### Towards Sustainable Smallholder Oregano Sourcing in Türkiye

### Service Delivery Model Analysis

Public Report September 2023







#### Disclaimer

The analyses provided are based on secondary sources, projections, and assumptions; only limited actual data was provided by Kutas due to the sensitive nature of their business operations.

Findings in this report should therefore be considered indicative of the performance of farmers in the oregano value chain in the Denizli region, Türkiye, and farmers supplying Kutas. IDH, Kutas, and its partners cannot be held accountable for meeting the targets indicated in the report If you are interested in more detailed information, <u>please contact us.</u>

### Introduction

Smallholder livelihoods Agriculture plays a key role in the wellbeing of people and planet. 70% of the rural poor rely on the sector for income and employment. Agriculture also contributes to and is affected by climate change, which threatens the long-term viability of global food supply. To earn adequate livelihoods without contributing to environmental degradation, farmers need access to affordable high-quality goods, services, and technologies.

Service Delivery Models Service Delivery Models (SDMs) are supply chain structures which provide farmers with services such as training, access to inputs, finance and information. SDMs can sustainably increase the performance of farms while providing a business opportunity for the service provider. Using IDH's data-driven SDM methodology, IDH analyzes these models to create a solid understanding of the relation between impact on the farmer and impact on the service provider's business.

Insights & Innovations Our data and insights enable businesses to formulate new strategies for operating and funding service delivery, making the model more sustainable, less dependent on external funding and more commercially viable. By further prototyping efficiency improvements in service delivery and gathering aggregate insights across sectors and geographies, IDH aims to inform the agricultural sector and catalyze innovations and investment in service delivery that positively impact people, planet, and profit.



### **Report outline**

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# Executive summary

#### Kutas is part of the Sustainable Spices Initiative

The <u>Sustainable Spices Initiative</u> has the objective to drive sustainable production and due diligence in the spices sector by achieving 25% sustainable sourcing by 2025 and reaching 50% by 2030. This will be achieved through implementing interventions in the following areas.



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#### About Kutas and the Oregano Sector in Türkiye

#### Company

- Kutas Food Group was established approximately 40 years ago and prides itself on being the world's leading producer of oregano, sage, and laurel leaves.
- The group has other herbs and spices in its portfolio, including thyme, rosemary, marjoram, parsley, basil, cumin, coriander, and aniseeds among others.
- Kutas practices both sustainable and conventional farming with the farmers in the SDM being 100% sustainable farmers.
- The group consists of 5 companies namely Kutas Tarim, Kutas Agro, Safe Spice, Artisan, and Kutas Essential oils which collectively drive the vision of the group to provide unadulterated and pure products to its clients.
- Through its various entities, Kutas Group is involved in a large part of the herbs and spices value chain, from the growing, processing/manufacturing to the marketing of the final products.
- Herbs and spices are susceptible to adulteration compromising the quality of the final products. Kutas has made significant efforts in preserving the purity and safety of its raw materials.

#### Sector/value chain

- Oregano is within the Medicinal and Aromatic Plants (MAP) value chain in Türkiye and is among the main export herbs from the country together with sage, laurel, aniseed, and cumin among others. The market in Türkiye is estimated to be valued at USD 3 billion<sup>1</sup>.
- Oregano is made available to the consumer as dried herbs or used in the production of essential oils.
- Türkiye is a leading producer of oregano in the globe accounting for 80% of the global production. In 2022, oregano exports from Türkiye were estimated to be \$54 million<sup>2</sup>.
- MAP has increasingly been used in Türkiye as a tool to promote rural development and improve the livelihood of rural farmers<sup>1</sup>.
- Farm labor is a major challenge in the oregano value chain with most farmers relying on temporary migrant labor. This increases the risk of child labor during seasons of peak demand.



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**Recommendations (1 of 2)** Income diversification is critical to increasing the income resilience of oregano farmers who are currently heavily reliant on oregano farming.

#### Observation

- There is a good business case for oregano farmers with farmers being highly dependent on incomes from oregano farming with minimal income from crop diversification and other activities.
- 84% of the farm size is dedicated to oregano production. Revenues from oregano account for 90% of the farm income.
- Assuming a farmgate price of <u>\$2.05/kg</u> of oregano, all farmer segments are able to earn a <u>living</u> income, highlighting the overall profitability of oregano farming.
- Farmers supplying Kutas are up to <u>42% more profitable, making an additional \$1628 compared to other farmers</u>.
- <u>Higher incomes for farmers supplying Kutas</u> are majorly driven by improved yield, lower production cost, and certification premiums.

#### **Impact Case**

- Farmers supplying Kutas produce an additional 0.43MT/ha (+33%) compared to the other farmers (1.31MT/ha) enabling them to earn higher incomes.
- The <u>cost of production</u> is mainly driven by the cost of inputs (fertilizer) accounting for \$502/ha (48%) and \$221/ha (67%) of the total cost for farmers supplying Kutas and other farmers not affiliated to Kutas in the region, respectively.
- <u>Monthly farmer cashflows</u> are generally stable with farmers not supplying Kutas experiencing slightly negative cashflows during the production phase (April-July) of the crop. Cashflow constraints are likely to compromise the ability of the farmer to effectively maintain the crop thus explaining lower productivity for this farmer segment. Adequate cashflows for farmers supplying Kutas enable them to sufficiently invest in their farms hence higher productivity.
- While there is a good business case for farmers, production is primarily rainfed hence farmers are highly susceptible to erratic climatic patterns. With no agricultural insurance, farmers are exposed to income fluctuations.

#### Recommendation

- Kutas should encourage farmers to become diversified to reduce their reliance on oregano and increase their income resilience. Kutas can for instance encourage farmers to grow other herbs they are sourcing such as sage and thyme hence enabling them to secure their sourcing.
- Optimal yield for oregano production is estimated to be 2.5MT/ha hence farmers have the room to increase their yields with the application of Good Agricultural Practices. Kutas should thus scale its efforts in training to improve both the yield and quality of oregano produced.
- Further research is required to evaluate the veracity of the farmgate price as the exact price paid to the farmers was not shared by Kutas.

These topics, challenges and recommendations were derived from a set of learning questions that were formulated up front. A list of these learning questions can be found in the annex



# 3. Business case

### **Recommendations (2 of 2)** Loop in other players to support service provision, increase the proportion of female and young farmers, and establish long-term relationships with farmers.

#### **Observation** Recommendation Farmers supplying Kutas are segmented into certified herb club farmers and Deliberately establish mechanisms to noncertified herb club farmers. progressively increase the number of female The service package provided by Kutas included training and information, and young farmers in the SDM. Such input on credit, and production advances. mechanisms should be based on the pillars of Kutas aggregates the crop through one of its subsidiaries, Kutas Agro, agency, rights, equity, recognition, and directly from the farmers. access to and control of resources. The organization of the service delivery model ensures that Kutas closely Consider establishing long-relationships with monitors the farmers and thus reduces the risk of side selling while also farmers to minimize the cost of acquisition maintaining the quality of oregano. and to improve the overall efficiency of Kutas does not make any direct revenues from service provision to the service provision. This will also be pivotal in ensuring that farmers have stable livelihoods. farmers. Service The capital required for service provision (Fertilizer and production Continuously monitor primary production to **Delivery** advances) is expected to increase by up to 3.41 times by 2025. minimize the risk of child labor which is likely Increased sourcing volumes from farmers reduce the cost-of-service to increase with the increasing labor provision per MT by \$71.95 for certified farmers and \$46.56 for non-certified requirement among the farmers supplying farmers between 2021 and 2025. Kutas. Participation of female oregano farmers in the SDM is still low with on average only 10% of the contracted farmers being female. Limited data were available on the participation of the youth. Farmers supplying Kutas have annual contracts with Kutas, with the company estimating that 33% of the farmers do not renew their contracts at the end of the year.

These topics, challenges and recommendations were derived from a set of learning questions that were formulated up front. A list of these learning questions can be found in the annex

# The Service Delivery Model

# **Objectives** | The SDM aims to promote sustainable oregano production while providing smallholder farmers with access to services.

	Objective	Farmers	Kutas	IDH
Core objective	Building the farmer capacity and processes to promote sustainable agriculture production by improving access to markets, credit, training, and other agricultural services	<ul> <li>Higher incomes, financial and food security, and improved long-term business case</li> </ul>	<ul> <li>Scale up the capacity of smallholder farmers towards better yield/quality and enhance market linkage</li> </ul>	<ul> <li>Sustainably transform the spices sector to secure future sourcing and stimulate economic growth</li> </ul>
Secondary objectives	Analyze the benefits of the program and its implications on farmer loyalty	<ul> <li>Access to quality and affordable inputs (fertilizer).</li> </ul>	<ul> <li>Increase the loyalty of farmers</li> </ul>	<ul> <li>Promote sustainable production</li> </ul>
	Optimize costs by identifying efficient interventions Understand the breakdown of premium on finished goods	<ul> <li>Access to markets and premium prices for quality produce</li> </ul>	<ul> <li>Improve business case of supply chain actors</li> </ul>	<ul> <li>Promote sustainable sourcing</li> </ul>
	Identify challenges in reaching of the 2025 targets of sustainably sourced oregano.	<ul> <li>Application of sustainable farming practices</li> </ul>	<ul> <li>Increase smallholder oregano farmers resilience.</li> </ul>	<ul> <li>Advocate for a long-term supply, food safety, and traceability in the sector</li> </ul>
	Evaluate the income of the farmers over the years and establish income resilience	<ul> <li>Improve the income resilience of smallholder oregano farmers</li> </ul>	<ul> <li>Increase the oregano sourcing volumes</li> </ul>	Better income across the farmer segments

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**Location** | Kutas sources all its oregano from the Denizli province in the Aegean region with its operations located in the province of Izmir.



- The offices and operations of Kutas are located in Kemalpaşa, in the province of Izmir. The location of the company is strategic, allowing it to access both the farmers and the market.
- Oregano is wild and cultivated in the Mediterranean and Aegean regions in Türkiye. Oregano is mainly cultivated in Denizli and wildly grows in the provinces of Izmir and Mugla.
- The crop is native to these regions which have subtropical and subhumid climatic conditions with dry summers. Oregano does well when grown in well-drained soils with sufficient exposure to the sun<sup>1</sup>.
- Oregano cultivation in Denizli region has been instrumental in supporting rural development as farmers have substituted tobacco with the crop since the early 2000s<sup>2</sup>.
  - Oregano cultivation areas
  - 1 Izmir
  - 2 Denizli
  - 3 Mugla

Kutas Location

**SDM overview** | Kutas has various entities within its SDM that play different roles in the delivery of services to the farmers and the processing of the oregano.



- Kutas Agro aggregates the produce, Kutas Tarim does the processing, Safe Spice conducts the sterilization. Both Kutas Tarim and Safe Spice and BRCGS certified.
- Kutas engages the community in CSR activities that are co-financed with McCormick Group.
- The community provides labor to the farmers.
- The final oregano product is sold to McCormick and other clients and some are used within the Kutas Food Group to produce essential oils.

Legend:

- Goods & services
- Money
  - Data & information

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# 1. Summary

## **Stakeholders |** McCormick is the main stakeholder in the provision of services to the farmers with IDH supporting in learning and innovation

Actor	Legal status	Function (within this SDM)	<b>Revenue model</b> (within this SDM)	Incentive to participate (Within this SDM)
McCormick Group	Public Company	<ul> <li>Co-finance programs that support farmers.</li> <li>Offtake processed raw materials from Kutas.</li> <li>Certification of farmers</li> </ul>	Margins from the sale of oregano products	<ul> <li>Ensure the oregano sourced from Kutas is sustainably and responsibly sourced</li> </ul>
Kutas Food Group	Limited Company	<ul> <li>Provide training, input on credit and processing services</li> <li>Offtake produce from farmers</li> </ul>	Margins from the sale of processed oregano	<ul> <li>Increased oregano sourcing volumes.</li> <li>Rural development and improving the livelihood of rural farmers</li> </ul>
Input suppliers	Limited Companies	<ul> <li>Provide inputs to farmers</li> </ul>	Margins on inputs	Increased revenues
Banks and FSPs	Limited Companies	Provide finance to farmers	Interest charged on loans	Increased revenues
IDH	Foundation	<ul> <li>Innovate and learn solutions that promote sustainable trade practices in the oregano value chain.</li> <li>Convene stakeholders in the value chain to transform market operations</li> </ul>	None	<ul> <li>Gather knowledge of the operations of the oregano value chain</li> <li>An opportunity to learn and innovate</li> </ul>



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The SDM

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**Farmer relationships** | Kutas requires its farmers to embrace sustainable agricultural practices while providing farmers with financial and technical support.



#### Outreach

- The company has extension officers who provide training to the farmers.
- The FarmForce app is also used to engage the farmers.
- Kutas also uses local TV channels for farmer outreach.

#### Selection

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- To join the Kutas Herb Club, farmers are required to practice sustainable farming<sup>1</sup>.
- Certified farmers should generally have their farms located further from other farms that practice conventional agriculture to minimize the risk of pesticide drift.

#### Contracting

- Farmers sign annual renewable contracts with Kutas which details the terms of engagement and the obligations of the parties in the contract.
- All farmers receive discounts on gas and equipment.

#### **Segmentation**

 Farmers receiving services from Kutas are herb club farmers. They are further segmented into certified and noncertified farmers based on whether they meet the McCormick certification standard. Baseline farmers do not receive any services from Kutas.

#### Graduation

 Kutas does not have a graduation approach for its farmers.  $\mathcal{N}$ 

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#### Data collection

• The company uses the FarmForce online platform for farm data collection, guaranteeing 100% traceability of produce.

# **Services** | Kutas provides services tailored to implement sustainable farming practices while improving the productivity of farmers.

Category	Service	Impact	Implementation	Revenue Model	Status
Training & information	GAP training Sustainable Farming	Increased productivity, income diversification, and sustainable agriculture adoption	Kutas provides this service to farmers	Training costs paid by Kutas are recovered indirectly from the processed oregano margins	Ongoing since 2020
Inputs	Seedlings Organic inputs	Increased access to quality inputs Farm Income diversification	Kutas provides these services to farmers	The cost of input is recovered by Kutas during payout for oregano	Ongoing since 2020
Financial	Inputs on credit	Increased access to quality inputs	Kutas provides this service to farmers	Both production advances and input credit are provided at 0% interest rate. The	Ongoing since 2020
services	Production Advances	Improved crop maintenance and application of GAP	-	capital is recovered at payout	
Other services	Community projects Training youth and Women Education Health camps	Support migrant communities that provide labor to farmers Increased labor availability to farmers	Kutas provides this service to the migrant workers	Costs are covered by both Kutas and McCormick and recovered indirectly from product margins	Ongoing since 2020

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Labor | Oregano production is dependent on seasonal migrant workers. Kutas has made efforts to ensure that workers' families have decent living conditions while supporting children to continue accessing formal education.

Estimated Number of Seasonal Migrant Workers Serving Herb Club Farmers

- Notes: 1) Labor needs are assumed to be evenly distributed over the four months period with the first two months being dedicated to crop maintenance and the last two months being dedicated to harvesting. 2) Only 50% of the actual labor requirement needs are available in any given month.
  - 3) On average 1 worker is expected to work for 5 farms within the production period.
  - 4) A family is assumed to have 2 adults and 4 children
  - 5) Adults in the family are assumed to be eligible to provide labor in the farms
  - 6) Kutas has put in place mechanisms to prevent child labor across its farmer segments.

- Total labor requirements for farmers supplying Kutas are expected to increase four-fold with the growth in the number of farmers.
- Oregano farming is heavily dependent on seasonal labor which is provided by migrant workers from the east of Türkiye.
- International Labor Organization (ILO) estimates that 720,000 children in Türkiye are engaged in economic activity with 31% of this being employed in agriculture<sup>1</sup>.
- Child labor in Türkiye has significantly declined over the years but seasonal agricultural production still presents the challenge of exploitation of child labor.
- Seasonal agricultural workers travel with their children for 4 to 7 months thus predisposing them to work to contribute towards the upkeep of their families<sup>1</sup>.
  - Kutas has invested in ensuring the workers in the temporary settlements have access to hygiene products, water and sanitation, food, and work safety products. These services are otherwise lacking for most migrant families working with farmers not affiliated with Kutas<sup>2</sup>.
  - The company also supports activities that ensure the children in the camps continue to access formal education including the provision of books, stationery, and covering meals at school.

Sources: 1) International Labor Organization (2021) 2) Kutas Field Visit Interviews



**Women and Youth Inclusion** | The inclusion of youth and women in the oregano value chain will require a multi-stakeholder approach and will be influenced by the intersection of multiple factors and systemic limitations

#### **Women Inclusion**

- Female participation in agriculture in Türkiye is influenced by societal norms. For instance, land ownership among rural women is limited as well as access to educational opportunities<sup>1</sup>.
- The inclusion of women in oregano farming and agriculture, in general, requires addressing the inequalities in the access and control of productive and financial resources<sup>2</sup>.
- Only about 10% of the farmers contracted by Kutas are female farmers. <u>Kutas has put in place robust mechanisms to ensure</u> <u>female women are included in the oregano value chain</u>, both at the primary production level and within the company at the processing level
- United Sates Agency for International Development (USAID) posits that gender inclusion should focus on the following key domains<sup>3</sup>:
  - Laws, policies, regulations, and institutional practices.
  - Cultural norms and beliefs.
  - Gender roles, responsibilities, and time of use.
  - Access to and control over assets and resources.
  - Patterns of power and decision-making.

#### Youth Inclusion

- Youth have a pivotal role in the transformation of Food systems across the globe. Youth participation in agriculture is however hindered by barriers such as access to land, credit, markets, knowledge and information, technology, markets, and supporting institutions.
- Youth participation in oregano farming is still limited as most young people opt for white-collar jobs in urban centers rather than staying in rural areas to practice agriculture<sup>4</sup>. Positioning oregano farming as an attractive venture that can foster a livelihood is key to increasing the participation of young people.
- Food and Agriculture Organization (FAO) posits that youth inclusion and engagement in food systems should focus on the following traversing areas<sup>5</sup>:
  - Creating an enabling environment for youth to act as agents of change
  - Securing dignified and rewarding livelihoods in agriculture and food systems.
  - Increasing equity and rights to resources
  - Enhancing knowledge, education, and skills.
  - Fostering sustainable innovation.

1) World Bank (2017) 2) World Bank (2022) 3) USAID (2018) 4) Kutas Field Visit Interviews 5) FAO (2021)

## **Gender assessment** | Kutas is gender transformative with an established framework to increase the participation of both genders at the workplace and in oregano farming.

Questions	Answer	Explanation
<b>Gender strategy:</b> Is gender equality a strategic goal for Kutas which is communicated in documents?	Yes	Kutas has a gender strategy that prohibits gender discrimination among employees of the organization in hiring, training, and compensation. As a policy, expectant women are not allowed to work in the fields
<b>Data collection:</b> Does Kutas collect data on staff or customers/farmers disaggregated by gender?	Yes	Both employee and farmer data are disaggregated by gender. Farm force is used for the collection of farmer data which is used to monitor among other things the participation of women and youth in the cultivation of oregano and the support that can be extended to increase their participation. On average only about 10% of the contracted farmers are women.
<b>Inclusive workplace:</b> Does Kutas have policies or practices to make the workplace inclusive for both women and men?	Yes	All employees at Kutas are provided with the tools they require to effectively perform their functions. Discrimination of any sort at the workplace is prohibited
<b>Inclusive consultation:</b> Does Kutas speak to or consult both male and female customers (farmers) to learn about their different needs and preferences when designing a product	Yes	Both male and female farmers are consulted by Kutas to understand their unique needs. Since village farmer meetings are usually male-dominated, Kutas organizes separate meetings to consult with the female farmers.
<b>Inclusive tailoring:</b> Does Kutas tailor services based on how needs may be different for men and women?	Yes	Kutas has a female agronomist to deal with the female farmers. Kutas has been providing training sessions targeting female farmers after establishing their participation in the general training (where men were also present) was limited due to the conservative nature of Turkish society. Kutas has further pioneered a tractor driving course for female farmers where 15 women obtained their licenses. Female farmers are provided with screening services for gynecological infections.
<b>Independence and control over resources:</b> Do services enable women to improve their independence, control over resources and/or value capture?	Yes	Kutas has started to provide scholarships to female students from regions they are sourcing from who choose to enroll in the faculty of agriculture. This, in addition to the tractor driving course, enables women to have more control and independence and proactively participate in agricultural activities at different levels.

**Gender Recommendations** | While Kutas has made significant strides to ensure gender inclusion, there is still an opportunity to further refine its gender approach.



# Business Case

**Scale** Kutas requires to increase the number of farmers in the SDM by nearly 200% while increasing the share of certified farmers to meet its sourcing targets in the next three years.



Sourcing Volumes MT/Year 2021-2025



The steep change in sourcing volumes between 2022 and 2023 is based on the projection of the growth of the number of farmers required for Kutas to achieve the target of 1500 by 2025

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Summary

The SDM

Business

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Notes: 1) The size per farm is assumed to be 3.2 ha with each farmer producing 1.7MT/ha 2) 2021-22 values are based on historical data while 2023-25 are based on the projected increase in

the number of farmers.

**Production Advances and Fertilizer Requirement |** The growth in the number of farmers will see a significant increase in the capital required to provide for advances and fertilizer on credit

Fertilizer Requirement MT/Year 2021-2025

Production Advances (,000 USD/Year) 2022-2025



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Summary

The SDM

# Impact Case

1. Summary

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**Farmer segments** | Kutas segments its farmers as certified and non-certified with on average 65% of the contracted farmers being certified.

	20	20		
Characteristics	Baseline	Herb Club Non-Certified	Herb Club Certified	
Average crop age	4.7 years	3.4 years	3.4 years	
<b>Current yield</b>	1.3 MT/ha	1.7 MT/ha	1.7 MT/ha	
Maximum yield	2.5 MT/ha	2.5 MT/ha	2.5 MT/ha	
Farm size	3.2 ha	3.2 ha	3.2 ha	
Farm-gate price	37.9 TRY/kg	37.9 TRY/kg	37.9 TRY/kg	
Premium received	N/A	N/A	3.0 TRY/kg	
Services				
Training		GAP training, Sus	stainable farming	
Inputs		Fertilizer	on credit	
Market access		Aggregation, Processing		
Financial services		Production	advances	

- Kutas is sourcing oregano from about 500 contracted farmers. Farmers contracted by Kutas form a Herb Club and are eligible to receive services from the company.
- Herb club farmers are segmented into certified and non-certified farmers. Farmers are certified using McCormick standards and are eligible to receive a premium of 8% of the regular oregano farm gate price.
- Yield, pesticide residue, and the time from harvesting to the selling of the crop are the major considerations in the certification of oregano farmers.
- About 33% of the contracted farmers exit the herb club every year and are replaced by Kutas from the pool of 6000 baseline farmers located in the Denizli region.

Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

**Cost of Production |** Services provided through Kutas lower the cost of production for Herb Club farmers enabling them to save up to 38% of the cost compared to baseline farmers.

#### Cost of Production (USD/Farm)



Notes: Average farm size is 3.2ha

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Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

- The cost of fertilizer is the most significant cost of production accounting for up to 67% (\$1,602) and 48% (\$706) of the total cost for baseline and herb club farmers respectively.
- Access to affordable fertilizer is one of the main benefits that herb club farmers enjoy. Kutas procures fertilizer in bulk and provides it to the farmers on credit just before the beginning of the cultivation period.
- Farmers are not charged any additional interest on the credit. The cost of fertilizer is recovered by Kutas at the point of paying farmers for the oregano delivered.
- Application of good agricultural practices by Herb club farmers lead them generally use lower quantities of fertilizer (500 kg/ha) compared to baseline farmers (600 kg/ha) further contributing to the lower cost of fertilizer incurred in the production process.

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Profitability per hectare | Higher productivity per hectare enables Herb Club farmers are up to 42% more profitable compared to baseline farmers.

#### Cost of production and profit (USD/hectare)



Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

- Kutas provides training to its farmers on the application of good agricultural practices and the implementation of sustainable oregano farming.
- Through the adoption of these practices herb club farmers have 30% more productivity compared to baseline farmers.
- Input provision services are pivotal in reducing the cost of production for herb club farmers enabling them to post up to 90% of their gross revenues as profits. Oregano is a low-maintenance crop with farmers incurring direct costs in the purchase of inputs and minimal labor costs. Labor is mainly mechanized and farmers own the equipment hence only paying for maintenance and fuel costs.
- McCormick provides certification training to the farmers and the farmers that become certified earn a premium of 8% on the farmgate price of standard quality oregano, enabling them to further increase their net incomes.

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**Farm P&L** | Lower cost of production, higher productivity, and premium prices contributes to Herb club certified farmers being the most profitable farmer segment.

Profit and loss for a five year period (USD)



Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

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USD/Month

**Monthly cash flow** | Production advances and the provision of fertilizer on credit ensure that Herb Club farmers are not cash constrained during the production phase of the crop.

#### Cumulative net monthly cash flow (USD)



Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

- Herb club farmers are eligible to receive production advances from Kutas of \$378 per hectare and fertilizer on credit. Advances are intended to support farmers in meeting the cost of labor during production.
- The production advances and the cost of fertilizer credit are provided interest-free and are recovered by Kutas when paying for the oregano supplied by farmers.
- Oregano is a low-maintenance crop with farmers only incurring the cost of labor (crop maintenance and harvesting), fuel and equipment maintenance, and the cost of fertilizer.
- Monthly cash flows are therefore relatively stable with only baseline farmers having negative cash flows during the production period as they are required to meet the cost of production from their own sources.





**Income build-up** | The income of Herb club farmers is driven by savings on the cost of production, higher yields and premium prices paid by Kutas

#### Drivers of income improvement (USD/ha)



- Through the services provided by Kutas, Certified herb club farmers are able to increase their net income by up to 66% compared to baseline farmers.
- Provision of fertilizer at affordable prices lowers the overall cost of production. Training coupled with ensuring that farmers have access to the requisite inputs and the adoption of good agricultural practices improves the yield of herb club farmers.
- Certification of oregano ensures that certified farmers earn a premium price on their oregano.
- Kutas also encourage their farmers to take part in other income-generating activities such as the keeping of bees for honey, livestock rearing, and the cultivation of other crops such as sage which they also offtake.

Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

**Living income** | Although all the farmer segments evaluated in this study earn a living income from oregano farming activities, income is highly susceptible to movement in farmgate price.



Estimated household income from oregano farming, cultivation of other crops, keeping of livestock, and other non-farm-related activities are sufficient to afford a decent standard of living for a farming household.

		▲ Marketable Surplus (Kg/farm)								
1		4000	4400	4800	5200	5551	5600	6000		
	1.08	3,714	4,232	4,751	5,269	5,724	6,242	6,761		
	1.35	5,010	5,658	6,306	6,954	7,522	8,170	8,818		
(USD/kg)	1.62	6,306	7,083	7,861	8,639	9,321	10,099	10,876		
(USD/kg)	1.89	7,602	8,509	9,416	10,323	11,119	12,027	12,934		
	2.05	8,353	9,336	10,318	11,301	12,163	13,145	14,127		
	2.16	8,898	9,935	10,971	12,008	12,918	13,955	14,992		
	2.43	10,194	11,360	12,527	13,693	14,716	15,883	17,049		
Current Below Living income										

Income sensitivity to farmgate price and Marketable surplus

Net income from farming is sensitive to both yield and price. In recent years, the yield has declined due to erratic climatic patterns<sup>1</sup>. This has put pressure on the price in addition to the inflationary effect<sup>2</sup>.

\* The World Bank poverty line was estimated using the World Bank poverty line for upper middle-income countries (\$5.5 PPP). A family size of 4 people (2 Adults, 2 Children) was used in the adjustment of the household poverty line using the OECD modified scale. Further assumptions can be found in the annex. \*\* The Anker Living Income Reference Value is estimated directly using statistical analysis and adjusted for inflation. Further assumptions can be found in the annex.

\*\* The Anker Living Income Reference Value is estimated directly using statistical analysis and adjusted for inflation. Further assumptions can be found <u>in the anne</u>: Sources: 1) Kutas Field Visit Interviews 2) IMF (2023) Declaration for inflation

Disclaimer: Farmgate price was not provided by Kutas and was derived from this source and adjusted for inflation

# **Contact us**



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#### **IDH Annual Report 2021**

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# Thanks

IDH would like to express its sincere thanks to Kutas for their openness and willingness to partner through this study. By providing insight into their model and critical feedback on our approach, Kutas is helping to pave the way for service delivery that is beneficial and sustainable for farmers and providers





Ministry of Foreign Affairs



Swiss Confederation Federal Departement of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO

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# Annex

# 5.1

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# Enabling Environment

## **Enabling environment (1 of 2)** | Advanced technology and good infrastructure are key enablers of farming. Inadequate labor and climate change however poses a significant threat.

Category	Situation	Impact on SDM
Technology	<ul> <li>91.4% of the population has a mobile connection while 82% of the population has access to the internet<sup>1</sup>.</li> <li>There is an established web-based platform operated by the government that serves to link the demand and supply side of the agricultural value chain<sup>5</sup>.</li> </ul>	<ul> <li>Technology provides the opportunity for the digitization of agriculture. Tech solutions can for instance be adopted in the implementation of performance-based subsidy schemes and the creation of platforms that facilitate access to market</li> <li>Kutas uses a cloud computing platform (farm force) to collect farm information and improve traceability in its sourcing.</li> </ul>
Natural environment	<ul> <li>Smallholder oregano farming is majorly rainfed. Unpredictable weather patterns affect both the yield and quality of the oregano harvested by the farmers.</li> <li>Türkiye is ranked 48<sup>th</sup> in terms of vulnerability to climate change and 63<sup>rd</sup> in terms of readiness to initiate climate adaptation actions<sup>2</sup>.</li> </ul>	<ul> <li>Farmers are vulnerable to climatic risks which can potentially cause crop failure.</li> <li>Adoption of mitigation measures such as irrigation can potentially put pressure on water sources raising questions about sustainable water use.</li> </ul>
Infrastructure	<ul> <li>Türkiye has a well-developed infrastructure, with good roads, airports, and seaports.</li> <li>On average, farmers own a tractor and mechanized equipment that is used in one of the activities performed during the crop cycle.</li> </ul>	<ul> <li>Good physical infrastructure supports the activities of farmers by easing the transport of inputs and produce.</li> <li>The presence of mechanized equipment among farming households potentially reduces the cost of production incurred in hiring labor.</li> </ul>
Labor & workforce	<ul> <li>Limited availability of labor due to the presence of alternative employment options and lack of youth participation. Also, higher wages are expected for higher intensity of work.</li> <li>Farmers are expected to pay the laborers the minimum wage prescribed by law within their respective regions.</li> </ul>	<ul> <li>Inadequate labor is likely to affect the decision by farmers to cultivate the crop<sup>6</sup></li> <li>The use of migrant labor potentially creates the risk of child and forced labor and the violation of labor laws in the fields.</li> </ul>
Inputs & financing	<ul> <li>On average, fertilizer use in Türkiye is 149 kgs/ha of arable land<sup>3</sup>. Farmers generally have access to fertilizer, but usage depends on the farmer's ability to buy</li> <li>Limited access to credit at the producer level resulting in liquidity constraints<sup>4</sup>. The state provides agricultural insurance premium subsidies for the majority of the crops<sup>5</sup>.</li> </ul>	<ul> <li>Input financing challenges may potentially limit the use of quality inputs in the farms decreasing potential yield. Kutas addresses this challenge by providing fertilizers on credit to all contracted farmers.</li> <li>Agricultural insurance premium subsidies are currently not available for oregano farmers increasing their income vulnerability if the crop fails<sup>6</sup></li> </ul>

1) DataReportal (2022) 2) Gain (2022) 3) World Bank (2022) 4) Akdemir et al. (2021) 5) OECD (2021) 6) Kutas Field Visit Interviews

## **Enabling environment (2 of 2)** | Trading systems, pricing, and competition provide an opportunity for Kutas to bridge the gap between the farmers and the market.

Category	Situation	Impact on SDM
Trading system	<ul> <li>Türkiye has a mixed economy with some level of government control and free markets. The agricultural market in the country is largely liberalized but the government still provides support to farmers in the form of direct income transfers and input subsidies<sup>1</sup>.</li> <li>The agricultural trading system is heavily reliant on institutional buyers who procure the commodity from farmers and make it accessible to the market.</li> </ul>	<ul> <li>Farmers have limited access to the market in the absence of institutional buyers, increasing their dependency on them. Farmers are also potentially disadvantaged due to the information asymmetry in the market, therefore gaining less value from their produce.</li> <li>Kutas has been pivotal in supporting smallholders in the oregano value chain, therefore, enabling them to have sustainable ventures in a very competitive ecosystem.</li> </ul>
Pricing & competition	<ul> <li>Trade protection policies limit global integration with the local market.</li> <li>The policy-making process is ad hoc creating uncertainties in the agricultural markets<sup>3</sup>.</li> </ul>	• Liberalization of the agricultural markets increased the vulnerability of smallholders who can not effectively compete with the large players in the sector. Market uncertainties are likely to cause volatility in the prices of produce.
Institutional stability	<ul> <li>Institutions in Türkiye have improved over the years but there are still challenges that hinder the development of agribusinesses.</li> <li>According to the World Bank Enabling Business of Agriculture Report, Türkiye has a score of 78.18% which is comparable to its peers in the upper middle-income group<sup>2</sup>.</li> </ul>	<ul> <li>Stability of institutions plays a key in determining the legal and regulatory framework that potentially affects the operations of farmers and the SDM operator.</li> </ul>
Land tenure	• Land in Türkiye in highly fragmented with over 70% of farmers having less than 6 ha of land. While land reforms have been initiated, the effects of the feudal system implemented during the Ottoman Empire persist today. Land ownership by women is limited in the rural areas, as well as their access to education <sup>3</sup> .	• Farmers' investment decisions in crop selection are observed to be directly linked to land tenure arrangements and land security. Therefore, the adoption of investment-intensive interventions may be difficult among farmers with uncertain land tenure.
Social norms	• While more women compared to men are employed in the agricultural sector, women are also more likely to perform unpaid labor compared to men. The work of women outside the home is culturally not considered to be an economic activity <sup>3</sup> .	<ul> <li>Women's participation in oregano farming and generally in agricultural activities is limited by cultural and societal norms.</li> <li>Addressing the norms that disadvantage women will be critical in increasing their participation in oregano farming.</li> </ul>

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utral Risk

Summary

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## **Climate Resilience** | Kutas has implemented robust policies to ensure that both the farmers and the business are resilient to the effects of climate change.

Questions	Answer	Explanation
<b>Risk:</b> Do you perceive climate change to be a major risk to your organization and the farms?	Yes	Adverse climatic conditions affect both the yield and the oregano produced by the farmers. Lower yields are quality are likely to compromise the incomes of both Kutas and the farmers.
<b>Strategy:</b> Are climate adaptation and mitigation strategic goals to your organization?	Yes	Kutas has implemented several initiatives including installation of solar panels in its facilities, measuring its carbon footprint and better management of waste by adopting the reduce, recycle and reuse approach in its processes.
<b>Data collection:</b> Do you collect data to assess climate risks to your organization and farmers' businesses?	Yes	The company collects data that is used to assess the vulnerability of both farmers and the organization to climate change.
<b>Workplace:</b> Do you have policies or practices in place to ensure the organization is climate resilient (e.g., insurance, flood protected production/processing plant, solar energy,) and/or actively pursue climate mitigation opportunities?	Yes	The company measures and monitors its carbon footprint. Solar energy is also used in some of the company facilities and the company is implementing a waste management policy based on the reduce, reuse and recycle principle.
<b>Informative services:</b> Do you provide services that inform farmers on climate resilience or climate change (awareness)?	Yes	During farmer training, Kutas advises farmers on the practices they can engage in to mitigate and adapt to the effects of climate change, including the measures to take to ensure their crops are more resilient.
<b>Climate-smart services:</b> Do you provide climate-smart services such as intercropping, conservational agriculture, irrigation, or agroforestry to your customers(farmers)?	Yes	Oregano sourced by Kutas is organically grown. Kutas provides training on sustainable agriculture and is also involved in agroforestry.
<b>Inclusive tailoring:</b> Do you tailor your services based on how the needs may be different for climate change vulnerable farmers (poor, female or elder-run households) as to less vulnerable (male, higher earning segments) farmers? Examples of different needs may include different specifications for products/services (e.g., different input package sizes), different mixes of services offered.	No	While Kutas tailors its services to suit the different needs of male and female farmers, The tailoring is not targeted to address differences in the climate vulnerability of the farmers.

# 5.2

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# Assumptions and Methodology

### **Abbreviations**

Abbreviation	Meaning
CSR	Corporate Social Responsibility
FAO	Food and Agriculture Organization
BRCGS	Brand Reputation through Compliance Global Standard
FSPs	Financial Service Providers
GAP	Good agricultural practices
ILO	International Labor Organization
MAP	Medicinal and Aromatic Plants
МТ	Metric ton (1,000 kg)
P&L	Profit and loss statement
SDM	Service delivery model
TRY	Turkish Lira (Local currency)
USAID	United States Agency for International Development
USD	United States dollar (currency)

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# 2. The SDM

3. Business case

### **Learning questions**

With this SDM analysis, we aim to answer the following questions:

Торіс	Question
Impact Case	<ul> <li>What is the business case for the different oregano farmer segments?</li> <li>Are incomes from oregano farming sufficient to achieve a living income?</li> </ul>
Business Case	How can Kutas secure its sourcing while working towards its sustainable sourcing objectives?
Service Delivery	<ul> <li>What are the effective strategies to ensure inclusion of youth and women in oregano farming?</li> <li>What is the benefit of the service provision package to the herb club farmers?</li> <li>What is the cost benefit analysis of Kutas providing all the services to the farmers at no direct cost?</li> </ul>

### **Kutas Assumptions**

Farmer numbers	Unit	2021	2022	2023	2024	2025
Certified Herb Club Farmers	# of farmers	279	253	586	787	1016
Non-Certified Herb Club Farmers	# of farmers	211	87	334	423	484
TOTAL (Expected growth)	# of farmers	490	340	920	1210	1500
Total (Realistic growth)	# of farmers	490	340	500	660	820
Acreage						
Certified Herb Club Farmers	Hectares	890	807	1,869	2,509	3,239
Non-Certified Herb Club Farmers	Hectares	673	278	1,066	1,351	1,546
TOTAL	Hectares	1,563	1,085	2,935	3,860	4,785
Sourcing volumes						
Certified Herb Club Farmers	MT/Year	452	610	3,252	4,366	5,637
Non-Certified Herb Club Farmers	MT/Year	341	210	1,855	2,350	2,689
TOTAL	MT/Year	793	820	5,107	6,716	8,326
Service Provision						
Certification Cost	USD/Year	19,032	23,526	54,478	73,147	94,431
Training Cost	USD/Year	8,024	8,024	9,228	12,137	15,046
Other Services	USD/Year	1,350	2,190	5,925	7,792	9,660
Input Cost (Transport)	USD/Year	42,204	29,284	79,240	104,217	129,195

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### **Farmer assumptions**

Variable	Unit	Baseline	Herb Club Certified	Herb Club Non- certified
Total Farm Size	Hectares		3.82	
Farm Size dedicated to oregano	Hectares		3.19	
Non SDM Crop Income	% of oregano income		10%	
Off Farm income	% of oregano income	10%		
Post-harvest losses	%		0%	
Home consumption	Kg		0	
Farmer loyalty to Kutas	%	0%	100%	
Fertilizer usage	Kg/ha	600	500	
Cost of fertilizer	USD/Kg	0.84	0.44	
Production advances	USD/ha	0	378	
Exchange rate	#	18.52 TRY = 1 USD		
Decares to Hectares	#	10da = 1ha		
Premium	% of farmgate price	0%	8%	
Farm gate price	USD/Kg	2.05		
Annual inflation	%	72.31%		

### **Gender ladder**



No steps taken to understand the different needs and preferences of men and women, or target gender gaps/barriers.

#### Gender intentional

Considers the different needs and constraints of women and men and takes some steps to create gender equality. Such projects adapt to the needs of women and men without seeking to change gender norms or barriers.

#### Gender transformative

Understands the different needs and constraints of women and men and address the root causes of gender inequality. A gender transformative approach needs to foster changes in **individual capacities** (agency), gendered norms and expectations (relations), and institutional rules and practices (structures).

#### Why we believe investing in women can work for business

- By tailoring goods and services to the needs of women, companies can reach a large and often underserved market, potentially increasing revenues from service provision or enhancing their supply security.
- If women had similar access to and control of productive resources as men, yields of female farmers could increase by up to 30 percent. Higher farm yields and incomes create greater business opportunities for companies working with those farmers.
- Companies that are committed to gender equality outperform their peers. Improving gender diversity in the workplace can improve a company's financial performance by up to 25 percent.
- When companies are seen to invest in gender equality, this has the potential to lead to higher levels of farmer and/or worker loyalty. Conversely, unequal opportunities for women can negatively affect companies' reputations which can lose businesses customers as well as workers.

The

SDM

**Poverty line** 

scale

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**Poverty line adjustment** 

**Poverty line methodology** 

head, 0.5 to each additional adult member, and 0.3 to each child

The general poverty line is 5.50 USD/day for one adult, which is equal to 2007.5 USD/year

A typical Turkish smallholder household consists of 4 people, including 1 male adult, 1 female adult, and 2 children

For a proper representation, the poverty line was adjusted with the OECD-modified scale to better reflect reality

Simply multiplying the poverty line with 4 would not consider the composition of the household and would not consider economies of

This scale differentiates between the household head, other adults, and other children. The scale assigns a value of 1 to the household

#### Using this scale, a typical Turkish smallholder household consists of $1 + 0.5 + 2^{\circ}0.3 = 2.1$ adult equivalents Therefore, the adjusted poverty line for a household would be 2007.5 \* 2.1 = 4215.75 USD/year

### LI definitions

#### **Living Income**

Earning a living income means that all income sources from a farming household are sufficient to afford a basic but decent cost of living for a family



#### Next steps

Once gaps are identified, you can take action through a smartmix of solutions that include: delivering bundled services to farmers, adopting better procurement practices, collaborating with and beyond your trade partners, innovating through brand and consumer engagement, and embracing transparency Business

Case