



**Towards sustainable food systems –
Introducing the transformative approach
of agroecology**

CASE WORK –

A project in Zamonia

IMPRINT

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1.

INTRODUCTION TO THE TRAINING

Securing the food supply for a growing world population, maintaining healthy and productive ecosystems, reducing climate risks and lowering greenhouse gas emissions are some of the defining traits of sustainable land and food systems.

In view of increasingly complex social, ecological and economic challenges, agroecology – as an interplay of scientific discipline, agricultural practice and socio-political movement – has evolved as an important school of thought in the scientific and political debate. Moreover, there are already abundant tried and tested solutions and a broad pool of experience derived from practical implementation. As a result, agroecology – if implemented appropriately – has great potential to foster a socio-ecological transformation of land and food systems.

From the perspective of the international commitments, agroecology offers significant contributions to the achievement of the Sustainable Development Goals (SDGs) of the United Nations, the Paris Agreement the post-2020 agenda of the Convention on Biological Diversity (CBD), and the Convention to Combat Desertification (CCD). In order to fully exploit this potential, stakeholders in planning, policy and practice need a solid understanding of what agroecology is about and a guided reflection on the options, possibilities and challenges of the agroecological transformation pathways ahead.

1.1 Objectives

Overall, the training aims to contribute to:

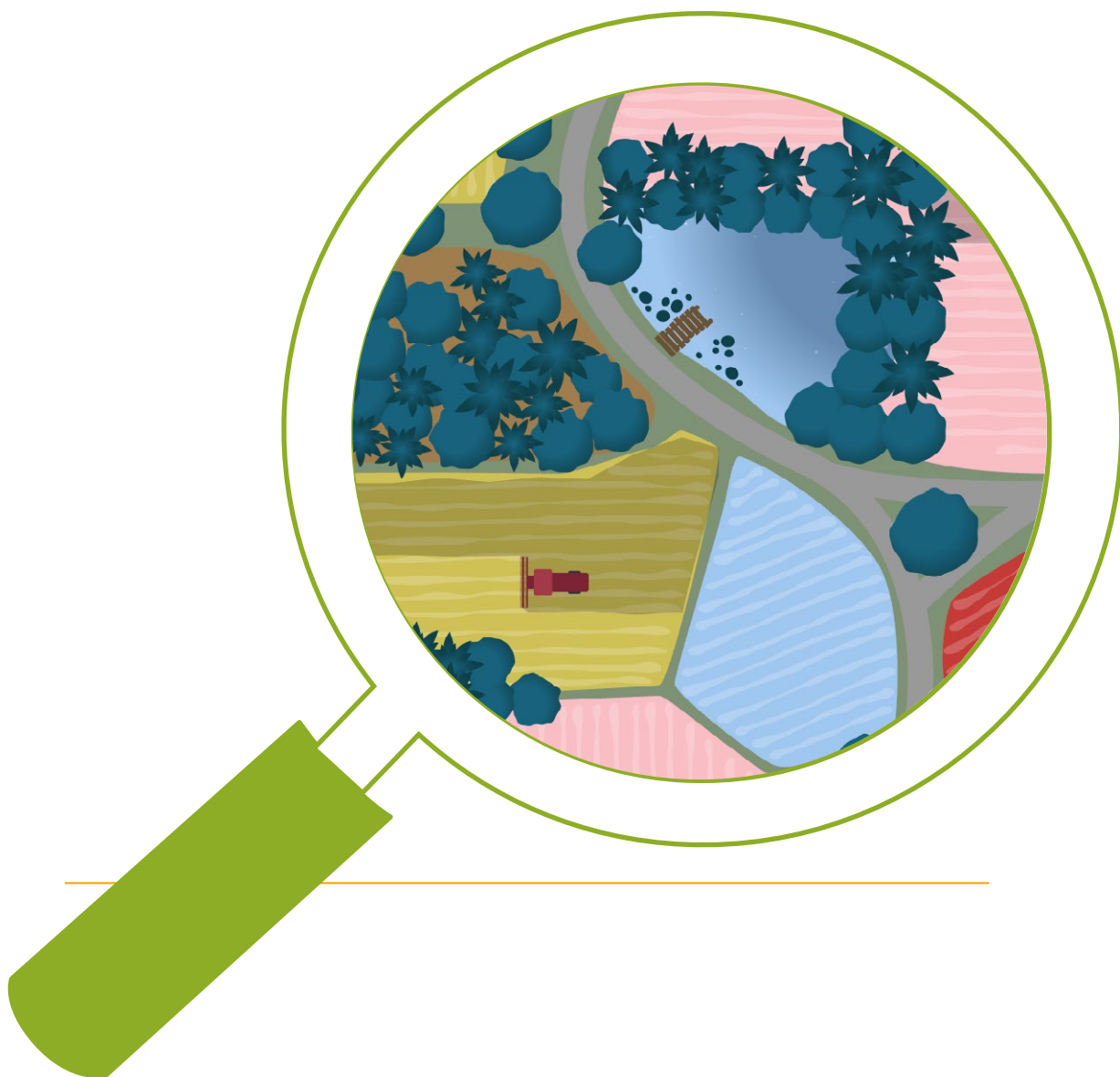
- The mainstreaming of the concept of agroecology into projects and programmes related to agriculture, rural development and food systems, and
- The agroecological transformation of global food systems.

This course is designed as an introductory training to agroecology. Its specific (learning) objectives are:

- Develop a basic understanding of the theoretical foundations of agroecology (concepts and principles),
- Get an overview of the current debates on agroecology and sustainable food systems,

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- Become familiar with methods and tools for reflecting on the agroecological character of a project or policy,
- Identify potential entry points for integrating agroecological approaches into one's own work environment,
- Be better prepared to engage in discussions about concepts of agroecology with partners and other stakeholders, and
- Extend one's network of stakeholders interested in agroecology and connect with the GIZ community on agroecology.



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1.2 Methodology

The case work uses a mixture of interactive lectures, open discussions, groupwork, case studies and real-world examples. During group discussions, participants can share their knowledge and learn from each other's experience.

The training is based on the Harvard Case Methodology, which conveys teaching messages mainly through interactive practical work by participants. The training exercises are based on the fictitious country of Zamonía, a case which portrays situations closely related to real development challenges. In this training, a closer look is taken at one of Zamonía's provinces, Idalia, whose economy relies mainly on agriculture (including livestock production), as well as industrial and artisanal fishing.

Modules follow a similar sequence, including the following elements:



The introduction to the module, given by the trainer with the help of a presentation or other visual aids, covers the theoretical background of the module and introduces participants to the case study and the exercises.



The exercises based on the case study give participants the opportunity to work through the different aspects highlighted in the theoretical background. During most exercises participants work in groups and adopt the role of "case study experts" or involved stakeholders in charge of a specific task.



In the presentation of results, the working groups present their findings to the plenary. The presentations highlight major findings and/or questions from the case work. The following joint reflection is an occasion for sharing experiences and for mutual learning. Participants reassume their own real-life position. They reflect on their experiences during the exercise and link them to their own work and context.



Recap of the key messages of the previous presentations and link it to the next module/presentation.

2.

INTRODUCTION TO THE CASE STUDY

2.1 Context

From Zikipedia, the free encyclopedia

"ZAMONIA"	REPUBLIC OF ZAMONIA
CAPITAL:	Goodtown (3 Million)
POPULATION:	42 Million inhabitants (2023)
TOTAL AREA:	250.000 km²
OFFICIAL LANGUAGE:	Zamonesi
POLITICAL PARTIES:	Social Rights Party (SRP), rather conservative and ruling since the last elections Power to the People (PTP), which is popular in the rural northern districts
INDEPENDENCE:	1964

ZAMONIA is a developing country covering an area of 250.000 km². It became independent in 1964 and was established as a democratic representative republic.

Demographics

Zamonia is a multi-ethnic country formed by a combination of different groups over centuries.

- As of 2023, total population is 42 million, with 55 % living in urban areas and 45 % in rural areas.
- 21 % of Zamonia's total population is living below national poverty line (2023).

Economy

Zamonia is a developing country with a market-oriented economy. The IMF estimates its GDP per capita at US\$ 794 at the end of 2023. The country has been experiencing consistent economic growth. Historically, the country's economic performance has been tied to exports. Although these exports have provided substantial revenue, self-sustained growth and a more egalitarian distribution of income have proven elusive.

Zamonia is endowed with significant natural resources, including ample fertile land, regular rainfall, and mineral deposits. Agriculture is a core sector of Zamonia's economy that further provides the basis for growth in other sectors such as manufacturing and services. Agriculture, livestock, forestry and fishing account for nearly 30 % of the GDP and around 70 % of jobs can be attributed to this sector. 70 % of the female working population is engaged in agriculture compared to 58 % of the male working population. Agricultural exports accounted for 48.5 % of total exports in 2019. Presently, the main export commodities are coffee, tea, sugarcane, fish and, to a lesser degree, timber, vegetables, fruits, herbs and spices. Most of these commodities are produced by large agribusiness companies, whose interest in expanding their production land throughout the country has recently started to increase. On the other hand, subsistence agriculture, livestock-herding and small-scale fisheries remain the backbone of the economy, as the majority of the population lives in rural/coastal areas.

Industry is largely domestic market oriented, with only some exports reaching other countries within the region. The national government plans to increase the budget for diversifying the industry and generate new income sources.

Tourism has been gaining importance during the last decade. Beach resorts are plentiful along the coast. Ecotourism has also been gaining relevance, especially in conservation areas and their surroundings.

Climate

The great variety of Zamonia's climatic zones is largely determined by altitude. The climate is pleasantly mild all year around and annual rainfall ranges from 900 to 1,500 millimetres. Temperature variations throughout the year are little. In general, the temperatures are pleasant, although it can sometimes get hot during the day (especially from December to April), while nights can be cool or even cold, depending on altitude (this can happen throughout the year, but especially from June to August).

The year can be split into two distinct periods. The hot and dry summer lasts from December to April, and the rainy winter lasts from May to November. With regard to the rains, they occur in the form of downpours or thunderstorms in the afternoon or evening. The driest area is the South-East: precipitation here can drop below 900 mm per year. The wettest area is the North, where rainfall reaches 1,500 mm per year.

Environment

Zamonia is one of 17 megadiverse countries in the world (according to Conservation International). The current protected area system (14 % of the country's area) includes 6 national parks, 4 communal reserves and 3 ecological reserves, among others. Deforestation and overgrazing – leading to soil degradation – and water pollution, are some of the main environmental problems the country is facing.

Governance and administration

Administratively, Zamonia is divided into three provinces: Idalia, Exportul and Belandu. The three provinces have considerable autonomy, as well as limited taxation powers. Although each province owns revenue funds, most of their development budget is provided by the national government. Most important are the Ministries of Planning, Finance and Economy, Industry, Water Resources, and the Ministry of Agriculture, which is also responsible for livestock, forestry and fisheries.

Idalia province

Idalia province is known for its lovely hillsides and wonderful beaches, the crystal-clear water of the Silent stream, the Victoria-wetlands and the Northern Forest Reserve. The capital, Goodtown, is located at the banks of the Mighty stream, just south of the Victoria-wetlands.

The economy of the province relies mainly on agriculture, including livestock production as well as industrial and artisanal fishing. Agricultural production is still predominantly small-scale, but in recent years it has experienced a steady intensification and stronger market orientation. Livelihoods of farmers are based on a combination of food crops such as plantains, cassava, sweet potatoes, millet, sorghum, corn, beans, and groundnuts and cash crops such as coffee, cotton, tea, cocoa, and tobacco, as well as spices and herbs and timber sales. Milk, beef and chicken meat production are important pillars of people's livelihoods. For some years now, attempts have been made, more or less successfully, to expand fruit and vegetable farming for export markets.

Recently the tourism sector has been growing rapidly. The beautiful beaches and national parks of this province attract national and international visitors.

Belandu province

The province of Belandu is well-known for its excellent dairy products. It is also characterized by subsistence agriculture, which is mostly practiced by indigenous groups. In recent years, the textile industry has been gaining more importance.

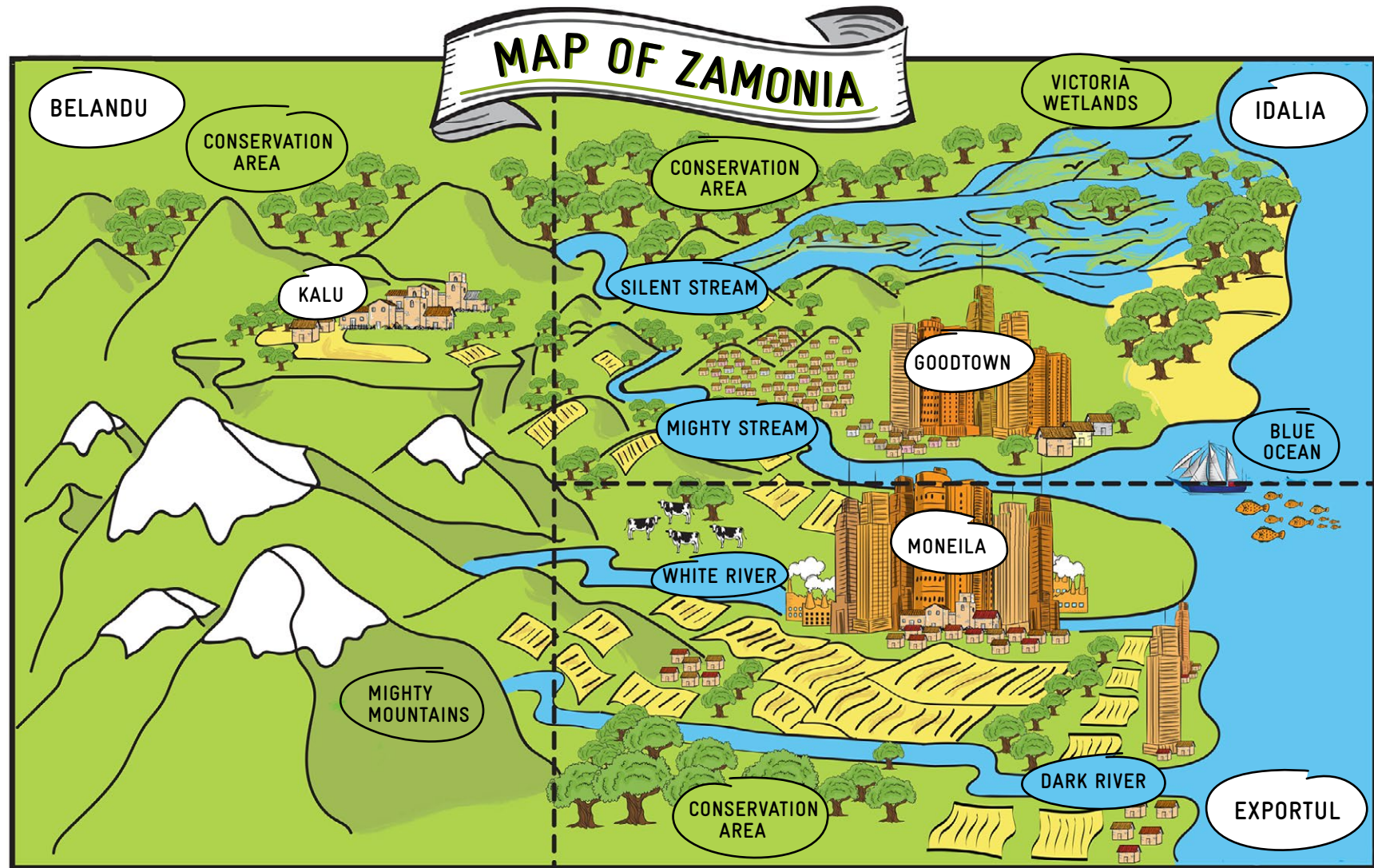
The capital and main city of the province is Kalu. Throughout the years, farmers have been migrating to the surroundings of the city and have deforested the zone in order to increase the pasture areas for their cattle. Presently, there are approximately 300 landowners holding 10 to 50 hectares of land each.

Belandu hosts the water catchment areas of two important rivers for the country: the Mighty Stream and the Silent Stream. Uncontrolled expansion of cattle farming and the textile industry has led to severe erosion and river pollution problems, which in particular affect the Mighty Stream. Forests are still covering large parts of Belandu. However, given the above trends, these may soon be found on steep slopes and in remote areas only.

Exportul province

The province of Exportul is the agribusiness centre of the country. The main commercial city of the region and capital of the province, Moneila, has been growing rapidly and is now the economic and financial heart of the country. It attracts financial capital to be invested in agribusiness, livestock, processing plants and coastal tourism.

In the last two centuries, most of the original vegetation cover has been replaced by the production of sugar cane and pine plantations. Such intensive crops are located in the land between the White and the Dark rivers to ease the access to water for irrigation and are mainly owned by large agribusiness companies. These companies profit from a conducive setting for land-use-change in the province as well as from input-subsidies for export-oriented crops such as pesticides and fertilizers. This year they will be beneficiaries of credit schemes offered by the provincial government for investment in mills, collection ports, refineries and processing plants at the outskirts of Moneila city. This will help them to aggregate value (e.g. to sugar cane production chains) by being able to offer processed sugar for export.



2.2 Case work 1: Getting to know Zamonia



YOUR TASK:

Please read the Zikipedia article about Zamonia, we will discuss the following questions in plenary:

1. What are the main development trends and challenges in Zamonia?
2. Who is winning and who is losing from the current development patterns?
3. How would you describe the present status of the rural areas and especially the agricultural sector, considering social and environmental aspects?
4. Where do you see potential for integrating agroecological approaches?



TIME:

approx. 30 minutes

2.3 The “Agroecology Upfront Initiative”

The last several months have been hard for the country and especially for the province of Idalia. The dry season lasted longer than usual and one of the two main rivers of the province, the Silent Stream, almost dried up. Now, the wet season has been unusually rainy. Some weeks ago, a large part of the Mighty Stream catchment area and the capital experienced its worst floods in history, with tremendous impacts on infrastructure, coastal tourism and the inhabitants of the province.

Agriculture and especially small-scale farmer families are badly affected. Since agriculture is the backbone of the province’s economy, employing almost two-thirds of the population, ensuring and raising agriculture incomes is considered critical to reducing poverty, boosting prosperity and creating jobs – especially for women and youth.

This has strengthened various civil society movements, which have long been demanding a holistic approach to agriculture, based on principles of ecology as well as food and nutrition security, food sovereignty and food justice. Some of them are supported by international development agencies. At the same time some of the national policy & research programmes have also established new lines of work on agroecology, promoting it as a promising stepping stone for the transformation of agri-food systems not only in Idalia province or Zamonia country, but also at global level.

In the light of these developments and after numerous meetings with representatives from the national Ministry of Agriculture and intensive discussions in the Idalia provincial development committee, the governor of Idalia province has decided to launch the so-called “Agroecology Upfront Initiative”. The concept of Agroecology was ultimately accepted despite great resistance, especially within some divisions of the provincial Department of Agriculture.

The results and lessons learnt from this initiative are also expected to feed back into the ongoing re-design of Zamonia’s national rural development and agriculture policy (unofficially called “Better green deal for Zamonia”). The governor expects to gain reputation and greater influence on national policy-making and budget planning.

According to his words, *“The Agroecology Upfront Initiative is an important step for making the province’s agriculture and food system sustainable, turning climate and environmental challenges into opportunities and making the transition just and inclusive for all”*.

A concept note released by the governor’s office summarizes the initiative as follows:

OFFICE OF THE IDALIA GOVERNOR

September 20th, 2023 | Goodtown City, Idalia | Press Release

Provincial “Agroecology Upfront Initiative”:

Towards a fair, healthy and environmentally friendly agriculture and food system
Need for action:

Zamonia continues to make progress on the 2030 Agenda for Sustainable Development. Nevertheless, the COVID-19 pandemic has underlined the importance of a resilient food system that functions in all circumstances, and that is capable of ensuring a sufficient supply of affordable food for all our citizens. It has also made us acutely aware of the interrelations between our health, ecosystems, supply chains, consumption patterns and planetary boundaries. It is clear that more needs to be done to keep ourselves and the planet healthy. In addition, an increasing recurrence of droughts, floods, forest fires and pest outbreaks is a constant reminder that our food system is under threat and must become more sustainable and resilient. Hence, there is need to increase the resilience of agroecosystems and of rural livelihoods. Most rural households have very few alternatives for income besides agriculture, making them more susceptible to climate-related hazards. And yet as in other parts of the world, Zamonia is experiencing less predictable weather patterns, higher temperatures and more crop and animal pests and diseases.

Objectives:

Agriculture in our province faces several challenges, including low production and productivity, low value addition to agricultural products, lack of access to markets and despite all efforts, difficulties to keep institutions fully functional at all times, and services running to all time client satisfaction in the sector. Now is the time to overcome these challenges and harness opportunities - there is great potential for faster growth and prosperity. This is where the “Agroecology Upfront Initiative” comes into play. Its main objectives include:

1. Idalia province will become a pioneer for the nation in stimulating climate-resilient sustainable agriculture and food production.
2. Idalia province will be nationally applauded for its sufficient and varied supply of safe, nutritious, affordable and sustainable food at all time.
3. Idalia province will safeguard the affordability of food, while generating fairer economic returns in the supply chain, so that ultimately the most sustainable food also becomes the most affordable and the most profitable.

4. Idalia province manages to ensure that the food chain, covering food production, transport, distribution, marketing and consumption, has a neutral or positive environmental impact.
5. Idalia province will preserve its unique ecosystems and natural heritage with all its inhabitants living in harmony with nature.

The intended strategic building blocks are:

1. Ensuring **household and national food and nutrition security** for all.
Activities include:
 - Promote food security enterprises and consumption of highly nutritious products.
 - Promote and facilitate the construction of appropriate agri-processing and storage infrastructure.
 - Support the establishment of a strategic food reserve system.
2. Making farming more **productive and profitable** for farmers. Activities include:
 - Generate appropriate, safe and cost-effective agricultural technologies and innovations through farmer-oriented research services.
 - Promote the growth of a vibrant private sector led agricultural input supply system countrywide.
 - Promote knowledge transfer and exchange along the agricultural value chains.
 - Develop and implement a policy and regulatory framework for supportive biotechnology applications in agriculture.
3. Fostering **sustainable food production**. Activities include:
 - Identifying and testing production methods for farmers, fishers and aquaculturists to deliver better climate mitigation and environmental results, increase climate resilience and reduce/optimize the use of inputs (e.g. feed additives, pesticides, fertilizers).
 - Ensure dissemination of information to households and communities regarding good practices in agriculture.

Reaching these goals and related targets will require action by all stakeholders of the agricultural sector and beyond. While organic farming cannot offer the long-term solution to Idalia's food production needs as population increases and regional

demand expands, it still offers an economically attractive opportunity for the province's farmers to access niche markets. Private sector value addition can support inclusive business models to improve linkages among smallholders and firms of all sizes. To reduce the private investment risk, public resources must prioritize complementary public goods and services like agricultural research and rural infrastructure (e.g. roads and energy supply). Public agencies should work together in a more coordinated manner to produce more and better data.

Please send us your ideas and suggestions.

Contact: ➔ sustainableagriculture@ldalia.gov

2.4 Case work 2: Using the Agroecology-Criteria-Tool (ACT) to evaluate the pilot projects

The “Agroecology Upfront Initiative” of Idalia Province has identified several possible pilot projects. They are at proposal stage and expected to contribute to the successful implementation of the initiative and generate visible results and impacts.

You are part of an expert team evaluating the project proposals. The government wants to know which of the projects are supposed to be particularly strong regarding the integration of agroecological approaches and should therefore be provided with a considerable grant.



YOUR TASK:

Use the Agroecology Criteria Tool to assess the degree to which agroecological levels and elements are being addressed by the project.

Display your assessment results in a spiderweb chart and for the presentation to the board that takes the funding decisions.

Further, include some observations and recommendations from your side regarding the funding eligibility of the proposed project:

- Reject
- Eligible if improved
- Eligible without adjustment.

Prepare your key messages and present your recommendations



TIME:

approx. 45 minutes



→ Agroecology Criteria Tool (ACT).

The Agroecology Criteria Tool (ACT) methodology is based on the analytical framework by Gliessman on the 5 levels of food system change and is embedded within the 10 elements of agroecology by FAO. It provides a structured and graphically intuitive way to identify the focus and agroecological character of an initiative or project.

2.5 Case work 3: Recommendations to enhance the “Agroecology Upfront Initiative”

Your team should now develop a proposal on how to improve the pilot project by strengthening agroecological approaches.



YOUR TASK

Use the findings from the previous exercises to enhance the pilot project: select options and actions that will most effectively foster an agroecological transformation in Idalia province.

Step 1: What needs to be changed? Why?

Please bear in mind the following: gender aspects, climate change adaptation and sustainable livelihood strategies.

Step 2: Describe different options and actions and reflect on how easy or difficult it might be to implement them.

You can discuss how to implement them by looking at factors such as relative ease of implementation, urgency, risk of losing an opportunity to effect change, available resources or other interesting criteria. Keep in mind that a mix of complementary measures might be required, especially considering gender aspects, climate change adaptation and sustainable livelihood strategies.

Step 3: Identify key stakeholders to be involved in the activities and those with whom you would need to communicate to effect change.

Step 4: Are there any additional suggestions and recommendations for the “Agroecology Upfront Initiative”? E.g. What framework conditions are needed for a successful implementation of the pilot project?

Prepare your key messages and present your recommendations.



TIME:

approx. 60 minutes group work

approx. 30 minutes presentation and discussion

2.6 Project proposals for case work 2 + 3

PROJECT No.1:

“PROMOTION OF SUSTAINABLE MARKET-ORIENTED AGRICULTURE IN IDALIA”

Project objective:

Quality production in the agricultural sector is improved.

Indicators:

1. The Province of Idalia has developed a provincial framework strategy on sustainable production of agricultural export commodities.
2. The income of 85 % of the 6,000 smallholder households in the supported value chains is above the poverty line of 1.9 USD/day/head.
3. The 10 largest producers and processors in the supported value chains provide a total of 1,000 new jobs for women and young people under 35.
4. The turnover of the three largest purchasing companies (for the value chain products) in Idalia with a sustainability label (e.g. Green Label), have increased to a total of 500,000 EUR/year/company
5. The number of rejected imports of fresh products from Idalia into the EU has fallen by 80 %.

The project contributes to the development of the region through quality products, yield increases and increased employment. It contributes to better income and food security. Negative effects of climate change, erosion damage and pesticide use are reduced. The project aims at developing a model for fruit and vegetable growing (mango, citrus, pineapple, chili) and at promoting related value chains, which have a special (model) meaning for commercialisation and export orientation of the agricultural sector. The project measures promote agroecological production methods which support adaptation to climate change and contribute to producing healthy, uncontaminated food. The agroecological production methods also have positive effects on the export opportunities of vegetable products, which is currently limited by import bans into the EU due to pest residue levels.

Output A aims to improve the political and legal framework for the development of sustainable agricultural production which is quality oriented. The project develops policy recommendations on sustainable quality production systems according to the respective value chains. To this end, it will make recommendations for a legal framework to ensure food safety and minimum quality criteria for agricultural products.

Output B is to strengthen decentralised structures for the promotion of agricultural development. The project trains agricultural extensions staff (of the MoA) for demand-

oriented agricultural extension services. Further training measures serve to enforce and monitor government guidelines for quality production.

Output C promotes the improvement of climate-sensitive production of quality horticultural products. The project conducts trainings on agroecological agricultural production and processing practices and the development of internal quality control systems in the field of production and processing. Further training measures are on the introduction and dissemination of sustainability standards. This includes e.g. Green Label for the domestic market, and GlobalGAP as well as certified organic agriculture for export production.

Output D serves to develop the capacity of value chain actors to develop inclusive business models that facilitate the initiation of business relations between traders and/or processing plants with economically disadvantaged target groups (e.g. contract farming with smallholder farmers, women, youth). In this context, the local agrochemical suppliers are also involved in testing and registering innovative, sustainable biological plant protection products.

Output E aims to increase the performance of stakeholders in the value chains. The project promotes cooperation within and between the stages (provision of resources, production, trade, processing etc.) of the value chains and supports the organisational development of interest groups (value chain committees, farmers' organisations, exporters' associations, etc.). In addition, local authorities and self-help groups for the protection and care of natural resources and for the consensual definition and enforcement of rules of use are trained on relevant topics (e.g. erosion control, water and irrigation, grazing rules, forest protection, etc.).

Measures to be implemented include: Support to food processors in developing hygienic and effective manufacturing practices and establishing effective linkages to suppliers and buyers; contract farming to facilitate increased security as well as reduced costs of inputs for the farmer and readily available raw material of the required quality and quantity for farmers and off-takers respectively; establishment of an inspection system at crucial export points (airport and harbour); events to facilitate tailor-made business contacts; supporting trials and demonstrations, farmer trainings, exchange visits for farmers and processors, advising on processing efficiency, developing service gang business models, facilitating linkages through trade fair participation and promoting multi-stakeholder events (Mango Week, Mango Roundtable).

PROJECT No.2:**PROMOTING GREEN MARKETS AND SUSTAINABLE FOOD CONSUMPTION IN IDALIA****Project objective:**

Market access for products of biodiversity and of organic farming, which are managed by cooperatives and small farmers' associations in Idalia is expanded.

Indicators:

1. The value of the products of socio-biodiversity¹ and of organic farming from Idalia in the National School Feeding Programme and in the National Food Reserve Purchasing Programme has doubled.
2. The number of medium and large companies that communicate the environmental and social added value of their products (produced with ingredients of socio-biodiversity and organic farming) from Idalia to the end consumer has increased by 50 %.
3. 2 stakeholder groups have used gender tools in the planning of measures and programmes which are used to calculate the income and assess the working conditions of women in the context of the extended market access for two value chains of socio-biodiversity or organic farming products.
4. 5 Cooperatives and small farmers' associations in Idalia increase their sales values of socio-biodiversity and organic farming products by 20 %.

Production systems adhering to socio-biodiversity and agroecology principles can make an important contribution to reducing deforestation dynamics by offering small farmers and traditional population groups an economically viable alternative if their products are successfully marketed.

The project contributes to the sustainable economic development of Idalia by enabling rural population groups to increase the value added and revenues from the marketing of their sustainably produced products. The economic and social participation of women will be improved by strengthening the presence of women in decision-making and management positions in cooperatives and small farmers' associations, and by integrating gender aspects more strongly in rural extension services. The project contributes to participatory development and good governance by improving the coordination of policies between different departments and levels of governance. It renders support to government to better gear public promotion programmes to the specific needs of the population in the Idalia province. The project contributes to the reduction of greenhouse gas emissions, as the sustainable production and marketing systems promoted contribute to the conservation of forests and thus reduce CO² emissions from land-use changes. By improving the income situation and strengthening producer groups and cooperatives, the project contributes to rural development and food security.

¹ The concept of socio-biodiversity describes the sustainable use of natural resources by traditional population groups which contributes both to the conservation of biodiversity and the protection of the communities concerned.

Output A: This field of action covers the national level and aims at improving the implementation of state programmes and policies for promoting market opportunities for cooperatives and small farmers' associations. The project supports national government bodies in policy formulation with a focus on the marketing of socio-biodiversity and organic food products.

Output B: This field of action aims at empowering rural extension services and authorities to expand market access for socio-biodiversity products. It accompanies fields of action A and C by ensuring that necessary information and knowledge is available to extension staff to effectively implement the policies and measures. A knowledge management system is being developed for the marketing of sustainable agricultural products from Idalia. The project advises on the development of a respective extension strategy and on the implementation of the knowledge management system. Successful and promising experiences in marketing sustainable Idalia products will be analysed, systematised and made available to the relevant actors in a processed form, including didactic material used by the rural extension services.

Output C: This field of action aims at improving access to markets. The project promotes marketing channels to other companies and directly to end consumers for processed products of cooperatives and small farmers' associations. The relevant value chains belong to the food sector.

Measures to be implemented include: Baseline for supply and demand of sustainable products; setting-up chambers of commerce; developing a cook-book based on sustainably produced, regional ingredients for school meals; trainings to improve the management of cooperatives; trainings for public employees responsible for food procurement on the stronger use of sustainable products from local smallholder cooperatives; elaboration of good practices.

PROJECT No.3:**SUSTAINABLE AGRICULTURE FOR THE PROVINCE OF IDALIA (SAPI)****Project objective:**

Rainwater and soil management in agricultural smallholder production in the Province of Idalia has been sustainably improved.

Indicators:

1. 10 communities use standardised prioritisation procedures for watershed management in communal/municipal development planning.
2. The number of male and female farmers and livestock farmers using water and soil conservation measures in accordance with the standardised criteria increases from 800 to 10.000.
3. The number of women in the 10 intervention communities who have access to irrigation infrastructure (small dams, etc.) increases from 150 to 500.

Capacity development enables relevant actors (state partner organisations, municipal administrations, private sector, civil society, local producers) to plan and implement suitable rainwater and soil management measures for the sustainable management of water catchment areas. These measures are implemented at district and local level and complemented by activities at provincial level. Various organisations and actors are strengthened in their roles and enabled to assume their responsibility in adapting agriculture to climate change. The project will concentrate on ten municipalities. These communities will be enabled to plan the collection and use of rainwater as well as soil management more efficiently.

Output A: At the municipal level, standardised procedures are used to identify and prioritise rainwater and soil management measures for improved watershed management. Local governments are supported to improve their planning capacity in the field of adapting agriculture to climate change through a more sustainable management of natural resources using standardised procedures. Selected water catchment areas are identified and socio-economically/ecologically characterised. Based on the analysis, measures will be defined and a gender-sensitive prioritisation carried out. Municipalities are supported in the planning of measures, including the definition of the responsibilities of the actors involved in the management of the watershed areas and the mobilisation of funds. The various planning steps are then incorporated into the municipal development plans and thus become institutionally anchored in the long term.

Output B: Investments in irrigation infrastructure and sustainable water and soil management within catchment areas are better adapted to the effects of climate change. To this end, the municipal administrations and the development partners active in the region are supported in the preparation of detailed plans for rainwater

and soil management measures. They are advised on the preparation and implementation of tenders, particularly with regard to better consideration of sustainability aspects, the land rights of transhumant livestock farmers, the involvement of the private sector and the integration of gender aspects. In particular, the project will ensure the participation of the various actors (users, administration, service providers) and the fulfilment of their responsibilities.

Output C: Local authorities are supported in accompanying the technical implementation of rainwater and soil management measures in the intervention areas. Infrastructure users and other relevant actors will be trained to promote the long-term maintenance of the structures and their use. Experiences are fed into the development of strategy papers and legal texts for the management of sensitive areas. At national level, partners are also supported in introducing instruments to improve policy coherence.

Measures to be implemented include: Support to food processors in developing hygienic and effective manufacturing practices and establishing effective linkages to suppliers and buyers; contract farming to facilitate increased security as well as reduced costs of inputs for the farmer and readily available raw material of the required quality and quantity for farmers and off-takers respectively; establishment of an inspection system at crucial export points (airport and harbour); events to facilitate tailor-made business contacts; supporting trials and demonstrations, farmer trainings, exchange visits for farmers and processors, advising on processing efficiency, developing service gang business models, facilitating linkages through trade fair participation and promoting multi-stakeholder events (Mango Week, Mango Roundtable).

PROJECT No.4:
WATER AND ENERGY FOR FOOD

Project objective:

The dissemination of climate-friendly, energy- and water-efficient innovations for more productive and ecologically sustainable food production is strengthened in the Province of Idalia.

Indicators:

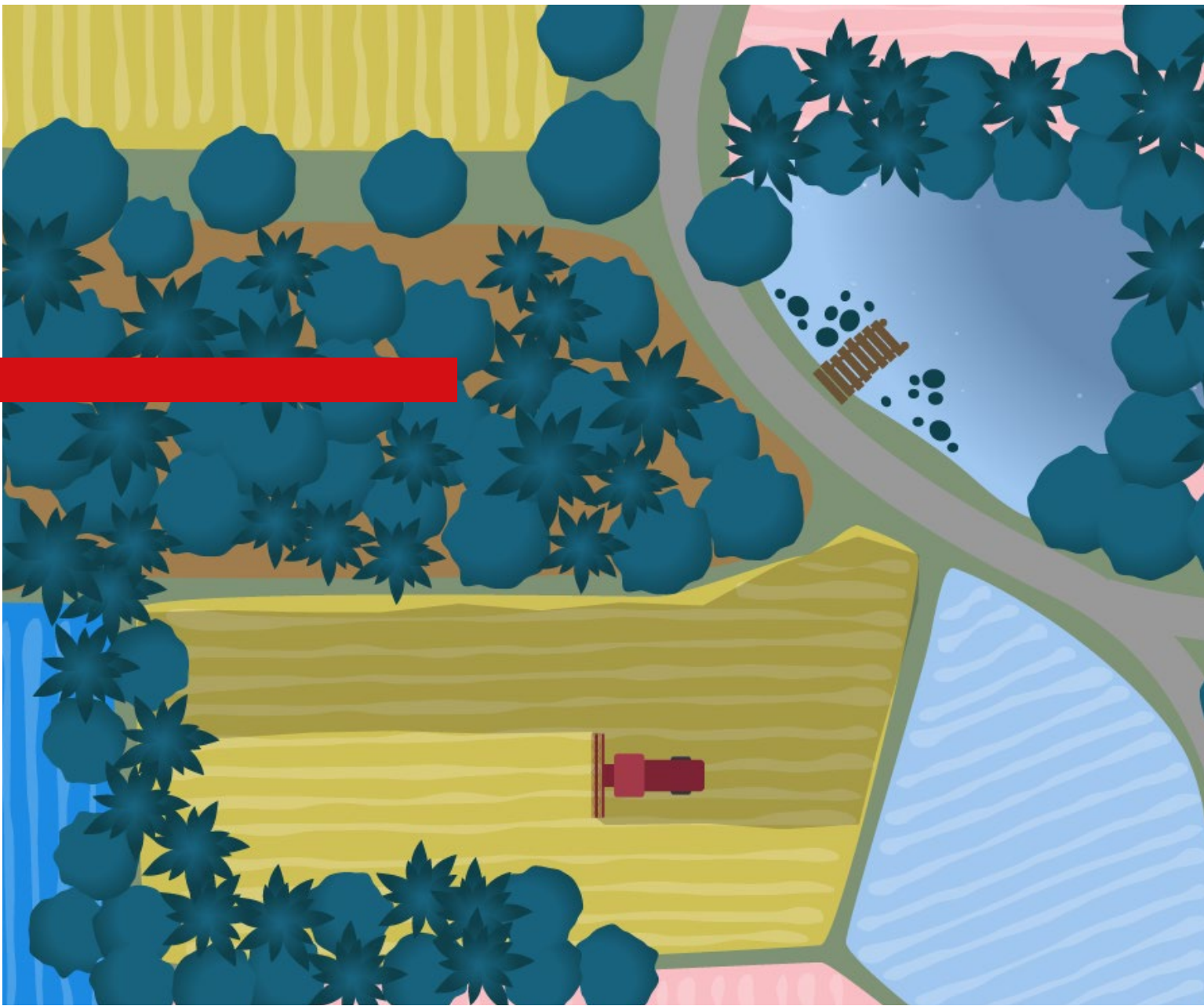
1. 3 innovators successfully market their climate-friendly, energy- and water-efficient innovations with average sales increases of 20% compared with before funding support.
2. 50,000 small farms (30 % of which are women-led) have installed climate-friendly, energy- and water-efficient innovations promoted by the innovators.
3. 20 processing companies have introduced climate-friendly, energy- and water-efficient innovations
4. 1 Strategy, guideline or project of international, regional or local organisations disseminating the climate-friendly, energy and water-efficient innovations promoted by the project.

The target group of the project are small farmers and their associations (e.g. cooperatives) as well as processors in the agricultural and food sector. The positive climate and environmental impacts of renewable energies and efficient water and energy use benefit all inhabitants of Idalia. The target groups at intermediary level are the innovators, predominantly companies, but also research institutions and civil society organisations, that are involved in technological or organisational innovations and their dissemination. Intermediaries are also experts and managers from public and private institutions, e.g. ministries of agriculture, energy and water and their downstream institutions, sector organisations and professional associations of value chains, technology institutes and non-governmental organisations (NGOs), provided that they are active as multipliers for innovations or advocate supportive framework conditions.

Output A aims to strengthen the technical and entrepreneurial skills of innovators. These can be companies, educational institutions and technology institutes with a commercial outlet. The selection of innovators and innovations takes place through competitions. The focus is on the promotion of already developed innovations, which may need further adaptation. Priority is given to innovations developed by indigenous innovators, preferably with a positive impact on women and young people in rural areas. An important selection criterion for funding is also local sustainable production using local materials.

Output B: aims to strengthen the capacities of end users and multipliers of innovations with regard to the assessment of the technical and economic potentials and application parameters of innovations. The technical and economic feasibility of the demonstrated innovations is documented and disseminated via suitable media (fact sheets, digital solutions, etc.). The results will be included in diverse capacity development products (training material, among others) for multipliers.

Output C: aims to improve access to appropriate financing for climate-friendly, energy- and water-efficient innovations. Employees of banks, microfinance institutions and other actors in the financial sector are familiarised with the innovations and their potential as well as adapted financing instruments within the framework of a training programme. Key milestones are the availability of concepts for innovative financing mechanisms, the start of advisory services for innovators and the start of the training programme for loan officers of financing institutions.



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