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# KOSOVO NEW OPPORTUNITIES FOR AGRICULTURE PROGRAM FISCAL YEAR 2013 WORK PLAN

SEPTEMBER 2012

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Implemented by:  
Tetra Tech ARD  
159 Bank Street, Suite 300  
P.O. Box 1397  
Burlington, VT 05402

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## **DISCLAIMER**

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.



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# ACRONYMS AND ABBREVIATIONS

AgStrat	USAID’s Agricultural Strategy dated 2009
AWP	Annual Work Plan
BSP	Business Service Provider
COP	Chief of Party
CTO	Chief Technical Officer
DCA	Development Credit Authority
DCOP	Deputy Chief of Party
EPA	Environmental Protection Agency
EMMP	Environmental Mitigation and Monitoring Plan
FY	Fiscal Year
EU	European Union
FtF	Farmer to Farmer
GAP	Good Agricultural Practices
HACCP	Hazard Analysis and Critical Control Points
IIF	Innovation and Incentive Fund
IPAK	Investment Promotion Agency of Kosovo
IPM	Integrated Pest Management
IWM	Integrated Weed Management
LoP	Life of Program
MAFRD	Ministry of Agriculture, Forests and Rural Development
MAP	Medicinal and Aromatic Plants
MT	Metric Tons
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PPE	Personal Protection Equipment
RDC	Rural Development Center
RTK	Radio and Television Kosovo
SEED	Support for East European Democracy
SOE	State-Owned Enterprise
STTA	Short-Term Technical Assistance
TA	Technical Assistance
USAID	United States Agency for International Development
VC (L)	Value Chain (Lead)

# INTRODUCTION

This document presents the implementation strategy and Fiscal Year 2013 Work Plan for the New Opportunities for Agriculture (NOA) project in Kosovo.

The United States Agency for International Development (USAID) awarded to Tetra Tech ARD the NOA project as a Cost-Plus-Fixed-Fee type task order, under the RAISE PLUS Indefinite Quantity Contract (IQC) Number: EDH-I-00-05-00006-00.

## PROGRAM GOALS AND STRUCTURE

The overarching goal of the 49-month NOA project is to increase Kosovo's agricultural output, exports and rural incomes. This goal supports USAID/Kosovo's Economic Growth Strategy of promoting growth, creating jobs and generating exports. Specific objectives to be achieved under this task order are: 1) Products and farmers linked to markets; 2) Agricultural products diversified and increased; 3) Food quality and safety improved; 4. Increased affordable and accessible credit; and 5. Improved coordination within the agricultural sector.

## YEAR 3 STRATEGY

NOA has successfully introduced new opportunities in agricultural production and processing over the past two growing seasons. These new opportunities include the introduction of totally new crops, such as asparagus. They also include the introduction of new technologies with a capacity to improve productivity, such as canopy management in table grapes and new varieties of salad and raspberry crops. The crops and technologies thus introduced supply the catalyst for real commercial expansion. Such internally generated expansion is fundamental to achieving the results targeted by the NOA project. Commercial expansion however remains at present highly dependent on confidence and capacity.

*Confidence on the part of the grower* that further adoption or adaption of production technologies will result in increased yields and qualities, and that these increases will reach real markets and generate real margins, is critical. *Confidence on the part of the aggregation system* (processor or packer) that product programmed from farmers will be delivered on time and in the volume and qualities required, is essential. *Confidence on the part of the financial system* that the financial inputs required to fund commercial expansion will be repaid as a result of expected improved productivity and market realization, is required. And finally, *confidence at the level of the market* that Kosovo producers will increasingly become reliable suppliers of high quality and competitive products, is fundamental. NOA will support confidence building through the project's close collaboration with programmed production at all levels, working to ensure as far as possible that expectations are met.

Confidence, if not matched with capacity, will not produce results. Financial capacity will always be a limiting factor and the NOA project will continue to seek intervention opportunities to improve access to finance. Throughout all value chains, NOA will seek ways to minimize risk for borrower and lender alike, encourage adoption of new technologies by facilitating promotional discount structures and ensuring that the project stands as an "honest and independent broker" for all parties in financial transactions—be it trade finance, formal interest-bearing bank finance or some combination thereof.

Additionally, capacity is lacking at the level of personnel at all levels. Firms have limited capacity to hire, train and manage additional staff. They are limited by finances and perhaps more importantly by a lack of awareness of their needs. NOA will work at all levels to support firms in taking on the necessary human capital required to achieve results. This will be particularly relevant at the processor level, where intensified assistance will be directed. NOA will do this using innovative internship structures. This intervention, critical to achieving results, will be used at all levels in the value chain, from the processor, down through aggregation or collection centers, and finally through farmer linkages.

Supporting this interrelated chain of confidence and capacity is the basis of the strategy for the NOA project in Year 3 and is reflected in almost every intervention planned for the coming year.

## STRUCTURE OF THE YEAR 3 WORK PLAN

This work plan is structured by value chain (VC). The logic for this is simple. The NOA project has now assigned a technical lead for each value chain. The responsibility of the VC lead (VC (L)) is to coordinate all activities in that value chain, and to be responsible for results, effective budget allocation and utilization. The VC (L) also will remain responsible for the directing of STTAs, both local and international, and for reporting results through the project's M&E and reporting system. As much as possible, all cross-cutting support (Access to Finance, Food Safety and Improved Coordination) is described and budgeted within VC's. Where general activities cannot be included in the individual value chains, they are included in dedicated sections.

Each VC (L) has estimated the overall requirement in terms of IIF budget and both international and local STTA. This budget is presented as a simple table under each value chain. The cost element of the budget does not include the costs of the STTA. These projections are budget ceilings and sector leads are charged with the most efficient use of available resources in support of activities. Of particular note is the increased emphasis on the use of *local* STTA and the judicious use of international support. Given the experience of the local project team, and the intensive support received from international assistance during Years 1 and 2, it is felt that the local team is now in a position to provide a much higher level of technical support to clients than they were at the outset of the project. Technical assistance, especially international technical assistance, will specifically emphasize support to processors.

Additional in this work plan are the following newly introduced VCs:

1. Medicinal and Aromatic Plants (MAP),
2. Livestock – specifically dairy, and
3. Field vegetables – peppers and cabbage.

Included in the MAP program is the food additive *VC - Saffron*, so this VC now reads: “MAP including saffron.”

For each value chain, the reader will find:

- **Background information** that summarizes the position of that VC at the outset of the work plan year. This context sets the stage for activities to be undertaken in Year 3.
- Following the background information, each VC presents its specific **strategy**.
- From that strategy flows a set of **objectives**. Each objective is considered a distinct component of the VC's approach for the year, and each objective has its own **strategy** detailing the justification and approach for each objective.
- Within each objective are a clear set of **activities** that contribute to the fulfillment of the objective.
- Each objective is followed by a set of measurable **benchmarks**, against which the VCL measures performance. These benchmarks are designed to provide clear and precise indications of success through each objective.

It is intended that the incremental quarterly reports will follow this structure in reporting against activities and benchmarks in order to provide a regular update on progress toward achieving the stated benchmarks. In order to fully articulate the activities by project IRs, the work plan presents a summary of activities categorized by IR.

Annex 1 of this work plan presents a summary table showing the project component, value chain, activities and major budget areas where support is planned. Annex 2 presents only major budget areas per value chain and cross cutting areas addressed herein.

# VALUE CHAINS

## FRUIT

### APPLES

#### DESCRIPTION

Although Kosovo has favorable agro-climatic conditions for quality apple production, domestic production is still very low. It is estimated that about 300 hectares of commercial apple orchards are presently cultivated in the country. Average yields vary depending on the grower, the variety and the rootstock. On the other hand, Kosovo imports approximately 11,000 metric tons of fresh apples per year. Apple storage capacity is very low: only about 1,000 metric tons can be stored in existing refrigeration rooms. Nor is controlled atmosphere (CA) technology practiced in Kosovo.

During 2012, the NOA program extended the cultivation of five early-, mid- and late-season apple varieties that are new to Kosovo. The program purchased and imported 14,400 certified pre-budded feathered trees, a quantity sufficient to establish 6 hectares of high-density apple orchards when grown on a trellising system. Growers who have privatized former SOE lands are interested in cultivating new apple orchards but lack the technical expertise and proper plant materials.

The main obstacles identified in Kosovo's apple value chain are the quality and quantity of locally produced apples. To improve on this situation, the program will intervene in three specific areas: increased production area of new high-density apple orchards; nursery/orchard management; and improvement of postharvest handling practices and storage facilities.

To overcome the above-mentioned obstacles, NOA will support nurseries in the production of high-quality saplings and the main commercial growers in identifying the best marketable varieties for Kosovo. The program also will support farmers with technical assistance on production, harvest, postharvest and agricultural best practices, as well as on packing, sorting and grading and marketing.

In addition, the program will facilitate linkages and contracts between growers and input suppliers, collection points, processors, supermarkets or apple traders.

#### STRATEGY

The NOA approach to the apple sector remains the development of an effective and profitable apple sector, able to produce its own quality products, ready to fulfill local market needs and to compete regionally in the export of fresh and processed products to the EU market.

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## OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS

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#### STRATEGY

Last year, the NOA program introduced new apple varieties and production techniques through trials. This effort continues to require working with existing producers to expand their production programs as well as seeking new growers willing to introduce new production and marketable methods. Wherever possible, contracts are encouraged to ensure price, volume and timing to cement commercial relationships prior to production.

#### ACTIVITIES

##### **1. *Create apple cleaning and packaging training unit***

There is a lack of knowledge and infrastructure for the proper washing, sorting, grading and sizing, all to ensure a quality apple pack, at the farm level. Such a situation is a must to ensure the successful and sustainable cooperation between producers and traders. To improve the situation, the program will support the establishment of one prototype apple packaging facility for training commercial growers, packers and shippers for postharvest packaging purposes.

## **2. Purchase and demonstrate use of the “SmartFresh” ethylene inhibitor**

To extend the shelf life of apples, the program will introduce use of the “SmartFresh” ethylene inhibitor. The new post-harvest technology extends the shelf life of apples by three to four months. Doing so will better enable domestic product to supplant imports during this extended storage period.

## **3. STTA or FTF to address improved harvest, postharvest and packing**

Appropriate harvest and post-harvest handling strategies and techniques are essential to improving quality and the overall marketability of the product. STTA shall provide trainings to enhance apple grower knowledge with respect to modern and effective harvest, post-harvest and packing technologies.

## **4. B2B for apple VC actors to supply market**

To facilitate linkages between buyers and sellers within Kosovo, the program will organize a B2B meeting with commercial growers, processors, traders and supermarkets in the local market. The expected outcome of the meeting will be signed contracts or verbal agreements. Initiate and support growers’ joint initiatives for supply/sales.

### **BENCHMARKS**

- At least 1 apple packaging training unit established and functional;
- Smart Fresh introduced for at least 2 apple storages;
- At least 2 postharvest trainings organized;
- 1 B2B event organized;
- At least 15 new contracts signed with (grower-processor-traders);
- 1 international STTA engaged for 10 days;
- At least 80 young farmers trained on cleaning, sorting and packaging; and
- At least 200 tons graded apples sold in the local market.

### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
19,600 Euros (\$25,088)	10 days	0 days

## **OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED**

### **STRATEGY**

Grow the area under cultivation with apples to 324 hectares from 300 hectares to meet market demand and reduce imports. Develop a nursery system able to produce planting material of international quality. Introduce new cultural practices and best marketable apple varieties for the domestic and EU market.

### **ACTIVITIES**

#### **1. Award grants to nurseries for planting apple bench-grafted trees**

At least 30,000 apple bench grafts sufficient to establish at least 12 hectares will be imported in the spring of 2013 through a local vendor (a registered and certified nursery). Bench grafts will be further distributed to 2-4 local nurseries that will further grow out feathered apple trees for one season. Trees will be planted permanently (within commercial plantations) in the fall of 2013. Criteria for the nursery selection will be set up, with priority given to those: certified and registered with the MAFRD; with sufficient demonstrable experience in propagation and maintenance; and with necessary infrastructure in place, i.e., irrigation and fertigation.

To ensure disease-free planting material, bench grafts will originate from within countries where a certification scheme is in place according to European and Mediterranean Plant Protection Organization (EPPO) standards. In addition to the import of bench grafts, an international STTA will provide technical

assistance to local nurseries, training them to produce feathered trees and to maintain phytosanitary measures—something not currently done.

Following are the benefits of this exercise:

- The sector will be supplied with high-quality and disease-free planting material that can enter into first commercial production just one season after planting, compared to whip trees that reach first commercial production a full three years after planting.
- The sector (growers) will have opportunities to buy planting material that meets the highest phytosanitary standards (disease-free) and is of a much better quality compared to imported trees that originate from neighboring countries.
- Commercial linkages between local nurseries and European nurseries will be reinforced.
- Local nurseries in the future will be sufficiently skilled to propagate planting material that meets the criteria to be certified according to EPPO standards. To reach that level, technical assistance will be provided by experienced and knowledgeable international experts. Local experts as well will be trained and shall in the future be able to guide the propagation of planting material to highest standards.
- The total area covered in commercial apple orchards will increase by at least 12 hectares, all featuring highly marketable varieties. The first commercial cropping is expected in October 2014. The trees should fruit profitably for the next 20 years or more, ensuring steady incomes for about 12 households, creating at least 30 permanent jobs and yielding on average up to 400 tons of fruit annually.

## **2. *Support to the top fruit nursery association for Kosovo***

After meetings with the top fruit nurseries in Kosovo, the decision was made to form a top fruit nurserymen association that will be able to: lobby and speak with one voice on behalf of Kosovo's apple nurseries to local governmental bodies, with the aim of improving policies and enforcing phytosanitary inspections. Program support for the formation of this association will be both of an administrative and technical nature, namely one full-time professional general manager, one full-time top fruit nursery technician and one full-time accountant. NOA will determine the level of cost share support that is required for this establishment.

Moreover, the program will facilitate establishing at least 0.25 hectares of apple mother block, grown in hedgerows, to produce bud wood suitable for grafting, as well as stool beds for vegetative rootstock propagation. The initial planting material will be virus-free and planted in fields protected under anti-virus netting in order to ensure a steady source of locally produced and disease-free rootstock and bud wood. The association will sell at cost to the association members in order to provide affordable virus-free grafting materials to its members, all while covering the costs of the association. The association will establish linkages and cooperate with international inspection bodies to ensure EU standards are being met.

## **3. *Provide international STTA to local nurseries***

The program will provide international STTA to selected nurseries to assist in propagation and overall nursery management procedures. We will also assist nurseries in implementation of European Plant Protection Organization (EPPO) standards and invite agricultural faculty and agricultural professional school students to participate in field events to motivate and train them in top fruit production.

## **4. *B2B for apple nursery operators to inspect bench-grafted tree before shipping, spring 2013***

In the spring of 2013, the program will send selected nursery producers and experts on a B2B visit to Italy to see firsthand apple nurseries, tour facilities, establish commercial relationships and inspect bench-grafted apple saplings before they are shipped to Kosovo.

### 5. *Selection of growers for new orchards*

The Program will select all growers by spring 2013 for delivery of the 30,000 feathered apple trees produced by local nurseries that will be delivered in October of FY4 for the establishment of 12 new hectares of new orchards.

### 6. *Technical assistance for selected commercial apple producers*

All selected growers will be required to attend a farmer's field school on site preparation, best cultural practices, apple production and protection, orchard management, harvest and postharvest through international STTA. 6 different trainings will be organized on orchard establishment, pruning, irrigation and fertigation, harvest/postharvest handling and IPM.

### 7. *Purchase 3 sprayers for improved phytosanitary control*

The Program will purchase 3 new sprayers to improve the marketable quality of apples sold and to improve phytosanitary conditions. This will allow apple growers to produce more first-quality fruit at a higher price. This activity will put in place a new set of service providers working within the PERSUAP principles directly supporting the apple sector.

#### **BENCHMARKS**

- At least 30,000 bench-grafted apple saplings imported through 2 nurseries;
- At least 2 local nurseries received bench grafts to be maintained for one season;
- At least 2 field days organized for interested stakeholders;
- 1 B2B visit for selected nursery producers;
- At least 12 hectares of orchards established;
- At least 30 jobs created;
- At least 400 tons of apples sold annually;
- At least 6 farmer field school trainings organized;
- Sustainable virus-free root stock and bud wood locally produced;
- 1 association established and functional; and
- At least 100 students attended trainings and field days.

#### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
157,000 Euros (\$200,960)	60 days	1,240 days

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## **OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED**

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#### **STRATEGY**

To implement good agricultural practices, IMP and good manufacturing practices.

#### **ACTIVITIES**

##### **1. *One training on Good Agriculture Practices***

The program will engage an international (regional) GlobalGAP consultant to prepare training materials, deliver trainings to apple producers, introduce Good Agriculture Practices and prepare a report on food safety standard requirements and recommendations. The participants will be preferably young, motivated apple producers interested in producing quality apples that meet all applicable food-safety standards.

##### **2. *One training on Good Manufacturing Practices***

Improved production practices needs to be tied to certification and traceability. Processors particularly are interested in sourcing more from certified producers. A GlobalGAP consultant will deliver technical

advice related to Good Manufacturing Practices (GMP) to apple producer groups and individual producers, as well as prepare materials, introduce GMP and prepare a report and recommendations related to this overall issue.

### 3. *One training on IPM*

A local IPM expert will be engaged to review the state of IPM implementation among apple producers, prepare training materials and deliver one-day trainings to apple producers. In addition, the local expert will prepare and submit a report with findings and recommendations for intervention.

### 4. *Engage outside STTA to provide TA addressing fruit processing*

The program will engage one international or regional vegetable processing technologist and/or engineer to share technical assistance related to processed product formulation, process improvement designs and machinery evaluation. The consultant will provide direct solutions to problems faced by processors involved in fruit processing – such as shelf life issues, coloration and process management.

### 5. *GlobalGAP implemented by at least one producer per value chain*

Assist F&V value chain producers to become ready for GlobalGAP certification. Good Agriculture Practices will be introduced at a minimum of 16 F&V producers, while only one will be selected for certification. An international or regional GlobalGAP expert, along with local expert support, will be responsible for implementation of Good Agriculture Practices at selected producers. This activity will include GlobalGAP training, implementation assistance and an internal audit for producers and support for correction of nonconformities found during the certification process.

#### BENCHMARKS

- At least 63 commercial apple growers trained on GAP;
- At least 63 commercial apple growers trained on GMP;
- 30 apple growers trained on IPM;
- At least 3 field days organized for apple producers;
- 4 local vegetable processing companies supported; and
- At least 1 apple farms receives international food safety standard certificate in GlobalGAP.

#### BUDGET

IIF/Activity	International STTA	Local STTA
11,340 Euros (\$14,515)	70 days	142 days

## OBJECTIVE 5: IMPROVED COORDINATION WITH THE AGRICULTURE SECTOR

#### STRATEGY

Keep MAFRD informed on apple sector developments undertaken by the program and coordinate on EPPO standards.

#### ACTIVITIES

### 1. *Introduction of European Plant Protection Organization (EPPO) standards for apple tree production*

In collaboration with government bodies (MAFRD, AVUK) the Program will provide technical assistance through international STTA, in the introduction and implementation of phytosanitary measures, all according to international requirements (EPPO, quarantinable diseases).

#### BENCHMARKS

- EPPO standards introduced to at least 2 local nurseries;
- 80,000 apple trees produced as per EPPO standards; and

- EPPO standards introduced at 30 local nursery producers.

**BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
2,500 Euros (\$3,200)	0 days	0 days

## TABLE GRAPES

### DESCRIPTION

Kosovo's table grapes show great import-substitution potential in the short term, as domestic production could conceivably increase significantly within the next few years. Kosovo has about 3,064 hectares of grapes under cultivation. Of that area, approximately 660 hectares are planted with table grapes. The average yield varies from 9 to 12 tons per hectare. Meanwhile, annual imports of table grapes equal about 3,000 metric tons. At present, the country lacks late-harvesting varieties, which are crucial in order to substitute imports in the period between August and December. Currently, there is no nursery vineyard production, no certification in place and the young plants purchased countries in the region are generally of low quality.

The competition posed by regional table grapes is very intense, due to the fact that the overall production and marketing of table grapes by neighboring countries is better developed and organized. To compete, Kosovo growers must continually increase production and improve vineyard management practices. Doing so would enable them to produce table grapes of the highest quality and yield, and extend the period of presence on the market.

In August 2011, the NOA program, through an STTA, conducted a detailed assessment to evaluate and assess the production and competitiveness of the table grape sector in Kosovo and the potential both for import substitution and exports. The program has used the findings and recommendations from this study to design its strategy and interventions in the table grape sector during this work plan year.

To increase the quality and quantity of table grapes, the program financed the establishment of 6.7 hectares of two new varieties and an improved trellising system never before used in Kosovo. The program has worked with 20 growers to establish demonstration plots to encourage growers to modify existing trellising system and practice better canopy management, all with an eye to improving table grape productivity. Along with this, the program has facilitated and supported grower education, regarding table grape-specific production practices, through farmer field school (FFS), training of trainers, field days, round table discussions as well as exchange visits within the country.

### SECTOR STRATEGY

By 2020, table grapes will be a profitable and sustainable industry in Kosovo, producing enhanced quality fruit for local, regional and EU export markets.

This represents a national issue and has to be dealt with it at that level. The NOA strategy will be focused on selective interventions capitalizing on promising leverage opportunities, such as the conversion of existing wine grape production into table grape production; the introduction of new varieties with higher market potential in EU markets; and the promotion of knowledge/technology transfer, including adoption of Good Agricultural Practices by the industry to reduce impact on the environment.

An effective transformation of the industry will be facilitated and supported jointly with MAFRD and other stakeholders. MAFRD is aware of the need for the transformation and will be providing support to our interventions at the policy level. Three are dominant issues to be considered and addressed.

**First:** Kosovo imports about **3,000** tons of table grapes annually, valued at more than 1.2 million Euros (\$1.54 million) per year. This import can be replaced by local production. Apart from this, 130 hectares out of **660 hectares** of domestic table grapes are old and of limited production capacity; these vineyards will **soon** be eradicated, reducing local production.

**Second:** Kosovo wine grape processors this year and in coming years will likely not be able to buy more than 25% of the wine grapes grown by independent producers. Of the 30,000 tons of grapes expected this year, 8,000 tons will be table grapes and 22,000 tons will be wine grapes. Processors will be able to buy no more than 5,000 tons for wine. Therefore, there will likely be a surplus of about 17,000 tons of wine grape in the market. In the past, some farmers have sold certain quantities of wine grape for fresh consumption (especially the Vranac variety). However, the quantities of grapes sold in this way are small. Consequently, the potential for marketing wine grapes is very limited and solutions are not evident.

**Third:** According to the Wine Institute in Rahovec/Orahovac, some farmers are already converting existing vineyards from wine grapes to table grapes. Others have already eradicated their vines and have asked for public support to establish table grape vineyards.

This presents a significant potential in wine-to-table grape conversion. To capture local market demand for table grapes, faster conversion of vineyards is critical. This will contribute substantially to effective sector development, job creation and income generation.

Conversion of wine to table grape production involves cutting back existing plants to the rootstock and *grafting* onto them improved table grape varieties. This is a process called grafting over. Investments for the conversion are lower compared to those needed to establish entirely new vineyards (i.e., the trellising system will remain the same, once established for wine grapes). Converted vineyards will enter into their first commercial cropping in the second year after conversion. That is one year earlier than is the case when establishing new vineyards.

The entire process will be built on the transfer of knowledge and the importation of grafting buds as scions. Other investments will include the labor for field cleaning and the conversion of existing trellising systems to a modified “T” system.

An approximate budget for the conversion (per hectare) is presented in the table below, with cost share expected from growers and NOA. It shows that growers will be financially supporting 67% (costs of the materials and services), compared to 33% supported by donors (conversion including grafts import and grafting process).

<b>Items (materials and/or services)</b>	<b>Cost in Euros (\$)</b>	<b>%</b>
Materials (wire, posts, T arms)	1,976 (2,529)	<b>67</b>
Services (labor and machinery)	1,605 (2,054)	<b>grower</b>
Conversion, including grafts	1,789 (2,290)	<b>33 donor</b>

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## **OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS**

### **Promote market opportunities and production improvements according to international market standards**

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There is a need to address specific market requirements and market opportunities, especially in areas such as quality, packaging and handling, with the aim of establishing improved Kosovo marketing standards. These standards should comply with consumer requirements and should at least meet the levels of regional producers, who represent Kosovo’s major competitors. Collection and packing centers will be the focal point through which NOA will create linkages between growers and markets and promote the need for implementing standards in accordance with market requirements. NOA will support the production of a table grape standards leaflet for distribution to growers.

Through a visit to at least 1 international fair, local market players will be able to see first-hand the requirements of international markets, and start to implement standards in order to meet those requirements and be ready for potential exports in the near future.

#### **ACTIVITIES**

- Facilitate dialogue through B2B meetings between market players to highlight what matters to customers and supermarkets and communicate results to commercial growers and aggregation centers***

#### ***Facilitate development and promotion of quality standards***

Brochures on quality standards will be developed and distributed to market players and growers.

#### ***NOA will work with potential table grape aggregators to encourage specialization in table grape cooling and packing***

The program will provide technical support and linkages to stimulate appropriate market demand for improved product from dedicated cooling services.

#### BENCHMARKS

- At least 1 B2B meeting organized with market actors;
- 1 commercial cooling chamber established and operational; and
- Quality standards brochure for table grapes produced and distributed to market actors (CCs, supermarkets and growers).

#### BUDGET

IIF/Activity	International STTA	Local STTA
6,000 Euros (\$7,680)	0 days	0 days

#### 2. *Support the conversion of wine grape production into table grape production*

- The total area converted in 2013 will be up to 20 hectares. Potential beneficiaries will be selected in cooperation with the Institute of Rahovec and MAFRD. Initial discussions with the wine institute indicate that there are a good number of farmers who have expressed interest in this conversion. Each farmer submitting to the conversion process will be selected by NOA in partnership with the institute.
- An international grafting expert will be contracted to increase the technical skills of a local grafting team, which will carry out the grafting exercise under the direction of the grafting expert. There will be at least 7 members of the grafting team involved. Additionally, about 20 young staff will be trained in the field. Trained staff will guide, coach and implement the entire grafting process with the support of local growers/grantees.
- Virus-free grafts from reliable sources will be imported. On average, 4,400 grafts are needed per hectare, or two grafts per vine.
- The modified “T” trellising system will be applied throughout vineyards on existing poles. This will allow converted vineyards to enter the first commercial cropping a year earlier compared to the establishment of new vineyards.

The TOT and FFS concepts will be implemented to provide technical assistance on the management of all vineyards by 1 international STTA. Trainings will include topics such as, canopy management, pruning, training, irrigation and fertigation, weed control and insect pest and disease management.

#### BENCHMARKS

- Up to 20 hectares converted from wine grape to table grape production by grafting over;
- At least 7 trainers and 20 intern support staff trained; and
- At least 1 technical leaflet produced.

#### BUDGET

IIF/Activity	International STTA	Local STTA
72,480 Euros (\$92,774)	50 days	100 days

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

### Increasing incentives to produce higher qualities of table grape

Only by improving table grape management, by treating the crop as distinct from wine grapes, can Kosovo move to a competitive table grape production. In order to move growers rapidly toward the new technologies of trellising and canopy management, NOA will work with input suppliers to offer in-house technical support as well as appropriate introductory discounts for inputs necessary for the improved management of table grapes.

## ACTIVITIES

### 1. *Facilitate input dealers to provide embedded advice, services and demonstrations of good practice*

In order to improve the provision of table grape-specific services, NOA will work with input dealers based in the production region and support them to provide input and management-related technical support to growers as part of their marketing program. Where necessary, NOA will use its internship mechanism to support the costs of these services for a period of time. Ultimately, these input suppliers will provide growers with a full set of extension services. Additionally, NOA will work with the collaborating with input dealers to train their extension service providers.

As part of this activity, NOA will facilitate the linkages of advisers, agri-input dealers and machinery operators to the growing community. For growers with at least 0.5 Ha, input suppliers and agro-service providers will be encouraged by NOA to offer promotional discounts. This in turn will encourage farmers to adopt critical management techniques, moving their production to higher qualities. In addition, NOA will investigate the potential for the local manufacturing of improved trellising systems.

## BENCHMARKS

- At least 2 agri-input dealers provide embedded services to growers;
- At least 150 growers benefit from promotional discounts and adopt improved practices; and
- At least 1 local company willing to manufacture trellising system.

## BUDGET

IIF/Activity	International STTA	Local STTA
16,800 Euros (\$21,504)	0 days	20 days

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## OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED

### **Improvement of post-harvest technologies and practices, maintain fruit quality in field and in storage**

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## STRATEGY

There are two critical intervention points that will bring table grape quality up to international standards. The first is in-field crop management and is being supported under the program's other objectives. The second is the improvement of post-harvest handling of product. Currently, cold rooms are equipped with compressors and evaporators that are able to *maintain temperature* of product but *not to remove field heat* quickly and effectively. This results in substandard post-harvest and storage conditions. This in turn leads to product that has a short shelf life and is not able to compete with imported product, no matter how good it was when brought in from the field. NOA will address this during the work plan year by working with appropriate table grape aggregators to install forced-air coolers in conjunction with adequate compressor and evaporator ratings. This will ensure that improved qualities coming off the field will be adequately pre-cooled to lengthen shelf life.

## ACTIVITIES

### 1. *Establishment of a forced air pre-cooling and cold storage room for table grapes*

Through a cost-share mechanism, NOA will work with one or more selected table grape aggregators to improve their cold storage facilities dedicated to table grapes. The program will provide specific design support to ensure that partners install equipment designed to handle at least pallet-sized quantities of table grapes, removing field heat as rapidly as possible, bringing the grapes to storage temperature quickly. The installed equipment will be designed in such a way as to enable the aggregator to expand the system after the initial cooling results have been seen. Additionally, NOA will provide the necessary technical

support to the cooling center to ensure that the system is well managed and that the improved product quality is highlighted to the market.

#### **BENCHMARKS**

- At least 1 forced air cooling unit is established in Rahovec/Orahovac region;
- At least 1 packing center established and operational; and
- At least 100,000 kilograms of table grapes pre-cooled, stored and sold out of season.

#### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
50,000 Euros (\$64,000)	10 days	60 days

## STRAWBERRIES

### BACKGROUND

In Kosovo, strawberry production currently involves more than 100 growers. Strawberries in Kosovo are produced mostly in open fields, representing around 90% of total production, while high tunnels and greenhouses account for the remaining 10%. Production is concentrated in the regions of Mitrovica, Skenderaj/Srbica, Dukagjini/Metohija and Gjilan/Gnjilane. According to MAFRD data, Kosovo has about 153 hectares of strawberries under cultivation. This past year, NOA supported the planting of 6 hectares of Honeoye and Albion varieties, with a total of 300,000 runners, as well as the nursery planting of 1 hectare with Honeoye, with a total 10,000 runners. In total, NOA supported 12 farmers, 10 commercial growers and 2 nurseries. Currently, strawberry production is hampered by poor seasonal distribution of harvest. The dominance of a few mid-season varieties under cultivation means that harvests are concentrated, the production season is short and overall competitiveness is poor.

### STRATEGY

The strawberry value chain has developed well in Kosovo over the last 10 years. What the industry is still missing is new plant production by suitable varieties and sources of high-quality planting materials. By 2020, the strawberry sector will ideally involve a sustainable fresh-market industry supported by 400 hectares of production, and will be perceived as a superior supplier of fresh market strawberries to domestic, regional and EU markets. Yield potential is yet to be fully realized and producers require both continued support and increased market demand to instill the confidence required to spur further investments. In pursuit of this vision, NOA will support the sector in the following manner.

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## OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS

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### **Increasing quality, quantity and continuity of strawberry production**

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The market for strawberries has previously been limited to local roadside sales and very limited linkages with retail outlets for pre-packed product. NOA-supported promotion of strawberries in a public setting was very successful during the strawberry sales season in 2012. This promotion engendered confidence at the grower level that a market indeed exists for high-quality, well-packed product. The attention to detail regarding packaging was well noted by consumers. Additionally, a trial export to Albania was well received, adding to grower confidence that market expansion is indeed possible. NOA will continue to link growers to markets by means of public, retail and export promotion.

### ACTIVITIES

1. ***Organize promotion and sales days on Mother Theresa Street (or other frequented places/streets)***

NOA will again support the promotion of strawberry sales in a public setting, involving between 30 and 50 of the biggest growers. This promotion will enhance cooperation among growers with the potential of their forming a growers' association that would ultimately be able to take charge of the direction of the sector.

2. ***Formation of growers association***

The program will facilitate formation of group work in different regions of Kosovo, including Skenderaj/Srbica, Lipjan/Lipljan/Shtime/Stimlje and other strawberry-producing regions. These groups can link and be better able to undertake promotion and marketing.

3. ***Facilitate sales with biggest supermarket chains and encourage direct promotion***

The NOA program will continue facilitating sales with big supermarket chains for all berries, starting with strawberries and continuing on with blackberries and raspberries. The effort will focus on presenting packaged berries in distinct refrigerated areas. This will prove crucial for improving product quality and extending shelf life. Promotional materials and direct promotional activities will be organized within supermarkets and trade centers.

#### 4. *Organize a promotional activity in Tirana (identify a central boulevard or street)*

This promotion will be organized in late May or early June 2013, after the April-May peak season in Albania. This promotion will be linked with specific export contacts. Pre-visits in Tirana will be carried out during February/March to organize the activity and obtain official permission for such an event. Reliable marketing contacts will also be made.

#### BENCHMARKS

- At least 20,000 Euros (\$25,600) in sales during street promotions in Kosovo;
- At least 5,000 Euros (\$6,400) in sales in Tirana;
- At least 5,000 kilograms of strawberries exported to Albania; and
- At least one supermarket display of Kosovo berries established in dedicated cold shelves.

#### BUDGET

IIF/Activity	International STTA	Local STTA
16,000 Euros (\$20,480)		

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

#### STRATEGY

With strawberries, quality planting material is critical to realizing potential yields of good quality product. It is also critical to ensure that the correct variety mix is present with producers, in order to extend the season as far as biologically possible in order to maximize sales opportunities and competitiveness. The strategy is to have strawberries plants that are true to type and are disease free as well as varieties that extend the marketing season. Furthermore, attention to production detail should increase yields to 30 tons per hectare.

#### ACTIVITIES

##### 1. *Knowledge transfer to nurseries through Hargreaves*

The NOA program plans to work with U.K.-based Hargreaves Plants Ltd. to support knowledge transfer regarding strawberry runner production to at least two Kosovo nurseries. Hargreaves will provide one technician who will train targeted nurserymen on the techniques of direct propagation. The selected nurseries will become the focal point for growers as all technical information will flow through them.

##### 2. *Study tour to England*

NOA will organize a study tour for phytosanitary inspectors, allowing them to visit nurseries to learn how to enhance the propagation of runners and conduct phytosanitary inspections. This will be combined with a planned visit to Hargreaves, all early in 2013.

##### 3. *Facilitate the licensing of Hargreaves' Albion variety to nurseries in Kosovo*

Albion has changed the current strawberry situation in Kosovo. Yield potential is up and seasonality is being extended. Because the product is patented by the University of California (and licensed by Hargreaves), nurseries cannot multiply the variety. To enable the legal propagation and sale of Albion mother plants in Kosovo, in FY 2013 the NOA program will facilitate the necessary licensing from Hargreaves. This will enable growers to purchase licensed plants from Kosovo nurseries in the spring of 2013.

##### 4. *Support nurseries with Elsanta varieties*

The program will support nurseries with 10,000 Elsanta mother plants for propagation. The project expects 300,000 runners by next year. The variety does not face the same patent issues as Albion.

### **5. *Transfer of knowledge to farmers on production techniques***

Knowledge transfer will focus on these topics: crop rotation, bed configuration and preparation, plastic mulches, fertilizer and irrigation management, harvesting, post-harvesting and IPM. Training outreach will be done through local STTA, according to the crop calendar. The nurseries selected by NOA as partners will serve as the channel through which this information shall pass to growers. The program will engage 2 interns to support nurseries in providing technical assistance to growers.

### **6. *Introduction of early production***

Production of strawberries in high tunnels represents the best choice when it comes to protected cultivation. High tunnels are relatively inexpensive to build, are maintained easily and strawberry products ripen much earlier in the spring than do strawberries cultivated in open fields. NOA will identify at least 2 growers with 0.10 hectares seeking to expand into this production system, ideally as an adjunct to their open field production system. Data on production and profitability issues will be gathered, processed and disseminated within the growing community.

### **6. *Preparation and publication of brochures on production techniques***

NOA will produce a brochure that will include essential strawberry production information, including new varieties, selection of fields and cultivars, establishment and plantation, bed configuration, plastic mulches, transplanting, fertilizer, irrigation, pests and weeds, and harvesting. Brochure will be distributed to strawberry growers through different channels, namely nurseries, input dealers and service providers. A program staff member will prepare the brochure.

#### **BENCHMARKS**

- Hargreaves agrees to supply technical assistance to cooperating nurseries;
- At least 2 nurseries are identified to support implementation of activities;
- At least 4 different trainings organized;
- At least 50 growers will be trained;
- At least 0.2 hectares high tunnels of early production implemented; and
- Strawberry production brochure (500 pieces) printed and distributed.

#### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
22,900 Euros (\$29,312)		100

## RASPBERRIES

### BACKGROUND

The Kosovo raspberry industry is small when compared to that in neighboring Serbia and in other major producers in Europe. It is estimated that about 35 hectares of raspberry are currently cultivated in Kosovo. The production is of older domestic varieties of raspberries, which are suitable mainly for processing. The average yields are considered to be less than 10 metric tons per hectare, while the price per kilogram ranges between 0.80 and 1.5 Euros (\$1.02 and \$1.92).

Market trends are prioritizing fresh raspberry production over processed product. Fresh market raspberry production requires improved cultivars that enhance size, color, flavor and appearance and have better shelf life and shipping qualities. During FY 2012, the NOA program established 9 hectares of four proven varieties of summer-bearing raspberry for the fresh market (*Tulameen* and *Nova*) and the best fall-bearing raspberries (*Polka* and *Autumn Bliss*) with 14 growers in 8 different municipalities in order to enhance early and late season production of varieties that are suitable both for the fresh and processed markets.

The program will continue to support the development of the commercial raspberry industry by supporting the development of the fresh raspberry market, given its potential to compete regionally, offer good returns on investment, create additional jobs and contribute to the export sector.

This will be achieved initially by:

- Increasing the production of new fresh market varieties;
- Strengthening the nursery sector;
- Improving postharvest handling; and
- Extending the presence in the local market and introducing Kosovo fresh raspberries to regional and EU markets.

### STRATEGY

The strategy for the raspberry sector is to expand and increase raspberry production in Kosovo by providing technical assistance that can lead to increases in yields and quality needed to meet the fresh market's demands and standards. Up to 500 hectares of raspberry orchards are foreseen to be established by 2020, based on positive market requirements in the local, regional and EU markets. This value chain has a solid base to grow from and has the potential to become an important commodity for the Kosovo fruit industry. Production will be concentrated around collection centers and commercial growers adopting new technologies and already expressing their readiness to expand their production areas.

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## OBJECTIVE 1: FARMERS AND PRODUCTS LINKED TO MARKETS

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In FY 2012 the project organized, on Mother Theresa Street, a very successful activity that promoted fresh strawberries and blackberries, with sales exceeding 20,000 Euros (\$25,600). This activity drew significant media coverage and served to increase consumer awareness. Similar promotional activities will be organized for all marketable berries in FY 2013. Since the raspberry and blackberry harvest seasons overlap, a joint promotional event will be organized for both of these crops. NOA will facilitate this joint promotional activity with other actors: MAFRD, IADK and other stakeholders will be invited to join the activity.

### ACTIVITIES

**1. *Organize promotional and sales days on Mother Theresa Street (or other frequented places/streets)***

Get municipal permission to promote raspberries and blackberries on Pristina's pedestrian Mother Theresa Street and eventually at other venues, such as the NEWBORN monument. The preferable period of promotion is from the end of June to the beginning of August. Two weeks of promotion are recommended in order to catch the peak season of both raspberries and blackberries.

## **2. Facilitate sales to largest supermarket chains and encourage direct promotion**

Based on previous experience with promotions, NOA will continue facilitating sales to large supermarket chains for all berries, including raspberries, displaying them in separate and distinct refrigerated areas. Trade centers and supermarkets are additional places for promotion. Promotional materials and direct promotional activities will be organized within supermarkets and trade centers.

## **3. Explore the possibilities for the export for the fresh market raspberry**

The program will work closely with APC, which is already exporting frozen raspberries to Germany. Other small raspberry growers in the region have established links with this operator. The market can be assessed for shipping the first trial packages of fresh raspberries to Germany.

### **BENCHMARKS**

- At least 10,000 Euros (\$12,800) sales in street promotions;
- More than 10 participating raspberry and blackberry growers;
- At least 10,000 Euros (\$12,800) in sales to supermarket chain; and
- Export at least 4 trial shipments of fresh raspberries.

### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
10,000 Euros (\$12,800)	0 days	0 days

## **OBJECTIVE 2: AGRICULTURAL PRODUCTS DIVERSIFIED AND INCREASED**

The program identified fresh market raspberries as the primary agricultural product where Kosovo can be competitive, particularly in penetrating regional markets. The goal is to increase overall fresh raspberry production by 200 tons in 2013, by planting new varieties and prolonging the harvesting season. Increasing farmer knowledge through farmer field schools is critical and the latest technologies need to be applied to improve crop management practices. Providing farmers access to plants produced locally will have a sustainable and long-term impact on raspberry production and the industry overall. Therefore the program will concentrate its efforts on supporting domestic berry fruit nurseries for expansion and modernization.

### **ACTIVITIES**

#### **1. Increase the production area**

Hargreaves Plants Ltd. will ship an additional 52,000 Polka variety for free this year. In the fall, 6,000 canes will be planted in Shterpce/Strpce by MVM Association. Meanwhile, in the spring 46,000 additional canes will be planted at other grower sites with sufficient irrigation potential.

#### **2. Develop a “Knowledge Base” to support production**

The essential requirements for fresh market raspberry production must be taught, in detail, to everyone in the value chain, especially to producers. An international STTA will design a farmer field school curriculum and train 2 local STTAs. Local STTAs will be engaged to support raspberry producers in the Podujeve/Podujevo and Shterpe/Strpce regions with advice, including on improving crop management practices. In general, old habits will have to be broken, and new methods and technologies adopted. A training program will be provided to include field trips to raspberry production areas, such as in Serbia. Informational outreach activities will be organized and materials produced. As part of this knowledge transfer, a study tour to Poland will be scheduled to inform growers of the critical production requirements for Polka.

### **3. Facilitate development of the Nursery Production Program with Hargreaves**

The program will support nurseries with technical assistance by engaging an STTA and by conducting study tours to specialized nursery operations in the UK and Poland, as well as by obtaining mother plants of required varieties. The program will assist the “Fidanishtja Godanci” (Shtime/Stimlje) and “Dredheza” (Decan/Decani) nurseries through the leveraging of a propagation license for the Polka variety. Hargreaves Plants Ltd. will draft a proposal for setting up two nurseries in Kosovo for propagating new raspberry plants. Two partners will be identified that can meet international (and Hargreaves’ own) requirements taking into account UPOV rules. Hargreaves will prepare a project brief for the proposal. This development will assist the raspberry industry in Kosovo in the medium to long term.

### **4. GlobalG.A.P. standard at raspberry farm level**

Training on GlobalGAP requirements will be organized for APC in its own fields and for extension to its outgrower fields. The following will be introduced at a minimum:

- Introduction of the tensiometer to control moisture and combat diseases, initially at 3 grower sites;
- Noninvasive grass strips planted between raspberries across 2 hectares, initially at 2 grower sites;
- Organic mulch applied in minimum 2 plantations;
- 3 Mankar herbicide sprayers for weed control distributed to 2 growers with more than 0.5 hectares of production and to the nursery; and
- Install a fertigation venture system for at least 3 growers.

#### **BENCHMARKS**

- At least 5.5 hectares of new Polka plant variety established;
- Raspberry farmer field school established;
- At least 5 GAP/IPM tools integrated;
- At least 2 nurseries implement the nursery development program with Hargreaves Plants;
- Study tours to UK and Poland with identified nurseries and phytosanitary inspectors to enhance the propagation of runners and phytosanitary inspection procedures;
- At least 1 field trip organized within the region (Serbia); and
- At least 2 nurseries licensed to produce Polka.

#### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
53,000 Euros (\$67,840)	0 days	360 days

## **OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED**

The program will work on changing the focus of raspberries from low-value processing to higher-value fresh sale product. The transition strategy of the raspberry production industry from processing to fresh market sales includes support to existing cold storage processors to work with farmers presently supplying their collection centers. Supported cold storage processors also would be expected to become farm service centers serving the surrounding community of farmers needing special inputs to implement fresh market berries, e.g. appropriate irrigation supplies, clamshell packaging, special tools or implements, etc.

#### **ACTIVITIES**

##### **1. Provide technical assistance by engaging international STTA**

An STTA consultant already familiar with the program’s activities will be engaged before the harvest season starts to introduce the best practices on the raspberry postharvest for fresh market. The STTA will also give advice to raspberry growers on production activities.

## **2. *Introduction of forced-air cooling***

The program will support the installation of forced-air cooling at one of the commercial growers, APC in Podujeve/Podujevo, which already has sufficient cooling capacities essential for the raspberry industry to enable extended shelf life and shipping qualities. This activity will contribute to the linkages with outgrower producers.

## **3. *Packing and labeling materials***

The program will cost share the appropriate small pack and label materials for APC in order to allow for the proper and adequate packing in clamshell containers as the standard package. Fresh market trial shipments will be initiated.

### **BENCHMARKS**

- Installation of at least 1 forced-air cooling system for the fresh export of raspberries

### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
12,000 Euros (\$15,360)	15 days	0 days

## BLUEBERRIES

### BACKGROUND

High-bush blueberries were not commercially cultivated in Kosovo until after the 1998-99 war. The first trials were established in 2008 by the Swiss Project for Horticultural Promotion (HPK) in Kosovo. They included pot-grown blueberry bush varieties. Trials included 6 different zones.

Overall, Kosovo enjoys favorable agroclimatic conditions for high-quality production. There are good marketing opportunities in both the local and export markets. Blueberry can be a very profitable crop, with low pest and disease pressure. By including blueberries in the current production system, field operations and marketing season for soft fruits is extended, contributing to better labor force distribution.

In 2012, NOA supported the establishment of the first commercial blueberry plantations, covering 5 hectares, in 4 different zones, and involving 4 growers. One of the selected sites will serve as a commercial nursery in the future. The growth and development of the bushes is satisfactory. Growers had their first experiences in field management under the program's supervision. Lack of sufficient water for irrigation was the biggest recorded constraint.

### STRATEGY

NOA is working toward these goals: By 2020, Kosovo's blueberry industry will be a profitable, environmentally sustainable industry producing fruits for local markets and for export. At least two regions will be recognized as blueberry production regions of Kosovo. Local nurseries will have adopted propagation technologies and will be capable of producing blueberry bushes that meet certification criteria, respect international plant breeder rights and suffice to fulfill local market demand. Furthermore, Kosovo nursery collaboration with European nurseries will have been promoted and strengthened. Specific intervention points include working with local nurseries to ensure adequate planting materials licensed by breeders; ensuring appropriate zones of production are selected; and developing aggregation capacity to further enhance and promote industry growth.

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## OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS

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### Increasing quality, quantity and continuity of blueberry production

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As of 2013, fruit production will be still too low to initiate any specific marketing activity at scale. Therefore, market testing in the following year will not be a main objective. The promotion of economic and health benefits from blueberry cultivation will take place to increase the awareness of consumers and growers about this new opportunity for farm diversification. Regional and international experiences will be used to communicate to the interested actors involved in this value chain.

### ACTIVITY

1. *Promotion of economic and health benefits of blueberries via brochures, leaflets and media*

The publications will emphasize the economics of blueberry production as well as the potential markets. The promotional leaflets will be produced by NOA and distributed to potential investors in production.

2. *Facilitate linkages of local growers with local and regional market actors*

To ensure this, growers will participate in B2B meetings organized all across the VC's of the program; field visit to the growing sites for potential market actors will be organized; participation of local growers in regional marketing events for soft fruit will be supported.

### BENCHMARKS

- At least 1 leaflet issued and distributed;
- 1 article published;
- At least 1 TV highlight created to stimulate blueberry adoption by growers;
- At least 1 field visit for market actors organized; and

- At least 2 growers attended marketing events for soft fruits organized in the region.

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## **OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED**

### **Increasing production through area expansion**

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The foundation for increasing production to a critical mass lies in the expansion of the area under high-bush blueberries. Soil condition (low pH) is critical, as is production around potential aggregation points. By identifying these two overlapping criteria, the geographical target for intensification of blueberries will be established.

#### **ACTIVITIES**

##### **1. *Establishment of at least 5 hectares on cost-share basis at sites with potential***

Growers will be selected based on the established criteria, and their capacities to increase production and develop independently other parts of the value chain, such as the aggregation function. Selected partners should ideally own a minimum of 2 hectares suitable for blueberry plantation, with irrigation water available during the entire season.

The program will facilitate the importation of blueberry bushes through selected local nurseries, facilitating the entire process but ensuring that the process empowers local nurseries to make the necessary contacts with suppliers and adhere to all the necessary import requirements.

Field days will be organized on the newly established plantations, as well as on the plantations established in 2012, to promote this new crop and related possibilities for farm diversification. Technical assistance will be provided through international STTA.

##### **2. *Introduction of propagation technologies to two soft fruit nurseries***

Quality planting material propagation is crucial for the blueberry value chain. The strategic priority is to increase the capacities of local nurseries to propagate blueberries according to international requirements and rules. The knowledge transfer on blueberry propagation will be facilitated at two soft fruit nurseries via international STTA.

Nurserymen will be part of the soft fruit focus group (raspberry and strawberry) visiting the advanced soft fruit industry in Poland, supported by UK-based Hargreaves Plants Ltd.. Poland is the world's largest blueberry producer, so beyond exploring the technical side of cultivation, possible market linkages for nurseries and growers will be evaluated as well.

There are specific inputs required to implement the propagation. These include specific compost formulation, growth regulators and equipment for water supply by misting. The communication among local vendors and nurseries will be facilitated with the aim to ensure a sustainable supply of the required inputs.

The program will facilitate and support knowledge transfer via STTA on topics relating to primary production and blueberry propagation. Commercial growers will have to identify staff to be trained and to be engaged permanently within the companies in the future. NOA will support the training of these identified individuals. The training program will be facilitated by the program through the training of trainers and the farmer field school concept.

#### **BENCHMARKS**

- At least 5 hectares new crop planted;
- At least 2 nurseries engaged in blueberry supply;
- At least 1,000 bushes propagated locally and ready for sale;
- At least 8 training sessions (field schools) organized for trainers and growers according to the crop calendar (pruning, plant nutrition, irrigation, plant protection, harvesting);
- At least 14 people trained on growing technologies; and

- At least 4 trained individuals supervising field production participate in study tour to Poland.

**BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
80,000 Euros (\$102,400)	10 days	120 days

# VEGETABLES

## LETTUCE

### STRATEGY

The market demand for lettuce in Kosovo outstrips domestic production. As a result, imports of lettuce into Kosovo have grown over the last decade, fueled not just by demand but seasonality as well. The target market for lettuce producers in Kosovo is the domestic wholesaler looking to service the fresh consumption market (supplying wholesale and green markets, as well as restaurants). The market demand for lettuce is currently up to 170,000 kilograms per year; while domestic production is currently less than 90,000 kilograms per year. Lettuce producers sell approximately 30% of their production to wholesalers and 70% in green markets.

To date, the NOA program has introduced new varieties of iceberg, romaine, endive and baby leaf lettuces to Kosovo's lettuce farmers. Trial plots have been successfully promoted for two growing seasons. All promoted varieties of lettuce have performed well under Kosovo growing conditions.

Based on the evaluation of the current situation regarding the lettuce value chain in Kosovo, there is still room for improvement. The main gaps within the lettuce value chain are diversification of lettuce types, low production; lack of knowledge on production, post-harvest handling and marketing; and weak linkages between value-chain actors. The need for improved food-safety standards is another issue.

In order to improve the current situation in the lettuce industry, and allow it to become more lucrative and sustainable, three major objectives require attention.

### OBJECTIVES

- Increase the quality, quantity and continuity of lettuce production;
- Increase knowledge among lettuce value-chain actors; and
- Increase marketability of lettuce and research export possibilities.

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## OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS

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### Increasing quality, quantity and continuity of lettuce production

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The production of lettuce in Kosovo is predominantly oriented to the spring and autumn sales seasons. NOA has introduced year-round production opportunities through trials of different types, varieties and hybrids. To maximize market opportunities and to produce lettuce year-round in Kosovo, NOA will work with producers to expand production into more off-season production periods. This will require working with existing producers to expand their production programs and seeking new growers who are willing to grow outside traditional production periods. Linking these to markets at the outset will engender the necessary confidence required to take these additional risks. Wherever possible, contracts will be encouraged to ensure off-take price and timing and, in this way, cement commercial relationships prior to production.

### ACTIVITIES

1. *Facilitate linkages between international seed suppliers, local input dealers and producers*

The new seed lettuce varieties promoted by the project were imported by Jonathan, an input supplier from Gjakova. The main international companies that supply lettuce seeds are Rijk Zwan, Enza Zaden, Close and Wilmorin. Of these, two have established representatives in Kosovo while two others now seek representation. High-quality seed is a critical need in the value chain. Facilitation of linkages between seed suppliers, local input dealers and farmers will focus on ensuring that the latest varieties and highest qualities of seed are available to local input dealers and, crucially, to farmers. In FY 2013, NOA will work through local input suppliers to contact international seed suppliers, organize promotional events and

make trial seeds of new varieties available to farmers. This will promote new varieties and increased production of lettuce throughout Kosovo.

## **2. Facilitate marketing linkages between of actors in lettuce value chain**

Linkages between actors have been identified as a bottle-neck for developing the lettuce industry. The marketing channels are still acting on an *ad hoc* basis with little or no effort in programming. Supermarkets, restaurants and wholesale markets are the main consumers that can drive improved organization within the sector. NOA will play a specific this role this year, inviting appropriate actors to different events, encouraging the promotion of lettuce products as well as the programming of planting and marketing schedules for wholesalers, supermarkets and other large buyers; fostering linkages; and increasing the marketability of lettuce. B2B events and field days will be useful, as will farmer visits for large buyers to foster confidence in local supply.

## **3. Organize out-grower farming (support network farming)**

The lettuce-packaging center established in Mitrovica will function as the key aggregator for lettuce in Kosovo. The quality of packaging and market linkages as well as the ability to program production (through a developed planting and marketing schedule), both internally and with contract growers are seen as key to improvement in this value chain. Small and medium lettuce growers will be programmed through the Mitrovica center, and thereby linked to sustainable markets for high-quality product. The established center will deliver to farmers planting material, based on marked demand and established contracts. It will also provide technical assistance to the growers and purchase the final product from them. NOA will facilitate linkages between lettuce growers and the packing center as well as provide technical advice through local SITTA.

## **4. Assess trial export of lettuce to Albania**

The new lettuce types produced in Kosovo in FY 2012 can be promoted in regional countries, particularly in Albania. Lettuce types such as iceberg, salanova and baby leaf have good potential for export to Albania. Wholesale markets and two supermarkets in Albania will be a target for FY3 as a trial to test the regional market. NOA technical staff will assess and identify interested traders in Albania, and then facilitate introductions to Kosovo lettuce producers and, eventually, facilitate logistics for the trial export.

### **BENCHMARKS**

- At least 200 stakeholders within lettuce value chain will be trained;
- At least 2 million seeds sold by input suppliers to farmers in the value of 50,000 Euros (\$64,000);
- 13 hectares of lettuce will be planted through direct linkages between farmers and input suppliers;
- At least 100,000 Euros (\$128,000) in sales will be generated through improved linkages;
- At least 50 actors in value chain will be involved in these activities;
- Contract out growing to at least 10 farmers for lettuce production by packaging center;
- At least two promotion days and two B2B organized emphasizing different types of lettuce; and
- At least 2,000 kilograms of lettuce will be sold to Albania as trial export.

### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
10,000 (\$12,800)		

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## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

### Increasing knowledge of the actors in lettuce value chain

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#### STRATEGY

Increasing knowledge of the actors is a critical tool for developing the lettuce industry. The eight lettuce types promoted in FY 2012 have different growing technologies and require different growing conditions and post-harvest handling. The knowledge of all actors in the value chain has to be improved and continually updated, starting from input suppliers, producers, marketers and customers. Trainings, promotion events, field days, fairs and study tours in regional countries have a big impact on increasing and updating knowledge of value-chain actors in the lettuce industry.

#### ACTIVITIES

##### 1. *Encourage lettuce producers to increase their production*

The NOA program will engage local STTA to support lettuce producers with advice and information regarding new types and hybrids introduced by the program. The STTA will work closely with the NOA team and seed suppliers linked to international sources, as well as all other stakeholders involved in the diversification and production of lettuce. The STTA will also support the identification and production of proper hybrids and types, timing of production and sharing of information with other interested growers encouraging them to increase lettuce production.

For demonstration purposes and to encourage lettuce producers to diversify their products and boost production, NOA will support the local fabrication of two lettuce transplanting machines and one harvesting machine. Adaptations to equipment currently used in Kosovo that are fully appropriate to the context in country were identified during the recent study tour to the Netherlands.

##### 2. *Introduction and promotion of new post-harvest and packaging technology*

The NOA program co-financed the establishment of a post-harvest line at Agro Serra in Mitrovica, both to add crop value and increase the shelf life of local lettuce product. The engagement of international STTA will be critical to support growers with handling and managing this post-harvest line. The initial performance and results from use of the post-harvest line will be shared with and promoted among other producers. Furthermore, NOA will consider the possibility of establishing and co-financing another lettuce post-harvest line, ideally with simple ice capacity for boxed head lettuce. The increase in post-harvest lines will have a big impact on production levels, income, employment and sales of bagged and boxed lettuce.

##### 3. *Implementation of IPM and introduction of GLOBALG.A.P. to lettuce producers*

Several trainings on IPM and GlobalGAP were conducted in FY 2012 for growers and technical advisers through local and international experts engaged by the project. NOA will continue to stress the importance of the implementation of IPM-SUP activities through trainings and the provision of technical advice using plant protection products (PPP) related to PERSUAP criteria. GLOBALG.A.P. standards will be introduced to lettuce growers through local STTA engaged by NOA, initially assessing those farms close to achieving criteria for certification. NOA will then support them with the further advice needed to meet the criteria for GlobalGAP certification.

#### BENCHMARKS

- At least 5 million lettuce heads produced and sold (30 hectares – a 6-fold increase over 2012);
- At least 5,000 kilograms of baby leaf lettuce produced;
- At least 20 existing farmers encouraged to increase their surface area of production;
- At least 100 new jobs created;
- At least four graduated agronomists will be trained to update their knowledge on lettuce production;

- At least 60 lettuce producers will be trained regarding food safety and quality standards (IPM and GLOBALG.A.P.);
- 2 planting machines and 1 harvesting machine will be fabricated/adapted locally;
- At least two icing machines co-financed;
- At least three farmer groups will be trained on basics of GLOBALG.A.P.; and
- At least 30 farmers will continue implementing IPM standards.

#### BUDGET

IIF/Activity	International STTA	Local STTA
30,000 Euros (\$38,400)	10 days	120 days

### OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED

#### Increased Marketability of lettuce and searching export possibilities

##### STRATEGY

Increasing the knowledge across value chain actors of advanced growing technologies, promoting new varieties and improving post-harvest activities are crucial points that influence the increased marketability of produced lettuce. The new promoted lettuce types must be packed in plastic bags, while existing head varieties should be packed in plastic boxes. Both must be treated as a final, added-value product suitable for consumers. Facilitated by the NOA program, the actors in the lettuce value chain will improve and strengthen their product marketability by enhancing product quality. Food safety is a key marketing tool for local producers. Producers will have to pay increased attention to this as they promote their products in competition with imported products. IPM, GlobalGAP and process standards will all add to product marketability.

##### ACTIVITIES

#### 1. *Implementation of HACCP standards to post harvest line established*

NOA will engage regional STTA to assess and implement Good Manufacturing Practices (GMP), Good Hygiene Practices (GHP) and HACCP at the lettuce packaging center established through NOA in Mitrovica.

#### 2. *Branding and labeling*

The lettuce produced and marketed in Kosovo is traditionally packed in used banana carton boxes without branding and labeling. Improved packaging, branding and labeling will have a big impact on increasing value and marketability of lettuce products. This activity will focus on building the capacity of six producers to upgrade the branding and labeling of their products. In this respect NOA will support producers in developing their branding and labeling through a local consulting company and in coordination with other projects involved in the sector.

#### 3. *Promotion of introduced new lettuce types to the market*

NOA will continue to support the promotion of quality lettuce, emphasizing food safety. To date, with NOA support, eight new lettuce types have been promoted to 12 lettuce producers. The market has not been fully exposed to these. This activity will focus on organizing events to promote new lettuce types to restaurants and supermarkets. These promotional events will drive demand and encourage programmed production.

##### BENCHMARKS

- Mitrovica lettuce center will begin to implement at least 1 food hygiene standard;
- Organizing at least 2 promotion days for promotion of bagged lettuce;
- At least 4 different bagged types of lettuce packed by Agro Serra will be promoted;

- At least 6 lettuce producers will have their brand and logos in the market; and
- At least 8 new lettuce varieties will be promoted to consumers.

**BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
7,813 Euros (\$10,000)		

## **GHERKINS**

### **BACKGROUND**

Gherkins are immature cucumbers used to produce pickles, whether in commercial plants or at home following traditional methods. As a consequence, gherkins supply two different market channels. In Kosovo, commercial processors require product of certain classes or sizes: Class I (3-6 cm), Class II (6-9 cm) and Class III (9-12 cm). Processors typically require product harvested in June and July. Meanwhile, individuals purchasing gherkins for home pickling typically purchase product in September and October. This market is less proscriptive about size, requiring only that gherkins be anywhere from 7 to 15 cm. While prices for gherkins for home pickling are higher than those for product destined for processing, but fixed demand is lower.

Over the last two years, the NOA program has supported the development of Kosovo's gherkin value chain by (1) increasing production capacities by introducing producers to new varieties and production technologies; (2) supporting existing collection centers with sizing machines; and (3) developing linkages between processors and collection centers through supply contracts.

In 2012, to further improve the production of gherkins, the program supported 23 producers through the planting of 12 hectares of gherkins to demonstrate new varieties and production technologies. In total, the demonstration plots yielded about 300 metric tons of gherkins for sale. The sizing machine enabled the collection center to grade gherkins by quality and size, as demanded by processors; gherkins of other sizes were supplied to retailers. Furthermore, the program facilitated the development of linkages between processors and collection centers, achieving the conclusion of 57 supply contracts. Indeed, the majority of actors signed contracts for the first time. In all, the collection center supplied 210 tons of sized gherkins to four processors and more than 100 tons of large gherkins to the ETC supermarket chain.

Processors were very satisfied with the process of buying gherkins from collection centers, as it enabled them to sign contracts with collection centers directly, leaving them to deal with only with their owners rather than large number of producers directly. The gherkins were of good quality—fresh and sized as required for industrial processing. The basis for industry expansion has been established.

### **SECTOR STRATEGY**

The gherkin value chain has moved to a higher level. The drivers of the value chain—the processors—are satisfied with the development of a supply system that entails the contracting of Kosovo's supply of gherkins to collection centers. However, this is just the beginning: This approach has yielded quantities that only begin to dent domestic processor demand for gherkins, as it remains several times higher. The program's strategy in FY 2013 will be to support the expansion of the supply system as a next step, with the goal of fulfilling by 2014 the 1,000 metric tons of product that processors currently demand a year. Going further, the project aims to increase the production capacities of Kosovo's processors to the point where they can not only substitute imports but commence exports as well, all by developing the supply system and enhancing the critical linkages among growers, input suppliers and processors.

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## **OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS**

### **Improving linkages between actors – further development of the system**

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#### **STRATEGY**

Improvements to the linkage between processors and collection centers remain crucial for the further development of the gherkin value chain. Last year, following a round table that drew together the major players in the value chain, as well as bilateral meetings and a visit by processors to the collection centers, 57 contracts were signed for the supply of 400 tons of gherkins. This represented a breakthrough, not only for Kosovo's gherkin sector but its overall agriculture industry.

To build on this, the NOA program will continue to support improved relationships between processors and collection centers through the organization of round table to facilitate discussion of different issues among players in the value chain. The project will contribute to improve this culture of dialogue. In

addition, to increase the capacity of processors to manage supply contracts, the program will co-finance the costs that five main processors will incur to employ contract coordinators in the coming year.

Existing collection centers are located in production areas, namely “EuroTac” in Mamusha/Mamusa; “ShalaProdukt” in Suhareka/Suva Reka; “Agrocelina” in Rahovec/Orahovac; and “AgroProdukt” in Kllokot/Klokot, have the capacity to aggregate gherkins from a greater number of producers and to conduct machine-sizing and -packing (for the fresh market), all in accordance with processor and retailer requirements. The centers have been developing market linkages with processors and retailers, resulting in the development of a supply system. That system has left all parties (producers, processors and retailers) satisfied. The experience from last year shows that the development of collection centers is the key factor in the development of the supply system and the development of long-term relationships between producers/collection centers (on the supply side) and processors/supermarkets (on the demand side).

The program will build on this momentum by supporting the further development of existing collection centers and exploring the possibility of establishing new collection centers in the production areas that show the greatest potential. The program will work closely with the owners of collection centers on improving linkages with processors and retailers (supermarkets) through the facilitation of bilateral meetings and visits.

#### ACTIVITIES

1. ***Organize 2 round table events with all players in the gherkins value chain to assess the production year 2012 and plan joint activities for the 2013 production year***
2. ***Facilitate a bilateral meeting between processors and individual collection centers (developing contract farming) and exchange visits between the two entities to discuss business relationship details and the terms and conditions of actual contracts***

This will improve existing relationships and understanding among processors and collection centers. The program will continue to facilitate bilateral meetings among players in the sector.

3. ***Co-finance the engagement (by processors) of interns as contract coordinators***

The program will co-finance the cost for processors (75%/25%), covering a portion of the costs of engaging interns (2 internees each for 5 processors) as supply contract coordinators. The coordinators will be in charge of selecting collection centers and negotiating timing, quantities and quality. They will work closely with collection centers to reduce risk and ensure they remain on track to fulfill supply contracts.

4. ***Support the further development of existing collection centers through co-financing infrastructure improvements***

Existing collection centers will be supported in improving infrastructure (e.g., facilities) in order to supply gherkins of the quality demanded.

5. ***Explore possibility of establishing new collection centers in production areas with potential***

The program will identify other collection centers and/or individuals interested in aggregating gherkins and support them by co-financing a portion of the cost of improved infrastructure, including the purchase of sizing machines critical to expanding the supply of gherkins to processors.

6. ***Organize study tours in the region (Macedonia and Albania)***

Study tours have been the most important learning tool. Visits to collection centers in the region will help owners of collection centers gain experience and possibly develop relationships with potential buyers.

#### BENCHMARKS

- At least 2 round tables held, with participation by all players in the value chain;
- Sign supply contracts for at least 700 tons, worth roughly 234,375 Euros (\$300,000);
- Sales of CCs will increase by at least 70%;

- At least 5 processors engage 10 interns as contract coordinators;
- Generate at least 50 new jobs by processors and CCs;
- At least 1 new collection center established;
- At least 100 contracts signed between collection centers and processors, and collection centers and producers; and
- At least 1 study tour for at least 20 participants organized.

#### BUDGET

IIF/Activity	International STTA	Local STTA
55,000 Euros (\$70,400)		1,200 days (10 interns)

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

### Increase market share and explore export markets

#### STRATEGY

As gherkins represent a processing crop, processors prove the key factor for further development of the value chain. The program has worked with 9 processors to develop linkages with collection centers and improve their infrastructure. The program will support processors in improving sales within Kosovo by facilitating meetings with supermarkets and other retailers. This will be done through bilateral meetings and visits. Jointly with processors, the program will explore possibilities for exporting gherkins elsewhere in the region. This will be done through participation in study tours, B2B visits and key agricultural fairs in the region. NOA's main partners are the following processors: "ABI" (Prizren), "Koral" (Fushe Kosova/Kosovo Polje), "Etlinger" (Shtime/Stimlje), "ASK Foods" (Gjilan/Gnjilane) and "EuroFood" (Prizren).

#### ACTIVITIES

##### 1. *Facilitate sales of domestic processed gherkins through supermarkets*

This activity will help to improve linkages between processors and supermarkets. The program will organize bilateral meetings between processors and supermarkets in order to increase sales of domestic-processed gherkins. Direct meetings between local processors and supermarkets will be facilitated.

##### 2. *Exploring export markets*

Processors will be linked with regional processors following the contacts developed during the market assessment done last year. Based on these contacts, the possibilities of joint programs, including the outsourcing of production, will be explored.

##### 3. *Study visits, B2B visits and regional fairs*

Following up on regional contacts, buyer visits to individual processors in the region will be facilitated. The visits will be organized based on demand from either party, whether domestic processors or regional buyers). The program will facilitate visits to important fairs in the region, such as Novi Sad, Serbia and Plovdiv, Bulgaria.

##### 4. *Support the input dealers in promoting modern technologies*

- a. Link specialized input dealers with collection centers,
- b. Co-finance the promotion price of production technologies (plastic nets for gherkin support systems) and seeds (co-finance 50% of costs).

The program will facilitate linkages between input dealers specialized in vegetable production and collection centers. Dealers will be supported to offer promotional prices (e.g., at a 50% discount) for specific technologies, such as plastic netting. Through these linkages, other technologies and the correct varieties of seeds will be provided by input dealers to farmers, and linkages between input suppliers and farmers will be enhanced.

## 5. *Support women and minorities*

- a. Support with inputs and advice to 10 women producers – each 0.20 hectares
- b. Support with inputs and advice to 10 minority producers – each 0.20 hectares

The program will provide inputs on a cost-share basis and facilitate linkages of these farmers through existing collection centers or processors. Total area planned is 5 hectares and the objective of this activity is to engage fully women and minorities in the supply chain development, providing opportunities for job creation and income generation.

### BENCHMARKS

- At least 2 study tour visits to processors in Macedonia and Albania;
- At least 2 regional buyer visits to individual processors in Kosovo (dedicated B2B visits);
- Participation in at least 2 regional fairs for at least 20 participants;
- At least 2 new contracts concluded for regional supply;
- At least 20 women farmers plant 5 hectares with gherkins; and
- At least 1 new minority area begins contracting supply to processors.

### BUDGET

IIF/Activity	International STTA	Local STTA
60,000 Euros (\$76,800)	0 days	0 days

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## OBJECTIVE 3: FOOD AND QUALITY SAFETY IMPROVED

### Through increased processor knowledge of food technology

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#### STRATEGY

In order to increase the market share enjoyed by Kosovo's domestically processed products, processors must increase the quality of their products. To increase capacity in the production of high-quality products, processors will need to engage new food technology and laboratory personnel. Firms currently are not at the level where they can easily afford this investment in personnel; however, should they not invest, they may never develop the internal capacity required for growth. Through an innovative program, NOA intends to offer internship support to enable processors to make these new additions to their teams. Additionally, NOA will ensure that on- and off-the-job trainings are provided to these interns, such that they provide the required support and, as a consequence, will be hired on a full-time basis following the internship period.

#### ACTIVITIES

### 1. *Engagement of interns (young technologists and laboratory personnel) by processors*

The program will co-finance with processors (75%/25%) a portion of the costs of engaging interns (6 interns each of 5 processors: 3 food technologists and 3 lab personnel) as food technologists and laboratory personnel. The coordinators will be in charge of selecting collection centers, negotiating timing, quantities and quality of product contracted. They will work closely with collection centers to reduce risk and ensure they remain on track to fulfill supply contracts.

### 2. *Provide on-job training for food technologists and lab technicians*

The program will hire a regional/local consultant (STTA) to provide training to food technologists working at the five main processors. The training will be tailor-made according to the needs of the processors. The program will also develop training plans for processors, focusing on GMP, HACCP requirements, food regulations and internships.

**BENCHMARKS**

- At least 30 internees engaged by 5 processors as agronomists, food technologists and laboratory personnel; and
- At least 5 training sessions for food technologists and laboratory interns provided.

**BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
10,000 Euros (\$12,800)	10 days	1,500 days

## ASPARAGUS

### SECTOR STRATEGY

Kosovo is a net importer of asparagus, with 1,300 kilograms imported in 2010, down from 20,000 kilograms in 2008. These imports largely go to satisfy demand by international residents and visitors.

Producing asparagus in Kosovo is a pioneering effort that will project the country favorably as one of the next agricultural exporters of asparagus to the European market. It will also improve the availability and marketability of locally produced asparagus.

The NOA program established 3.6 hectares of asparagus during 2012. The program also ordered another 240,000 seeds to develop into seedlings to support the establishment of 7 additional hectares in 2013.

Current demand for asparagus in Kosovo is limited. Levels of local consumption seen to date will be met during the 2013-15 timeframe by the 8 hectares of asparagus plantings currently underway. Exportation of asparagus to European markets has to be harmonized with growing potential, as well as the quality and quantity offered. To reach export potential, at least 50 additional hectares of asparagus must to be planted by the end of 2020. A new asparagus value chain must be established involving all actors: input suppliers, producers, technical advisers, traders, supermarkets, restaurants and customers. Each actor in the asparagus value chain has to be informed, trained, supported and facilitated to strengthen linkages throughout.

In order to establish a lucrative and sustainable asparagus industry in Kosovo, three major objectives require attention.

### OBJECTIVES

- Knowledge transfer among actors across the asparagus value chain;
- Increase the area of asparagus under production and identify potential large-scale producers; and
- Promote asparagus in local markets and search for export opportunities.

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## OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS

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### STRATEGY

This new value chain has few if any established linkages between producers and market actors. The crop is still yet to be harvested so this remains a challenge. However, NOA will need to ensure that these linkages are established as soon as possible to ensure that the harvested crop projected for 2013—although small—will find a receptive market.

### ACTIVITIES

#### 1. *Facilitate linkages between producers and traders*

The first local harvest of asparagus is expected to occur in May or June, 2013. As of yet, local traders are unaware of any asparagus being locally produced. To address this, the program will organize field days to promote linkages between asparagus traders and producers, and set up targeted meetings between interested parties to learn about production sites and encourage the purchase of locally grown asparagus. These actions will generate as much interest as possible in the new locally grown crop.

#### 2. *Harvesting and promotion of locally produced asparagus*

At least 1,000 kilograms of asparagus should be harvested in spring 2013. The established asparagus plots will not be in full commercial production until 2014. The initial harvest will be used for promotional purposes and presented as a new local product, offered through various marketing channels.

At least one dedicated “Asparagus Day” will be organized in the first week of June, 2013. NOA will invite all stakeholders to experience Kosovo’s first asparagus crop. The event will be organized in established asparagus plots and should draw at least 100 participants. The objective of this event is to increase asparagus awareness within the local population. The asparagus campaign will be followed by the

production of 500 leaflets, printed and delivered to potential customers and other stakeholders interested in the asparagus industry.

#### BENCHMARKS

- At least 3 supermarkets/hotels/restaurants will be linked with producers of asparagus;
- At least one B2B event will be organized for the identification of new marketing channels;
- At least one promotion day will be organized drawing 100 participants; and
- At least 500 asparagus promotion leaflets will be printed.

#### BUDGET

IIF/Activity	International STTA	Local STTA
6,000 Euros (\$7,680)		

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

#### STRATEGY

To reach the export objective, at least 50 hectares of asparagus must be planted by the end of 2020. This would have to grow from a base of 10 hectares currently projected for commercial harvest in 2014. Growers need to be confident in crop productivity in order to stimulate the establishment of additional hectares of asparagus during the life of the project. NOA will not be able to intervene in planting support after the 2013 plantings. The additional 40 hectares required must be established by growers who have the necessary confidence, knowledge and the willingness to invest their own resources. NOA activities during the work plan year ahead will be critical in establishing this foundation.

#### ACTIVITIES

##### 1. *Training asparagus producers on managing transplanted asparagus*

The NOA program will engage local STTA to advise asparagus growers on proper management of the 3.6 hectares of asparagus established to date. Maintenance of asparagus plots will start in March 2013 with weed control, pest and disease management, irrigation and fertilization. This process will continue through October 2013. Local STTA will be responsible for advising and conducting trainings for asparagus producers and other interested stakeholders. Local STTA will work closely with NOA technical staff and with international STTA engaged for a projected 14 days during FY3.

##### 2. *Seek large-scale producers to establish at least 7 hectares of asparagus*

Two nurseries were contracted to produce 200,000 asparagus crowns—a quantity sufficient for 7 additional hectares of asparagus to be established in spring 2013. The crowns produced will be delivered to selected beneficiaries interested in establishing the target area. At least 2 growers will be selected and supported with technical advice on transplanting and managing established asparagus plots. The technical advice will be delivered by local STTA engaged for this purposes and international STTA during his mission. Ideally, larger producers will be targeted, as the future for asparagus is not with small producers, but rather with larger-scale, commercial growers.

##### 3. *Training interns/agronomists on asparagus growing technology and plant protection*

International STTA will be engaged for 14 working days to support growers and other stakeholders in increasing their knowledge of asparagus-growing technology and post-harvest handling. The STTA mission will also target the training of local agronomists engaged in asparagus and others interested in being trained in this field. The best time for this STTA engagement would be during the first week of May, as this timeframe corresponds with harvesting, as well as weed control of established asparagus areas and the transplanting of new asparagus plots.

## BENCHMARKS

- At least 15 asparagus producers will be trained on managing transplanted asparagus;
- At least 2 new asparagus producers will be identified to establish new areas with asparagus;
- At least 7 hectares new asparagus plantings will be established;
- At least 10 new jobs will be created; and
- At least 4 agronomists will be trained on growing technology and plant protection (IPM implementation).

## BUDGET

IIF/Activity	International STTA	Local STTA
24,000 Euros (\$30,720)	14 days	80 days

## OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED

The NOA program needs to support the asparagus industry to project a reputation as an industry that pays attention to food quality and safety. Producing asparagus in Kosovo will be a pioneering effort that will project the country favorably as one of the next agricultural exporters of asparagus to the European market, all while improving the availability and marketability of locally produced and imported asparagus.

### ACTIVITIES

#### 1. *Train actors on post-harvest technology*

The harvesting and handling of harvested asparagus is a new activity for producers and other actors. The proposed international STTA will demonstrate to the producers harvesting techniques, hydro cooling, sorting and storing of harvested product. The demonstration will take place in Peja for two training days. The asparagus beneficiary has established cooling facilities, which can be used for training purposes and the eventual storing of harvested asparagus.

#### 2. *Packaging and labeling of asparagus*

Six beneficiaries have established 3.6 hectares of asparagus; all expect to harvest sufficient quantities useful for promotional purposes during spring 2013. The packaging and labeling of harvested asparagus is an added-value activity providing better access to different marketing channels. Six growers will be supported in developing packaging and labeling designs for their product.

## BENCHMARKS

- At least 10 producers will be trained on post-harvest and food safety; and
- At least 3 asparagus producers will be supported in packaging and labelling of asparagus.

## BUDGET

IIF/Activity	International STTA	Local STTA
2,000 Euros (\$2,560)		

## MEDICINAL AND AROMATIC PLANTS (MAP) INCLUDING SAFFRON

### BACKGROUND

As a successful and export-oriented (100% EU export) subsector of Kosovo's agricultural sector, Medicinal and Aromatic Plants have all the components required to grow rapidly and generate increased sales for involved companies and farming communities. It promises economic growth for the country and hundreds of new employment opportunities for rural populations. Saffron is now included in this sector as a low-volume, high-value product, derived from conventional or organic cultivation.

The natural composition and character of harvested products in Kosovo are often naturally superior to products of many competitor countries. Wild harvest products—herbs along with berries and mushroom—are of internationally recognized high quality and enjoy strong market demand. This market demand is putting excessive pressure on wild harvest sources such that there is risk of environmental damage.

To further improve the overall performance of the MAP sector in Kosovo, NOA's interventions will focus on strengthening the business operations of the leading MAP processors in the country. The main objective of NOA's intervention in the MAP sector is to increase the area of cultivated medicinal and aromatic plants that European buyers demand, reduce the pressure that product demand creates on wild harvest areas, and increase the volume available for sale. It is estimated that the market demand for Kosovo product could sustain 1,000 hectares of MAP cultivation. It is this new opportunity that NOA will be pursuing with this intervention by instituting new approaches to MAP production, collection, drying and sales.

### SECTOR STRATEGY

#### *Expansion of cultivation in other regions led by Agroprodukt – Syne Company (APS)*

Work with MAP in Kosovo is not new. Development agencies have been involved in wild harvest MAP activity for a decade now. There are perhaps four serious wild harvest MAP exporters, with APS emerging as the lead firm. It has the potential to expand into the new opportunity represented by cultivated MAP production. None of the other players in the market has ventured into this area, and instead continue to depend on wild harvest sources of supply. Since 2002, APS is the only company at the national level that has processed and marketed medicinal and aromatic herbs and then sold the product into EU markets. To expand production according to the increased market demand for cultivated herbs, APS has invested significantly in improving processing machinery, cultivation skills and development of its network of out-growers. Currently, APS has established market linkages with the biggest EU MAP processing companies as a base to expand further its cultivation capacities. Its linkages tie APS to firms such as BioNorica, Martin Bauer, Weleda, Sonnentoret. NOA sees that by working with this very lead firm, others will be catalyzed to follow into diversification.

- During the last five years, APS expanded demand (contracts) for the supply of MAP, and has obtained new contracts with many well-known companies including German 'Martin Bauer Group' the world biggest MAP processor; 'Lebens Baum;' 'BioNorica;' 'Weleda;' and Austrian 'Sonnentor.' All regularly dispatch marketing and cultivation specialists to APS to inspect the 30 hectares of chamomile planted in 2011.
- APS already has the required basic knowledge and equipment to increase the cultivation of six primary MAP crops. They are: chamomile and marshmallow as well as mint, oregano, sage and melissa (lemon balm).
- APS has demonstrated successful collaboration with collectors and producers in other regions that share the basic knowledge pertaining to one or more of the six MAP products identified.
- APS is organic and HACCP certified and can be helpful to other producers as they enter targeted MAP value chains in the future.

Saffron production is already at 2.4 hectares at the national level with an additional 0.75 hectares added late in 2012. Harvests have been small, at less than 2 kilograms, and market identification is in process. The future of saffron in Kosovo is in higher-altitude production by farmers who are used to collecting wild MAP products. In this way, saffron fits well with the whole MAP sector. The overall strategy for

saffron is therefore to expand the production base, develop niche markets for this product and improve producer confidence such that wild harvest collectors will embrace the crop enthusiastically as a cultivated, marketable product in the near term.

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## **OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS**

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### **STRATEGY**

The market for the commodities to be produced within the MAP sector is well established. Demand for MAP products is high and Kosovo has an excellent reputation for producing high-quality products. The challenge will be to maintain the confidence of the international market as Kosovo moves to cultivated organic and conventional MAPs. Additionally, NOA will work to develop specific niche markets for its saffron production, working through established linkages existing already for the main line MAP products.

### **ACTIVITIES**

1. ***Organize B2B exchange visits with German and Austrian buyers (German/Austrian buyers to Kosovo and APS to Germany)***

Kosovo has an established market presence in the MAP industry in Europe. In order to keep this presence, attendance at the recognized fairs is essential. NOA will facilitate and provide some cost share for MAP collectors to attend such fairs. The 'BioFach' fair is one of the main fairs where Kosovo's exporters have opportunities to establish contacts and sign new contracts. In that respect, the program will facilitate participation of the main stakeholders in this fair. In order to improve relationships with buyers in Germany and Austria, the program will facilitate B2B meetings between the main buyers and Kosovo's suppliers of herbs and aromatic plants for the coming year.

2. ***NOA will cooperate with GIZ and other projects regarding export promotion of MAP products.***

One of the main donors that has supported this sector is GIZ. As such, its work has to be acknowledged and NOA will continue to coordinate with it. The sector is mainly oriented toward exports so regular meetings will be held with GIZ and other projects to coordinate the activities and increase exports. GIZ is currently re-working the national strategy for MAP in Kosovo and has asked NOA to provide technical support to the process. Additionally, NOA will ensure that the project continues to cooperate and coordinate with GIZ as it arranges regular sector meetings.

3. ***Identify new markets for saffron product***

Specifically develop market linkages for saffron through the established MAP market linkages where possible. Using Kosovo's reputation as a MAP supplier with a long history, NOA will assist the saffron growers and the industry to gain more useful market contacts through events such as food fairs and B2B meetings, which will include saffron. Saffron is a product with a market profile similar to that of MAP and it is felt that saffron could well be marketed in parallel to the MAP products rather than as a stand-alone product.

4. ***Spread saffron production to other high-altitude regions of Kosovo***

Farmers in the traditional MAP collection areas—especially those in the higher-altitude areas such as Dragash/Dragas—could be interested in adopting saffron as a part of their income base. They need to see what production looks like. Potential growers along with the MAP collecting firms will be encouraged to attend field days at saffron grower sites. This, along with improved markets for Kosovo saffron, will encourage adoption of the crop, which is well suited to their home areas.

### **BENCHMARKS**

- Value of sales contracts increased by at least 500,000 Euros (\$640,000) from cultivated MAP;
- At least 15,000 Euros (\$19,200) saffron sales through the MAP marketing channels achieved;
- At least 2 new contracts signed for EU export of various MAP products;

- At least 3 exporters participate in the ‘BioFach’ fair;
- At least two EU buyers conduct inbound visits to cultivated MAP production;
- At least 1 new market contact generated for Kosovo saffron;
- At least 2 farmer field days held with potential saffron growers from high-altitude target areas; and
- At least 20 new farmers from high-altitude areas agree to adopt saffron production in the new season.

#### BUDGET

IIF/Activity	International STTA	Local STTA
5,000 Euros (\$6,400)	5 days	10 days

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

#### STRATEGY

The new opportunity within the MAP sector being developed by NOA involves the rapid expansion of cultivated MAP production. This requires the application of new technologies in planting, crop production, harvesting and post-harvest processing, especially drying. By paying attention to these critical aspects, NOA will ensure that the expansion into cultivation takes place in such a way as to grow producer and market confidence with as little risk as possible.

#### ACTIVITIES

##### 1. *Selection of farmers in at least 4 municipalities to partner with APS in cultivation*

One of the main activities where APS as the main partner requires support is the selection of farmers interested in cultivating medical and aromatic plants. The NOA program will facilitate the linkages between APS and interested growers and help them to make decisions on crops with good potential for production in their areas. This will involve conducting farmer field days, orientation sessions, contract and program decisions as well as developing linkages.

##### 2. *Support planting of at least 55 hectares in new MAP areas*

Jointly with APS, NOA will identify regions and producers for cultivation of the six proposed herb crops with market potential. The following herbs will be cultivated:

- Chamomile,
- Marshmallow,
- Mint,
- Sage,
- Oregano, and
- Melissa (lemon balm).

Farmers will require specific information on production, yields, risks and sales. NOA will be there to support the companies in making these linkages and provide the necessary confidence to growers to engage. APS has significant in-house expertise in the production and processing of MAP products, and NOA will need to provide very limited international STTA in support of this. The markets themselves have been providing technical guidance and this will continue as the firm moves into cultivation.

##### 3. *Assess development of drying capacities*

Drying is a critical post-harvest function for these crops. Specific MAP drying facilities do not exist outside the central facilities of MAP processors in Kosovo. In order to expand into cultivation, drying facilities must be present close to production fields in order to maintain product quality. NOA will engage an STTA to determine the most cost-effective way to develop this specific dryer capacity, utilizing local capacities. MAP buyers will provide the necessary technical specification based on their long experience

in international sourcing of these products. Limited STTA support by NOA will serve to provide the final appropriate designs and costing of dryers suitable to expansion of cultivated herbs in Kosovo.

#### **4. *Co-finance development of drying capacities locally***

One of the main obstacles identified for the development of supply chain and post-harvest capacities to meet the requirements for dried herbs is a lack of small dryers within farmer groups. It is critical that the NOA program develop with APS a method of dryer financing. It is anticipated that 4 units will be required in the medium term, or one in each target area. NOA will, in partnership with APS and other donors, develop financing mechanisms to establish these dryers. This annual work plan assumes that NOA will provide catalytic grant funding to at least one drying unit in a cultivated MAP center. These drying units will be operated as separate business operations centrally in each of the production locations identified.

#### **5. *Technical assistance to APS to improve cultivation practices***

APS will receive support from the NOA program to improve knowledge in cultivation. Two local interneers/agronomists will be supported to assist the company in organization and knowledge improvement for the farmers involved in the production, starting from soil analysis, production and harvesting. As part of the assistance, NOA will help farmers to conduct soil analysis after they are selected for assistance in this program.

#### **6. *Improve knowledge on harvesting with clipping machinery and post-harvest***

Since the area of cultivation is increasing and more knowledge and increased capacities are required, NOA will support farmers in selected regions to increase their harvest capacities and develop financing options for small-scale harvesters. This will involve banks, municipal and central government grant making options and other donors as leveraged funding. Post-harvest technology is absolutely critical in this sector. Part of this activity will be training on post-harvest handling of these herbs. Cultivation of herbs is new to Kosovo growers so the NOA program will engage one international STTA to provide training and advice on growing techniques and technology required for the production of a quality product.

#### **7. *Study tours to improve knowledge (Austria, Albania or other advanced regional countries)***

The approach of the program is to facilitate improved knowledge for the growers involved in the sector. To that end, the program will organize one study tour in the region (Albania) and one to a more developed EU country involved in a similar industry (Austria) to strengthen farmers involved in the sector.

### **BENCHMARKS**

- At least 4 regions identified for cultivation of the MAP;
- At least 25 hectares of herbs cultivated involving at least 20 farmer producers;
- At least 1 new herb dryer established in the production regions;
- At least 1 new herb harvesting machine in place; and
- Production guide established for at least 3 cultivated MAP products.

### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
105,000 Euros (\$134,400)	20 days	260 days

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## OBJECTIVE 3: FOOD AND QUALITY SAFETY IMPROVED

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### STRATEGY

MAP production is based on the reputation that Kosovo has for organic and bio-certified products. Although some buyers are requesting conventional product from new cultivated areas, it is critical that the organic and bio reputations are maintained. NOA will ensure that all new entrants will be fully trained in these aspects of production.

### ACTIVITIES

**1. *Training of new producers of organic certification***

The NOA Program will facilitate engagement of Albinspect to train the producers that will be ready for organic introduction.

**2. *Introduce the ‘GlobalGap’ standard in the three biggest cultivation areas/regions of Kosovo***

As product is dedicated mainly for the export market, the NOA program will support introduction of GlobalGap to selected producers through the engagement of local consultants who will train them on the basics of this standard.

### BENCHMARKS

- At least 20 growers begin the process toward organic certification, and
- ‘GlobalGap’ standard initiated with at least 2 cultivators of MAP.

### BUDGET

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
1,000 Euros (\$1,280)	5 days	10 days

## FIELD VEGETABLES

### INTRODUCTION

The cultivation of field vegetables represents one of the most competitive sectors of Kosovo's agricultural economy, especially when it comes to peppers and cabbage. This sector is also the most important for the fresh vegetable export and processing markets. The impact of the application of new technologies should lead to an increase both in quantity and quality of the cultivated product, as well as in sales and employment. While multiple donors have intervened in the sector for nearly a decade, this sector still has not risen to the next level. Doing so requires firmly linking the production base (which is fairly well established to date) with emerging aggregation centers for fresh and processed local product as well as export product. Such centers have not been fully functional to date, since they lack the capacity to program and contract production. Overall, they have done little to instill the critical confidence necessary for enhanced production.

### SECTOR STRATEGY

NOA will identify Kosovo's key aggregation centers in Kosovo, which are nascent but eager to engage given the large domestic production potential. The program will encourage better programming linkages, improved contract mechanisms, enhanced technology, streamlined information flow to growers through the aggregation centers, and improved access to finance. In aggregate, the changes should lead to improved commercial linkages and reduced risk. NOA will focus on these new opportunities through the following specific crop opportunities within the field vegetable sector:

### PEPPERS

#### STRATEGY

Pepper cultivation is mainly based on three traditional varieties "Kurtoska," "Somborka" and "Shorokshari" Other varieties hold great potential for an increase in production, especially given the demand for product suitable for processing. These include, sweet spiral, banana and tomato peppers. At present, Kosovo grows only a few hectares of chili peppers, while importing significant quantities for processing, thus the variety represents a useful diversification opportunity. Additionally, there is a shortfall in *pepperoncini* (locally known as "feferoni") production, which requires program intervention. Improvements to the aggregation function and market confidence should stimulate additional demand equal to roughly 4,000 to 5,000 metric tons of existing and new varieties. Additionally, the program will respond to elevated demand from Turkey for processing peppers and will strive to facilitate the export of 7,000 metric tons of product to the EU in FY 2013.

### CABBAGE

Cabbage represents one of Kosovo's traditional crops. As such, the crop represents an opportunity to increase production through the use of improved technologies, with an eye to supplying a greater percentage of the domestic market as well as to begin and/or expand exports to regional and/or EU countries. Yields can be increased to 100 metric tons per hectare, up from the current 70. A key intervention involves the promotion of modular seedling use, instead of home-grown open rooted production. This technology is not new. Still, working on concrete market linkages, as well as promotional programs from input suppliers, may well increase utilization of this key technology. So far, only farmers in the municipality of Mamusha have begun the switch to module seedling use.

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## OBJECTIVE 1: FARMERS AND PRODUCTS LINKED WITH MARKETS

### Facilitate the development of linkages between sector stakeholders

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#### STRATEGY

Improving linkages involves building up relationships and trust among producers, collection centers, processors and traders. NOA will support the programmed cultivation of vegetables for delivery first to collection centers and then on to processors. At least 4 new or expanded collection centers are due to emerge during the year ahead. Each of these requires increased capacity to understand market

requirements, program production at the farmer level and how to transfer necessary technical skills to the growers to ensure the quality, reliability and timing of supply. NOA will address technical improvements at each center and provide necessary skills and capacities for personnel.

## ACTIVITIES

### 1. *Support for development of collection centers*

#### a. Improve infrastructure

The program will work with identified CCs, as well as potential new farmers and CCs, in Kosovo's pepper-growing region. These centers will require some improvements to their infrastructure in order to support farmers with sales and processors in collecting required quantities of product. NOA will determine opportunities to provide such support.

#### b. Improve organization and management

The program is interested in supporting the provision of advice as one of the most important aspects of the sector's development. In that respect, NOA will assist at least 4 CCs in engaging interns with a background in agriculture for at least 60 days each (over a six month period) to support farmers with organization and production according to CC and processor plans. As part of the improvement in organization, NOA will work to support the creation of the "Kosovo Fruit and Vegetable Processors Association." The association will operate initially at a low level.

#### c. Exchange visits in region

To improve collaboration with other countries in the region and to understand better the supply and production systems in place elsewhere, the program will facilitate at least two visits to Macedonia and/or Albania.

### 2. *Identify the demand for fresh and processed vegetables*

NOA will conduct research on supplying domestic wholesale traders and hypermarket chains, as well as exporting to the region and EU states, all according to their seasonal and/or annual demand for fresh and processed peppers and cabbage.

### 3. *Organize B2B between farmers, collection centers, processors and traders, including regional consumers*

To ensure better planning take root ahead of the 2013 cultivation season, and taking into account prior research on the supply of peppers and cabbage, the program will facilitate a B2B meeting with all stakeholders to develop vegetable production contracts suitable for domestic and regional customers alike.

### 4. *Facilitate visits to regional and EU food processors*

NOA will facilitate appropriate visits to the Foodtech fair, in Plovdiv, Bulgaria, in April 2013 and GIDA World Food Istanbul, in September 2013, as well as facilitate processor participation in other fairs they have identified as beneficial.

## BENCHMARKS

- Create at least 4 linkages between producers, collection centers and processors;
- Facilitate at least 2 linkages between Kosovo and regional/EU processors;
- Facilitate establishment of the Kosovo Association of Vegetable Processors;
- Facilitate export of at least 5,000 metric tons of fresh vegetables (peppers and cabbage);
- Generate at least 1.5 million Euros (\$1.92 million) in export revenues;
- Generate at least 1.5 million Euros (\$1.92 million) in processor revenues;
- At least 4,000 metric tons of field vegetables delivered to processors; and
- Export/processor demand study completed.

## BUDGET

IIF/Activity	International STTA	Local STTA
70,000 Euros (\$89,600)	0 days	240 days

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

### STRATEGY

In order to increase the volume and diversity of the crops they produce, growers must adopt increasingly sophisticated production techniques. In open-field production, increasing productivity is linked to the use of improved irrigation techniques and the adoption of modular seedling production techniques. Modular seedling production is used sparingly in Kosovo, as noted earlier. Increasing its use should significantly advance earliness as well as yields. When combined with improved irrigation techniques, yields can be enhanced significantly. When introducing new crops, the contemporaneous introduction of modern techniques is often easier; thus, NOA will focus on tying any new crop introductions to the use of modular seedlings, at a minimum, as a technique critical to the introduction. Additional market confidence will also spur growers to adopt new technologies.

### ACTIVITIES

#### 1. *Improved pepper seedling production and new variety introduction*

Kosovo is experiencing increased demand for traditional Somborka and Kurtoska pepper varieties as well as for the *pepperoncini* (or feferoni) it currently imports for processing. NOA will introduce a new way of producing quality seedlings in order to improve yields and quality. The program will provide support to produce sufficient seedlings, utilizing improved technologies, for replanting on 4 hectares. One new technology involves the use of drip irrigation systems in combination with traditional open-field cultivated varieties. Contracts will encourage higher input adoption and processor and collection center field advice will emphasize the technology's importance, as will linkages with input suppliers that can offer encouraging promotional discounts.

In order to encourage increased *pepperoncini* production, NOA will emphasize contract and programmed production through aggregation collection centers. Extension advice will be provided by these centers, ensuring adequately programmed production according to recommended practices. Local technical assistance will be provided to ensure that all field staff working with the processors and collection centers remain well informed about updated production practices.

In order to specifically engage women and minorities, NOA will link them with processors in Kosovo to purchase *pepperoncini* for processing. Targets of opportunity include women-run cooperatives in the Dukagjini area, as well as women and minorities in the Kllkot/Klokot and Ranillug/Ranilug municipalities. Each grower will grow no more than 0.2 hectares, maximizing the diffusion of this new pepper. These growers will be associated with designated collection center as sources of information and further contracts.

In order to increase awareness among selected growers, the program plans a 2-day study tour of the Strumica region of Macedonia.

### BENCHMARKS

- At least 4 hectares of planted peppers use module seedlings, drip irrigation and soluble fertilizers for the production of "Somborka" and "Kurtoska" pepper varieties;
- At least 10 hectares of *pepperoncini* (feferoni) under production;
- Generate at least 250,000 Euros (\$320,000) in additional sales from new chili production;
- At least 50 new growers engage in chili production; and
- At least 30% of new growers will be women.

## BUDGET

IIF/Activity	International STTA	Local STTA
30,000 Euros (\$38,400)	0 days	45 days

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## OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED

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### STRATEGY

As field vegetables increasingly go to supply the processing industry, moving from import substitution to exports destined for regional and European markets, food quality standards will take on greater importance. Processors will require improved processes, improved quality analysis, improved reliability and improved product traceability. NOA will focus activities at the processor level to improve these critical aspects.

### ACTIVITIES

#### 1. *Improve standards in quality processing*

NOA will work with at least 2 client companies to move these toward HACCP standard acquisition. The clients are mainly large processors that have assumed control of now-privatized former state-owned enterprises. Their equipment is old and not installed in accordance with HACCP. Overall firm-level investment capacity is relatively low. This works against the rapid acquisition of HACCP; regardless, NOA will work to help expedite the process.

#### 2. *Short course on post-harvest – University of California, Davis*

The quality of training during the 2012 UC Davis course was excellent, especially given the lack of local knowledge about this important field. NOA proposes sending at least 4 processor/retail/collection center staff to attend the course, from June 18 through 29, 2013.

#### 3. *STTA for vegetable processing*

There is a remarkable lack of knowledge at the processor level regarding production programming, process management and the specifics of product development. NOA intends to offer a dedicated STTA to each of at least 4 main processor clients. This STTA will spend the entire assignment (or repeat assignment) with the firm in order to ensure adequate uptake of the required skills by all staff involved in processing.

### BENCHMARKS

- At least 2 NOA processor clients begin the process of HACCP certification; and
- At least 4 processor firms receive dedicated STTA support.

## BUDGET

IIF/Activity	International STTA	Local STTA
65,000 Euros (\$83,200)	20 days	20 days

# LIVESTOCK

## DAIRY

### SECTOR STRATEGY

The overall strategy for the dairy sector is to improve the domestic market position by responding and delivering to the end market in a timely manner with dairy products of consistent quality and quantity. The dairy sector target for project Y3 is to increase local sales of domestic dairy products by 1 million Euros (\$1.28 million).

Fueled by good milk prices and the scarcity of alternative income-generating opportunities, the number of dairy farms in the last four years has increased sharply in Kosovo. Nevertheless the milk yields per cow are still about one-half those in regional countries and one-third of the average in the EU. Notwithstanding, some commercial dairy farmers are already at the regional level of yield and show promise for further improvement.

Given that a high proportion of dairy products are imported, the primary strategy in the dairy sector is import substitution. To substitute some of the imported dairy products, the domestic dairy industry should aim for greater farm efficiency, diversification of the variety of dairy products at the processing level and enhancements to dairy supply chain relationships. It is estimated that small-scale dairy farmers are producing at only 40 percent of their capacity due to poor animal health and nutrition. The more commercially oriented dairy production sector has made significant progress in previous years, however. These larger farms are the ones that are advancing rapidly and demanding more infrastructure and services in order to compete effectively.

In order to meet these challenges, it is essential that dairy processors begin to engage more effectively with producers. It is this direct linkage that will enhance technology adoption, increase producer confidence to invest and result in increased yield and quality of milk and, ultimately, other dairy products. NOA will work through processors, as the primary entry point into the value chain, to strengthen these linkages.

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## OBJECTIVE 1: PRODUCTS AND FARMERS LINKED WITH MARKETS

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### STRATEGY

Consistent raw milk supply and better raw milk quality is essential to meet market needs and is important in improving linkages between dairy farmers and markets, and increasing farmers' sources of income. Indeed, dairy market needs are met through enhancing raw milk quality and production efficiency, which adds increased value to final products.

Domestic dairy production faces critical gaps in competing with imported products. The principal gaps concern low volumes, low raw-milk quality and small profit margins. Closing this gap would have the most immediate impact on growth, especially in terms of benefits to small-scale dairy farmers. If the domestic dairy industry is going to modernize successfully, producers must receive current and targeted production and farm management information. To assist dairy farmers more effectively in FY 2013, the NOA project will support dairy companies in engaging interns who will serve as field personnel for the dairy companies. These interns will provide valuable technical support to dairy farmers and will eventually (within one year) become full-time private sector extension employees of the participating firms. The project will support these interns through the activities line item in its budget.

There are two areas of critical information that dairy farmers need to hear from “their” processors (interns)—reproductive health management and nutritional management. Processor extension services will focus technical support on these two areas. This will result in rapid yield and productivity increases. Additionally, there is a need to develop a source of locally produced, high-quality genetics as farmers who succeed in improving productivity also seek herd-expansion options.

The Raw Milk Sampling system established under the KPEP project is providing an excellent base against which farmers can measure their quality performance. This measurement is directly related to price and

productivity. Through this system, NOA will continue to link producers to processors, more firmly establishing the relationships between these two value-chain actors.

## **ACTIVITIES**

### **1. *Support dairy companies to set up private extension services***

At present, none of the dairy companies has embedded field personnel within their companies to serve as extension officers in dairy farm management and marketing. The NOA project will work with 3 dairy companies to establish private extension services.

### **2. *Balancing feed rations and improved feeding program***

Cows are not being fed properly, as indicated by terrible body condition scores. In FY 2013, the NOA project will develop a booklet focusing on balancing dairy feed rations to provide adequate fiber, protein and energy in order for dairy cows to produce milk at their full genetic capacity. This well-known program will be passed to growers through the processor extension mechanism established in activity 1.

### **3. *Advocate for trained dairy farmers to be allowed to artificially inseminate cattle***

Currently legislation in Kosovo allows only veterinarians to artificially inseminate cattle. The NOA project will work with the MAFRD Livestock Department to propose changes to this provision and allow trained dairy farmers to artificially inseminate their own cattle, as is common in the USA and EU. This effort would improve reproductive efficiency in many dairy herds.

### ***Dairy embryo transfer pilot project***

For the first time in Kosovo, a bovine embryo transfer project will be implemented, in cooperation with the University of Iowa, Eurolona Dairy and the Kosovo Food and Veterinary Agency (KFVA). The aim is to increase the availability of better dairy genetics in order to meet increased milk demand by offering to the dairy industry high-quality heifers to substitute the imports of calf heifers from Western Europe. To ensure successful conception rate, NOA will provide technical support to the Eurolona dairy farm by working with a veterinarian to apply the embryo transfer. Furthermore, two veterinary students will be engaged to monitor embryo growth and maintain the reproductive records. Since this is a commercial undertaking, Eurolona will be covering the costs of this engagement, with NOA's taking a mentoring and promotion role.

### **4. *Support to transparent raw milk sampling project through KFVA***

The NOA project will support Kosovo Association of Milk Producers (KAMP) and Kosovo Dairy Processors Association (KDPA) in cost sharing and raising additional funds to continue the implementation of the transparent raw milk sampling (TRMS) project. After seeing the benefits from the implementation of TRMS, this year for the first time dairy farmers will contribute financially to enable its continuation. The NOA project will provide advisory support to the maintenance of the TRMS website and software, used for the electronic delivery of raw milk test results, installed at the KFVA raw milk lab. NOA will also support the development of additional IT embedded services, such as automated electronic delivery of raw milk test result via SMS messaging. The SMS system will enable dairy farmers to obtain the latest information about the quality of their raw milk at any time. Additionally, the SMS system will assist the TRMS project coordinator in closely monitoring field agent activities.

## **BENCHMARKS**

- At least 3 dairy companies will set up private extension service;
- At least 6 new jobs will be generated;
- Extension booklet targeting feed management produced and disseminated through processors;
- At least 10 dairy farmers trained through processors on AI techniques;
- At least 10 embryo transplant heifers available through Eurolona;
- TRMS system delivers quality data by SMS to producers; and
- Dairy product sales increase by at least 1 million Euros (\$1.28 million) over current levels.

## BUDGET

IIF/Activity	International STTA	Local STTA
26,000 Euros (\$33,280)	0 days	280 days

## OBJECTIVE 2: AGRICULTURE PRODUCTS DIVERSIFIED AND INCREASED

### STRATEGY

The biggest challenge for dairy processing plants at this point is improving their dairy product quality and range of products. An increase in product shelf life and milk conversion ratios will lead to increased competitiveness in more product categories for Kosovo dairy processors. NOA's strategy is to maintain the momentum built from previous years through dairy technology training programs (under KPEP), where 5 dairy technologists from different dairy plants were trained in producing fruit yogurts and Gouda cheese with seasonings. The NOA project will monitor dairy companies and assist in the production process, targeting two new dairy products. Additionally, the NOA project will conduct a dairy short course training program for student interns with no formal training in dairy processing. Diversifying dairy product lines will help dairy companies to increase local market share and open up new potential export markets. Furthermore, to increase the demand for consuming local dairy product, the NOA project will initiate the dairy educational school program, targeting students from primary schools with an aim to raise children's awareness of dairy products.

### ACTIVITIES

#### 1. *Support commercial production of fruit yogurts and Gouda cheese with seasonings*

Capitalizing on previous USAID assistance provided to the dairy companies in developing new dairy products, NOA will provide technical advice to support the commercial production of fruit yogurts and Gouda cheese with seasonings, being produced for the first time in Kosovo.

#### 2. *Dairy technology short course training program*

The main purpose of the dairy technology short course training program is to develop private dairy consultants to serve local dairy industry needs. The aim is to train at least 3 new employees working in targeted dairy companies. These trainees will learn firsthand techniques to improve the production of current dairy products as well as learn new technological processes for developing dairy products not currently being produced in Kosovo dairy plants.

#### 3. *Dairy school educational program*

NOA will engage two student interns for one month in the spring of 2013, along with one dairy farmer and one dairy processor, to visit primary schools throughout Kosovo to talk to children about dairy farms and the nutritional value of the milk they produce. This will create a lasting impact on youth and familiarize school children with the importance of consuming dairy products. Previous experience indicates that this raised awareness among school children has an impact in the marketplace.

### BENCHMARKS

- Fruit yogurt and Gouda cheese with seasoning introduced in the market by two targeted firms;
- At least 3 individuals trained by means of dairy short course; and
- Schools campaign completed.

## BUDGET

IIF/Activity	International STTA	Local STTA
8,000 Euros (\$10,240)	0 days	60 days

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## OBJECTIVE 3: FOOD QUALITY AND SAFETY IMPROVED

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### STRATEGY

To fall in line with existing food safety regulations issued by government authorities and also to build consumer confidence in consuming local dairy products, processing plants need to improve food safety and hygiene conditions through developing Food Safety Management Systems. In order to obtain Hazard Analysis Critical Control Points (HACCP) certification, it is crucial that dairies upgrade the hygiene and food safety conditions within their facilities. The NOA project will support dairy companies in the process of acquiring HACCP certification.

### ACTIVITIES

#### 1. *HACCP certification training and evaluations*

Dairy processing plants need to improve food safety and hygiene conditions within their facilities by developing Food Safety Management Systems. The NOA project will work with interested dairy processors in conducting HACCP evaluations and training staff on HACCP requirements on a cost-sharing basis. A regional HACCP consultant, paired with a local HACCP consultant, will be engaged to implement this activity.

### BENCHMARKS

- At least 2 dairy plants HACCP certified.

### BUDGET

IIF/Activity	International/Regional STTA	Local STTA
	20 days	10 days

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## OBJECTIVE 4: INCREASED AFFORDABLE ACCESS TO CREDIT

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### STRATEGY

Today, the domestic dairy industry needs an additional 500 dairy cows to enter production, in order to significantly boost milk production. Dairy farmers are lacking the financial resources to support the expansion of their dairy herds. The NOA project will assist dairy producers by improving their access to credit through developing new lending programs together with commercial financial institutions.

### ACTIVITIES

- *Strengthening capacity to access credit*

Working with commercial lending institutions, the NOA project will support the development of a dairy cow finance program by using a monthly milk check payment program to make the loan payments on a monthly basis. The consistent monthly dairy farm income and the market secured by a forward contract with participating dairy processors for the life of the loan will significantly reduce creditor risk, thereby enabling better loan terms for dairy farmers.

### BENCHMARKS

- A dairy cow finance program developed together with commercial lending institutions.

### BUDGET

IIF/Activity	International/Regional STTA	Local STTA
		20 days

## OBJECTIVE 5: IMPROVED COORDINATION WITHIN AGRICULTURAL SECTOR

### STRATEGY

There are two active dairy associations in Kosovo that represent dairy producers and dairy processors. Associations, like any business, move through a growth curve. There is an initial response from the sector, generated by high expectations that the association will facilitate improved business-operating conditions. This initial period is followed by a stage that is often characterized by disappointment, as expectations are not fully realized. Members often question their investment in the association, the board of directors often moves slowly and, if not addressed, the association can deteriorate into a state of inactivity. The associations can move out of this stage into a period of productivity by re-aligning expectations that are realistic and offering viable services to their members. The NOA project will assist dairy associations in building association capacity to provide viable services to members and by serving as an effective voice for the industry on regulatory issues.

### ACTIVITIES

**1. *Advocating with government institutions to identify and address policy constraints affecting dairy industry***

The NOA project will provide technical assistance through investigating the unfair trade practices and by assisting in drafting policy papers for addressing the unfair trade practices applied by exporters. The aim is to help dairy associations to strengthen their capacity to advocate for favorable policies with government institutions, solve members' problems and protect industry interests.

**2. *Fundraising for installing the back-up laboratory instruments at KFVA raw-milk lab***

Through advocating with other donors, the NOA project will support the KFVA in its efforts to raise funds for purchasing back-up dairy laboratory equipment in order to avoid interruptions in analyzing raw milk samples. This will build public trust in the efficient functioning of the KFVA raw-milk laboratory.

### BENCHMARKS

- Dairy association engages in at least one policy constraint with government; and
- Backup instruments procured for KVFA.

### BUDGET

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
8,000 Euros (\$10,240)	0 days	0 days

# CROSSCUTTING

# OUTREACH AND COMMUNICATIONS

## STRATEGY

This section presents the communications strategy and action plan for the Program in FY'13. It aims to integrate communications with the Program's activities, and to establish systems for fact-based, people-focused impact reporting to USAID and stakeholders.

The main purpose of the strategy is to raise awareness about the unfolding activities and technical achievements and results of the New Opportunities for Agriculture Program, as well as improving the image of Agriculture in Kosovo. The key target groups are the Program's customers (farmers, processors, and commercial traders), IIF grantees, donor organizations, business service providers, MAFRD, USAID, and the general public. The strategy is guided by the Work Plan and USAID's vision, goals, and objectives for the Program.

The Program will maintain sound, long-lasting relations with national and local media. Our staff will hold trainings, workshops, and field day activities which will be arranged by the Program. The Program will communicate with the target groups by such means as the Program's website, Program reports and assessments, training materials, and success stories. All communication materials will be appropriately branded, in strict accordance with USAID branding and marking guidelines.

All members of the Program team will contribute to disseminating messages to target audiences by participating in, and giving presentations at, conferences, workshops, trainings, field visits, and networking opportunities. Since face to face information dissemination is highly effective it is important that everyone involved in the project has good general knowledge of all aspects of the Program, in order to be a good "ambassador" of the project.

## ACTIVITIES

### *Outreach Releases*

#### **1. Program Website**

The Program Website [<http://www.noakos.com>] was successfully launched at the end of April 2011 and has been set up to publicize the work and results produced by the Program. It presents one of the main methods by which we have been communicating with our potential and actual customers, and is a depository for the substantial amount of information that the Program is producing. The website presents information in all three official languages.

The Program Website will be managed and maintained by the Program's IT and Web Specialist.

#### **2. Success Stories**

The Program is in its third year of operation and it is essential that we begin capturing the success stories which have come out of our work. The idea is to take the story down to the individual or the company level, so that people can relate and quickly form a positive opinion. The success stories will showcase the benefits of entering into the business of agriculture, by portraying individuals that the Program has supported and who have achieved success in various value chains promoted by the Program. These stories are to be drafted by all technical experts of NOA drawn from the successes in their respective fields, and sent to the Outreach Coordinator for editing. Upon USAID clearance success stories will be published on the Program's Website (<http://www.noakos.com>), and will be printed for promotional/outreach purposes.

#### **3. Use of the Media - Television Documentaries**

The outreach approach in terms of media in FY'13 will be based on the success stories that the Program will generate. These successes will be featured in the form of documentaries/shows, and aired on one of Kosovo's main television stations. The shows will be 25 minutes in length. In this way the Program continues to increase its visibility, and the message to be sent to the public is that it is worth entering the agriculture business - showing from real/live examples of the benefits it offers. At the same time, we will be encouraging the youth and women to enter the agricultural sector, from which they can make a decent

living and in turn support their families. The shows will contribute to improving the overall image of agriculture in Kosovo.

#### **4. Coordination with MAFRD - Best Woman Farmer of the Year Award**

Although the overarching goal of the Program is to increase Kosovo’s agriculture output, exports, and rural incomes, the success of the Project is also measured by how much it is involved in the issues of cross-cutting nature of the Project. Increasing economic opportunities for women, disadvantaged and minority groups, and youth is high among our priorities.

In the spirit of supporting women farmers and offering them a direct opportunity ranging from institutional support to individual networking, the Program will work together with the Ministry of Agriculture, Forestry and Rural Development in organizing and coordinating the event called “Best Woman Farmer of the Year Award”. The event will take place at the end of November.

The event will be co-sponsored by the Program.

#### **5. Coordination with MAFRD - “From our land to our table” – “Nga toka jone, për softën tone”**

When MAFRD announced its media project last year called “From our land, to our table”, the Program offered to work together on this initiative, contributing in the making of two television commercials which kicked off the campaign. The main communication message was encouraging shoppers to buy local products produced by local farmers, and promoting Kosovo grown and produced agriculture products. The commercials were approved by USAID and broadcasted for free on Radio Television of Kosovo.

In FY’13, based on the initial results of this promotional effort, the Program plans to contribute to the third and final television commercial supporting the Ministry campaign “From our land, to our table.” The advertisement will focus on the economic benefits that the country incurs when its people switch to buying local products. Also, it will promote the theory that local is safer. Food that is locally produced and consumed is safer than consuming fruits and vegetables which are imported, because the time from harvest to the table is much shorter and produce is still fresh when eaten.

#### **BENCHMARKS**

- At least 24 articles per year;
- At least 30 success stories within the Fiscal Year;
- At least five (5) television productions; and
- Final television commercial for Ministry campaign “From our land, to our table.” Completed.

#### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
32,500 Euros (\$41,600)		

# IMPROVED COORDINATION WITHIN THE AGRICULTURAL SECTOR

## BACKGROUND

Over the course of the past 18 months, NOA has provided an embedded Senior Advisor to the Minister of Agriculture (SAM). The SAM has been instrumental in guiding MAFRD to put in place some significant foundational activities—critically:

1. The Economic Analysis Unit (EAU);
2. The restructured Agricultural Extension Service (AES);
3. The agricultural Development Credit Assistance (DCA) program; and
4. The establishment of grant support to the private sector to establish large collection centers for the horticultural sector.

Each of these activities is now underway, albeit tentatively, and the agriculture minister has assigned lead personnel where appropriate. Each of these activities further equips MAFRD to take the lead in promoting agricultural development. Outputs and results of solid progress in each of these innovations will engender improved coordination between all players – public and private, in the agricultural sector.

## STRATEGY

Since the function of the new innovations will catalyze improved coordination in the agricultural sector, it is critical that NOA now specifically direct its efforts to these innovations. In the absence of a dedicated SAM, other NOA staff will now engage more regularly with the MAFRD team to ensure that each of these foundational activities continues to move forward and remain effective. The NOA CoP will provide the high-level dialogue with the Minister in coordinating the partnership between MAFRD and NOA while each of the MAFRD activities will coordinate with an appropriate counterpart (depending on subject matter) within NOA to ensure that all is being done to secure the necessary progress. Budget for the expansion of these critical functions will be provided by MAFRD, while NOA will provide the necessary technical assistance from its own team. NOA will make available to the MAFRD team appropriate STTA in response to needs as they arise in pursuing the strategy during the work plan year.

## ACTIVITIES

### **1. *Support the EAU to improve its profile***

The EAU now has a team of young and dedicated agricultural economists and a head of department to provide direction and mentoring. STTA has been provided to equip the team with the necessary skills to undertake the work of conducting economic analysis of all agricultural value chains. NOA will work with the EAU to ensure that analysis continues to be topical, routinely validated and user friendly. The intention is to ensure that EAU data becomes the “last word” in enterprise gross margin and economic analysis. This information will be presented on the MAFRD web site and NAO will work with the EAU team to ensure that the products are well used by the agricultural community. STTA will be assigned to assist the MAFRD outreach director and the director for the EAU to support that this and other outreach activities as they materialize. Specifically, NOA will support the EAU in developing additional cost of production studies as well as in the ongoing validation work.

### **2. *Support the AES to ensure that the new MAFRD extension workers “make a difference”***

The AES will, early in the new work plan year, formally take on at least 40 extension workers from within the ranks of the municipalities. These extension workers will come with various skill sets, backgrounds and attitudes. The AES, its director and administrative staff will require continued support from the NOA team to ensure that farmers “see the difference” within the first 6 months of the life of this new program. This will require that the extension workers receive some altered motivation and non –financial incentives. They will also require training in new methodologies designed to enable them to reach a larger audience since they will each on average have to serve approximately 8,000 farmers. MAFRD will provide the budget for these trainings while NOA will work with the AES team to craft these trainings and objectives for the formative phase of the new program. Where appropriate NOA will provide STTA in support of the considerable work that will go into this aspect of the MAFRD development.

### **3. *Ensure that the DCA program is producing results***

NOA, under its access to finance component, will emphasize creative financing mechanisms for its value chain actors. These creative mechanisms will wherever possible be facilitated by DCA support. NOA will ensure that it informs MAFRD of all such DCA linked innovations. NOA will focus its efforts at linking value chains, and not just individual clients, to banks which are prepared, as a result of the new DCA to develop new lending models. During the first month of the new work plan year, the NOA team will work with banks interested in developing the opportunities presented by much more structured value chains, training their loan officers and assisting them to assess the new associated risk profiles.

### **5. *Support to the collection center program***

NOA is working with producers of fruit and vegetables who will ultimately be the providers of raw product to the proposed collection centers in East, Central and Western Kosovo. As such, NOA will ensure that producers are linked with these centers as they become a reality. Critical to the success of these centers will be programmed production that meets market requirements – (whether the processing market or the fresh market), adequate information flow to producers from the collections centers and improved market development for the outputs of these collection centers. NOA will work with the MAFRD lead personnel for this activity to support grantees to develop effective production programs. Since these collection centers will likely be functional only late in the work plan year, NAO will work with the MAFRD grant awardees to develop these plans for full implementation during the 2014 production season.

### **6. *Investigate the opportunity for the introduction of a crop insurance program***

The Minister of Agriculture has indicated that MAFRD will be investigating the potential for the introduction of a crop insurance program (to include possibly livestock). Although this is always a very challenging process, NOA will engage appropriate STTA to investigate options and present these to the MAFRD team. Based on discussions within the agribusiness sector, it appears that the initial opportunities will arise from well-established value chains such as potatoes. The STTA will target such established value chains to develop appropriate models for implementation. These models will inform the possible roll out of the crop insurance program.

#### **BENCHMARKS**

- EAU places at least 5 enterprise cost of production models placed on the MAFRD web site;
- At least 40 public sector extension workers trained with technical support from NOA;
- At least 3 MAFRD collection center grantees develop programmed production plans for 2014;
- At least one new bank lending product developed and operational and placed under DCA; and
- At least one value chain has a crop insurance model available to it.

#### **BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
40,000 Euros (\$51,200)	30 days	30 days

# IMPROVED ACCESS TO FINANCE

## BACKGROUND AND STRATEGY

Access to finance for agricultural production is never easy. Interest rates are too high product design is too general to be of use to specific agricultural value chains. These facts are driven by the perception of high risk in the sector. Behind the perception of high risk, is a lack of understanding about specific production models and the benefits to be gained from a fully functional value chain. At the farm level, a lack of understanding of the financial sector drives uncertainty and an aversion to bank finance – producers looking more to donors for grants and trade finance as a means of growing their business. This combination of attitudes means that access to credit remains an issue for the growth of the agribusiness sector in Kosovo.

The recent signing of the DCA initiative for agricultural lending provides the opportunity now to help banks rethink their approaches to agricultural lending. This new risk mitigation tool has been introduced at an opportune time. NOA has shown through its activity during the past year, that a well-functioning value chain, with its attendant contracts, off take agreements, attention to quality, programmed production and vastly improved knowledge transfer, actually reduces risk and enhances the opportunities for the provision of credit.

NOA will work with banks, especially those participating in the new and existing DCA programs to target value chain participants – processors, collection centers, and producers. Only those who are firmly included in these value chain constructs will effectively reduce their risk profile. NOA will encourage the banks to drive the industry towards these lower risk systems by offering structured financial products only to those who meet this lower risk requirement. In this way, the financial sector will assist the industry to become more structured and thus more competitive.

Inclusion in the value chain structure encourages increased attention to record keeping detail. This is crucial at all levels, but critical at the producer level. Without adequate records, access to finance is next to impossible. NOA will, for producers supplying into value chain systems, provide record keeping training to improve their reputation as lower risk clients of banks.

## OBJECTIVES

1. Encourage financing/investment in program targeted value chains;
2. Develop new agro lending products to fit sector needs;
3. Increase Bank lending expertise in agro sector with reference to the DCA; and
4. Improved farmers' capacity in farm financial management.

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## OBJECTIVE 1: ENCOURAGE FINANCING/INVESTMENT IN PROGRAM TARGETED VALUE CHAINS

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### ACTIVITIES

1. *Organize informative workshops/meetings with banks and other donors to share identified opportunities for financing/investing in the sector*

Sharing information such as fact sheets on crop profitability, investment costs, cost of production models, trends in development in certain sub sectors and newly identified opportunities for financing in particular value chains, can trigger and accelerate sector development and increased financing. The Project will organize such information sharing events at least twice per year. All banks and other donor projects will be invited. NOA will use information emanating from the Economic Analysis Unit of MAFRD in addition to enterprise specific information available in-house.

2. *Organize joint field visits with commercial banks focusing on certain crop financing opportunities*

In order for banks to understand the sector better the Project will organize joint field visits focusing on NOA value chains and encourage banks to support development of new financial products related to

agriculture sector. The Program will work with at least two banks in developing better relations with farmers and agribusinesses, and ensuring they have a better understanding of farmers' and agribusinesses' constraints and opportunities to encourage more financing into the sector. This work should lead to the development of specific value chain targeted financial products.

**3. *Ensure that women farmers receive dedicated training in order to improve access to finance***

NOA will be targeting women as lead farmers. These women will, like all farmers require access to finance. This is particularly difficult for women, given the land tenure and cultural norms in Kosovo. NOA will work with these lead farmers by providing specific training to ensure that they fully understand how they can access suitable finance. This will entail working with banks to ensure that their financial products are available to women.

**BENCHMARKS**

- At least 2 informative workshops with banks on sector investment/financial opportunities;
- At least 2 value chains have access to targeted financial products;
- At least 5 banks introduced to NOA-related value chain financing methodology; and
- At least 2 access-to-finance training courses conducted specifically for women producers.

**BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
3,000 Euros (\$3,840)		

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**OBJECTIVE 2: DEVELOP NEW AGRO LENDING PRODUCTS TO FIT PROGRAM NEEDS**

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**ACTIVITIES**

**1. *Facilitate development of dedicated Agro Credit Card product for input supplies***

Financing for agricultural inputs is critical to the production process. NOA has begun working with banks to determine their interest in developing a dedicated input finance product. This product would finance agricultural inputs only, be available through pre-selected input suppliers having the reputation for quality product as well as in-field knowledge transfer capacity. This far, at least one bank has expressed strong interest in immediately pursuing this objective.

NOA will continue to develop this interest to ensure that at least one bank introduces an innovative agricultural credit mechanism specifically for input purchase. Wherever possible, banks will place the new lending products under the DCA facility.

**BENCHMARKS**

- At least one new agro-lending product introduced to the market;
- At least 10 input dealers involved in the program; and
- At least 100 producers access credit using the new product.

**BUDGET**

<b>IIF/Activity</b>	<b>International STTA</b>	<b>Local STTA</b>
12,000 Euros (\$15,360)		

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## OBJECTIVE 3: INCREASE BANK LENDING EXPERTISE IN AGRO SECTOR

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### ACTIVITIES

#### 1. *Organize agro lending training for DCA signatory Banks*

This activity will support banks participating in the new DCA agreement, thereby leading to better performance in agricultural lending. The majority of banks who joined the new DCA agreement still need some basic agro lending trainings, while the two leading banks who are more familiar with the agro sector need upgraded knowledge in agro sector lending.

Training in regard to DCA reporting and monitoring are also required - these needs were identified during the evaluation process.

#### 2. *Improve Commercial Banks/ Central bank's reporting on agro sector lending*

Where appropriate NOA access to finance team will work with CBK, MAFRD and the lending banks to improve reporting on DCA backed loans. This improved reporting will enable better analysis of interest rate changes as a result of DCA support.

### BENCHMARKS

- At least 3 trainings on agro lending organized with participating banks; and
- Improve CBK/ Commercial Bank Agro sector reporting.

### BUDGET

IIF/Activity	International STTA	Local STTA
5,000 Euros (\$6,400)		

# GENDER EQUALITY

## STRATEGY

National statistics suggest that 28% of full time farmers are women. Whatever the proportion, it is clear that little attention has been given during the last decade to empowering women to participate more fully in the farming business. Even though they share perhaps more than equally in the daily farm duties with men, women rarely represent their farm when it comes to meetings, trainings, workshops, and decision making forums. Lack of access to technical knowledge, information, financing and marketing undermines the role of women in the sector. This situation means that fully 50% of the management potential in agricultural production is underutilized. This underutilization translates into lower sector performance than should be possible.

In order to remedy this serious situation, NOA will develop methodologies to reverse this situation. NOA will develop intervention strategies that move from “counting women” to “making women count”. This paradigm shift will take place initially within the NOA team and its partner’s active in the field. This change in thinking is no doubt a challenge, since current attitudes have their roots in tradition and culture. Nevertheless, NOA staff will begin to create new ways of dealing with this issue, new ways of engaging women in agriculture, despite cultural norms, that empower women to participate fully in the agribusiness sector. The team, under the direction of a staff member dedicated to issues of gender mainstreaming, will ensure that “making women count” will form part of each of the value chain approaches. Included will be new ways to encourage active woman participation at meetings, trainings, workshops and field days, as well as activities and interventions dedicated to women as a specific target group. NOA project activities will have an effect of raising all stakeholders’ awareness of the role of women in advancing the agribusiness sector and thus catalyze a change in thinking

## OBJECTIVES

1. Include woman farmers in all program activities using new approaches;
2. Increase woman farmers technical knowledge within the Agriculture sector; and
3. Raise stakeholders awareness of women’s current and potential, expanded role in the advancement of the agriculture sector.

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## OBJECTIVES:

- **Include woman farmers in all program activities**
  - **Increase woman farmers technical knowledge**
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## STRATEGY

It is important to include woman in all our activities. Acknowledging and expanding their role on existing farms and encouraging women to take on leadership and management roles must be consistently supported by program activities. Initially, NOA will raise the profile of existing woman farmers, by ensuring that they are invited to actively participate in training and decision making events. NOA will begin by specifically inviting the wives of current leading farmers to participate in public events. Once this begins to happen, some of the social barriers may begin to come down. NOA already works with some excellent examples among project beneficiaries, of men and women farmers that share farm and agribusiness management responsibilities equally.

Additionally, NOA will identify women as lead farmers. A lead farmer is one whom has adopted some of the new technologies being promoted, has had measured success in production and acts as a role model for others. Having women in addition to men in this role is critical. NOA’s experience during the last production season has already identified a number of women who are very successful farmers, and who have been successful in adopting new technologies and making a profitable business as a result. NOA is already capitalizing on this by developing promotional documentaries, highlighting these successes by women as lead farmers. By developing women as lead farmers, consistent focal points for changing attitudes will be available for dedicated trainings in technical and managerial issues. Women lead farmers will be encouraged to offer their farms as training venues for both men and women. Attendance at these

events by men and women will be an indicator of progress towards empowering women in the communities.

## ACTIVITIES

### 1. Empower at least 10 women to be lead farmers

NOA will identify at least 10 women who have worked with new technologies and have had success in improving productivity as a result. The project will encourage them to offer their farm as a training site for all farmers. NOA will ensure that as many trainings as practical are conducted on women lead farmer sites. During the work plan year, NOA will produce short documentaries of successful women farmers, highlighting their role in successful business.

### 2. Raise the profile of women's role in agribusiness

NOA will encourage women's participation at all existing activities and implement techniques to encourage and enable them to claim more responsibility and assume more decision-making responsibility. To do this, it is important to expose women to the latest information, trends and developments in the sector, to give them opportunities to publicly display their knowledge and capabilities before other stakeholders (men and other women) and to validate their contributions publicly so that all stakeholders are more aware of and better appreciate their utility and potential within the agriculture sector.

One-quarter (25%) of women participation in program activities is our benchmark (up from 10% currently). At all activities the Program will seek out opportunities to call attention to women's actual and potential contribution to development of the agriculture sector. In addition, each VCL will develop at least one activity dedicated to expanding, validating or showcasing women's role in the sector. These activities might increase women's technical knowledge regarding daily farming and management activities, highlight their characteristics that make them particularly good in certain roles across the value chain or support efforts to help women "break into" or establish new business in the sector. To help address this, NOA plans at least the following trainings specifically for women in agriculture:

- Sales and marketing;
- Grant application training;
- Post-harvest, processing and quality control; and
- Women in farm management.

### 3. Support event of National Woman Farmer of the year organized by MAFRD

The Ministry of Agriculture, Forestry and Rural Development is organizing an event to select the National Woman Farmer of the year. As part of women empowerment, this process will have a positive impact on women's inclusion in the sector. NOA will support the organization of the event financially and assist in the selection process for the best woman farmer. Additionally, NOA will encourage MAFRD to include in the list of awards, the best woman manager in agribusiness.

## BENCHMARKS

- At least 25% woman participation in all program activities;
- At least 10 woman lead farmers identified and supported;
- At least 4 training activities dedicated to women farmers conducted;
- National Woman Farmer selected and event organized; and
- At least 3 documentaries produced highlighting successful women in agribusiness.

## BUDGET

IIF/Activity	International STTA	Local STTA
45,000 Euros (\$57,600)	10 days	200 days

## **MICROENTERPRISE**

USAID defines Microenterprise as a very small enterprise owned and operated by poor people, usually in the informal sector. For USAID program purposes, the term is restricted to enterprises with 10 or fewer workers, including the micro-entrepreneur and any unpaid family workers. Crop production activities, previously excluded from the scope of the definition, are now included as long as they otherwise qualify on the basis of enterprise size and the economic status of the owner-operator and employees.”

It is estimated that 98% of businesses in Kosovo can be classified as micro-enterprises; therefore nearly all USAID support for the private sector is assisting micro-enterprises. NOA is supporting micro-enterprises in Kosovo through an agricultural value chain program. NOA will continue to support agribusiness microenterprises throughout target value chains, by providing training, access to finance, access to markets, improved and sustainable technology transfer mechanisms as well as access to improved aggregation function to enhance competitiveness.

The M&E function of NOA will be able through its central data base filtering system to summarize microenterprise support levels, and the result of this support.

## **MINORITIES**

NOA will during this work plan year increasingly emphasize the involvement of producers in minority-majority areas. It is anticipated that programmed field vegetable production will be an important mechanism increasing the number of minority farmers involved. All value chain coordinators will be tasked with identifying potential supply centers for NOA processors, traders and exporters. The introduction of the MAP sector opens up opportunities to expand production of cultivated MAP's in minority-majority areas, with the initial possibility of an additional two such municipalities. Minority participation will be separately reported on a quarterly basis.

# ANNEX 1. ANNUAL WORK PLAN MATRIX

Objective #	Value Chain and program components	IIF Budget/Activities	Activities	Local STTA days	Int/Reg STTA days
<b>Products and Farmers Linked to Markets</b>					
<b>Gherkins</b>					
<b>GH 01</b>	Improve linkages between actors - further development of the system	55,000 Euros (\$70,400)	1.1. Organize 2 round table with all players in the gherkins value chain to assess the production year 2012 and plan joint activities for the 2013 production year	1200 days	0 days
			1.2. Facilitate a bilateral meeting between processors and individual collection centers (developing contract farming) and exchange visits between the two entities to discuss business relationship details and the terms and conditions of actual contracts		
			1.3. Co-finance the engagement (by processors) of interneers as contract coordinators		
			1.4. Support the further development of existing collection centers through co-financing infrastructure improvements		
			1.5. Explore possibility of establishing new collection centers in production areas with potential		

			1.6. Organize study tours in the region (Macedonia and Albania)		
<b>Lettuce</b>					
<b>LT 01</b>	Increasing quality, quantity and continuity of lettuce	10,000 Euros (\$12,800)	1.1. Facilitate linkages between international seed suppliers, local input dealers and producers.	0 days	0 days
			1.2. Facilitate marketing linkages between of actors in lettuce value chain		
			1.3. Organize out-grower farming ( support network farming )		
			1.4. Assess trial export of lettuce in Albania		
<b>Asparagus</b>					
<b>ASP 01</b>	Promote asparagus in local markets and search for export opportunities	6,000 Euros (\$7,680)	1.1. Facilitate linkages between producers and traders	0 days	0 days
			1.2. Harvesting and promotion of locally produced asparagus.		
<b>Field Vegetables</b>					
<b>FVEG 01</b>	Facilitate the development of linkages between sector stakeholders	70,000 Euros (\$89,600)	1.1. Support for development of collection centers	240 days	0 days
			1.2. Identify the demand for fresh and processed vegetables		
			1.3. Organize B2B between farmers, collection centers, processors and traders, including regional consumers		
			1.4. Facilitate visits to regional and EU food processors		

<b>Medicinal &amp; Aromatic Plants (MAP) including Saffron</b>					
<b>MAPS O1</b>	Products and farmers linked to markets	5,000 Euros (\$6,400)	1.1. Organize B2B exchange visits with German and Austrian buyers (German & Austrian buyers to Kosovo & APS to Germany).	10 days	5 days
			1.2. NOA will cooperate with GIZ and other projects regarding export promotion of MAP products		
			1.3. Identify new markets for saffron product		
			1.4. Spread saffron production to other high-altitude regions of Kosovo		
<b>Livestock sector</b>					
<b>LS O1</b>	Products and Farmers Linked to Markets	26,000 Euros (\$33,280)	1.1. Support dairy companies to setup private extension service	280 days	0 days
			1.2. Balancing feed rations and improved feeding program		
			1.3. Advocate for trained dairy farmers to be allowed to artificially inseminate cattle		
			1.4. Dairy embryo transfer pilot project		
			1.5. Support to transparent raw milk sampling project through KFVA		
<b>Table Grape</b>					
<b>TG O1.1</b>	Promote market opportunities and production improvements according to international market standards	6,000 Euros (\$7,680)	1.1.1. Facilitate the dialogue through B2B meetings between market actors to highlight what matters to customers and supermarkets and communicate results to commercial growers and aggregation centres	0 days	0 days

			<p><b>1.1.2</b> Facilitate development and promotion of quality standards. Brochures on quality standards will be developed and distributed to market actors and growers</p> <p><b>1.1.3.</b> NOA will work with potential table grape aggregators to encourage specialization in table grape cooling and packing. The Program will provide technical support and linkages to stimulate appropriate market demand for improved product from dedicated cooling services</p>		
<b>TG O1.2</b>	Support the conversion of wine grape production into table grape production	72,480 Euros (\$92,774)	<p><b>1.2.1.</b> The total area converted in 2013 will be up to 20 hectares. Potential beneficiaries will be selected in cooperation with the Institute of Rahovec and MAFRD</p> <p><b>1.2.2.</b> An international grafting expert will be contracted to increase the technical skills of a local grafting team, who will carry out the grafting exercise under the direction of the grafting expert.</p> <p><b>1.2.3.</b> Virus free grafts from reliable sources will be imported. 4.400 grafts are needed per hectare- two grafts per vine</p> <p><b>1.2.4.</b> The modified T trellising system will be applied throughout the vineyards on the existing poles</p>	100 days	50 days

<b>Raspberry</b>					
<b>RS 01</b>	Farmers and Products Linked to Markets	10,000 Euros (\$12,800)	1.1. Organize promotion and sales days at Mother Teresa Street (or other frequent places/streets)	0 days	0 days
			1.2. Facilitate sales to largest supermarket chains and encourage direct promotion		
			1.3. Explore the possibilities for the export for the fresh market raspberry		
<b>Strawberry</b>					
<b>STR 01</b>	Increasing quality, quantity and continuity of strawberry production	16,000 Euros (\$20,480)	1.1. Organize promotion and sales days at Mother Teresa Street (or other frequent places/streets)	0 days	0 days
			1.2. Formation of growers association		
			1.3. Facilitate sales with biggest supermarket chains and encourage direct promotion		
			1.4. Organize a promotional activity in Tirana ( identify a central boulevard or street )		
<b>Blueberry</b>					
<b>BL 01</b>	Increasing quality, quantity and continuity of blueberry production	2,000 Euros (\$2,560)	1.1. Promotion of economic and health benefits of blueberries via brochures, leaflets, and media	120 dyas	10 days
			1.2. Facilitate linkages of local growers with local and regional market actors		
<b>Apple</b>					
<b>APL 01</b>	Products and farmers linked with markets	19,600 Euros (\$25,088)	1.1. Create apple cleaning and packaging training unit	0 days	10 days
			1.2. Purchase and demonstrate use of an ethylene inhibitor, "Smart Fresh"		

			1.3. STTA or FTF to address improved harvest, postharvest and packing		
			1.4. B2B for apple VC actors to supply market		
<b>Agricultural Products Diversified and Increased</b>					
<b>Gherkins</b>					
<b>GH O2</b>	Increase market share and explore export markets	60,000 Euros (\$76,800)	2.1. Facilitate sales of domestic processed gherkins through supermarkets	0 days	0 days
			2.2. Exploring export markets		
			2.3. Study visits, B2B visits and regional fairs		
			2.4. Support the input dealer in promotion of modern technologies		
			2.5. Support women and minorities		
<b>Lettuce</b>					
<b>LT O2</b>	Increasing knowledge of the actors in lettuce value chain	30,000 Euros (\$38,400)	2.1. Encourage lettuce producers to increase their production	120 days	10 days
			2.2. Introduction and promotion of new post-harvest and packaging technology		
			2.3. Implementation of IPM and introduction of GLOBAL – G.A.P to lettuce producers		
<b>Asparagus</b>					
<b>ASP O2</b>	Increase the area of asparagus under production and identify potential large-scale producers	24,000 Euros (\$30,720)	2.1. Training asparagus producers on managing transplanted asparagus	80 days	14 days
			2.2. Seek large-scale producers to establish at least 7 hectares of asparagus		

			2.3. Training interns/agronomists on asparagus growing technology and plant protection		
<b>Field Vegetables</b>					
<b>FVEG O2</b>	Agricultural Products Diversified and Increased	30,000 Euros (\$38,400)	2.1. Improved pepper seedling production and new variety introduction	45 days	0 days
<b>Medicinal &amp; Aromatic Plants (MAP) including Saffron</b>					
<b>MAPS O2</b>	Diversification and Technology Improvement	105,000 Euros (\$134,400)	2.1. Selection of farmers in at least 4 municipalities to partner with APS in cultivation	260 days	20 days
			2.2. Support planting of at least 55 hectares in new MAP areas		
			2.3. Asses development of drying capacities		
			2.4. Co-finance development of drying capacities locally		
			2.5. Technical assistance to APS to improve cultivation practices		
			2.6. Improve knowledge on harvesting with clipping machinery and post-harvest		
			2.7. Study tours to improve knowledge (Austria, Albania, or other advanced regional Countries)		
<b>Livestock sector</b>					
<b>LS O2</b>	Agricultural Products Diversified and Increased	8,000 Euros (\$10,240)	2.1. Support commercial production of fruit yogurts and Gouda cheese with seasonings	60 days	0 days
			2.2. Dairy technology short course training program		
			2.3. Dairy school educational program		

<b>Table Grape</b>					
<b>TG O2</b>	Increasing incentives to produce higher qualities of table grape	16,800 Euros (\$21,504)	<b>2.1.</b> Facilitate input dealers to provide embedded advice, services and demonstrations of good practice	20 days	0 days
<b>Raspberry</b>					
<b>RS O2</b>	Agricultural Products Diversified and Increased	53,000 Euros (\$67,840)	<b>2.1.</b> Increase the production area	360 days	0 days
			<b>2.2.</b> Develop a "Knowledge Base" to support production		
			<b>2.3.</b> Facilitate development of the Nursery Production Program with Hargreaves		
			<b>2.4.</b> Global G.A.P. standard at raspberry farm level		
<b>Strawberry</b>					
<b>STR O2</b>	Agricultural Products Diversified and Increased	22,900 Euros (\$29,312)	<b>2.1.</b> Knowledge transfer to nurseries through Hargreaves	100 days	0 days
			<b>2.2.</b> Study tour in England		
			<b>2.3.</b> Facilitate the licensing of Hargreaves Albion variety to nurseries in Kosovo		
			<b>2.4.</b> Support nurseries with Elsanta varieties		
			<b>2.5.</b> Transfer of knowledge to farmers on production techniques		
			<b>2.6.</b> Introduction of early production		
<b>Blueberry</b>					
<b>BL O2</b>	Increasing production though area expansion	78,000 Euros (\$99,840)	<b>2.1.</b> Establishment of at least 5 hectares on cost-share basis at sites with potential	120 days	10 days
			<b>2.2.</b> Introduction of propagation technologies to two soft fruit nurseries		

<b>Apple</b>					
<b>APL O2</b>	Agricultural Products Diversified and Increased	157,000 Euros (\$200,960)	2.1. Award grants to nurseries for planting – apple bench grafted trees	1240 days	60 days
			2.2. Support for top fruit nursery association for Kosovo		
			2.3. Provide international STTA to local nurseries		
			2.4. B2B for apple nursery operators to inspect bench grafted tree before shipping, spring 2013.		
			2.5. Selection of growers for new orchards		
			2.6. Technical assistance for selected commercial apple producers		
			2.7. Purchase three sprayers for improved phyto sanitary control		
<b>Food Quality and Safety Improved</b>					
<b>Gherkins</b>					
<b>GH O3</b>	Through increased processor knowledge of food technology	5,000 Euros (\$6,400)	3.1. Engagement of interns – (young technologists and laboratory personnel) by processors	1500 days	10 days
<b>Lettuce</b>					
<b>LT O3</b>	Increased Marketability of lettuce and searching export possibilities	10,000 Euros (\$12,800)	3.1. Implementation of HACCP standards to post harvest line established	0 days	0 days
			3.2. Branding and labeling		
			3.3. Implementation of HACCP standards to post harvest line established		
			3.4. Branding and labeling		
			3.5. Promotion of introduced new lettuce types to the market		

<b>Asparagus</b>					
<b>ASP 03</b>	Knowledge transfer among actors across the asparagus value chain	2,000 Euros (\$2,560)	3.1. Train actors on post-harvest technology	0 days	0 days
			3.2. Packaging and labeling of asparagus		
<b>Field Vegetables</b>					
<b>FVEG 03</b>	Food quality and safety improved	65,000 Euros (\$83,200)	3.1. Improve standards in quality processing	20 days	20 days
			3.2. Short course on post-harvest – University of California, Davis		
			3.3. STTA for vegetable processing		
<b>Medicinal &amp; Aromatic Plants (MAP) including Saffron</b>					
<b>MAPS 03</b>	Food safety	1,000 Euros (\$1,280)	3.1. Training of new producers of organic certification	10 days	5 days
			3.2. Introduce the 'GlobalGap' standard in three biggest cultivation areas/regions of Kosovo		
<b>Livestock sector</b>					
<b>LS 03</b>	Food Quality and Safety Improved	-	3.1. HACCP certification training and evaluations	10 days	20 days
<b>Table Grape</b>					
<b>TG 03</b>	Improvement of post-harvest technologies and practice - Maintain fruit quality in field and in storage	50,000 Euros (\$64,000)	3.1. Establishment the forced air pre-cooling and storage room for table grape	60 days	10 days
<b>Raspberry</b>					
<b>RS 03</b>	Food Quality and Safety Improved	12,000 Euros (\$15,360)	3.1. Provide technical assistance by engaging international STTA	0 days	15 days
			3.2. Introduction of force - air cooling		

			3.3. Packing and labeling materials		
<b>Apple</b>					
<b>APL O3</b>	Food Quality and Safety Improved	11,340 Euros (\$14,515)	3.1. One training on Good Agriculture Practices	142 days	70 days
			3.2. One training on Good Manufacturing Practices		
			3.3. One training on IPM		
			3.4. Engage for outside STTA specialist to provide TA addressing fruit processing		
			3.5. GlobalGAP implementation at least one producer per value chain.		
<b>Increased Affordable and Accessible Credit</b>					
<b>Improved Access to Finance</b>					
<b>IAF O 4.1</b>	Encourage financing/investment in program targeted value chains	3,000 Euros (\$3,840)	4.1.1 Organize informative workshops/meetings with banks and other donors to share identified opportunities for financing/investing in the sector	0 days	0 days
			4.1.2 Organize joint field visits with commercial banks focusing on certain crop financing opportunities		
<b>IAF O 4.2</b>	Develop new agro lending products to fit sector needs	12,000 Euros (\$15,360)	4.2.1. Facilitate development of dedicated Agro Credit Card product for input supplies	0 days	0 days
<b>IAF OBJ 4.3</b>	Increase Bank lending expertise in agro sector with reference to the DCA	5,000 Euros (\$6,400)	4.3.1. Organize agro lending training for DCA signatory Banks	0 days	0 days
<b>Livestock sector</b>					
<b>LS O4</b>	Increased Affordable and Accessible Credit	-	4.1. Strengthening capacity to access credit	20 days	0 days

<b>Table Grape</b>					
<b>TG 04</b>		1,500 Euros (\$1,920)	4.1. Providing information on the sector through generic business plans, crop market profiles, import statistics	0 days	0 days
			4.2. Presentation of the costs / benefits for the crops		
			4.3. Organize information meeting to present sector opportunities		
<b>Improved coordination within the agricultural sector</b>					
<b>Improved coordination within the agricultural sector</b>					
<b>ICAS 05</b>	Improved coordination within the Agricultural Sector	40,000 Euros (\$51,200)	5.1. Support the EAU to improve its profile	30 days	30 days
			5.2. Support the AES to ensure that the new MAFRD extension workers "make a difference"		
			5.3. Ensure that the DCA program is producing results		
			5.4. Support to the collection center program		
			5.5. Investigate the opportunity for the introduction of a crop insurance program		
<b>Field Vegetables</b>					
<b>FVEG 05</b>	Improved coordination within Ag Sector	11,000 Euros (\$14,080)	5.1. Strengthen group work with processors	10 days	0 days
			5.2. Provide training on Market Research in cooperation with RCI&CBI consultancy		
			5.3. Produce the analyses on import – export of vegetables for fresh market and for processing with the figures from 2004-2012		

<b>Medicinal &amp; Aromatic Plants (MAP) including Saffron</b>					
<b>MAPS O5</b>	Further development of Saffron value chains	2,000 Euros (\$2,560)	5.1. Exchange visits and meetings between producers to share knowledge	10 days	5 days
			5.2. Quality analysis at KIA.		
			5.3. Explore markets		
<b>Livestock sector</b>					
<b>LS O5</b>	Improved Coordination within the Agricultural Sector	8,000 Euros (\$10,240)	5.1. Advocating with government institutions to identify and address policy constraints affecting dairy industry	0 days	0 days
			5.2. Fundraising for installing the back up laboratory instruments at KFVA raw milk lab		
<b>Apple</b>					
<b>APL O5</b>	Improved Coordination within the Agricultural Sector	2,500 Euros (\$3,200)	5.1. Introduction of EPPO (European Plant Protection Organization) standards for apple tree production	0 days	0 days
			5.2. Facilitate communication with MAFRD and government on development of strategy and policies		
<b>Outreach and communications</b>					
<b>ORC OBJ</b>	Outreach Releases	32,500 Euros (\$41,600)	1. Program Website	0 days	0 days
			2. Success Stories		
			3. Use of the media - television documentaries		
			4. Coordination with MAFRD - Best Woman Farmer of the Year Award		
			5. Coordination with MAFRD - "From our land to out table" - "Nga toka jone,per sofren tone"		

Gender Equality					
<b>GE OBJ</b>	Include Woman Farmers in all program activities	45,000 Euros (\$57,600)	1. Empower at least 10 women to be lead farmers	200 days	10 days
			2. Raise the profile of women's role in agribusiness		
	Increase woman farmers technical knowledge		3. Support event of National Woman Farmer of the year organized by MAFRD		

# ANNEX 2. ANNUAL ACTIVITY BUDGET SUMMARY

TABLE A-1.1. BUDGET SUMMARY

Value Chain	IIF and Activity Budget	Local STTA days	Int/Reg STTA days
Fruit			
Apple	190,440 Euros ( \$243,763 )	1382	140
Table Grape	146,780 Euros ( \$187,878 )	180	60
Strawberry	38,900 Euros ( \$49,792 )	100	0
Raspberry	75,000 Euros ( \$96,000 )	360	15
Blueberry	80,000 Euros ( \$102,400 )	240	20
<b>Totals</b>	<b>531,120 Euros ( \$679,833 )</b>	<b>2262</b>	<b>235</b>
Vegetable			
Lettuce	50,000 Euros ( \$64,000 )	120	10
Gherkins	120,000 Euros ( \$153,600 )	2700	10
Asparagus	32,000 Euros ( \$40,960 )	80	14
Medical and Aromatic Plants (MAP) including Saffron	113,000 Euros ( \$144,640 )	290	35
Field Vegetable	176,000 Euros ( \$225,280 )	315	20
<b>Totals</b>	<b>491,000 Euros ( \$628,480 )</b>	<b>3505</b>	<b>89</b>
Livestock			
Dairy	42,000 Euros ( \$53,760 )	370	20
<b>Totals</b>	<b>42,000 Euros ( \$53,760 )</b>	<b>370</b>	<b>20</b>
Crosscutting			
Outreach and Communications	32,500 Euros ( \$41,600 )	-	-
Improved Coordination within the agricultural sector	40,000 Euros ( \$51,200 )	30	30
Improved Access to Finance	20,000 Euros ( \$25,600 )	-	-
Gender Equality	45,000 Euros ( \$57,600 )	200	10
<b>Totals</b>	<b>137,500 Euros ( \$176,000 )</b>	<b>230</b>	<b>40</b>
<b>Grand Totals</b>	<b>1,201,620 Euros ( \$1,538,073 )</b>	<b>6367</b>	<b>384</b>



**U.S. Agency for International Development**

Kosovo

Economic Growth Office

Arberia, Ismail Qemali Str. House #1

9520 Pristina Place

<http://kosovo.usaid.gov>