Miguel Menéndez oversees the family-run Casal company which was set up by his grandfather in 1880 before evolving into the renowned coffee producing company it is today, specializing as an integrated producer, processor and exporter of green coffee for specialty coffee buyers interested in Salvadorian coffee. Today, Casal operates eight farms and approximately 255 hectares of shade-grown coffee farms which altogether produce around 4,000 bags of 46 kg of coffee per year. Casal also sells coffee under its own brands (Metsi, Selva Verde, and Café Tapacun) and runs its own state of the art wet-and-dry coffee mill named Piedra Grande.

Casal provides around 100 full-time jobs all year round, of which 40% are female, plus an additional 20 jobs at the mill that increase to 500 during the harvest. As part of the shift towards the specialty coffee niche, the Menéndez family has managed to develop direct trade relations with some of the finest roasters and retailers in the U.S., Europe, Japan and Oceania, who then roast and serve their coffee as a bean to cup specialty highlighting the small batch process that is often behind the scenes.

Casal is primarily an export company and their coffees are exported to more than ten countries through their robust chain of clients with whom a direct commercial relationship is key to the business. Don Miguel believes that the market niche he created has evolved to a point where sophisticated customers want to know where their coffee comes from, are more educated
and are willing to pay more for coffee produced to the highest quality and sustainability standards. World famous roasters visit Casal regularly to connect with the origins of their coffee and have a story to tell their customers.

Casal’s farms and facilities routinely invite clients and visitors to see for themselves the sustainable practices employed in the coffee production process. By applying sustainable practices Casal is able to protect natural resources, thereby ensuring its production well into the future.

Coffee in El Salvador

“Coffee plantations account for around 7% of forested land because of the intensive use of shade. Even more importantly, almost all primary or closed forest (around 80%) is surrounded by coffee farms which act as a buffer zone against potential impact from outside. If the coffee plantations disappeared, there would be a latent danger that primary forest would disappear as well” – International Coffee Organization (ICO).

Coffee production in El Salvador can trace its roots back to the 19th century when the country’s government saw the importance of this crop as a pivotal source of hard currency income.

While El Salvador’s coffee is regarded as a top-end product within the international market - with 70% of all sales in 2014/15 going to the United States, Europe, Japan and Canada - the sector also plays a positive role in the country’s social and environment development.

Since the peak days for El Salvador’s growers, when production reached 3.8 million bags during crop year 1974/75, the industry has witnessed a steady decline due to price volatility, civil war and the consequences of climate change, including coffee leaf rust (Hemileia Vastatrix), and a drought emergency stemming from effects of the El Niño phenomenon. Today only 450,000 bags are produced and coffee farms are either abandoned or being converted to other land uses without tree coverage, both with respective negative consequences regarding ecosystem services in the country.

Five years ago, El Salvador lost 60% of their crop due to coffee leaf rust, resulting in many coffee growers abandoning their traditional crop and replacing it with short-term life cycle crops such as maize and beans, causing the loss of coffee forests and additional environmental negative effects.

In addition, it is estimated that about 40% of coffee plantations are of an age which makes them less productive and more susceptible...
Flowering in coffee ensures the continuity of genetic material for future generations.

to infestation by pests and rust. In this sense, conserving shade-grown coffee, is of national economic interest for El Salvador. One way of doing this, is through financing renovation of older plantations introducing new leaf rust-resistant coffee varieties that will increase coffee productivity and help farmers become more competitive and resilient to climate change.

Given the challenges faced by the coffee sector in El Salvador, producers have had to adapt and redefine their business model to existing market conditions and climate change; all in the face of a fragmented national industry where technical and financial support are scarce and access to certified seeds is limited.

Key Figures

- **265,000 hectares** of El Salvador are forested.
- **33%** of coffee produced in El Salvador is certified by sustainability standards.
- **1.8%** Total percentage of primary forest remaining in El Salvador.
- **32.2 million** tons of carbon is stored by coffee plants each year, equivalent to **6.8 million** cars driven each year.

Shade-Grown Coffee

According to the International Coffee Organization the most important challenge facing domestic coffee production in El Salvador is climate change. The country is one of the most vulnerable in the world ranking number 15 out of 180 countries on the 2017 Global Climate Risk Index. Global warming combined with decreased and more variable precipitations is likely to cause situations of water stress in the future. Shade-grown coffee plantations are often called coffee forests for the numerous and vital environmental services they provide such as the sequestration of CO2, soil preservation, and the protection of the region’s biodiversity (such as migratory and resident birds, small mammals, reptiles, among other species). Nevertheless, the most important environmental service that shade-grown coffee provides to El Salvador has to do with its contribution to the preservation of groundwater resources. As shade-grown coffee plantations protect the soil from erosion they contribute to protect the main catchment areas for watersheds and allow water to filter into groundwater reserves.

Less than 13% of the country is forested and coffee farms, such as those owned by Casal, are key to protecting the remaining forests and the conservation of water sources in El Salvador. This is because all of the coffee production in Casal’s farms is run under agroforestry systems (shade-grown coffee). In addition, this type of plantation helps to the preservation of primary forests that still exist in El Salvador and delivers essential ecosystem services to surrounding areas.

Unlike traditional coffee plantations in most of South America, which are sun exposed, shade-grown coffee is produced beneath a canopy of moderate to heavy shade of diverse plants and native trees species that provide adequate levels of soil protection, nutrient recycling and organic matter production.

Shade-grown coffee plantations are often called coffee forests for the numerous and vital environmental services they provide.

The organic matter residues form a layer at ground level that allows for better filtration of water through soil, thus enhancing soil moisture retention.

Don Miguel’s coffee is strictly high grown (SHG), which means it is located between 1300 and 1700 meters above sea level. SHG coffees are typically sought after because the higher elevations mean slower bean development, resulting in distinctive coffee profiles.

The company’s strategy is clear, focusing on producing high quality coffees which can be differentiated not only by their quality and traceability but also by their genetic material, processing methods and the sustainable practices applied.

Casal’s farms are exemplary of the Salvadoran shade-coffee scene where coffee production interacts freely with native tree species; Don Miguel’s company has created a reserve of more than 50 hectares of protected native forest on one of its farms. This reserve is located at the top of an extinct volcano and acts as a wildlife sanctuary for wild frogs and other species that can be spotted in the crater’s freshwater lagoon. As part of the company’s vested interest in the conservation of the region’s biodiversity, Casal has inventoried more than ten different fauna species that live in their coffee forests, such as kinkajous, spot-breast-
The company’s strategy is clear, focusing on producing high quality coffees which can be differentiated not only by their quality and traceability but also by their genetic material, processing methods and the agricultural practices applied.

Furthermore, Casal farms are of great importance to El Salvador’s biodiversity as they are located just 20 km from the country’s most important National Park, El Imposible. This park contains endangered dry tropical forest and is home to more than 500 species of birds. The farms act as buffer zones that prevent further degradation of the environment.

For many years, Casal has adopted social and environmental best practices, which has allowed the company not only to compete in the specialty coffee market, but also to develop a culture of sustainability. This commitment to sustainability and quality enables Casal to receive coveted price premiums in the very competitive and demanding coffee market.
For Casal, sustainability is the only way of doing business, as it allows them to sustain their business foundation while improving productivity and quality and help reducing costs. By ensuring the quality of its coffee, Casal receives better prices and is able to maintain their sales.

**Sustainable Practices**

Over the last 12 years Casal has planted 90,000 – 130,000 plants per year to renovate their old plantations with selected new species. These varieties are not only more resistant to climate change and to pests and diseases, but also offer buyers a wide array of coffee profiles and aromas, while ensuring traceability from tree to cup and increased productivity.

Through its own seed bank, Casal is able to ensure seed quality and test different varieties for yield improvements. Some seeds are provided by coffee buyers when they visit the farms. Once tested and verified, seeds are planted and reproduced.

When harvest season starts in October, the coffee fruit cherries arrive at the Piedra Grande mill where they are processed in accordance with the buyer’s preference. Processing the coffee cherries involves separating the husk and fruit from the bean and then commencing the drying process. There are different processing methods, all of which must be closely monitored as this is where each selection develops their specific and unique flavors and aromas. Most of Casal’s coffee is washed, as this method is recognized as producing the highest quality coffee.

In Casal, the wet process starts by separating the bean from the cherry with a coffee pulper. The mucilage sticking to the parchment is also withdrawn before drying. Normally this process can be done either through the fermentation of the beans or by removing the mucilage mechanically. Casal uses ecological coffee pulpers which work with low volumes of water and therefore reduce the potential contamination of surface water.

**Over the last 12 years Casal has planted 90,000 – 130,000 plants per year to renovate their old plantations with selected new species.**

**Treasured Coffee**

For its sustainable, forward-thinking business practices and delicious final coffee cup, Casal has won the National Taza de la Excelencia (Cup of Excellence) for three consecutive years (2010 – 2012). The Cup of Excellence is the most prestigious international competition and award for high quality coffees. During the national competition with some 300 entries, every coffee is tasted and rated by experts, with winning coffees sold at premium prices.
By adopting environmentally friendly water recycling practices, Casal is better prepared for climate change.

All water used by Casal during the wet process is collected during the rainy season, and then stored to be used all year long. By following this environmentally friendly water recycling practice Casal is well-prepared for any climate-related issue such as a scarcity of rainfall.

Continuing with the wet process, the discarded pulp is then transported by screw type conveyor belts and is collected as organic matter that undergoes natural biodegradation. Both water and excess water from the pulp are emptied out into a tank after being passed through three cascade filters that eliminate tiny residues and avoid further contamination. Pulp and mud from the tank, are composted and recycled back into the coffee farms once a year. Altogether, Casal estimates that their water saving technologies help them reduce their annual water consumption by more than 3,000m³. This not only allows them to help El Salvador identify solutions to its water scarcity situation, but it also mitigates against climate change.

As the bean needs to be dried in order to be ready for toasting, Casal ensures that all their coffee undergoes a pre-drying process that consists of sun drying.
The key factor to assure Casal’s continued success in the international coffee arena is its progressive business strategy focused on implementing sustainable and best practice in agro-industry. This means that they produce an award-winning coffee while being involved in the preservation of El Salvador’s biodiversity, which in turns helps the country adapt to and mitigate the effects of climate change.

Casal estimates that their water saving technologies help them reduce their annual water consumption by more than 3,000m³. The beans, either on patios on special bricks or on African drying beds to reduce the percentage of humidity retained in the product. This outdoors pre-drying will last as long as weather conditions allow. In Ahuachapan, the region where Casal is located in El Salvador, the weather is often changeable with many overcast and rainy days, and the beans may complete the drying process in drum dryers. These dryers are powered by burning coffee husks (85%) and timber (15%) which has been extracted from fallen trees in the coffee forest and other naturally occurring recycled material.
Banco Hipotecario

Banco Hipotecario, a key partner institution of the eco.business Fund since 2015, is one of the few institutions that specializes in the agricultural sector in El Salvador and has developed expertise in providing credit to companies in the coffee value chain. The bank, with a dedicated team of agronomists, monitors and evaluates each client’s practices and overall performance. Casal has been a client of Banco Hipotecario since he started the coffee mill in 1997. Since then, and thanks in part to funding from the eco.business Fund, Casal has received multiple loans in order to modernize the Piedra Grande mill and renew its coffee plants.

<table>
<thead>
<tr>
<th>Sustainable Practices</th>
<th>Benefits</th>
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| Shade-grown coffee system | • Serves as a carbon sink  
• Reduces use of chemical fertilizers  
• Prevents soil erosion  |
| Seed bank maintenance | • Offers more resistant to climate change  
• Allows less susceptibility to pests and diseases  |
| Coffee plant renovation | • Offers more resistant to pests  
• Allows greater productivity  |
| Ecological coffee pulpers use | • Efficient use of water  
• Reduces water loss  |
| Water recycling and rainwater collection | • Effective use of water  
• Access to water during low rainfall  |
| Water treatment tanks use | • Efficient use of water  
• Reduces use of chemical fertilizers  
• Reduces water loss  
• Reduces water runoff |
About us - The eco.business Fund is spearheading the promotion of business practices that contribute to the preservation of biodiversity, the sustainable use of natural resources, and climate change mitigation and adaptation through private enterprises. By providing financing for business practices that conserve nature and foster biodiversity, the fund seeks investments with both financial and environmental returns. The fund mainly provides loans to qualified local financial institutions that lend the money to eligible borrowers, which include holders of recognized certifications or those making improvements in line with conservation and biodiversity goals. The fund supports sustainable operations in the sectors of agriculture, fishery, forestry and eco-tourism. For additional information please visit www.ecobusiness.fund or email us at: info@ecobusiness.fund.