ltd.
- INEOS Europe AG
- Kisii University, Kenya
- Nuseed Ltd.
- SA Canegrowers Association
- Saipol (Groupe Avril)
- Soleá Brasil
- Stahl Holdings b.v.
- Tasma Bioenergy Pte. Ltd.
- Tensei Ltd.
- United Airlines, Inc.
- WESAF Group
- Xpansiv CBL Holding Group (XCHG)

Standard Developments in 2020

In order to support uptake in regulated markets, RSB employs several adaptations that enable operators to use the RSB standard for proving compliance with both

RSB's sustainability requirements and regulatory requirements specific to their region or industry.

In 2020, RSB submitted its updated EU RED Standard for approval against the recast requirements of the European Union's Renewable Energy Directive (RED II).

During the year we also applied for and received formal recognition by ICAO (International Civil Aviation Organisation) of our Standard adaptations for the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) scheme for aviation decarbonisation, and for Japan's Feed-in-Tariff (FIT) requirements for the incentivised production of renewable energy from biomass.

RSB also updated its Procedure on Communications and Claims to launch updated logos and labels for certified operators and members, reflecting imminent requirements for clear on-product labelling.

In 2020, the RSB Board adopted new versions of the RSB Procedure for Risk Management and RSB Risk Assessment Tool for a one-year pilot. This process aimed to ensure that the procedure and tool are fit for purpose in achieving their aims of identifying and addressing the risks of participating operators when implementing RSB requirements; supporting Participating Operators, Certification Bodies and the RSB Secretariat in focusing on those areas of implementation which add risk; increasing auditing efficiency and simplifying the auditing process; allowing for flexibility in auditing requirements based on risk levels; and enhancing the stability and integrity of the RSB certification system.

RSB also initiated a General Standards Working Group in 2020. This group aims to provide ongoing feedback and support to the RSB Standards team, with a focus on inputting to the annual standards work plan; inputting to core standards revisions and new developments; and examining feedback from RSB system users as well as results from certification oversight. The General Standards Working Group has also been leading work among RSB members on a Standard Amendment for Woody Biomass to reflect both the growing demand for woody and wood-derived biomass for electricity, heat, and fuel production and increasing concerns around its climate and ecosystem impact. Finalisation of RSB's approach is expected in 2021.



Continuous Improvements to the RSB System

Ensuring the clarity and usability of the RSB Standard for all operators in all circumstances is a key goal of RSB and is essential to supporting its ongoing impact.

During 2020, RSB provided general improvements to the RSB system, as well as specific guidance that reflected the challenges presented by the global coronavirus pandemic.

These included:

- Guidance on remote audits and updates to audit schedules — to account for travel and other restrictions put in place globally to contain the coronavirus pandemic.
- The launch of new on-product logos and labels for use on consumer-facing products, reflecting the growing uptake of the RSB Standard for materials.
- New handbooks on the Advanced Products Standard to provide a simple overview of the requirements of the system for advanced product producers and supply chain companies.
- Improvements to the RSB website, providing a simplified step-by-step guide for all operators to getting certified.

Public Recognition

Four new public recommendations/endorsements for RSB were registered in 2020.

Endorsement and Recommendations:

- **ATAG's Waypoint 2050 report** on balancing aviation growth with tackling the climate emergency, in which they identify joining RSB as the easiest action that can be taken by the aviation industry today to help accelerate an energy transition.
- **SURVIVAL, Canopy's Action Plan for Saving Forests and Climate** recommends RSB Certification for agricultural fibre products in order to ensure sustainable removals, maintenance of soil carbon, and overall social and environmental sustainability.
- **The Bioplastics Feedstock Alliance (BFA)** recommends the RSB methodology for determining wastes and residues, as described in the Advanced Fuels and Advanced Products Standards.
- In their new report, "**Can I recycle this? A global mapping and assessment of standards, labels and claims on plastics packaging**", **UNEP and Consumers International** recognise RSB as the only label for bioplastics packaging that is reliable and addresses feedstock sustainability.

Conclusions

Through the continuous monitoring and evaluation of our work, RSB is able to identify areas for improvement and key trends that support us as we shape our best-in-class Standard and many other activities that are helping to drive a sustainable economy.

In spite of a challenging year as a result of the coronavirus pandemic, RSB continued to grow and evolve. By quickly moving to support operators impacted by the pandemic with guidance for evaluating case-by-case of remote audit requests, certification uptake registered strong growth.

By providing a practical and credible approach to sustainability, the RSB system supports operators in using the certification process as a mechanism for resolving any social and environmental challenges in their operations — as evidenced through the resolution of non-conformities.

A range of solutions beyond certification ensure that RSB is creating real impact around the world by supporting the continuous improvement of social and environmental practices. These are underpinned by a strong portfolio of project and advisory services work. With a clear footprint of services delivered on every continent, RSB is able to build best practice on the ground through certification, policy support, advice, sustainable supply chain development, market engagement and communications, partnerships, and much more.

The number of feedstocks in the RSB system continues to grow, reflecting the breadth and applicability of the RSB Standard. This growth is particularly strong for wastes and residues, as more and more companies look to utilise these feedstocks and contribute to the circular economy. The impact is clear when looking at the amount of agricultural land that would have been required to produce the volume of product that RSB has certified from waste and residue streams in 2020: 190,696 hectares.

Uptake of the RSB Standard remains strong and retention levels for existing certificates is high. RSB registered growth across all sites in 2020: farms, industrial sites and offices, and the countries represented in the system. Reflecting the challenges to the industry in 2020 as a result of the pandemic, RSB saw a drop in the

volume of fuels sold and the resultant emissions avoided to pre-2017 levels. Looking forward, RSB's position in the fuels market looks strong, with recognition by ICAO for CORSIA certification in December 2020 and RSB's submission to the European Union for the recast requirements of the Renewable Energy Directive (RED) likely to drive demand.

Beyond fuels, biomass for heat and power represents an exciting new market for RSB. In April 2020, Japan's Ministry for Economy, Trade and Industry (METI) recognised RSB's adaptation of its standard to enable biomass producers and traders to demonstrate compliance with the sustainability and traceability requirements of RSB and unlock access to Japan's Feed in Tariff (FIT) system. This led to strong interest in RSB in the Japanese market, with RSB's team engaged with many companies in Japan and beyond, leading to six certification applications in 2020 and the roll out of two advisory services contracts.

The demand for RSB certification for materials continued to grow rapidly in 2020 and our team engaged thoroughly with the chemicals and polymers sector in particular to support these companies in understanding the power of the RSB approach and its applicability for the sector, as well as prepare for certification. This resulted in 11 certification applications from the materials sector and five new certificates issued (including two scope extensions).

In order to ensure the system remains a practical tool for its users, RSB worked hard in 2020 to improve its usability and support users in better understanding the system. This included updates to the RSB website, new booklets and guidance for users, webinars for system users, and more — steps that were rewarded with positive feedback from users and a growing list of RSB operators. This is a process that does not stop: RSB is committed to the continuous improvement of its systems to ensure its ongoing applicability, credibility, and practicality for those committing to sustainability.

CONTACT DETAILS

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