Kefalonia was named after the mythological figure king “Kefalos”, the head of a great family that included Odysseus. Many people believe Kefalonia to be Homer’s Ithaca. Kefalos arrived as a refugee from Athens and displaced the island’s initial inhabitants, the “Taphians”. Kefalonia has the largest landmass of the seven Ionian islands, measuring 800 km² (300 mi²). It consists of four peninsulas: the Paliki, Krani, Erissos, and Pergii. It is a mountainous region with deep ravines. The tallest mountain is Mt. Aenos at 1628 meters.

The official population of Kefalonia, according to the 2001 census, was 36,404. Currently, the island’s population is nearly 45,000. Kefalonia experienced one of the fastest population growth rates in Greece during the 1990s. The present population density is 55 people per km² (140/mi²), with Argostoli, the capital, home to one-third of the island’s habitants. Lixouri is the second major settlement, and the two towns together account for almost two-thirds of the prefecture’s population.

Kefalonia is located in the heart of an earthquake zone, lying east of a major tectonic fault where the European plate meets the Aegean plate. Dozens of minor or unrecorded tremors occur each year. On August 12, 1953, the third of four major earthquakes to hit in August, measuring 7.3 shattered the island. 100,000 of the 120,000 inhabitants of the island were forced to leave the island. The only area escaping damage was around the town of Fiscardo in the north untouched. The earthquake caused the entire island to be raised by 60 cm.

Agriculture
The primary agricultural resources in Kefalonia are animal breeding, vineyards and olive orchards, with the remainder largely composed of grain and vegetables. Most vegetable production takes place on the plains, which cover less than 15% of the island; the majority of the island is rugged and mountainous, suitable only for goat herding. Less than a quarter of the island’s land is arable.

The majority of Kefalonians lived in rural areas before the 1953 earthquake, but today the urban population accounts for two-thirds of the population in the Prefecture, and the other third remain in rural towns and villages close to farms.
areas of rural Greece, have migrated to the larger towns for education or employment. The principle objective in reviving the olive oil industry in Troianata is to help revive a year round resident population by establishing economic vitality through olive oil harvesting and production, and by creating new employment in the olive oil cooperative.

EUROMED olive oil cooperative, which he sees as a way to bring a competitive market to his village. He needs assistance in order to harvest hundreds of the trees in his orchard that now lie idle. As a village leader, George looks forward to the day when the cooperative can help him harvest his underutilized orchard in order to supplement his family's income.

Sprios Theotokatos, the project's "expert" community representative, has rebuilt his family's home in the village, and works as a professor of sustainable agriculture at the island's technical college, while also serving as the full time general manager of the Agroindustrial Cooperative of Robola Producers of Kefalonia. In addition to his own grape and olive orchards, he is responsible for the management of the valley's Robola wine cooperative, and brings substantial expertise about organic farming practices, domestic and foreign export markets, and cooperative farming and manufacturing production to the project.

EUROMED Sustainable Connections: 4.1 Community Profile – Troianata, Kefalonia, Greece

Makis Christoforatos is an important village leader and serves the EUROMED project as a principle community representative. He operates the village's olive oil press and owns an orchard containing about 500 ancient olive trees. As a community leader, he is dedicated to the continuation of the agricultural vitality of Troianata. He employs villagers in several of his agricultural enterprises. Besides the olive press, Makis also has a large herd of cows, goats and sheep as well as a very popular restaurant located in the village. He provides mechanical equipment services to till the agricultural fields for village farmers, and organizes field crews to manage many orchards.

Nikos Kavaliaratos returned permanently to his mother's village of Troanata seven years ago. He and his wife, Sevesti, an icon writer and painter, relocated from Athens years after Nikos' family left the island as a result of the earthquake of 1953. He, Sevesti, and their cousins from Athens participate in the annual olive harvest at the family's orchards. Their harvest is limited to domestic production, enough only to supply their annual consumption needs. With an export market available through an olive oil cooperative, Nikos looks forward to expanding his olive harvest and to supplementing his income with agricultural revenues.

George Christoforatos is a taxi driver in Kefalonia by day. The taxi business provides dependable income so that he can afford to continue his rural lifestyle and agricultural practices. His olive orchard numbers more than 400 trees. However, due to a limited export market, he harvests only enough oil to support his own family's domestic use. He is very interested in the formation of the EUROMED olive oil cooperative, which he sees as a way to bring a competitive market to his village. He needs assistance in order to harvest hundreds of the trees in his orchard that now lie idle. As a village leader, George looks forward to the day when the cooperative can help him harvest his underutilized orchard in order to supplement his family's income.

Sprios Theotokatos, the project's "expert" community representative, has rebuilt his family's home in the village, and works as a professor of sustainable agriculture at the island's technical college, while also serving as the full time general manager of the Agroindustrial Cooperative of Robola Producers of Kefalonia. In addition to his own grape and olive orchards, he is responsible for the management of the valley's Robola wine cooperative, and brings substantial expertise about organic farming practices, domestic and foreign export markets, and cooperative farming and manufacturing production to the project.

General characteristics of olive groves in Kefalonia

The census of 2004 by the Greek Ministry of Finance indicate that the island of Kefalonia produced 1,623 tons of olive oil. The mills in Dilinata, St. Thekli and Stkanthata produced about 100 tons of olive oil each in 2005. The Ekologiko mill near Lixouri reported that they produced close to 1000 tons of oil in 2005. Given the extensive olive resource on the island and the fact that the vast majority of olive trees are underutilized, yields could potentially increase by 500%. According to the census conducted by the Greek Ministry of Finance, in 2000 there was a total of 534,700.8 hectares of land with trees of various types in Kefalonia, divided among 4,735 plots. Of these, 518,780.2 hectares have olive trees (on 4,720 plots). These statistics highlight the olive-dominated landscape of Kefalonia.

The range of olive trees in cultivation was 50-600 per family estate, with a mean of 174.35 and a median of 110. Land holdings are measured in Stremata, the traditional Greek measurement for farm land. The plots ranged from 10 to 110 stremata (the equivalent of 10,000-110,000 m²), with a median of...
28.17 stremata (28,166 m²). Olive tree density ranges from 2.5 to 13 olive trees per strema. In the 1999-2000 census of Kefalonian agriculture, the density of olive trees per strema island-wide was 10.9.

Village Olive Oil Production
The village lies in the Omalia Valley, one of Kefalonia’s most productive agricultural regions. In addition to olive orchards, which dominate the bottom lands of the valley, the village is famous for its unique variety of grapes – Robolla. Formed over 20 years ago, the Robolla Cooperative of Farmers produces one of Greece’s premier table wines. The wine cooperative is responsible for bringing back into production the vineyards that became idle following the earthquake of 1953.

The Kefalonia prefecture has estimated a production potential from the village’s olive orchards to over 400,000 kilos per year. The Troianata village olive oil press has a capacity to produce between 120,000 – 200,000 kilos per year. It currently produces about 100,000 kilos per year. That translates into 80,000 – 120,000 liters (kilos) of capacity for export. Several obstacles were identified by the olive oil producers that must be addressed before the production potential can be realized: lack of sufficient labor to harvest the fruit; management of dormant trees; quality control in production; bottling facilities; and competitive export markets.

Primary olive tree cultivars in Kefalonia
The four main varieties of olive tree in Kefalonia include: Koroni, Ithaki, Kalamata, and Korfuelias or what they call ‘Dopia’, meaning ‘local’. The Koroni variety grow 5-7 meters tall, with olives having an average weight of 1.3 grams, the ratio of flesh to pit is 6.6:1, and the olives yielding up to 27% of their weight in oil under the right conditions. The Koroni variety is implemented for the production of high quality oil. It is a very productive variety, resistant to drought, and was imported to Kefalonia around the 1950s from Ithaca and Crete. The olives are more abundant than the Dopia tree, but the olives are smaller, rendering less oil each.

The Thiaiki is common on Kefalonia. The trees grow from 5 to 8 meters high, the average olive weight is 1.6 grams, the relation of flesh to pit is 6 to 1, and the yield in oil per kilogram of olive is about 1:5 or 21%. The Thiaiki variety is also cultivated for an olive oil of high quality and is drought-resistant.

The Kalamata variety, or Καλαμάτα variety, coming from the Kalamata region of Greece, is also cultivated in Kefalonia. The trees grow from 7 to 10 meters tall, with the fruit weighing an average of 5.6 grams, the ratio of flesh to pit is 8.3:1, and the yield in oil from the olive is about 17%, yielding significantly less than the Koroni and Ithaki varieties. Kalamatas are primarily grown for table olives and do best in regions with ample precipitation, but are nonetheless commonly found in Kefalonian olive oil mills.

Finally, the ‘Dopia’ is commonly used to make Kefalonian olive oil. The word ‘Dopia’ translates simply to mean ‘local’, but is also referred to as ‘Korfuelias’. It is likely that this variety has been dubbed ‘local’ because of its ubiquitous presence on the island. Dopia is more round in shape than the other varieties and it produces more olive per berry than Koroni. Producers indicate that they produce about 1 kilogram of oil for every 5 kg of olives.

Pruning and Fertilizing
To maintain the health of their olive trees, farmers engage in pruning the branches and applying fertilizers, natural or synthetic, to the soil. Farmers engage in some kind of pruning during the harvest season, using a combination of hand pruners, hand-saws, and chain saws to prune their olive trees. Most of the annual pruning entails cutting only small sucker branches and dead branches. More extensive pruning is done once every five years. With major pruning, branches that are cut will not produce fruit until the second growing season, as olives fruit on one-year old wood. The purpose of pruning is to re-concentrate the tree’s energy into a select number of branches, encouraging stronger growth and more abundant olives.

To fertilize, farmers rely on the application of animal manure.
Some also apply synthetic fertilizers in addition to manure. Synthetic fertilizer is extremely effective but also expensive. For 50 kilograms of the fertilizer it costs approximately €20, and each tree needs about three kilos applied annually. Manure application is less expensive as most of the farmers also have farm animals. The most common manure used comes from sheep, goats, and chickens. Some farmers let their chickens roam the olive groves to fertilize the trees. Another technique used to fertilize the olive trees is by planting phosphorous-rich legumes in between the olive trees when they are first planted.

**Pests and pesticides**
The major pest that olive farmers in Kefalonia are aware of is Bactocera (Dacus) oleae commonly called “Dakos”. It is a tiny insect that lays its eggs in the olives during the spring, when the weather becomes warm and wet. Between late summer and autumn is when the Dakos become apparent and, if left untreated, by mid-autumn they can destroy the majority of olives. Dakos-infected olives that are harvested yield a more acidic oil. For Kefalonian olive oil producers who desire high quality olive oil, acidic oil is highly undesirable. Farmers attribute the increase in the insect’s population to the use of pesticides which they believe has had a negative effect on other beneficial insects and birds.

The prefecture of Argostoli had historically sprayed pesticides to kill Dakos before they attacked the olives. In earlier years they applied by helicopter spray application. Honey producers complained that the sprays were annihilating honey bees, and eventually the prefecture limited their spray technique to hand application. A more environmentally sound practice used by many farmers is hanging a plastic bottle on each tree filled with a sweet liquid. Dakos drown upon entering the bottle and drinking the liquid.

**Cultural importance of olive oil**
Making olive oil is a longstanding tradition in Kefalonia. Most farmers inherited olive trees from their parents, who inherited them from their parents. Many of the producing trees in Troianata are 200 – 500 years old. Older trees still bare fruit and their quality is considered excellent, but their yields are often lower. To establish a stronger harvest, farmers plant new trees in addition to their standing trees. On the other hand, no one removes the older trees for the sake of planting new ones. The trees are sacred to the Kefalonians.

The average household consumption of olive oil for a family of four is 270 kilograms per year. Kefalonians use olive oil in nearly everything they eat. They use all qualities from the first pressing of the olives to the last. With the last pressing, poorer quality oil is used to fry fish and for other uses. A favorite is tomatoes, feta and bread doused in olive oil.

Olive oil is considered sacred to the Greek people as a whole and Kefalonians are not an exception. Olive oil is used to anoint babies during baptism into the Greek Orthodox Church and it is placed on the forehead and temples of the dead just before they are buried, serving as a holy “final seal”.

**Harvest and labor**
The harvest is a family occasion. Even some absentee landowners come from Athens during the olive season to harvest their trees. Friends often rotate to help each other with the harvest in their respective groves. From the months of October to as late as March depending on the season and the variety of olives, Kefalonians are to be found in or below the olive trees. They place mesh netting underneath the trees and climb branches or ladders to reach the harder-to-reach olives, combing them off with a little plastic hand rake. Mechanized harvesting exists on the island but most harvest is still done by hand. Women and men alike, young and old, all join in the harvest. The harvest is completely reliant upon family and friend participation.

**Economics of olive oil**
The number of producers that bring their olives to be pressed at each of Kefalonia’s mills ranges between 150 to 1,141. Troianata attracts between 150-200 producers. This mill produces about 100 tons of olive oil each year. Dilinata hosts about the same amount of olive oil producers. Saint Thekli presses the olives of between 250-300 producers each season. Stakathata is a cooperative press comprised of 150 farmers, producing 950 - 1000 tons of olive oil. The largest of the mills is Ekologiko where over 1,000 tons of olive oil is produced each year. In 2005, its membership was at 1,141. The presses are generally open for operations starting in late October or early-mid November until February or later, depending on how long into the winter or spring the olives are harvestable. During the four main months of production, each mill employs two to four workers to run the facilities. However, each farmer monitors the pressing of his or her own olives. Everybody takes turns sending their olives up the conveyor belt to be washed, into the grinding stones to be mashed, through the centrifugal tanks to
be separated into oil and juice/water, through the pipes and out the spigot into their vats. To pay for the use of the olive pressing facilities, farmers pay 10% either of the produced oil or the cash equivalent. In 2004 most producers received 2 Euros per kilogram of olive oil from traders who would export the oil to other parts of Greece or to Europe. The Kefalonian producers have few market alternatives because in order to sell to outside markets they require bottling facilities. The oil that is sold island-wide is packaged in plastic bottles, typically old water bottles or soda bottles, or in tin vats. Once a competitive market is established, it is believed by farmers that olive oil production can be significantly increased by three to four-fold over current production levels.

**Potential Economic Benefit**

Producers receive approximately 2 euro per kilo of high quality olive oil. However, a competitive market could yield to producers 4 euro or more per kilo. A production of 100,000 liters could yield a direct economic return to producers of 400,000 euros or more annually in addition to other community reinvestment benefits. Research of US specialty markets indicates retail prices ranging between $12 and $16 per half liter of oil. That results in an average retail price of $28. Given current exchange rates, the retail values average about 20 euro per liter and a wholesale price per liter in the US specialty market at about 15 euro. Securing a market price at that level could produce 11 euro net profit after paying producers a higher target price for their oil. The net revenues are available to cover the costs of bottling, shipping, marketing, administration, and reinvested improvements to bolster harvest and production capacity at the village cooperative.

**Export limitations**

As noted, export markets are extremely limited in Kefalonia. The limited available export market has been through traders who pay an average of 2 euro per kilo for Kefalonian virgin olive oil, and ship their bulk products to Italy for further processing and distribution. The EUROMED project seeks to establish a cooperative venture for direct production and marketing of oil products through cooperative partnership between European local communities, foreign specialty markets, and local producers in order to retain the greatest possible value added benefits to the local communities. A secured export market would result in financial resources necessary to improve local production capacities and quality control measures as well as significantly increased production from idle olive resources through the employment of field labor teams. An initial estimate of financial proforma is provided below.

### Cooperative Initial Proforma

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<tr>
<td>Administration</td>
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<td>Net Profit</td>
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### Fair Trade Profit Distribution Scenario

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