

EXPERIENCE NOTE

ORGANIC AGRICULTURE MARKET: A KEY TO CLIMATE CHANGE ADAPTATION

UNLOCKING THE
POTENTIAL OF ORGANIC
FARMING FOR CLIMATE
ADAPTATION AND
RESILIENT COMMUNITY
LIVELIHOODS IN THUA
THIEN HUE PROVINCE,
VIETNAM

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EXECUTIVE SUMMARY

The Organic Agriculture (OA) intervention in Thua Thien Hue (TT Hue) province in Vietnam, as a key component of a broader climate change adaptation and resilience project (VIE/433), demonstrates a compelling example of how targeted initiatives can foster resilience against climate change while enhancing community livelihoods. This initiative exemplifies the integration of sustainable agricultural practices within a larger strategy to mitigate climate risks and support vulnerable communities. Key success factors for this OA intervention included a robust legal framework for OA production, a favourable economic and environmental context, and strong institutional support from local government agencies and the Vietnam Organic Agriculture Association (VOAA). As part of the overarching climate adaptation project, the OA initiative leveraged coordinated efforts between the Provincial People's Committee (PPC), Department of Planning and Investment (DPI), and various cooperatives and farmers' associations to ensure effective implementation and alignment with broader resilience goals.

The project encountered challenges such as initial scepticism from conventional farmers, delays in establishing the Provincial Coordination Board for the Participatory Guarantee System (PGS), and the absence of well-developed OA markets. These constraints were addressed through extensive Information Education and Communication (IEC) campaigns, pre-agreed output prices with private companies, and the development of local and online sales channels. Despite setbacks caused by the Covid-19 pandemic and natural calamities, the project received an extension and additional funding to continue its activities, further demonstrating its critical role in the wider climate change adaptation framework.

Key lessons learned from the project highlight the importance of transitioning from the Vietnam Good Agricultural Practices (VietGAP) to organic production, which proved smoother due to existing practices that reduce chemical use. The collaboration between cooperatives and private businesses was essential for market access and scaling up production. Focusing on products with longer shelf lives, like organic rice and peanut oil, provided more reliable income for farmers compared to fresh vegetables, which faced market volatility and short shelf life. Additionally, equitable profit-sharing models and the use of local bio-products for fertilizers and pesticides were critical for maintaining farmer motivation and sustainability.

Sustainability and upscaling of the OA models remain a challenge post-project. While the established building blocks and institutions continue to function, ongoing financial support from government and projects is necessary until the OA market matures. The TT Hue Organic Agriculture Association (OAA) and the Department of Agriculture and Rural Development (DARD) will play pivotal roles in ensuring the continuation and expansion of OA practices. The preparation of five-year district plans and proposals for further funding, such as those to the Green Climate Fund (GCF), are steps towards sustaining these efforts.

The project demonstrated that developing an OA market from scratch within a short timeframe and limited budget is feasible with a structured approach focusing on awareness, capacity building, production models, post-production processes, and certification mechanisms. This initiative has significantly increased awareness and engagement in OA, produced marketable organic products, and established a trusted certification system. However, for long-term sustainability, continuous support and adaptation to local conditions are crucial.

EXPERIENCE CAPITALISATION

The process by which an experience is transformed into knowledge that can be shared with others (Zutter, 1995).

GOOD PRACTICE

A practice that has been proven and is successful in many contexts and is therefore recommended as a model.

LESSON LEARNED

A lesson learned is a learning that a person or a group of people gain from an experience. A lesson learned is a synthesis of knowledge or understanding that results from a positive or negative experience that can be used in other contexts and/or replicated (Millennial Development Goals Achievement Fund Programme).

UNLOCKING THE POWER OF ORGANIC AGRICULTURE: THREE INSPIRING LESSONS FROM TT HUE

EMPOWERING FARMERS WITH KNOWLEDGE AND PRIDE

Witnessing farmers quickly grasp new concepts, develop a strong belief in sustainable practices, and take pride in producing and marketing their own organic products is profoundly inspiring. The transformation from scepticism to commitment highlights the effectiveness of IEC interventions and practical demonstrations. This journey not only boosts their confidence but also showcases the potential of organic farming to revolutionize livelihoods.

CAPTURING PUBLIC IMAGINATION AND MEDIA ATTENTION

The early success of OA in TT Hue captured widespread media attention and sparked public interest. This shift resonated deeply with a community accustomed to heavy chemical use in farming and frequent food safety crises. Seeing safe, locally-produced organic food emerge in their province instilled hope and trust among the people. It serves as a powerful example of how organic initiatives can restore public confidence and enthusiasm for local agriculture.

ACHIEVING SUSTAINABLE CHANGE THROUGH GOVERNMENT COLLABORATION

Navigating the complexities of government collaboration can be challenging, yet it is immensely rewarding when goals align. When the government is fully convinced and committed to OA, the possibilities for sustainable change expand significantly. This alignment facilitates real, impactful progress, demonstrating that with the right support and commitment, substantial and enduring improvements are possible.

STRONG FARMER ENGAGEMENT

- 230 participants (farmers, officials);
- 12 study tours to successful OA models;
- 19 training courses conducted;
- 300 households involved in OA groups;
- 20 OA groups established.

EFFECTIVE OUTREACH

- 90 banners designed and produced;
- 4,200 leaflets distributed;
- 120 T-shirts;
- 1,200 caps;
- 1,350 fabric hand fans produced.

RESULTS : After one year, OA awareness and support surged

- sufficient knowledge of OA increased by 124%;
- willing to pay a 15% premium for organic products increased by 230%.

IMPRESSIVE PRODUCT YIELDS AND REVENUE

- 8.2 tonnes of organic rice produced;
- 414 tonnes of organic vegetables produced;
- 87 tonnes of centella produced;
- 61 tonnes of organic peanuts produced;
- 19,124 litres of peanut cooking oil produced;
- VND 9.2 billion in revenue generated (around EUR 340,000).

SUSTAINABLE LAND AND RESOURCE MANAGEMENT

- organic cultivation area increased: from 11.1 ha to 32.9 ha;
- 37 tonnes of chemical fertiliser reduced;
- 118 litres of pesticides and herbicides reduced.



NATURE AND OBJECTIVES OF THE DOCUMENT

This experience capitalisation note aims to share the experiences and lessons learned from the development of an OA market in TT Hue province, Vietnam. The project was funded by the Luxembourg Climate and Energy Fund and implemented from 2018 to 2022. The primary objective was to help vulnerable communities build resilience to climate change through sustainable agriculture practices.

The note was prepared using numerous sources, including detailed Implementation Plans, Activity Completion Reports, quarterly technical reports from partner agencies, baseline and endline surveys, and regular monitoring and evaluation (M&E) data consolidated in a SPSS database. An independent project Final Evaluation was conducted during the last quarter of project implementation. Consultations were held with the newly established TT Hue OAA and private businesses, and interviews and testimonials were collected from cooperatives and farmers.

OA plays a crucial role not only in climate change adaptation and mitigation but also in enhancing environmental and biodiversity health and ensuring food safety. This document highlights how the OA model was established and tested in TT Hue province, detailing the key steps, challenges, and outcomes.

This note underscores the transformative potential of OA and the importance of community engagement, public awareness, and strategic government partnerships. They serve as a testament to the profound impact of dedicated efforts to promote sustainable farming practices, offering a roadmap for other programs, agencies, regions and countries seeking similar success. Through this document, we aim to inspire and guide others in adopting similar approaches, enhancing their resilience to climate change and fostering sustainable agricultural development.

VIETNAM'S ECONOMIC TRANSFORMATION

THE ROLE OF AGRICULTURE IN NATIONAL GROWTH

Since the mid-1980s, Vietnam has undergone a dramatic economic transformation, transitioning from a planned economy to one of the top emerging economies globally. The “Doi Moi” (economic renovation) policies introduced in 1986 catalysed this change, driving rapid growth in agricultural productivity. Agriculture has been pivotal in this transformation, contributing significantly to gross domestic product (GDP) and national export value. Today, agriculture represents 15.2% of national export value and contributes 18% to GDP. Vietnam has become a leading global exporter of commodities like rice, coffee, and cashew nuts. This agricultural success underpins the nation's broader economic achievements and highlights the critical role of sustainable farming practices.

CONTEXT AND RATIONALE OF THE INTERVENTION

Vietnam, with its 3,000 km coastline and location in the path of Pacific typhoons, is highly vulnerable to climate change. The country faces rising sea levels, more frequent and severe storms, severe floods during the rainy season, serious droughts during the dry season, soil and water salinisation, changing ecosystems, and food insecurity. The World Bank considers Vietnam among the top five countries globally most affected by climate change, predicting a 3.5% drop in GDP by 2050.

TT Hue province, twice the size and population of Luxembourg, is particularly vulnerable to climate change impacts. The rural households here largely engage in farming, aquaculture, forestry, and livestock activities. The agricultural sector's extreme vulnerability to climate change presents significant challenges, making adaptation critical. Increasing temperatures, weather variability, shifting agroecosystem boundaries, and invasive crops and pests exacerbate these challenges.

In 2016, LuxDev began preparing climate change adaptation and mitigation projects funded by Luxembourg International Climate Finance, with TT Hue's provincial leadership expressing a strong desire to include OA as a main component. The rationale was driven by the growing impact of climate change on livelihoods, frequent food safety incidents, and environmental degradation due to excessive fertilizer and pesticide use. The economic environment in Vietnam also favoured OA development, with rising consumer demand and a newly created ASEAN common market for goods.

The Vietnamese government was preparing legal frameworks and guidelines for OA, culminating in GOV Decree 109/2018/ND-CP and subsequent regulations. Conventional agriculture in Vietnam significantly contributes to greenhouse gas emissions, and the country committed at COP 26 to becoming "net zero" by 2050, necessitating provincial climate commitments and actions.

EMERGENCE OF ORGANIC AGRICULTURE IN VIETNAM

CHALLENGES AND OPPORTUNITIES

OA practices are relatively new in Vietnam. The Ministry of Agriculture and Rural Development (MARD) launched the VietGAP standard in 2008 to promote good agricultural practices and control chemical use. However, specific policies supporting OA were only introduced recently, with the issuance of Decree 109 in 2018, providing preferential terms for small enterprises and cooperatives. Despite this progress, challenges such as high costs, stringent requirements, unstable markets, and insufficient regulation persist. The VOAA, established in 2012, has played a crucial role in raising awareness and shaping the legal framework for OA. This emerging sector faces obstacles but holds significant promise for sustainable agricultural development.

DEFINITIONS – UNDERSTANDING AGRICULTURAL PRACTICES

OA, ecological farming, sustainable agriculture and climate-smart agriculture are terms often used interchangeably, but they each have specific meanings and distinct characteristics. Understanding these differences is crucial for appreciating the diverse approaches to sustainable farming.

Organic agriculture

Strictly avoids synthetic chemicals, promotes biodiversity, and focuses on natural inputs and processes.

Ecological farming

Emphasizes the integration of agricultural practices within the broader ecosystem, enhancing natural processes and biodiversity.

Sustainable agriculture

Balances environmental health, economic profitability, and social equity, potentially using synthetic inputs in a controlled manner.

Climate-smart agriculture

Integrates productivity, resilience, and emissions reduction into farming practices, explicitly addressing climate change.

Each of these agricultural practices contributes uniquely to sustainability, resilience, and food security. By understanding their specific characteristics and benefits, stakeholders can choose the most appropriate approach for their context, enhancing both environmental and socio-economic outcomes.

ORGANIC AGRICULTURE

OA avoids the use of chemical fertilizers, insecticides, and pesticides. Instead, it relies on biologically derived fertilizers such as manure, animal compost, and plant wastes. Biological inputs are used to manage pests and diseases, and genetically modified organisms are not allowed.

OA provides numerous advantages including clean and safe food, improved health, reduced soil erosion, and minimized nutrient leaching into groundwater. It supports long-term environmental health by avoiding toxins and dangerous chemicals that consumers may otherwise ingest.

ECOLOGICAL FARMING

Ecological farming considers the soil as part of a larger ecosystem, focusing on maintaining and improving the ecological balance. The emphasis is on sustainable production that respects natural cycles and biodiversity.

Unlike OA, which focuses on the final product, ecological farming prioritizes the health of the entire ecosystem, integrating natural processes to enhance soil fertility and pest control.

SUSTAINABLE AGRICULTURE

Sustainable agriculture involves farming practices that are economically viable, environmentally sound, and socially responsible. This approach includes reducing carbon emissions, minimizing waste, and ensuring crop and soil health.

Sustainable farms may use chemical inputs appropriately without compromising overall sustainability. Key practices include crop rotation, efficient water use, integrated pest management, and soil conservation techniques.

The primary goal is to improve farmers' economic stability while protecting and enhancing natural resources.

CLIMATE-SMART AGRICULTURE

Climate-smart agriculture is an integrated approach to managing cropland, livestock, forests, and fisheries to address food security and climate change. It aims to achieve three main outcomes:

- increased productivity: producing more and better food to improve nutrition security and boost incomes;
- enhanced resilience: reducing vulnerability to climate-related risks such as droughts, pests, and diseases;
- reduced emissions: avoiding deforestation and finding ways to absorb carbon from the atmosphere.

While climate-smart agriculture builds on existing sustainable agriculture knowledge and practices, it specifically focuses on addressing climate change and leveraging the synergies between productivity, adaptation, and mitigation.

WHERE AND WHO

VIE/433 was implemented in 29 climate-vulnerable coastal, littoral (lagoon) and low-lying communes of three districts in TT Hue, i.e. Quang Dien, Phu Vang and Phu Loc.

During project inception, in consultation with local authorities and farming communities, six of these communes were selected to establish early OA models, for example rice and vegetables in Phu My, rice in Loc An, peanut in Vinh Hai, vegetables in Vinh My, centella in An Gia/Sia town, and vegetables, watermelon, peanut, oyster mushrooms, watermelon and sweet pomelo in My Loi.

The kind of models, their location and scale were determined through consultation and discussion between various stakeholders and based on certain criteria and conditions. Initially, OA models were established on a total area of 11.1 hectares.

In a first phase, participating farmers were members of existing cooperatives who converted to OA cooperatives, and for guidance worked closely with the relevant provincial and district agriculture agencies and extension services and project technical advisers. Other stakeholders that were or got involved in the process: the VOAA, the Farmers' Association, the private sector, the Women's Union, and from the moment of their establishment the TT Hue OA Association and PGS Coordination Board (see further).

The institutional framework was considered highly important for successful implementation. The (co-funded) project worked directly under the PPC (highest provincial authority) and was hosted by and based at the DPI, a key provincial government department. Day-to-day project management was in the hands of the LuxDev Technical Assistance Office working in tandem with the Luxembourg Projects Management Board established by PPC instruction within the DPI and manned with a limited number of DPI staff working 50% of their time in support of the (two) Luxembourg climate projects. This institutional setup, with the PPC steering the project and a leading agency put in charge of implementation, ensured not only harmonisation and alignment with provincial policies and objectives, but also its effective implementation working directly with a large number of relevant government and civil society institutions at provincial, district and commune level.

WHAT AND HOW: THE FOUR BUILDING BLOCKS

The project's aim was to put in place the necessary building blocks of an OA model, so:

- as to demonstrate the viability of OA practices in Central Vietnam; and
- as a foundation on which a further development and growth of an OA market could take hold and gradually develop into a new, climate-resilient, sustainable and expanding industry.

FOUR BUILDING BLOCKS



Awareness raising and training

Empowering farmers with knowledge through targeted training.



Demonstration through production models

Pilot projects showcased OA models across 11.1 hectares.



Post-production processes

Focus on processing, packaging, branding, and marketing OA products.



Certification scheme

Organic certification guarantees quality, enabling premium market sales.

Below, we focus on these four building blocks, which were at the heart of the OA intervention.

AWARENESS RAISING AND TRAINING

As in most parts of the world where OA was introduced, convincing farmers to make the shift to organic farming was perhaps the most challenging part of developing an OA market. In TT Hue also, the current generation of farmers had typically little to no awareness of the “why” of OA, or knowledge about the “how”. They would typically not believe that farming without chemicals could ever succeed, and that it would put investments and incomes at risk. Likewise, overall awareness and knowledge of OA among local authorities was equally limited, and a particular problem in a country where the latter's support and active involvement, e.g. as facilitators or sometimes trainers, is critical.

Whereas VIE/433's experience was no different, the obstacles were gradually overcome by working extensively with farmers potentially interested to making the shift, as well as jointly with all other local stakeholders as well as communities as potential customers. This was done primarily:

- through a range of Information, IEC interventions;
- through necessary trainings on all aspects of OA, first and foremost to the staff of the Centers of Agricultural Services at the district level;
- by connecting these staff and farmers with the VOAA;
- by bringing in their trainers with many years of experience to discuss and share their views face to face with relevant government staff as well as farmers;
- by taking farmers and local officials on study trips to other provinces where OA had been introduced already, and to South Korea where the entire OA market is much more developed and has become a real industry.

Quite specific for (communist) Vietnam, and an additional benefit in many ways, is the existence of so-called mass organisations, like the Women's Union, Youth Union or Farmers' Association. These are large scale support organisations of particular groups, that de facto aim to link party and government with civil society and as such are a kind of extension arm of the government that reaches out to the lowest level. As such, mass organisations are always useful partners in projects, and for the OA interventions in TT Hue, the Farmers' Association in particular became an active partner, including in a first phase and jointly with the Commune People's Committees and cooperatives for mobilisation, communication and guidance of their members.

Within year one of OA introduction, 12 study tours to successful OA models had been completed, with participation of 230 farmers and provincial, district and commune officials, and 19 training courses on various techniques of OA and introduction of the so-called PGS certification scheme were held. To support IEC campaigns, the project designed and produced 90 banners,

4,200 leaflets, 120 T-shirts, 1,200 caps and 1,350 fabric hand fans for distribution during trainings and community activities. By the end of the project, just under 3,000 farmers had been trained in most relevant OA subjects and practices.

The project wanted to ensure an equal participation of men and women. Therefore, during selection the focus was on households, and it was conditional that a household that wanted to participate would agree that both male and female in the household would fully participate in all trainings, models and activities. Hence a participation rate of women in models during the intervention of 100%.

Two indicators in the project monitoring and evaluation system aimed to capture progress in OA awareness raising and knowledge. A baseline survey among 152 randomly selected households in project-supported OA villages in six pilot communes, assessed

- the general knowledge as well as perception of people about OA;
- how many people would be willing to pay a 15% premium for farming products if 100% guaranteed organic.

At the time of the baseline, just 8% of respondents were considered having sufficient knowledge of OA as per the criteria established to assess this, and roughly one in four (26.5%) of respondents said to be willing to pay a 15% premium. Already after one year of (quite intensive) IEC interventions, study trips and work on demonstration plots, the percentage of people having sufficient knowledge and awareness more than doubled to 17.9%, and that of people willing to pay a premium shot up to 87.5%. On the one hand, this confirmed the high demand for safe food and the great potential for an OA market, while on the other hand it showed how quickly awareness and knowledge can increase, and perceptions can change by a combination of targeted interventions.

DEMONSTRATION THROUGH PRODUCTION MODELS

Small size demonstration pilots were put in place, initially in 7-8 different commodities, and on a total of 11.1 ha of land. The project decided to work with existing cooperatives and their farmers. They had to have their own plot of land, had to be motivated to become part of the model, and willing to provide free labour input. Selection of land was based on the OA national standard, for example had to be sufficiently isolated with a buffer or barrier, e.g. as for organic paddy not close to a road, cemetery or garbage treatment area. Soil and water sources would be tested by a private company laboratory, as per the standards set by the Ministry of the Environment and if residues of pesticides or other chemicals were found the land was not considered for use. A formal certificate of lab testing would be required. TT Hue is a province with frequent serious floods, and each time such floods would happen, water and soil testing had to be done again. The project also supported land decontamination trials, e.g. by scraping off a meter of polluted soil and replacing it with new soil, so as to restore fertility. Commodities considered for selection as models, had to be a key product of the province, would use lots of chemicals in the production process, and had to be in high demand in the market.

“The organic models are very well supported by local farmers. In the past, they used chemical pesticides every day but now gave up completely and are using homemade herbal pesticides instead.”

Vice Director, Phu Loc Center for Agricultural Services

Evidently, all selected pilots and models had to comply with the government’s standards for organic production, as specified in legal documents and guidelines.

The budget for demonstration of production models, with about half the budget, was the costliest of the four building blocks put in place. As for cost sharing, the project supported production materials, such as micro-organic fertiliser, bio pesticide, or rice seed, etc. so as to be able to show how small-scale organic farming models in e.g. rice, peanut, watermelon, vegetables, centella and chicken could be established. Farmers, meanwhile, provided labour, materials, and mostly some sharing in the cost as well.

The project facilitated linking some of the coops (mainly the ones focusing on rice) with companies interested in buying up their produce and bringing it to market. Deals would thereby be signed at an agreed sales price (typically minimum 15% above the market price of conventional rice) prior to starting these models, which helped in putting some of the initial reluctance of farmers to rest.

Trainings on demonstration plots were fully participatory in nature, and e.g. focused on soil testing; selection and preparation including avoiding contamination from nearby fields e.g. through planting specific flowers that would attract the natural enemies of insects, on ways to make organic fertiliser or bio pesticide and how to apply it correctly, on cultivation, tending, disease prevention, on food safety and hygiene, etc. A few large private companies provided support to models and trainings, e.g. by supplying rice varieties and some other input materials like organic fertiliser, equipment for sowing and transplanting, natural mineral fertiliser for leaves, or bio pesticides.

A specific challenge in the process was that farmers felt that manual planting of rice was too labour-intensive, and that they had not done this in a long time. Some simple special equipment was brought in, that helped in that regard.

Few of the models that were established, and some early take-aways from the experience, after about 18 months:

- OA cooperatives supporting organic rice models (in Loc An, Phu My) signed deals with the private sector (Que Lam Co, Hue Viet Organic Agriculture Co. Ltd), and already in year 1 had a decent harvest, but also production costs that, for first crops, were higher than normal and farmers didn’t make a profit;

- early organic peanut models (e.g. in Giang Hai commune, 65 households participating) had an initial productivity of 1.7 tonnes/ha which was 15% lower than usual, while the production cost was higher, hence a first revenue that was 20% lower. Some models experimented with peanut intercropping with watermelon;
- early organic vegetable models (in Vinh My, Quang Thanh, Quang Tho) had two to three crops in year 1 already, but at that time with lower productivity. These first crops were considered 'transitional crops', from conventional chemical-based crops to organic, and the prices the output could fetch in the market were the same as before. Meanwhile, the labour cost was higher than for conventional production, so farmers had an income (VND 18.9 million/ha approximately EUR 720/ha) from those first crops that was about 50% lower than previously. Early obstacles for organic vegetable farming, already at that time and for some years to come, were:
 - the absence of a fully functional certification mechanism that prevented farmers to get their rightful higher prices in the market;
 - the short time vegetables stay fresh and can be sold, in a market that is in its infancy, with few rural people showing an interest in organic products, and very few places in nearby urban centres to supply these products to.

For most models and commodities, the output was only treated as organic after minimum one year, as that was considered the 'conversion period'.

Following the challenges of the first 12-18 months, most models improved over time, and productivity and incomes increased, which inter alia was an indication of soils and plants getting healthier.

Some models, however, were terminated. The organic chicken and pig rearing models did not do well, with one of the obstacles being the need for a separate slaughterhouse, as per OA national standard TCVN 11041-2017 to avoid contamination. At the same time, however, TT Hue had rules in place that only allow slaughtering in specific concentrated slaughterhouses, with scattered slaughtering prohibited for environmental hygiene and food safety reasons. Considering high cost implications, farmer groups in the organic chicken models could not afford building such separate slaughter houses for their small-scale production. Another obstacle was that consumer demand for organic chicken in local markets was very low, with people referring to the (real or assumed) inferior quality of the meat. Some organic peanut models also failed, due to insufficient irrigation facilities, and watermelon in the dry season failed due to the variety being not sufficiently drought resilient.

The vegetable models were quite successful from a production perspective, but continued to face the same price constraints until the PGS certification mechanism was completed (infra), but other models (rice, peanuts, watermelon, centella) improved and became sustainable, and profitable. One indication of positive impact was the further increase in area under organic cultivation, from 11.1 to 32.9 ha. Another immediate, and evident outcome was the substantial reduction in use of chemicals on organic plots, with 37 tonnes of chemical fertiliser and 118 litres of pesticides and herbicides that otherwise would have been used on those plots. And importantly, by the end of the demonstration and intervention, the 20 OA groups and nearly 300 households that got involved, saw their output and incomes increase, to an accumulated 8.2 tonnes of rice, 414 tonnes of vegetables, 87 tonnes of centella, 61 tonnes of peanuts and 19,124 litres of peanut cooking oil, which together brought in VND 9.2 billion (approximately EUR 340,000) in revenue, while farmers at the same time also saved money on inputs, the cost for example of organic fertiliser like seaweed (locally collected) being much lower than (inflation sensitive) chemical fertiliser.

Whereas women of all participating households joined in trainings and model demonstrations, the work to be done was usually divided between male and female members of the household, with women primarily getting involved in planting, caring and harvesting during production, and in selling post production.

POST PRODUCTION PROCESSES

Early on, as soon as OA models were giving an output large enough for selling, the focus also had to be on processing, packaging, labelling, branding and marketing. Much of that is in Vietnam now also regulated by GOV Decree 109, with for each step in the process clear guidelines and sometimes stringent, and costly, admin and food safety requirements.

E.g. Decree 109, Art 12 specifies that every organic product brought to market must have a logo and label, as well as product analysis if exceeding a certain scale. And designing a logo and label, would need to be followed by a certificate of exclusivity, e.g. a trademark or other intellectual property title, which requires lengthy admin procedures with government as well as costly dealings with private intellectual property companies. Nevertheless, trademark registration was considered quite important, in order to advertise products more widely, increase product value, and for brand building and protection. And the direct link and collaboration with local government was a major advantage in these processes, as they helped facilitate with procedures.

Often, the need for additional financing became obvious, and critical at the post production stage. An example are the interesting and overall successful models in organic peanut oil production. Fairly quickly, the cooperatives were producing quite large quantities but were then facing a limitation with their small and basic oil presses, to extract the oil from the nuts. The cost for a better, and better equipped workshop with electricity system, water supply, etc. and more modern, diversified and heavy duty equipment (hydraulic press, peanut grinder, stove for steaming peanuts, etc.), while also producing in compliance with government standards and requirements regarding the entire organic process from farming to packaging as well as food safety and hygiene standards, far exceeded the financial capacity of small coops. And the project had clear rules, and limitations, as to what could be supported, and what not.

Hence, a need for these coops to be able to access commercial loans. And not at market interest rates, which were considered far too high, but at preferential interest rates. It is one of those key obstacles that prevent coops who do good work to further expand and upscale. It is also the reason why finance and a partnership with Vietnam's Agribank is part of LuxDev's first proposal to the GCF for funding of a climate change adaptation project for TT Hue, and why a Luxembourg funded bilateral project to support the Agribank is to kick off shortly.

PRIVATE SECTOR ENGAGEMENT IN ORGANIC AGRICULTURE

LOCALLY-LED PRIVATE SECTOR ENGAGEMENT STRATEGY

A challenge was to incentivise farmers to convert into organic farming when there was no established market at project start.

Local authorities were entrusted with market development through a delegation agreement. This is a good example of an engagement strategy led by local authorities. It is also instrumental in designing the right incentives for investing, without crowding-out financial institutions like banks. The focus of the private sector engagement strategy was at the level of cooperatives. The project decided to work with existing and interested cooperatives and their farmers. They had to have their own plot of land, had to be motivated to become part of a model, and willing to provide free labor input.

A local resolution was adopted to encourage cooperatives shifting towards organic farming. The resolution took market barriers for organic farming into account and catered for clear co-financing rules and caps.

Cooperatives are registered legal entities and have an important outreach to farmers. They are usually of an acceptable size in terms of volume and therefore in an interesting position in the value chain to be relevant interlocutors for trading companies. The project facilitated the signature of purchase agreements between buyers and the cooperatives at a committed fixed price, with access to markets and visibility being critical to encourage any entrepreneurial venture.

With their own substantial support, both financial as per agreed principles and cost norms as well as in-kind, cooperatives provided an extra layer of certainty to farmers to take the risk of venturing into something new. As such, cooperatives actively contributed to the transition towards more climate-resilient systems.

SUCCESS STORY OF CENTELLA MODEL IN QUANG DIEN

Quang Dien district showcases an effective public-private partnership in organic agriculture, specifically with the Centella model. Supported by the Luxembourg project, local farmers established organic Centella cultivation, which was then processed into matcha tea. The district authorities funded contributed to the initiative by funding the processing facility, and the project provided essential equipment and marketing support. This collaboration led to sustainable production and international sales, including exports to South Korea. The success of the Centella model highlights the importance of integrating public and private efforts to achieve sustainable agricultural outcomes and market expansion.

The project initially co-financed the design and sometimes the production of packaging, bottles, bottle capping machines, biodegradable bags, etc. as well as the printing of labels and promotional materials like posters and leaflets. By the end of the intervention, five organic products were available in the market, all with their own unique packaging, logos, labels, PGS certification, QR code, and promo materials. QR codes, for product tracing, are also a requirement of GOV Decree 109, can be obtained through private consultancy companies, and provide relevant product details such as day and place of harvesting, name of the cooperative, picture of the product, and so on.

As for the link with the market, a lesson many coops learned was that it is much better to link up and sell directly to expert companies, rather than to traders.

Progress in post production and marketing activities was tracked by an indicator based on the five key steps in the process: processing, packaging, labelling, advertising and distribution, and assessed on a 10 point scale. By the end of the intervention, about 80% of the 20 OA producer groups had completed or reached the final stage in the process: 17% had fully completed the process of post production and marketing (advertising, distribution), 62% had reached the final stage (+80% of process), and 21% completed 70-80%.

CERTIFICATION SCHEME: PARTICIPATORY GUARANTEE SYSTEM

For organic products to be marketed and sold at premium prices, a formally recognised certification of a 100% organic process and output, is essential.

Usually, as is the case in Vietnam, there are various ways to get organic products certified: through private companies, specialised certification organisations, competent government agencies, authorised and certified individuals, etc. They all have the same function, i.e. to inspect and confirm that an organic product complies with the government's organic standards. As per GOV Decree 109, the government will carry the cost of certification, but only once.

One other recognised mechanism, often chosen for practical and cost-saving reasons, is the PGS, which relies on the engagement of various parties.

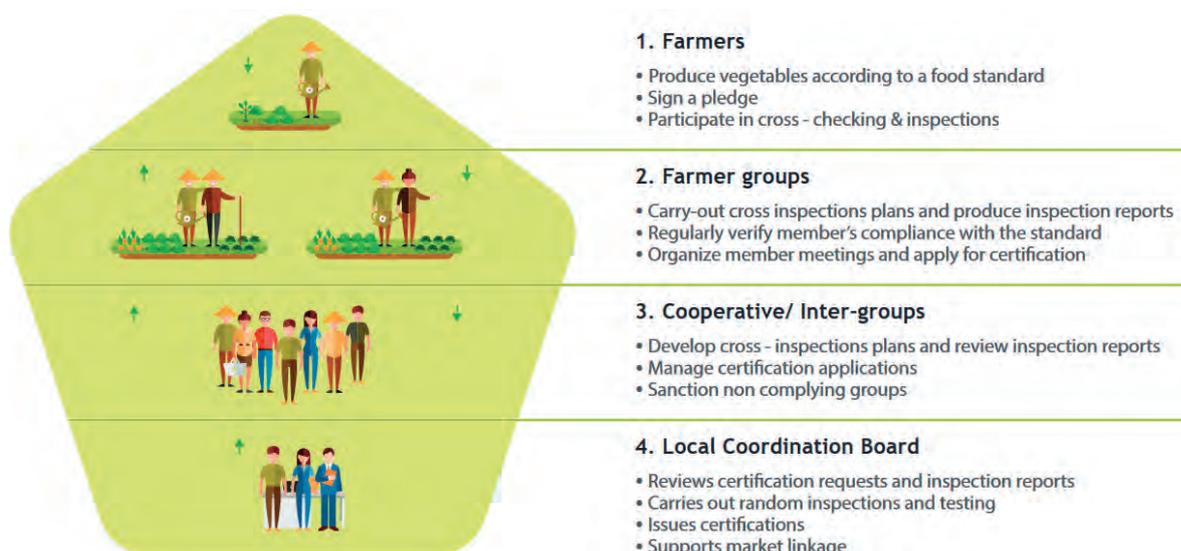
As per the widely accepted definition by the International Federation of Organic Agriculture Movements (IFOAM), with members in over 100 countries, PGS are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange.”

PGS was first introduced and applied in Vietnam in 2008, in a commune close to Hanoi, by the Danish ADDA, following the IFOAM model, and the first formal PGS certification was issued in 2009.

Meanwhile, PGS as an organic certification mechanism spread to many areas, and is considered a highly reliable mechanism that continuously monitors, verifies and ensures that organic production processes are based on Vietnam's Ministry of Agriculture's Standards for Organic Production and Processing, which in 2013 were officially admitted into the IFOAM International Family of Standards.

A PGS system involves a wide range of stakeholders such as farmers, consumers, retailers, NGOs and local authorities in agricultural products' quality assurance. It has a lower cost and complexity than third-party certifications, making it more in line with the reality of smallholder farmers. Principles and rules for safe or organic production are conceived and applied through contributions of all stakeholders. They are adapted to fit the local context, taking into account individual communities, geographic area, cultural environment and markets. (Ricolto PGS Learning Series, www.ricolto.org/vietnam)

A PGS operational model is based on four levels: farmers, farmer groups, cooperatives or inter-groups, and a Local Coordination Board. Each level has its tasks and responsibilities, as in the pictorial below (ibid). All persons with a responsibility in the process receive training so as to ensure that their technical and admin tasks are done correctly.



In TT Hue, Hanoi consultants of the VOAA provided PGS TOT to a large group of different participants. As a result, by the end of year 2 of the intervention, the PGS building blocks at the commune and district level were in place, with thirteen PGS farmer groups as well as three PGS inter-groups being established, with the involvement of local government stakeholders.

However, a PGS system has to be fully completed, from the grassroots and farmers to the Coordination Board, otherwise it is meaningless and does not provide the stamp of approval as guarantee of organic produce. For years, this has been a major issue and obstacle in TT Hue, with the highest level, i.e. the establishment of a PGS Coordination Board at the provincial level, missing. Main reasons were institutional, with the complexity and need for close coordination, participation and the agreement of many different government entities at the provincial level, as well as practical, e.g. where to accommodate this new Board, with what members, how to finance and operate it, etc. It took until second half 2022, close to finishing the project, for that Coordination Board to be formally established, i.e. within the provincial Department of Agriculture and Rural Development. This closed the PGS circle, and from then on TT Hue organic products had the formal government stamp of approval and could be sold in the market with the TT Hue PGS label, and at higher prices. PGS certificates are valid for one year, then need renewal.

OUTCOME AND IMPACT

Some key final results, including from observations by the project's final evaluation team:

- the work in the field through organic models demonstrated the viability of OA giving farmers an income, a healthier environment and work conditions, improved soil conditions and fertility, and cleaner and safer food to eat. There are reports that many conventional farmers are watching, and some have started reducing their use of chemicals as well;
- final progress data as per the indicators in the project monitoring and evaluation system, verified and double-checked in the field by the final evaluation team, were included in a project results poster produced by the team, copy/pasted below:



- four models in particular - i.e. organic rice, vegetables, peanut/peanut oil, and centella, the latter used to make matcha powder for tea - continue to perform well. They had all admin procedures and requirements completed, have their products for sale in the market, have their own designed packaging with logo, PGS label and QR tracing code, and their farmers are convinced about the value and potential of their enterprises, and exploring ways to expand;
- the PGS system is completed, and operational, with the Coordination Board now based within, and steered by the provincial DARD, giving assurances to the market that organic products with the TT Hue PGS label are guaranteed 100% organic;
- in year three of the intervention, a TT Hue OAA was established, after the model of the VOAA, and it became a member of the VOAA. The Association brings all certified organic farmers and cooperatives as well as other relevant partners together, and provides support and guidance to their members, as well as interested new members. Whereas considered a civil society organisation, in a country like Vietnam the link with government is always there, and important, and the TT Hue OAA decided to have its offices also within DARD. The project's technical adviser (LuxDev staff) became a member of the Standing Committee of the Association;
- in the final year, with the strong backing of the provincial government, a first OA trade fair was organised in TT Hue, which was successful in attracting many organic producers from other provinces, and received much attention in the media;
- over the years, the national VTV and local TRT covered the province's work in OA quite extensively, through coverage in news bulletins, and as part of longer reportages on the project's climate change adaptation work.

"My rice field this year is very beautiful. We heard the radio reporting that in many places the rice has fallen a lot but with this organic model the amount of fallen rice is very little only 1%. The rice stem is very hard and it gives a high yield."

Farmer, Loc An Commune

KEY SUCCESS FACTORS

Key factors that are considered critical in establishing the various building blocks for an OA market within a reasonable time-frame:

- the country's legal framework for OA production had just been put in place.
- an economic, social and environmental context that was conducive for change in the agricultural sector.
- the project's institutional framework, with the project working directly under the provincial leadership (PPC) and in tandem with a key government agency (DPI), physically based within that department, and therefore having direct access and a daily working link with key government agencies at provincial, district and commune level, cooperatives, the Farmers' Association, and farmer households.
- strong TT Hue government ownership and support, and alignment with food production policies and priorities.
- a donor project with funding to initiate the initiative and support relevant partners and their activities.
- the presence, and active involvement of the VOAA, to give guidance, direction and support in many trainings.
- cooperatives showing a potential interest, actively helping to mobilise, promote and support the interventions.
- a PGS system that was established, again in part thanks to the support of relevant government agencies.
- establishment of the (top level) PGS Coordination Board and the TT Hue OAA within the provincial Department of Agriculture.

Considering these various elements, some of which critical, to simply replicate the approach in other places and contexts, may not be so simple and local conditions will need to be assessed.

“For ordinary rice, the price in the market is VND 5,000-5,600/kg but for our organic rice, the price is from 7,000 to 8,000 and sometimes even over VND 8,000/kg.”

Deputy Director, Dai Thanh Cooperative



CONSTRAINTS AND SOLUTIONS

Some major challenges the intervention faced over the years, and how they were dealt with:

KEY CONSTRAINT (INTERNAL / EXTERNAL)	ACTION
To convince conventional farmers to change their thinking and ways, and sign up to participate.	IEC campaigns and interventions Active support of local authorities, cooperatives, Farmers' Association Signed deals with private companies with fixed prices for output, prior to action
80% of PGS system (local + district level) was in place quite quickly, but the last 20% i.e. the the Provincial Coordination Board took until end of the project before being established, impacting prices for farmers.	Continued stressing the importance of the PGS Board, including directly with provincial leadership (PPC, DARD)
The absence of an OA 'market', means there are also no existing sales points where organic produce can be easily sold to, etc. but online channels provide major opportunities.	The local market developed together with the models, and e.g. several coops opened their own sales outlets. At the same time, small organic shops started sprouting in Hue City. Most interestingly, however, are online opportunities. At some point in 2022, the project itself tested the online market and advertised Hue organic peanut oil on a few social media platforms. In no time all 50 something 1 liter bottles that were available got sold. Telling project partners, online opportunities can be critical, potentially the major way forward, to accessing markets.
Covid-19 pandemic: whereas project had a risk analysis done, with long list of potential risks, a pandemic was not part of it! It put many activities on hold, with little field action for about a year.	Project requested, and received an 18 month extension, including additional budget.
TT Hue is increasingly prone to major storms and floods, with water levels reaching 2+ meters every 3-4 years.	Similar to conventional farming, OA suffers heavily from these natural calamities, and the only thing that can be done is consider more suitable and somewhat protected locations, e.g. on an altitude, during planning in the initial phase.
Quality of some of the products is not good enough, and/or inconsistent.	In due course, more focus on professionalisation, in equipment, processes, management.

LESSONS LEARNED

COLLABORATIVE AND BUSINESS DEVELOPMENT

The power of cooperatives: the backbone of sustainable market access

Work with cooperatives, not just farmer groups: In Vietnam, working through cooperatives is essential due to their legal structuration. Cooperatives have the necessary legal titles such as bank accounts, tax codes, business licenses, and certificates of hygiene and food safety, which are crucial for supplying to supermarkets and formal markets. This legal structuration allows for greater market penetration and business opportunities.

Partnering for success: cooperatives and private businesses

Need for private business development and involvement: While cooperatives excel in production, they often lack marketing capabilities. Involving private companies with extensive networks and marketing expertise is crucial to bring products to market. As production volume increases through cooperative efforts, private businesses play a vital role in accessing broader markets, including leveraging online marketing tools.

PRODUCT FOCUS AND MARKET STRATEGY

Beyond fresh: the benefits of processed organic products

Focus on products that can be processed: Fresh vegetables pose challenges in uncertain organic markets due to short shelf life and fluctuating prices. Focusing on products like organic rice, peanut oil, and Centella, which have longer shelf lives and can be processed into stable forms, mitigates these issues. These products are less dependent on immediate market conditions, providing more reliable income for farmers.

Smooth transition: from VietGAP to organic

Conversion from VietGAP is easier: Transitioning from VietGAP to organic production is relatively straightforward. VietGAP products already adhere to reduced chemical use, making the conversion process smoother compared to conventional products. This was evident in the successful transformation of centella models from VietGAP to fully organic practices.

SUSTAINABLE PRACTICES AND INPUTS

Local solutions: bio products for sustainable farming

Using locally found and often free-of-cost bio products as fertiliser and pesticides: Using local, often free bio products such as alcohol, garlic, pepper, ginger, and organic pesticides proved effective in crop protection. Over time, reliance on these bio inputs reduced as soil health improved, reducing pest and disease problems. This practice also influenced conventional farmers to experiment with reduced chemical use, fostering a broader shift towards sustainability. Likewise with the inputs used as bio fertilisers, such as compost from grass, peanut residue, or cow and pig manure.

Collaborative gains: striking the right balance in profit sharing

Finding a win-win situation for all actors is essential: Equitable profit distribution is crucial for maintaining farmer motivation. When traders take excessive profits, farmers lose interest. Establishing a balanced profit-sharing model that benefits all stakeholders ensures continued farmer engagement and overall success of the OA initiative.

SUSTAINABILITY AND UPSCALING

Sustainability and upscaling were considered essential, but also the key challenge by the final evaluation team.

Today, few years since project closure, the building blocks and institutions that were put in place continue to function, and farmers continue their models. However, at the same time most partners realise that without financial support from a project and/or government, and so long as the undertakings are not large enough to be self-financing from sales, many of the models will face an uncertain future.

In that context, going forward the TT Hue OAA, and DARD, will be pivotal in making sure the OA coops can continue their work and have the chance to grow and expand. In order to support the sustainability of the intervention, at project end an memorandum of understanding was signed between LuxDev and the OAA, and some operational budget from limited surplus funds was provided to continue functioning and performing their various tasks including running the PGS system, for 2-3 more years, so long as membership of the OAA is not sufficient to become self-financing.

It must, nevertheless, be understood, that a project's life is limited in time, and that if and when it brings something that adds value, some other outfit will need to take over and provide that support if that added value is to be sustained. As the FE team observed, government has an obvious role to play, not only by continuing to provide technical assistance and funding, but also by establishing and maintaining the legal and regulatory framework, including potential policies that support the development and sustainability of OA models and markets. This comprehensive approach will be critical for ensuring that the benefits of the intervention are sustained and scaled over time.

In the three target districts, five-year "District Plans for OA 2020-2025, with Vision to 2030" were prepared and approved by the District People's Committees in 2020 and 2021. These plans, currently in place, aim to provide orientation and ensure sustainability, and have some committed funding from various government sources to support follow-up interventions. For instance, Phu Loc DARD is receiving support for organic vegetable production in Vinh My commune, and the TT Hue provincial Agriculture Extension Centre and Phu Vang district have committed to continue supporting the Phu My rice cooperative in the coming time.

Further, LuxDev's first project proposal to the GCF has a major component on climate-smart agriculture, which will encompass and further support the work on OA already initiated.

CONCLUSIONS

The intervention demonstrated that developing an organic market from scratch, within a relatively short timeframe and limited budget, is challenging but feasible - if a process is followed and the focus is firmly on key building blocks, i.e. awareness raising and knowledge and capacity, production models and technical skills, the full range of necessary post production interventions to get products to markets safely and effectively, and a functional and trusted certification mechanism giving consumers assurances.

However, as this note indicates, to be feasible, many conditions need to be met. Perhaps replication elsewhere in Vietnam and in similar circumstances (project-driven, similar institutional setup, strong local government support, etc.) may be possible, but in other contexts and circumstances, feasibility and conditions will need to be assessed against many different variables.

“After four years of implementation, the project has led to much increased awareness of farmers and government staff at all levels about the benefits of OA; organic products being produced, processed, packaged, labelled, and certified and supplied to the market for consumption.”

Technical adviser - Project VIE/433



WAYS IN WHICH ORGANIC AGRICULTURE CONTRIBUTES TO CLIMATE CHANGE ADAPTATION

from the perspective of the paradigm shift objective of the GCF

GCF PARADIGM SHIFT OBJECTIVE	CONTRIBUTION OF OA TO CCA
Increased climate-resilient sustainable development	
Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	<p>OA is one strategy for climate change adaptation that reduces the vulnerabilities of farmers to climate change impacts:</p> <ul style="list-style-type: none"> • OA diversifies farming systems, and thus also income sources, and increases the flexibility to cope with adverse effects of climate change; • OA reduces input costs, thus is a particularly good option for poor farmers, and output fetches higher prices, hence increased incomes; • OA can lower the risk of crop failure from climate change impacts.
Increased resilience of health and well-being, and food and water security	Organic farming minimises the use of chemicals that are a risk to human health.
Improved resilience of ecosystems and ecosystem services	<p>OA improves organic matter:</p> <ul style="list-style-type: none"> • the soil under OA captures and stores more water than soils under conventional cultivation; • crop varieties used in organic farming are usually better adapted to the local environment and more resilient to climate change impacts such as droughts, floods and water logging.





