LIMBUA Group Limited:
A Kenyan processing and marketing enterprise in the fruit and nut sector
About ADA and the SSNUP programme

Appui au développement autonome (ADA) is involved in inclusive finance in Africa, Latin America and Asia and focuses on three main topics: youth entrepreneurship, agricultural and forestry value chains and access to basic services. These activities address three transversal themes: climate change, gender and the use of digital technologies. ADA is the coordinator of the Smallholder Safety Net Upscaling Programme (SSNUP), a 10-year programme which aims to strengthen the safety nets of 10 million smallholder households through technical assistance and investment in agricultural value chains, resulting in an improved well-being of 50 million low-income people. Funded by the Swiss Agency for Development and Cooperation, the Liechtenstein Development Service (LED) and the Luxembourg Directorate for Development Cooperation and Humanitarian Affairs, SSNUP works as a facility to co-finance the technical assistance projects of impact investors active in the field. ADA ensures the coordination as well as the knowledge management component of the whole programme.

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The International Institute for Sustainable Development (IISD) is an award-winning, independent think tank working to accelerate solutions for a stable climate, sustainable resource management, and fair economies. Our work inspires better decisions and sparks meaningful action to help people and the planet thrive. We shine a light on what can be achieved when governments, businesses, non-profits, and communities come together. IISD’s staff of more than 200 people come from across the globe and from many disciplines. With offices in Winnipeg, Geneva, Ottawa, and Toronto, our work affects lives in more than 100 countries.

IISD is a registered charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Province of Manitoba and project funding from governments inside and outside Canada, United Nations agencies, foundations, the private sector, and individuals.

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June 2024
Written by Hafiz Mirza and Duncan Pringle
Photo: Small scale farmer in Embu county, Kenya harvesting macadamia on her farm.
Acknowledgements

This case study would not have been possible without the co-operation and support of the board, executive, and senior management of LIMBUA, as well as its staff.

Special thanks to Peter Wangara, Abigael Birech, Boniface Nzimbi Mutua, Michael Langat, Elizabeth Waithira, Mary Muli, and Peterlis Musili, who assisted in online interviews piloting the Committee for Food Security Principles for RAI Tool for Agribusiness, based on their knowledge of operations. Full access to management and staff was invaluable for the purpose of developing a case study to illustrate the scoring dimensions of the tool and to identify the type, scale, and nuance of impacts an agriculture value chain actor has on stakeholders.

We also thank the company for the time and resources dedicated to supporting the work of the field team. We especially thank Abigael Birech and Boniface Nzimbi Mutua, farmers, non-governmental organization managers, officials of Equity Bank, traders, street vendors, and the organic input suppliers for sharing their insights and experiences.

Hafiz Mirza and Duncan Pringle were responsible for the case study, including the research methodology, analysis, and finalisation. Duncan Pringle and Nyaguthii Maina conducted the in-country fieldwork. Nyaguthii also undertook some background research and provided inputs for the case study.
Project Description

The Smallholder Safety Net Upscaling Programme (SSNUP) aims to strengthen smallholder households’ safety nets sustainably. This will be achieved by fostering the adoption of more responsible and sustainable practices among agricultural value chain actors (AVCAs)—i.e., agribusinesses—by co-financing technical assistance projects and supporting the conducting of case studies to analyse AVCA’s performance and compliance with the Committee on World Food Security’s Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI).

AVCAs are critical players in achieving the goals of CFS-RAI and include producers (of crops), processors, and traders. For the SSNUP case studies, they also include service providers, for instance, organisations offering technical services to growers or support to vulnerable groups, such as women and youth. AVCAs’ investment in the agricultural and food sectors can play a transformative role, enabling the adoption and dissemination of new technologies, building markets and supply chain linkages, and contributing to local economies and communities. Investing responsibly can be enhanced by AVCAs aligning policies, planned operations, and practices with the CFS-RAI.

Translating the CFS-RAI Principles into practical action by agribusinesses requires guidance and tools for stakeholders—such as financial investors and the AVCAs in which they invest—who wish to incorporate them into policies, regulations, and business practices. Case studies are one such source of guidance. They provide examples of AVCAs that have sought to put responsible investment principles and social business conduct into effect through concrete practices and performance and outcome indicators. Such agribusinesses’ journeys in doing this (including the problems they face, the solutions they find, and the perspective of farmers, communities and other stakeholders on the results) provide guidance, insight, and lessons to other AVCAs taking the same path to responsible investment.

This case study of LIMBUA, a Kenyan fruit and nut processing and marketing enterprise, is one in a series of RAI case studies conducted by IISD for SSNUP, in cooperation with ADA. The cases chosen are drawn from several segments of the agriculture and food sectors and aim to analyse AVCAs’ performance and compliance with the CFS-RAI.
Executive Summary

Agricultural value chain actors (AVCAs)—agribusinesses—are critical players in achieving the goals of the Committee on World Food Security’s Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI), and include producers (of crops), processors, and traders. AVCAs’ investment in the agricultural and food sectors can play a transformative role, including enabling the adoption and dissemination of new technologies, building markets and supply chain linkages, and contributing to local economies and communities. Investing responsibly can be enhanced by AVCAs aligning policies, planned operations, and practices with the CFS-RAI (or RAI for short).

LIMBUA was selected for this case study jointly with Incofin, an impact investor participating in the SSNUP programme. It is representative of processing and marketing small and medium-sized enterprises (SMEs) located in Kenya and operates in the fruit and nut sector (macadamia, avocado, and mango). It is also expanding into other smallholder crops (coffee and cassava), sourcing from and supporting organic smallholder farmers in the Embu and Kiriyanga counties in central Kenya.

Such SMEs typically face several challenges and constraints, the most notable being competition for farmer crops where independent macadamia brokers trade as a means of laundering cash through the export of a commodity. These actors attempt to buy farmer produce using unethical means without providing support to farmers. For example, taking delivery and not paying, or telling farmers LIMBUA is no longer buying. Secondly, at startup, there may be initial difficulty in accessing local finance, especially working capital to pay for purchasing farmer produce. Thirdly, climate change is impacting the normal production cycle, especially for macadamia, with fruiting occurring within a 3-month window after raw manure is applied. Organic production protocols dictate fruit produced during this period cannot be sold if it is to retain its organic status.

Some 70% of the product processed is exported to Europe, 20% to the United States, and 10% to other countries through a subsidiary registered in Germany (LIMBUA GMBH). The company has three shareholders, two of which are executive directors (one German and one Kenyan), and the third a German-registered corporation, which was key to accessing startup funding, which was not easily available locally at the time of establishment.

LIMBUA employs 146 permanent staff, of whom 64 (39%) are female, 76 (52%) youth, and 131 (80%) from the local area. It also employs 734 temporary (seasonal) workers, of whom 521 (71%) are female. At senior management level, two of the six managers are female. The number of farmers supplying to LIMBUA has grown rapidly and stood at 9,647 in 2022. Some 52% of farmers are female, and 5% are youth. The latter share illustrates a problem: the farmer cohort is generally older, and there are constraints to young people entering the sector.

All farmers are certified both organic and FairTrade, producing on 5,314 ha in total, i.e., each farmer has, on average, 0.60 ha of tree crops. Farmer production is some 4,000 tons, and farmers receive a 20% price premium (10% for organic plus 10% for FairTrade), with
LIMBUA selling some 900 tons of processed products. From a food safety perspective, LIMBUA is certified and complies with the British Retail Consortium food safety standard. LIMBUA is certified under Fair for Life, and farmers also apply the principles when employing staff.

The company provides an intensive advisory support function on correct organic production techniques to farmers as part of certification compliance requirements and environmental conservation practices. Advice is also provided on good agricultural practice for food crops produced for home consumption and the local market. Advisory services, purchases, and sales are digitally supported by the proprietary BioFarm system that uses farmer fingerprint biometrics to capture, update, and secure personal and farm details. Production and sales data is updated automatically as deliveries and payments occur. This system also underpins LIMBUA’s traceability system from farm to customer.

LIMBUA’s activity in RAI was assessed through both online interviews (primarily with the company) and in-country fieldwork (with the company and many stakeholder groups such as employees, farmers, women, and youth) using dedicated instruments. Answers from the company and stakeholders were analysed to assess the AVCA’s RAI compliance across seven dimensions. The dimensions are listed in the table below, with the average level of RAI compliance indicated in the right column.

Table ES1. Summary findings

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Level of compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy and accountability on responsible agriculture</td>
<td>The level of RAI compliance is high in this dimension. There is a very clear strategy and implementation system for responsible business conduct contributing to food security and nutrition. The company defines targets and key performance indicators and measures performance against these targets.</td>
</tr>
<tr>
<td>Inclusive and transparent structure</td>
<td>The level of RAI compliance is high in this dimension. For instance, it has a clear system for consultation with stakeholders and grievance address.</td>
</tr>
<tr>
<td>Safe and responsible agriculture and food systems and operations</td>
<td>The level of RAI compliance is high in this dimension. For instance, LIMBUA offers advice to farmers on intercropping (using its BioFarm computerised system), and there is significant direct contribution to communities through employment and income generation.</td>
</tr>
</tbody>
</table>

1 These dimensions—reflected in the principal research instrument used for the AVCA interviews—were chosen to (broadly) correlate with primary business functions (strategy, finance, human resources etc.). In other words, the questions were directly intelligible for businesses. At the same time, the actual questions asked (e.g., practices referred to) were carefully mapped to specific CFS-RAI principles. For example, the strategy and accountability dimension mainly relates to issues covered in CFS-RAI Principle 10: “assess and address impacts and promote accountability.” Similarly, the dimension on responsible processes, products, and services encompasses issues under CFS-RAI Principle 1 (“contribute to food security and nutrition”) and Principle 8 (“promote safe and healthy agriculture and food systems). Of course, there is no one-to-one correspondence between dimensions and CFS-RAI principles.
LIMBUA Group Limited: A Kenyan processing and marketing enterprise in the fruit and nut sector

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Level of compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmentally sustainable processes and products</td>
<td>The level of RAI compliance is high in this dimension. Through the variety of certification standards LIMBUA complies with (organic, FairTrade, DEMETER–biodynamic certification etc.), the issues of environmentally sustainable processes are assessed, audited, and certified to comply with the relevant certification authority standards and protocols.</td>
</tr>
<tr>
<td>Responsible treatment of stakeholders</td>
<td>The organisation scores a little less highly in this dimension, mostly because it has a lower compliance score in the subcategory on respecting cultural heritage due to a focus on certification requirements. In other subcategories, its compliance is much higher, e.g., in respecting tenure rights, ensuring responsible and fair contracting with local farmers and supporting them in obtaining credit.</td>
</tr>
<tr>
<td>Responsible human resource development</td>
<td>The level of RAI compliance is high in this dimension. There are clear policies on conditions of employment (e.g., on wage levels and social benefits), there is an active system of employee training, and there is an affirmative gender employment policy with a target greater than 65% (which is currently at 71%).</td>
</tr>
<tr>
<td>Financial transparency and benefit sharing</td>
<td>The level of RAI compliance is high in this dimension. There is full financial disclosure when required and, in addition to re-investment in expanding processing capacity using profits generated, the company supports farmers in undertaking financial assessment of income. The operational model places emphasis on recruiting women farmers and investing in providing them the training and support for them to be successful.</td>
</tr>
</tbody>
</table>

Source: Authors.

LIMBUA can be held up as an agribusiness that has invested responsibly in its agriculture value chain business and whose operations, processes, and relations with stakeholders are relatively honed to ensure responsible and sustainable business conduct at all levels. The company’s high level of compliance with responsible business conduct is not an accident, which offers a learning opportunity for other companies. LIMBUA’s success in RAI alignment very much depended on its founders’ approach at the outset. For instance, the founding shareholders and partners made a conscious choice to set very clear goals and expectations on what they aimed to achieve. In particular, they sought to depart from what they regarded as outdated business models based on an extractive philosophy rather than a sustainable attitude. This required the establishment of a creatively developed and innovative business model, including identifying and working with institutions, consultants, organisations, and other actors who could support their aims in the short and long terms.

Of course, RAI compliance at LIMBUA is not perfect, and the case study makes several recommendations to LIMBUA, its investors, the government and other stakeholders.
For instance, there are recommendations for further boosting employees’ understanding and approach to organic farming, support to farmers regarding seasonal cash flow, and a suggestion to investors to consider further capital investment for continued expansion and diversification by the company, especially to sustain rapid growth in the number of farmers (including women and young farmers) achieving technical training and certification.
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Abbreviations and Acronyms

AVCA: agricultural value chain actor
BRC: British Retail Consortium
CFS-RAI: Committee for Food Security Principles for Responsible Investment in Agriculture and Food Systems
EU: European Union
NGO: non-governmental organization
RAI: Responsible Agricultural Investment
SACCOS: Savings and credit cooperative. Community membership-based financial institutions formed and owned by their members in promotion of their economic interests by taking in deposits and lending money to members.
SME: small and medium-sized enterprise
SSNUP: The Smallholder Safety Net Upscaling Programme
USD: United States dollar
Introduction to the RAI Case Studies and Methodology

The Smallholder Safety Net Upscaling Programme (SSNUP) includes many impact investors, such as AgDevCo, Alterfin, Bamboo, Grameen Crédit Agricole Foundation, Incofin, Oikocredit, ReponsAbility, SIDI, and Symbiotics. The SSNUP aims to strengthen smallholder householders’ safety nets sustainably. This will be achieved by fostering the adoption of more responsible and sustainable practices among agricultural value chain actors (AVCAs) by co-financing technical assistance projects and supporting the conducting of the RAI case studies to analyse their performance and compliance with the Committee on World Food Security’s Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI).

AVCAs are critical players in achieving the goals of CFS-RAI, and include producers (of crops), processors, and traders. For the SSNUP case studies, they also include service providers, for instance, offering technical services to growers or support to vulnerable groups, such as women and youth. AVCAs’ investment in the agricultural and food sectors can play a transformative role, including enabling the adoption and dissemination of new technologies, building markets and supply chain linkages, and potentially contributing to local economies and communities (e.g., through employment and income generation). Investing responsibly can be enhanced by AVCAs aligning policies, planned operations, and practices with the CFS-RAI.

This case study is part of a series of cases on AVCAs, drawn from various segments of the agriculture and food sectors, aimed at analysing their performance and compliance with the CFS-RAI. Translating the CFS-RAI Principles into action requires practical guides and tools for stakeholders—such as financial investors and AVCAs in which they invest—who wish to incorporate them into policies, regulations, and business practices. One aim of the case studies is to help provide or improve these tools, such as the RAI Tool (Box 1).

The methodology for the case study process comprised four phases:

**Phase I. Pre-fieldwork information collection**

This involved online meetings with relevant members of the management team to collect

- background information on the AVCA. This comprised general characteristics, such as location of operations, value chain segment/activities, scale of operations, ownership, operational structure etc.
- information on the AVCAs key management and operational priorities and practices, especially those related to CFS-RAI. A set of outcome indicators were also collected.

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2 RAI refers to the *Principles for Responsible Investment in Agriculture and Food Systems* (CFS-RAI), which were endorsed by the Committee on World Food Security (CFS) in 2014. It is a comprehensive framework on what constitutes a “responsible investment” in agribusiness.
Guided self-assessment, utilising the RAI Tool (Box 1), was applied to collect this information during a series of interviews.

**Phase II. Fieldwork**

The research team visited the AVCA, including selected operations and the local community, for 5–6 days. This involved further clarifying key relevant management and operational practices and priorities, as well as assessing the AVCA’s performance vis-à-vis stated practices/measures (primarily those related to CFS-RAI and sustainability). Interviews with other stakeholders, e.g., farmers, local business owners, financiers, informal traders etc. were also conducted to cross-check information gained from the AVCA and assess the wider impact of the AVCA’s activity using dedicated semi-structured questionnaires developed to collect information from the various stakeholders.

**Phase III. Data analysis**

The research team analysed the data and information gained from the interviews and fieldwork, compiled the principal findings, drafted the report, and discussed the findings with the AVCA and the investor.

**Phase IV**

An initial case study was drafted to test with the company. After discussion with the company, including clarifications and other feedback, a more “advanced” version (this one) was drafted for publication.

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**Box 1. The RAI Tool**

Gathering information for the case studies was conducted using the RAI Tool for Agribusiness. As specified by the CFS, the RAI principles remain generic and high level, making it difficult for AVCAs to translate them into their daily management and operations.

The objective of the RAI Tool is to provide a set of specific and measurable indicators that assess whether an agribusiness’s management of its operations, practices, and procedures are compliant or consistent with the CFS-RAI Principles. The Tool integrates RAI principles into the management and operational structure of AVCAs (decision making, actions, procedures, and processes). This makes RAI principles easier for AVCAs to understand and apply and may ultimately ease the mainstreaming of RAI key performance indicators into business management and performance systems.

The tool is composed of four main parts:

- **ID card and scoping:** These two parts are completed with information on the agribusiness’ profile and characteristics. This facilitates a filtering process so that businesses are only required to respond to relevant questions on their practices and outcome measures.

- **Practices:** This part comprises a detailed set of indicators, overall grouped by seven “dimensions” that broadly reflect business functions. Answers may be Yes/
No/Partially/Not Applicable, which need to be explained or validated. To make
the tool (and data collected) helpful for analysis, decision making, and progress,
detailed information on the concrete practices implemented by the AVCA is
requested.

• Outcomes: This part comprises a limited set of outputs and outcomes indicators
  on topics such as governance, employment, suppliers, and a company’s
  environmental and climate-impact footprint.

In addition, the tool also provides dashboards showing how agribusinesses score in
terms of their practices and outcomes in graphical form.

The aim of this approach is to create a reference tool that can be used by AVCAs,
financial investors, and others to assess agribusinesses’ compliance with RAI; and
thereby foster more responsible and sustainable practices in the agricultural and
food sectors. The latest version of the tool is available online (https://www.iisd.org/

Since 2021, the tool has been developed by the International Institute for Sustainable
Development (IISD) in collaboration with the Comité d’échange, de réflexion et
d’information sur les systèmes d’ épargne- crédit (Cerise+SPTF). IISD is an independent
think tank working to accelerate solutions for a stable climate, sustainable resource
management, and fair economies. Cerise+SPTF is a pioneer in social performance
management, developing many well-known social audit tools to help financial service
providers, social businesses, and impact investors achieve their social mission.
IISD is leading the case study research, analysis, and drafting of outputs. The non-
governmental organisation Appui au Développement Autonome (ADA) coordinates
SSNUP, including technical assistance projects and knowledge management activities,
such as these case studies.

Source: IISD.
1.0 Background and Context

LIMBUA was selected jointly with Incofin, an impact investor participating in the SSNUP programme because it has a very interesting business model. It is representative of a processing and marketing small and medium-sized enterprise (SME) located in Kenya and operates in the fruit and nut sector (macadamia, avocado, and mango). It is also expanding into other smallholder crops (coffee and cassava), sourcing from and supporting organic smallholder farmers in the Embu and Kirinyaga counties in central Kenya. LIMBUA’s business model locates processing facilities as near to farmers as possible, to offer market access to as many crops farmers produce with integration of the processing and marketing functions in the international value chain.

Such SMEs typically face several challenges and constraints, the most notable being competition for farmer crops where independent macadamia brokers trade as a means of laundering cash through the export of a commodity. These actors attempt to buy farmer produce using unethical means, without providing support to farmers. For example, taking delivery and not paying, or telling farmers LIMBUA is no longer buying. Secondly, at startup there may be initial difficulty in accessing local finance, especially working capital to pay for purchasing farmer produce. Thirdly, climate change is impacting the normal production cycle, especially for macadamia, with fruiting occurring within a 3-month window after manure is applied. Organic production protocols dictate fruit produced during this period cannot be sold if it is to retain its organic status.

Challenges in the Kenyan Macadamia, Avocado, and Mango Industries

Smallholder farmers producing macadamia nuts, avocados, and mangos face a range of challenges, as illustrated by industry below. Many of these challenges are addressed by the LIMBUA business model.

In recognition of the challenges, the World Bank recently announced a USD 250 million International Development Aid credit for a new National Agricultural Value Chain Development Project aimed at reaching 500,000 smallholder farmers across 26 counties (including Kirinyaga and Embu, both within LIMBUA’s supply area) and nine value chains (including avocado, mango, coffee, and apiculture activities undertaken by LIMBUA farmers) (World Bank, 2022). The project aims to unlock private sector investment through support for input supply, access to finance, farm-gate infrastructure development and maintenance, and support farmer-led irrigation development. All these topics were identified as constraints by the LIMBUA farmers interviewed. Additionally, the project aims to support digital extension services and consumer retail, which are both services that LIMBUA offers its suppliers.

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3 Farmers in the counties where LIMBUA operates produce a wide range of food and cash crops, including, but not limited to macadamia, mango, avocado, coffee, banana, plantain, apiculture, castor oil, cassava, maize, vegetables, etc.
Macadamia Sector

While macadamia nuts have been grown for decades in Kenya, commercial production has reportedly not kept up with demand (United Nations Industrial Development Organization, n.d.-a). Challenges reported include the need to access grafted trees (grafted trees start yielding within 2 years compared with non-grafted, which have a 7-year wait); a lack of cultivars adapted to different agro-ecological zones; a lack of drought-resistant, high-yielding, and early-maturing varieties; the high cost and availability of good-quality planting materials; and pests and diseases that affect nuts and reduce post-harvest quality. LIMBUA farmers also mentioned that climate change, which alters rainfall patterns, impacts the yield of trees. UNIDO’s Markup intervention programmes also illustrate other challenges and issues: supporting marketing and production systems, strengthening farmer capacity to meet European Union (EU) standards, and lobbying at the policy level for reforms to foster an enabling environment for competitive production and marketing.

Avocado Sector

Kenya is a large producer of avocados, and its production grew from about 200,000 tonnes in 2017 (Oxfarm Organic Ltd., n.d.) to 322,600 tonnes in 2020 (Statista, 2024). Local varieties dominate production, with export-suitable varieties of Fuerte and Hass accounting for 20% and 10%, respectively. Kenya’s fresh export market cold chain control from farm to consumer is slowly improving: better road access and the introduction of reefer containers have helped, but most packers’ operations are still located in Nairobi (Oxfam, 2021), which is a significant distance from the source. EU export-compliance protocols are challenging, but a hurdle that fresh avocado exports must meet if they wish to achieve the 35% price premiums on offer compared with local market prices.

Farmer challenges reported include poor storage facilities, inadequate infrastructure, and limited access to markets, resulting in crop losses of up to 50% (Kirui, 2022), with farmers being placed at the mercy of brokers operating along the value chains. This results in poor farmer prices and consequent losses. Clearly, linking farmers directly to markets shortens the value chain and can increase farmer incomes.

Mango Sector

The main challenges in the mango value chain include pests (fruit fly), farmers’ poor negotiating power in relation to those of brokers (who pay unfair prices), high investment costs, and poor quality of roads and transport (United Nations Industrial Development Organization, n.d.-b).

The choice of market channel by farmers, and the volume of produce sent through the channel selected, directly affects revenue. Factors affecting these choices include the distance to tarmac road, the number of mango trees on the farm, membership in producer marketing groups, training in mango agronomy, gender of farmer, and access to extension services. The direct market channel earns farmers the largest margins, followed by the export channel. However, most farmers sell to brokers, followed by the export channel. Farmers lack the financial capacity, transport resources, and information on market locations and requirements to be able to readily choose the appropriate market channel (Muthini et al., 2017).
2.0 Profile of the Company

General Information

LIMBUA was originally registered in 2010 as Macadamia Farms Limited. In 2016, the name was changed to LIMBUA Group Ltd. The strategy of the company is to provide a market for organically produced produce, with processing plants located as close to the suppliers as possible. Given that the entirety of a farmer’s holding is certified organic, and that a range of crops are produced, LIMBUA aims to help farmers access markets for as many of their crops as possible. The company does this either through direct purchase or introduction of the farmer to local perishable food crop traders. Over time, the company has diversified its product range from the initial focus on macadamia. Mangoes and avocados have been added to its portfolio, which are processed into dried mango and avocado oil. Further development is taking place into organic cassava flour and organic coffee. This enables farmers to diversify their income and products.

Some 70% of product processed is exported to Europe, 20% to the United States, and 10% to other countries, through a subsidiary registered in Germany (LIMBUA GMBH). The company has three shareholders, two of which are executive directors (one German and one Kenyan), and the third a German-registered corporation, which was key to accessing startup funding, not easily available locally at the time of establishment.

LIMBUA employs 146 permanent staff, of whom 64 (39%) are female, 76 (52%) youth, and 131 (80%) from the local area. It also employs 734 temporary (seasonal) workers, of whom 521 (71%) are female. At senior management level, two of the six managers are female.

The number of farmers supplying to LIMBUA has grown rapidly (see Table 1) and stood at 9,647 in 2022. Some 52% are female and 5% youth. The latter share illustrates a problem: the farmer cohort is generally older, and there are constraints to young people entering the sector. All farmers are certified both organic and FairTrade, producing on 5,314 ha in total, i.e., each farmer has, on average, 0.60 ha of tree crops. Farmer production is some 4,000 tons, and farmers receive a 20% price premium (10% for organic plus 10% for FairTrade), with LIMBUA selling some 900 tons of processed products.

### Table 1. Growth in LIMBUA suppliers 2016 to 2022

<table>
<thead>
<tr>
<th>Item</th>
<th>Units</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer numbers</td>
<td>#</td>
<td>2,340</td>
<td>3,562</td>
<td>3,890</td>
<td>4,690</td>
<td>6,540</td>
<td>8,011</td>
<td>9,647</td>
</tr>
<tr>
<td>Total purchases from farmers</td>
<td>tonnes</td>
<td>400</td>
<td>540</td>
<td>830</td>
<td>900</td>
<td>2,300</td>
<td>2,600</td>
<td>4,000</td>
</tr>
</tbody>
</table>

Source: Authors.

The company provides an intensive advisory support function on correct organic production techniques, as part of certification compliance requirements and environmental conservation practices. Advice is also provided on good agricultural practice for food crops produced for...
home consumption and the local market. Advisory services, purchases, and sales are digitally supported by the in-house developed BioFarm system that use farmer fingerprint biometrics to capture and update information on farmer personnel, farm details, production, and sales. This system also underpins LIMBUA's traceability system from farm to customer.

The LIMBUA Group Foundation focusses on student exchange study tours for German university students to develop a better understanding of Kenyan smallholder production systems and to provide corporate social investment support for a range of identified development initiatives.

**Operational Structure**

The LIMBUA Group Board consists of three directors representing each of the shareholders. International markets for organic macadamia, dried mango, and avocado oil produced by LIMBUA are serviced by a German-registered subsidiary, LIMBUA GMBH, with a staff of 16.

The company has two managing directors: Peter Wangara, responsible for Kenyan operations, and Matti Spiecker for marketing. Processing operations started with a small pilot plant at Githure (now used as a collection centre) but have now expanded to additional sites at Githungururu (macadamia), Kiyanyaga (macadamia), and Ena (avocado oil), with a nursery at Khatangari. Processing of dried mango has also commenced at Ena (2022), together with trials for the processing of cassava flour.

There are six divisions reporting to the managing director, Operations, namely Field Services, Operations, Production, Finance, Human Resources, and Food Safety.

**Certification**

From a food safety perspective, LIMBUA is certified and complies with the British Retail Consortium (BRC) food safety standard. LIMBUA is certified under Fair for Life, and farmers also apply the principles when employing staff.

Farmers are organically certified through EcoCert and FairTrade through N-Cert. Costs for certification are high at KES 300,000 (~USD 2,400) for a single certification covering all LIMBUA farmers. New EU certification requirements being introduced limit the numbers of growers per farmers producer organisation to 2,000 members. This requires LIMBUA to embark on a process of facilitating the development of up to 11 farmer organisations through which certification and procurement will occur. This will increase the costs carried by LIMBUA.

**Challenges**

As shared by management, the main challenges confronting the industry and LIMBUA, include

- the activities of independent macadamia brokers who do not invest in farmers or the value chain
- initial difficulties in accessing local finance for startup and working capital
- impacts of climate change.
3.0 Assessment of LIMBUA’s Compliance With CFS-RAI and Impact on Local Stakeholders

The RAI Tool assesses the operational practices of an AVCA across seven business functions or dimensions, namely:

1. Strategy and accountability on responsible agriculture
2. Inclusive and transparent structure
3. Safe and responsible agriculture and food systems and operations
4. Environmentally sustainable processes and products
5. Responsible treatment of stakeholders
6. Responsible human resource development
7. Financial transparency and benefit sharing

These dimensions are further divided into clusters of business practices, e.g., Dimension 4, pertaining to the environment, is subdivided into “identifying and managing risk” and “implementing and promoting environmentally sustainable practices.” The specific practices—or indicators—under each dimension (and further subcategories) are the ultimate unit of analysis.

Although practices are expressed in the language of business, the RAI Tool maps each onto a particular CFS-RAI Principle (or sub-principle), so scoring AVCA responses permits an assessment of the degree to which it complies with relevant RAI principles at each level of categorisation (from practice to dimension). There is no one-to-one correspondence between dimensions and principles, e.g., they may reflect aspects of more than one CFS-RAI Principle because dimensions cover a wide, but related, set of practices. The principles with which each dimension overlaps are indicated in the analysis below.

Of course, any assessment of AVCA RAI compliance, including the scoring, reflects companies’ perceptions of their operations, processes and practices. However, during the testing of the tool, they were not asked to validate their responses in a concrete way (e.g., by providing documentary proof of a claimed practice or a performance measure) while completing the tool. Nevertheless, companies did often provide copies of specific policies, e.g., their human resources policy. Even during this testing phase, whilst the assessment/scoring is

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4 Moreover, in order to not reinvent the wheel, each practice is also mapped to other principles and guidelines, such as the UN’s Sustainable Development Goals and Association of Southeast Asian Nations-RAI, including concrete indicators already tested by other organisations. Indeed, the wording of many practices/indicators is taken from existing, tried, and tested ones from other organisations and systems. (For details, see the RAI Tool).

5 After the piloting phase, when the tool is fully operational and in use by/with AVCAs, agribusinesses that participate in an assessment should be asked to validate their responses concretely. This will enable structured guidance on specific areas of policy, procedure, and guidance.
indicative, it is nevertheless a valuable management tool to assess performance and set goals for improvement (Box 2).

The AVCA’s Compliance by Dimension

Reflecting responses in the RAI Tool, especially on its practices, LIMBUA’s overall RAI compliance is high, though there is a degree of variance between dimensions (see below). For instance, LIMBUA’s score is very high on “Responsible Human Resource Development,” “Inclusive and Transparent Structure,” and “Responsible Processes Products and Services,” but lower in areas such as “Responsible Treatment of Stakeholder,” “Environmentally Sustainable Processes and Products,” and “Strategy and Accountability on Responsible Agriculture.” The lower scores, however, are still well above what might be considered a satisfactory score of around 75%.

Box 2. Use of ordinal scores in this case study

While cardinal (numeric) scores for RAI compliance by business dimension (and subcategories) were generated from piloting the Tool with LIMBUA and used in an internal assessment and recommendations for the company’s decision-makers, it was decided to adopt cardinal scoring for this case study.

The use of ordinal scoring (i.e., indication of positioning such as “very low score,” “low score,” “high score,” and “very high score”—both overall and for a particular business dimension or practice) in this case study was chosen for two principal reasons:

First, the RAI Tool is still being piloted, including the way in which the scores are generated. While the cardinal results obtained are sufficient for understanding a company’s level and pattern of RAI compliance—including where the main gaps are, key issues that should be prioritised etc.—numeric scoring in the case study at this stage may indicate false precision. Moreover, because the tool is intended for use by various types of agribusinesses (e.g., firms in different value chain segments), it may also be necessary to consider and implement company-type-appropriate scoring. At a later point, after the tool has been more thoroughly used and tested, it will be safer (and it is intended) to provide numeric scores or categories of compliance based on scores.

Secondly, the CFS-RAI Principles were only introduced in 2014. While several companies (and investors) have moved toward reflecting these principles in their operations and practices, this process is still ongoing, especially because the CFS-RAI is “high level,” and appropriate metrics and indicators are still in the process of being developed (and implemented). Pilot testing of the RAI Tool has, for the most part, been with companies that aim for responsible investment and social business conduct, but specific practices and metrics—even between roughly similar companies—can differ markedly. While broad ordinal comparisons are not unreasonable, further work is required to refine cardinal scoring so that comparisons are made on a robust basis.
Although scoring of compliance is based on self-assessment (backed by evidence), LIMBUA’s RAI compliance is generally exemplary and reflective of a considered and focussed strategy toward responsible and sustainable investment and operations. Nevertheless, an assessment across the broad range of issues addressed by the CFS-RAI provides insights into improving LIMBUA’s compliance, addressing remaining gaps and potential proactive actions in a rapidly change environment (Section 4). The remainder of this section examines the details of LIMBUA’s scores by dimension and what this means in terms of its current and future CFS-RAI compliance strategy.

**Dimension 1: Strategy and accountability on responsible agriculture**

The RAI Tool Dimension 1 mostly relates to the issues covered by the CFS-RAI Principle 10: “assess and address impacts and promote accountability.”

LIMBUA has a range of policies and enterprise practices resulting in a high score on having a strategy and implementation system for responsible business conduct contributing to food security and nutrition and contribution to sustainable and inclusive economic development. These include (i) shelf-life policies for products combined with strategies on developing processes to extend shelf life; (ii) a policy of assisting farmers with advisory services on the production of nutritious food crops (vegetables, cassava) and assistance with linking farmers to food markets even if the products are not processed by LIMBUA; (iii) a business model and strategy where the company locates processing plants within production areas so as to be logistically close to farmers; and (iv) compliance with and participation in a variety of certification standards such as BRC, International Featured Standard Food, Organic, FairTrade, Fair for Life, and the DEMETER programme. The latter is undertaken using the Internet of Things to integrate farmers into the value chain, facilitate efficient and rapid payments to farmers, and maintaining digitised records of the farmer’s enterprise.

The company does have policies respecting human rights and requiring compliance with labour rights in terms of Kenyan labour legislation. While the company does not have a specific anti-discrimination policy targeting women and youth, the company employs proportionately more women (71% of employees are women, and 85% of them are under 35) and youth than the average for the Kenyan demographic. This outcome is driven by the policy of prioritisation in employment of local people and of women, with a target of greater than 65% for the latter.

The company has policies on the use of smart energy sources, such as implementing its own bio-mass gasification systems for heat and electricity generation. It also helps farmers to establish on-farm bio-digestors and utilise energy-efficient stoves, the use of which reduces required amounts of fuelwood.

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6 DEMETER’s goal is to lead the digital transformation of Europe’s agri-food sector through the rapid adoption of advanced Internet of Things technologies, data science, and smart farming, ensuring its long-term viability and sustainability.
Implementation is overseen by various structures and backed up by audits from certification bodies. Additionally, an environmental and social impact assessment study is undertaken biennially in compliance with Kenyan legislation and Fair for Life certification.

The company defines targets and key performance indicators and measures performance against these targets. With the collation of data via its BioFarm IT platform the company is assimilating time series data on inputs and outputs to further support development and implementation of strategies to assist farmer and company performance.

**Dimension 2: Inclusive and transparent structure**

Dimension 2 mostly relates to the issues covered by the CFS-RAI Principle 9: “incorporate inclusive and transparent governance structures, processes, and grievance mechanisms.” LIMBUA scores very high on all three sub-components of this dimension, namely the organization “communicates in a transparent way,” “consults its stakeholders to inform decision making,” and “receives and resolves stakeholders’ grievances.”

**Consultation and Stakeholder Grievance Redress**

The company has a policy on communication and fairness, with high scores because of close relations with stakeholders (especially farmers), facilitated by arranging farmers near each other into blocks, with each block having an elected representative through which issues may be raised with management. An agronomist is assigned to each block to support individual farmers.

There is close consultation with farmers when new projects are initiated. Examples include selection of the best location for product-aggregation facilities and trials for new varieties and/or agronomic practices, where the most experienced farmer is nominated for the demonstration site.

**Consultation Procedures**

LIMBUA management uses formal meeting opportunities for consultation with farmers. These are held twice per annum (with 1-month notice) at a venue easily accessible to farmers within a block. Minutes and signed attendance registers are kept as a record of the meetings and decisions.

Farmers value these consultations in establishing the farmer production costs and agreeing on a floor price, irrespective of market conditions, with prices paid above this level. This provides farmers with knowledge on market conditions and empowers them to counter the biased information from independent brokers.

In addition to one-on-one meetings between agronomists and farmers, the company uses bulk SMS messaging. During critical periods, field management circulate to assess and address bottlenecks and resolve problems.

The company makes efforts to employ marginalised staff. For example, it employs factory workers who are deaf, and management are learning sign language to be able to communicate effectively.
The elected representatives of both farmers and staff have access to management to address welfare issues. For farmers, their representatives meet in a forum with management to discuss matters such as annual pricing, distribution of inputs, and location of collection centres. For staff there is a formal quarterly staff representative meeting with management.

**Stakeholder Grievance Redress**

In addition to formal processes and events, farmers can raise grievances to agronomists, field management, and directly with directors at any time, as their contact details are recorded on purchase contracts. Grievances are recorded by the field administrator, who refers them onward to management for resolution within 2 days; otherwise, they are raised to the next level, with 1 week allowed in total for the grievance to be redressed. Grievances can be raised verbally and via mobile device through the “freecall” service. Grievances are recorded in a field office register and summarised electronically to ensure that the resolution loop is closed.

**Dimension 3: Safe and responsible agriculture and food systems and operations**

Dimension 3 mostly relates to the issues encompassed under CFS-RAI Principle 1, “contribute to food security and nutrition,” and Principle 8, “promote safe and healthy agriculture and food systems.”

The company scores very highly on responsible processes, products, and services. Of the dimension’s two subcategories, the score is a little higher on “the organisation promotes safe and healthy agriculture and food systems” than “the organisation contributes to food security and nutrition.” This is partly because promotion of agriculture and food systems is a part of the company’s operational activities, whereas contribution to food security is an outcome (though LIMBUA is active on food security issues).

**Contribution to Food Security and Nutrition**

While LIMBUA’s purchases do not cover the full range of crops farmers grow organically, they do record the range of crops on each farm via the in-house BioFarm computerised system. This provides information to agronomists on which food crops additional advisory support can be offered, with intercropping of food crops with tree crops encouraged.

Particularly nutritious crops are encouraged to be grown, and advice is provided on how to do this successfully. Climatically, the area produces a wide variety of crops, and those which are encouraged include banana, black beans, yam, arrowroot, kale, spinach, plantain, and maize, in addition to cash crops like macadamia, avocado, mango, tea, and coffee. Any food crops surplus to household needs are sold on local fresh produce markets.

**Direct Contribution Through Employment and Income Generation**

The employment and incomes created (or sustained) by the company and its operation contribute to food security and nutrition for farmer families and employees. With facilities within farming areas, those employed by LIMBUA are mostly members of farmer families. Work hours are set at 5 hours per day for general workers so that workers also have some time to attend to farming chores.
**Improved Living Standards (Poverty Alleviation)**

The company undertakes living wage surveys and ensures that remuneration is above prescribed legal limits but also meets or surpasses the threshold to assure nutritional and health needs.

The company has created employment through its operations. There are 146 permanent employees, 131 of whom are from the local community. There are 734 seasonal employees, of whom 521 (71%) are local. In total, roughly USD 1.15 million is paid in remuneration, much of which recycles in the local community.

Generally, farmers report they are better off since their involvement with LIMBUA because of better incomes and having more money circulating in the local economy. They point to the fact that several farmers located near production facilities have been able to invest in rental space, whether it be for accommodation or retail outlets. One interviewee indicated he was actively investigating the option of investing in rental space, and another two had already invested in buildings for retail outlets and accommodation for LIMBUA staff. One of the two was renting space to a butchery and a small general dealer within 100 m of a LIMBUA processing facility. The general dealer was being run by a neighbouring farmer’s wife. The other interviewee (apart from accommodation being let out to LIMBUA employees) was also running his own hardware business, and his wife was operating a grains outlet from his properties.

Other relevant evidence is that farmers are more able to afford school fees, so children are attending school, and there are more farm buildings being erected.

**Support for Agricultural Activities and Food Systems**

**Access to Technical Information**

LIMBUA’s technical assistance with production training is repeated annually, including handling, storage, preparation, and hygiene. The training is especially useful for older farmers (who are in the majority) in need of a refresher.

Topography is steep in places, and soil erosion is a problem. Advisory services are provided on how to reclaim degraded land and construct contours, terraces, and soil catchment drains. Cover crops, like sweet potato, are also encouraged to mitigate erosion risk.

Farmers also receive technical advice on building their own bio-digestors for bio-gas production and how to make their own compost using waste and dairy cattle manure (most farmers have a few dairy cows).

Farmers interviewed confirm their farming practices have improved through the advisory services received. This has resulted in increased yields and access to markets that pay good prices. They naturally desire further training to deepen their knowledge on tree crops.

One farmer interviewed reported that the agronomists are not from the local area, but that this is a good practice as all farmers receive equal attention, whereas in the past some agronomists that were local gave preference to some farmers above others.
LIMBUA Group Limited: A Kenyan processing and marketing enterprise in the fruit and nut sector

Provision of Services to Strengthen the Value Chain

System of Traceability of Products
LIMBUA supports farmers to ensure the traceability of the product from farm to end market. This system is supported by technology using biometric security on farmer information: barcodes and scanners trace products at each stage from despatch to factory (receipt of product at the various processing stations), to despatch to international markets. Agronomists currently use laptops but will be migrating to tablets.

The nursery also traces the source of cuttings from farmers’ trees, to grafting and delivery of grafted plants to farms.

Access to Inputs and Equipment
LIMBUA provide farmers with inputs to deal with pests and diseases and have 13 organically certified (EcoCert) products for pest and disease control. Advice is provided on application rates and times not permissible to harvest. Technology options available are shared through the learning centre, with advice informed by global and local best practices.

The company is also producing organic compost from processing waste which is also supplied to farmers at minimal cost (KES 7 per 50 kg bag).

Access to Finance
LIMBUA is not a registered financial institution and has no legal authority to advance and recover interest-bearing loans. As such, to assist farmers with access to pre-harvest seasonal working capital LIMBUA, has in the past provided interest-free loans as an advance, which are recovered from macadamia sales. Farmers know that LIMBUA cannot enforce payment due to regulatory constraints for a non-financial institution and this creates the opportunity to default on payments as there is no system that enforces a sale to LIMBUA, plus actions of brokers created further opportunities to side-sell.

Due to the level of default, LIMBUA now introduces farmers to Equity Bank, which has come on board as a financier of agriculture. In addition to finance, Equity Bank provides financial literacy, which strengthens the repayment culture among borrowers. Access to a savings and credit society (SACCOS) is a means to access finance within the regulatory framework available. For now, this is available to staff only. Staff salaries are paid into an Equity Bank account, which creates a credit history, enabling staff to access loans.

Farmers report the partnership between LIMBUA and Equity Bank has been helpful to them. Equity Bank has provided training events on how to save and manage finances, which has assisted some with being able to access finance.

Access to New Markets
While LIMBUA offers markets for macadamia, avocado, and mango and is exploring doing so with organic coffee, cassava, and castor oil, farmers are keen to sell an even wider range of products to LIMBUA, as they have seen the benefits of the relationship with the company.
Dimension 4: Environmentally sustainable processes and products

Dimension 4 mostly relates to issues covered under CFS-RAI Principle 6: “conserve and sustainably manage natural resources, increase resilience, and reduce disaster risks.”

LIMBUA also scores very highly on this dimension, especially on “the organisation implements or promotes sustainable practices,” but its performance on “the organisation identifies and manages its environmental risks” is also creditable. Through the variety of certification standards LIMBUA complies with (organic, FairTrade, DEMETER–biodynamic certification, Fair for Life, BRC, International Featured Standard Food) the issues of environmentally sustainable processes are assessed, audited, and certified to comply with the relevant certification authority standards and protocols.

Mitigation of Potential Negative Environmental Aspects

Farmers are sensitive to environmental conditions and have noted a shift in rainfall patterns. Even in an area with an annual average rainfall of between 1,400 and 2,000 mm, farmers are concerned about increases in drought incidence and disruption of seasonal rainfall patterns. They also seem to be experiencing generally warmer growing conditions. Both of these changes affect the crop production cycle, with negative impacts on sales, as a crop produced too soon after manuring cannot be sold as organic.

Being organic and pursuing a production waste programme of composting waste and/or using it for alternative energy production LIMBUA is having a minimal direct environmental impact.

While indigenous forests have been cleared for agricultural production, the planting of tree crops does mitigate the loss in tree cover to some extent. LIMBUA also disincentivises farmers from encroaching on protected forest areas through threat of deregistration for organic certification. The planting requirement is that crops may not be grown within 2 metres of any stream.

LIMBUA intends to assess its GHG footprint and enter carbon trading but before doing so will assess the way forward and will need expert advice on this. It believes that the company absorbs carbon through its business model. There is a team dealing with climate change, communicating to farmers on climate change adaptation working with Rainforest Alliance, with whom LIMBUA has a co-operation memorandum of understanding through 2025.

There are areas within the LIMBUA catchment that are drier and prone to drought. In contributing to climate-smart agriculture LIMBUA is helping farmers in these areas to trial drought-resistant cassava varieties as a source of food, as well as for processing by LIMBUA into cassava flour for the food market. Assessments are also underway into drought- and disease-resistant mango varieties.

LIMBUA provides environmental sensitisation education at schools, explaining organic production and the importance of biodiversity. As part of this programme, where agronomists give 45-minute lessons, seedlings are handed out which, when producing, with the sales to LIMBUA will provide schools with a source of revenue.
Dimension 5: Responsible treatment of stakeholders

Because there are many types of stakeholders, Dimension 5 correlates with issues covered under several CFS-RAI Principles, especially 5 (“respect tenure of land, fisheries and forests, and access to water”), 7 (“respect cultural heritage and traditional knowledge, and support diversity and innovation”), and 2 (“contribute to sustainable and inclusive economic development and the eradication of poverty”).

The company’s compliance score is lower in the subcategory on respecting cultural heritage (essentially Principle 7) but is still moderately high. On “respects legitimate tenure rights on land fisheries and forests” and “promotes responsible and fair contracting practices with its stakeholders,” LIMBUA scores very high (though for the former it has little direct impact).

Tenure Rights System

LIMBUA has no direct influence on tenure rights or land transfer through inheritance. LIMBUA does respect existing land rights, in that for certification (i.e., Fair for Life), LIMBUA does check that farmers signed up have a title deed to the property for verification of the rightful owner. The verification can, at times, also involve confirming with the local chief, as men usually hold the title deed, while women often do the farming and are the customers of LIMBUA.

Access to additional land is a significant challenge for farmers. Several advise that with the population expanding, inheritance practices where the land of the parents is divided equally between children are resulting in high (and increasing) land prices, farms getting smaller, and young people finding it difficult to expand operations.

Impact of Responsible and Fair Contracting

Farmers are each provided a hard copy of their own file. This contains copies of farm-level data (maps, crop lists, copies of contracts, etc.).

Purchase contracts with farmers are made available in the local language and spell out pricing, with an undertaking on a minimum price irrespective of market price movements. This guarantees that even if farmers were to be pressured by independent brokers, they know what their minimum price level is. Additionally, through the organic and FairTrade certification, farmers receive a 10% premium for organic plus 10% for FairTrade. Contracts also provide for volumes to be supplied by the farmer based on crop estimates agreed with the farmer, quality requirements, the terms of delivery or collection by LIMBUA, and payment terms. Farmers are not permitted to supply above the specified level to counter situations of farmers using friends for side-selling and theft, where the crop could be laundered through legitimate farm sales. If yields increase due to favourable conditions, farmers can appeal their allocation, and an evaluation team undertakes an assessment before harvest, which enables a larger volume to be sold.

Contracts are digitally signed using the farmer’s biometric fingerprint. When signed, they are immediately printed at the farm and placed in the farmer’s own file.
LIMBUA pays farmers via their choice of channel. Most prefer M-PESA for its convenience. Some who have access to Equity Bank finance are paid via their bank accounts to facilitate debt repayment. M-PESA payments are usually processed within 24 hours of delivery.

Credit Availability
In the few cases that LIMBUA will consider providing credit to farmers, there is a policy that guides applications, evaluation, and processing. The farmers need to have been a member of the programmes, supplying LIMBUA for at least 3 years. The strength of the relationship between LIMBUA and the farmer is evaluated based on digitised records. The application is initiated by the agronomist and then evaluated by financial management. The farmer representative is also required to attest to the farmer being legitimate.

Dimension 6: Responsible human resource development
Dimension 6 covers issues encompassed under CFS-RAI Principles 3, “foster gender equality and women’s empowerment” and 4 “engage and empower youth,” as well as other human resource-related issues.

LIMBUA’s compliance score across three Dimension 6 subcategories—“the organisation creates a safe and equitable environment,” “the human resource development system is designed to attract and maintain a qualified and motivated workforce,” and “the organisation’s human resource development system supports its strategy on responsible business conduct”—is extremely high.

Safe and Equitable Work Environment
Child Labour
The company abides by the law in not employing anyone under the age of 18. Child labour at farm level, as reported by both LIMBUA staff and farmers, does not happen in the areas in which LIMBUA operates. Reportedly, it does occur in the miraa (khat)-producing area in Meru, Tharaka Nithi, and Embu Counties, where children are incentivised to skip school and harvest the crop.

Gender Equality and Women’s Empowerment
There is no discrimination policy in employment between men, women, youth, or elderly. There is an affirmative gender employment policy with a target greater than 65%, which is currently at 71%. The high proportion of unemployed women and youth in the region results automatically in staff numbers reflecting this: the employee cohort, whether permanent or seasonal, features a high proportion of women and youth.

Safe Environment
Staff are fully inducted into the policies and procedures on engagement and receive personal protective equipment specific to the department worked in. Training is provided on health and safety aspects.
A health and safety committee assesses the health and safety risks faced by the workforce and audits the company’s existing safety measures.

**Conditions of Employment at the Company**

Employees are either employed on a permanent contract basis or as daily paid workers.

**Wage Levels**

Wages are above minimum prescribed levels and are reviewed annually in May. Overtime is paid at time and a half and in unusual circumstances; if Sunday or public holiday work is required double pay is due.

Comparative assessments with other companies are conducted, where possible, to evaluate the competitiveness of LIMBUA remuneration levels.

**Social Benefits**

The company complies with all labour relations legal aspects such as leave, maternity leave, and contribution to health and retirement insurance.

All permanent staff participate in the national state security fund (NSSF), where 6% of wages is deducted and paid over together with a matched amount from the employee. NSSF is mandatory and staff can do a top-up through the government or private insurers.

Paternity (14 days) and maternity (90 days) leave applies to permanent employees.

**Job Satisfaction**

The level of job satisfaction reported by staff interviewed is good. People appreciate the flexibility of working conditions, the impact the company is having on farmers and community welfare, their ability to support their immediate and extended family, willingness of LIMBUA management to address any work-related issues, ease of access staff have to management and supervisors, and general sense of being appreciated as an employee.

Staff interviewed also indicated they would always wish for improved pay but appreciate the company is doing what it can; those that have reference points for comparing remuneration stated they are better off, that pay increases have been good, and there are prospects for promotion.

**Human Resource Development**

Training opportunities are constantly being evaluated. For company operations, primary areas of training currently are in health and safety, sustainable agriculture, financial literacy, security, first aid, food safety, and grievance procedures.

Training is provided to both permanent staff and daily paid workers. For the daily paid workers, training sessions of between 30 minutes to 60 minutes per topics were mentioned.

Outside organisations provide subject-specific training, e.g., Equity Bank provides financial literacy training and Root Capital grants offers support on financial literacy training to women factory workers.
Counselling services for staff are available. This was particularly relevant on mental health and issues arising from the COVID-19 pandemic. As most of the staff are youth, counsellors are on hand for support on issues affecting them. As an example, addiction issues counselling is undertaken in collaboration with the Ministry of Health. HIV sensitisation programs are also offered.

**Dimension 7: Financial transparency and benefit sharing**

Dimension 7 primarily relates to CFS-RAI Principles 2, “contribute to sustainable and inclusive development and the eradication of poverty” and 10, “assess and address impacts and promote accountability.”

LIMBUA’s average RAI compliance score under Dimension 7 is very high, but there is a difference between the two subcategories of the dimension. One subcategory—“the organisation has a transparent financial structure”—is near perfect, but compliance is lower (but still high) in the other subcategory, “the organisation uses profits responsibly.”

**Transparent Financial Structure**

As a private company, there is no requirement for public disclosure of financial information. However, where required by financiers and/or donors in support of applications for finance, there is full disclosure.

Regarding senior management remuneration, there are several team members who deal with processing of the payroll, and hence these remuneration levels are known.

**Responsible Use of Profits**

Income and profits generated are used to cover operational costs and re-investment in expanding processing capacity.

The operational model places emphasis on recruiting women farmers and investing in providing them the training and support for them to be to be successful. The company helps all farmers undertake a financial assessment of income, backed by company data on farmer revenues from sales. This assists farmers in demonstrating a financial record in support of loan applications to their SACCOS.

Regarding dealing with emergencies, the company response to the COVID-19 pandemic is illustrative. A COVID-19 policy was developed on the level of support to be given to staff. In addition to counselling, testing, and provision of personal protective equipment for those in contact with farmers, assistance was provided to ensure people were compensated for the time they were recovering at home.

If community members indicate any needs and challenges, the CSR framework allows for contributions to be made. This not only covers emergencies but all requests from the county government and other requests from the community.

There is also a policy for community security and emergencies, with the company having a good network with the police and farmers on the ground to implement solutions. This
enables funds to be committed to address accidents and security, with vehicles available for emergency support.

When new facilities are developed, the utilities required (water and electricity) and implemented create an infrastructure grid that facilitates access to these services by the community in proximity to the processing plants. The county government has also been of assistance in improving roads, not only to the factories but also those servicing farmers.
4.0 Recommendations to Investees, Investors, and Other Stakeholders

LIMBUA can be held up as an agribusiness that has invested responsibly in its agriculture value chain business and whose operations, processes, and relations with stakeholders are relatively honed to ensure responsible and sustainable business conduct at all levels. The findings in Section 3 reveal a high level of RAI compliance. The company has done its homework and is committed to maintaining this approach.

LIMBUA's Approach to Investing Responsibly in Agriculture

The company’s high level of compliance with responsible business conduct is not an accident, which offers a learning opportunity. A detailed dialogue with LIMBUA’s founders supports the idea that the company’s success in RAI alignment very much depended on their approach at the outset. In particular,

- The founding shareholders and partners, albeit from different backgrounds, made a conscious choice to set very clear goals and expectations on what they aimed to achieve. This was especially important for their social enterprise, such as respect for the environment and human dignity.

- From the outset, the founders and the company sought to depart from what they regarded as outdated business models based on an extractive philosophy rather than a sustainable attitude. This required the establishment of a creatively developed and innovative business model, the creation of which in turn relied on identifying and working with institutions, consultants, organisations, and other actors who could support their aims in the short and long terms.

- Recognising that the sustainability of the business model lies with nurturing farmers’ trust and requires a deep understanding of the challenges and drivers impacting the farmers supplying the business. Specifically, the company had to focus on the systems, processes, and relationships within which farmers operate.

- Stress was placed on selecting, recruiting, and developing staff able to embrace and implement the business model; as the business grew and evolved, these staff were enjoined to create a network of (and work with) institutions who fully understand the business philosophy and who place the smallholder farmer at the heart of the operations.

- Emphasis was given to creating a strong, vibrant team that can make decisions independently, without much guidance. This can be achieved if there is a readily available pool of educated youth from farming communities and female farmers who can be employed in the business. These employees also act as change agents in their villages. There are many examples of this teambuilding by LIMBUA from the interviews and fieldwork, such as carefully designed policies on skilling, wages, safety, social benefits, and training. This has led to dedicated teams working on various goals, including training farmers (especially women and youth) and school-level education.
• As the business evolved, care was taken to identify agencies, businesses, and customers further afield who also shared LIMBUA’s values. In so doing, the company has been able to develop a full ecosystem of different business elements, including working capital, all geared toward common business goals. For instance, LIMBUA works closely with many bodies and agencies related to organic certification. Another example is its close collaboration with Equity Bank to train farmers in financial literacy.

• By adopting and implementing a socially, economically, and environmentally sustainable business model, LIMBUA has had the opportunity to be a centre of inspiration and a example for others to follow—something which it is happy to do actively.

Assessing Outcomes of the LIMBUA Approach.

The previous section detailed the company’s practices and its degree of compliance with sustainable business conduct, especially related to RAI; notably, compliance was high, reflecting LIMBUA’s approach to investing responsibly. The positive outcomes and benefits from such practices can take a while to materialise, but there are already encouraging signs from outcome indicators collected by the company (Table 2).

For instance, the number of female and young permanent employees among permanent staff is significant (women are 44% of the total), and the company has made significant inroads into training its female and young workers. Similarly, in its work with farmers, LIMBUA has put a lot of effort into working with women and youth. About 50% of the farmers reached by the company are women (though only 5% of the farmers are young), and all farmers have received technical assistance. All farmers LIMBUA works with are organic and fair trade certified, leading to a high number of hectares cultivated under these regimes. About 90% of agricultural yield is purchased by LIMBUA at a price premium of 10% compared to the base price agreed between farmers and the company at the outset of the season average market price. As a result of LIMBUA’s policies and practices, all farmers report increased incomes, with 75% reporting an increase in their living standards. Overall, 70% directly ascribed the increase in incomes to certification. However, LIMBUA can certainly continue to improve, e.g., women are still underrepresented (or not represented at all) on the board and ownership of the company.

7 The indicators analysed in Table 2 and associated text are based entirely on data collected by the company, including reporting by farmers. This does not reflect a full impact analysis of LIMBUA’s (short- and long-term) impact (e.g., on the wider community, the supply chain etc.) which would require a different survey and methodological approach. (It might, however, be possible for the company and the authorities to collect some of the data required.)
**Table 2.** Selected outcome indicators of Limbua's operations, 2022: employees and governance, farmers/suppliers supported, and farmers’ reported benefits

<table>
<thead>
<tr>
<th><strong>Employees and governance</strong></th>
<th><strong>Number, amount, percentage</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent employees (#)</td>
<td>146</td>
</tr>
<tr>
<td>Permanent employees: Female (#)</td>
<td>64</td>
</tr>
<tr>
<td>Permanent employees: Under 35 years (young) (#)</td>
<td>76</td>
</tr>
<tr>
<td>Permanent employees: From the local communities (#)</td>
<td>131</td>
</tr>
<tr>
<td>Temporary employees (#)</td>
<td>734</td>
</tr>
<tr>
<td>Temporary employees: Female (#)</td>
<td>521</td>
</tr>
<tr>
<td>Number of people in senior management (total)</td>
<td>6</td>
</tr>
<tr>
<td>Number of women in senior management</td>
<td>2</td>
</tr>
<tr>
<td>Number of total members on the organisation's board of directors or other governing body</td>
<td>4</td>
</tr>
<tr>
<td>Number of female members of the organization's board of directors or other governing body</td>
<td>0</td>
</tr>
<tr>
<td>Share of women ownership (%)</td>
<td>0</td>
</tr>
<tr>
<td>Employees trained (#)</td>
<td>880</td>
</tr>
<tr>
<td>Employees trained: Female (#)</td>
<td>627</td>
</tr>
<tr>
<td>Employees trained: Under 35 years (young) (#)</td>
<td>597</td>
</tr>
<tr>
<td>Payment to full-time and/or seasonal employees (USD)</td>
<td>1,152,000.00</td>
</tr>
</tbody>
</table>

**Farmers/suppliers**

<table>
<thead>
<tr>
<th></th>
<th>8,750</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farmers reached (#)</td>
<td></td>
</tr>
<tr>
<td>Number of smallholder farmers reached</td>
<td></td>
</tr>
<tr>
<td>Number of female farmers reached</td>
<td></td>
</tr>
<tr>
<td>Number of young farmers reached</td>
<td></td>
</tr>
<tr>
<td>Individuals trained: Technical assistance (#)</td>
<td></td>
</tr>
<tr>
<td>Number of farmers trained</td>
<td></td>
</tr>
<tr>
<td>Number of farmers trained: Female</td>
<td></td>
</tr>
<tr>
<td>Number of farmers trained: Young (below 35 year)</td>
<td></td>
</tr>
<tr>
<td>Number of farmers certified</td>
<td></td>
</tr>
<tr>
<td>Number of farmers with organic certification</td>
<td></td>
</tr>
</tbody>
</table>
LIMBUA Group Limited: A Kenyan processing and marketing enterprise in the fruit and nut sector

<table>
<thead>
<tr>
<th>Employees and governance</th>
<th>Number, amount, percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farmers with fair trade certification</td>
<td>8,750</td>
</tr>
<tr>
<td>Number of hectares directly cultivated by the organization</td>
<td>0</td>
</tr>
<tr>
<td>Number of hectares under cultivation (indirect)</td>
<td>5,314</td>
</tr>
<tr>
<td>Number of hectares under cultivation - organic certified (indirect)</td>
<td>5,314</td>
</tr>
<tr>
<td>Number of hectares under cultivation - fair trade certified (indirect)</td>
<td>5,314</td>
</tr>
<tr>
<td>Average supplier agriculture yield (specify units - tonnes)</td>
<td>4,485</td>
</tr>
<tr>
<td>Total volume purchased from suppliers (specify units - tonnes)</td>
<td>4,011</td>
</tr>
<tr>
<td>Payments to farmers (USD)</td>
<td>4,321,000.00</td>
</tr>
<tr>
<td>Producer price premium (%)</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Changes and satisfaction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% of farmers reporting increased income</td>
<td>100</td>
</tr>
<tr>
<td>% of farmers reporting increased income after certification</td>
<td>70</td>
</tr>
<tr>
<td>% of farmers reporting improved standards of living</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Current research.

Next Steps and Initial Recommendations

RAI compliance at LIMBUA is not perfect, and from interviews with management and staff, the company does not intend to rest on its laurels.

A formal review of the CFS-RAI Principles, together with the results of the RAI Tool, should be undertaken by senior management and the board to establish a view on how the company might move forward to further improve its responsible and sustainable business conduct, in light of its strategy and the findings in Section 3. IISD would be pleased to participate in the conducting of this review.

This review would lead to an action plan, with priorities built on the results of the findings presented in this report, the review itself, and the relevant operating conditions of the company. Some suggestions, recommendations, or issues for consideration during the formal review are mentioned below.
Suggestions Related to Challenges Faced by Farmers

Farmers face challenges regarding seasonal cash flows due to the limited range of crops that can be sold to the company, and there is some need for advance funding prior to harvest. In this respect:

- Consideration could be given to involve farmer SACCOS in providing finance to farmers, with farmers having some level of savings with the SACCOS to serve as collateral.
- The company’s policy of actively looking for opportunities to provide markets for other organic crops such as coffee, cassava flour, and castor oil is commendable and should be pursued. The timing of the seasons for such crops should be given due consideration.

There is a seasonal shift where macadamia trees are producing nuts in November–December at a time within the 90-day window after manuring, thus disqualifying nuts from being able to be sold as organic. An assessment of the possibility of having a different date for manuring may be an option. One alternative is processing these nuts—if they start to be produced in larger volumes at the Githure facility, which is no longer being used for production—and selling them into alternative markets as semi-organic.

Given the fact that theft is serious in some areas (with youth reportedly being the main culprits), joint efforts should be taken between the company, farmer leadership, and county authorities to identify employment-creation opportunities.

Farmers are facing uncertainty regarding rainfed production and, where possible and sustainable, projects and programmes that conserve and/or provide access to supplementary irrigation could be considered. These could include rainwater harvesting and building of small on-farm dams.

Suggestions Related to CFS-RAI Compliance

Chapter 3 addresses the company’s degree of compliance with CFS-RAI Principles in the context of its primary business functions. Some examples of further aspects to consider, and potential solutions/recommendations include:

- Given the importance of understanding and embracing organic production, consideration could be given to expanding educational and training programmes to include farm workers.
- Staff indicated they had received a range of training support to equip them for their jobs, but refresher training would be of value.
- If possible, implementation of a bursary and/or scholarship scheme would help with developing leadership skills in support of the company’s growth plans. Such a scheme could be based on in-service repayment for the expense incurred by the company.

The indicators in Table 2 only capture some outcomes arising from LIMBUA’s responsible business conduct practices. A formal review by the company should also look at options to
expand the outcome indicators it collects (including wider impacts on local communities and the economy).

Recommendations to the Investor

LIMBUA’s achievements to date underscore a viable, responsible, and sustainable business philosophy. Efforts should be made to further provide sufficient capital investment for continued expansion and diversification by the company, especially to sustain rapid growth in the number of farmers (including women and young farmers) achieving technical training, certification, and access to better livelihoods. It may be possible to take lessons from the business model evolved by LIMBUA in making investments in other agribusiness companies (see also recommendations to other investors).

Initiatives like the donations received from Root Capital in support of providing women employees with financial literacy training, which was highly appreciated by respondents who participated, should be considered for ongoing support and, if possible, expanded to other areas identified as important to farmers and employees.

Recommendations to Other Investors

Given the success that LIMBUA’s traceability and digitised farm data and contracting system offers, impact investors would be well placed to support investees with the development of digitised administrative systems that can assist in product traceability and create more efficiency in administration.

Impact investors need to consider making adequate lines of credit and cash available to investees, enabling liquidity to pay almost immediately for purchases from farmers.

Investees with a separately registered development foundation able to attract donor support is a good business practice for socially responsible businesses. This allows community development support activities to be run alongside business activities but not distract from commercial activities.

Recommendations to Other Stakeholders, Such as Governments and NGOs

Start-ups face significant funding and regulatory challenges in developing counties where relevant institutions or agencies—as well as NGOs, as illustrated in the LIMBUA case—can play supportive roles (albeit they themselves may suffer from a lack of capacity or resources). For instance:

- Local financial institutions may not be able to take on much risk, especially in the agricultural sector. Governments (including the Kenyan authorities in this case) could consider establishing risk-guarantee schemes, where they do not exist (or review and update them if they are not functioning well), to incentivise investment in new production capacity, reducing risks for local financial institutions.
• Governments that have not yet done so could encourage the development of the organic sector by recognizing local organic networks, with a view to adhering to internationally recognised certification standards to reduce the costs of certification to local producers. Other policies can support the shift to organic production. In many countries, the regulatory systems for registration of organic agricultural inputs should be reviewed (or developed if non-existent) to facilitate their accessibility to smallholder farmers. Governments can consider what taxes and import duties apply to organic inputs, to ensure there is a level playing field with non-organic agricultural inputs.

• While an active private sector is to be encouraged, in Kenya (and other countries), there are many accounts of independent brokers approaching farmers to buy macadamia nuts, taking delivery of product and not paying for it. They have also incentivised the theft of crops from farmers’ trees by opportunists, who then sell to these brokers. The government, through the Nut and Oils Crops Directorate, which registers all exporters, could consider requiring all brokers to be registered, to put up a guarantee for the season to claim against, in the event of non-payment of farmers, and to publish and communicate to farmers a list of registered brokers. Thus, farmers can check if they are dealing with an accredited buyer and have a route to claim damages. Alternatively, the industry body (e.g., Nut Processors Association of Kenya [NutPAK]) should consider establishing a self-regulatory environment along the lines proposed to improve professionalism within the industry to protect farmer interests.

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8 The goal of NutPAK is to create a context where nut growers become chain partners—i.e., to build the necessary production skills and capacities for improved access to markets. NutPAK has a triple value chain integration focus toward sustainability: people, planet, and profits (social, ecological, and economic sustainability). Our role will ensure that business partnerships are found and strengthened, that expertise is available, and that nut processing will deliver pro-poor benefits, sustainable returns to processors, and economic development as envisaged by Vision 2030 and millennium development goals. [https://agriprofocus.com/organisation/nut-processors-association-of-kenya](https://agriprofocus.com/organisation/nut-processors-association-of-kenya)
References


