

Rabobank and WWF (A): A Pioneering Partnership for Sustainable Salmon Farming



Salmon aquaculture, Bahía Ralún, Chile. Source: www.thefishsite.com

Introduction

March 30, 2011 was a special day for the Dutch bank Rabobank and the World Wide Fund for Nature (WWF) Netherlands. That morning in Amsterdam, the two organisations signed a global partnership agreement that would combine their strengths and lead to concrete action toward their shared desire to contribute to a more sustainable economy. This commitment was the culmination of a joint effort, begun in 2006, to actualise their mutual goal of building a greener world through a market-based approach.

The agreement outlined five different projects to be carried out in countries and sectors where Rabobank and WWF both had an active presence: responsible salmon production in Chile, sustainable agribusiness in Brazil, sustainable palm oil and sustainable aquaculture in Indonesia, sustainable water management in sugarcane production in India, and biodiversity monitoring on dairy farms in the Netherlands.

The Chilean project turned out to be the most fruitful of the five (see **Case B**). But at the start of their collaboration on it, Rabobank Chile and WWF Chile didn't know what the outcome of the project would be – only that the significant environmental and social problems caused by the exponential growth of salmon farming in southern Chile required urgent attention. The unrest stemmed from a number of different factors: disease among fish populations and the ensuing die-off of stocks had led to mass unemployment, unhealthy captive conditions incited public concern, and environmental degradation at sea threatened ecosystems and biodiversity of worldwide importance. Where should the two partners begin to address these problems? How could they work in a truly collaborative way, leveraging their strengths to serve their common interests?

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Rabobank and WWF: Two unusual partners

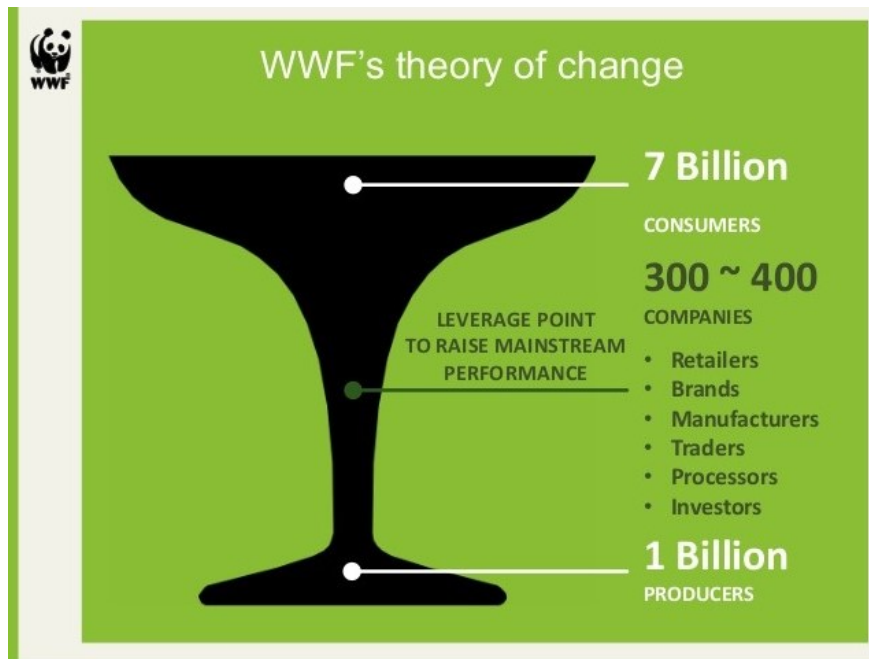
The year of 2011 marked a turning point in sustainable development. The world had slowly been coming to the realisation that inclusive, green societies and economies were the only way forward for everyone on earth to live with dignity and to find solutions to complex environmental, social and economic challenges.¹ Ban Ki-moon, Secretary-General of the United Nations, called for immediate action to make sustainable development happen. "We are running out of time. Time to tackle climate change. Time to ensure sustainable, climate-resilient green growth. Time to generate a clean energy revolution. The sustainable development agenda is the growth agenda for the 21st century," he said at the World Economic Forum at Davos on January 28, 2011.²

In order to find solutions towards sustainable development, Rabobank and WWF, two completely different organisations, joined forces in the Netherlands for the first time in 2006. Rabobank was one of the largest banks of the Netherlands in terms of total assets. It was founded as a cooperative bank in 1972, with the ambition to become the leading bank in the fields of food and agriculture worldwide. Being a cooperative, Rabobank believed that collaboration was essential; therefore, it focused on building long-term relationships. It proactively and constructively discussed topics with civil society organisations, regulators and clients, bringing together partners and relevant stakeholders to boost business.

WWF was founded in 1961 as an international non-governmental organisation (NGO) dedicated to nature conservation. In 2011 it was present in more than 100 countries, with the ambition to conserve ecologically important places and reduce the most pressing threats to the world's biodiversity. One of its attention points was food and agriculture. Given its strategy to build roadmaps for change and work together with businesses to drive that change (**Exhibit 1**), partnerships with companies were a key mechanism in its efforts to influence the course of conservation and sustainable production. Unlike other environmental organisations which were confrontational – and severely critical of WWF for not being so – WWF focused on collaborating with the private sector to change behaviour from within, by assessing companies' environmental impacts and creating mitigation plans.

Rabobank and WWF's pioneering collaboration in 2006 resulted in the setting up of a Dutch Greentech Fund to finance innovative ventures for clean technology. Four years later, in October 2010, Rabobank and WWF signed a Memorandum of Understanding (MoU), in which both organisations indicated their intention to partner at both the national and international level. Rabobank would contribute its network, its financial services, and its expertise in commodities, companies and financial management. WWF would share its expertise on biodiversity and ecosystem services, bringing in the required technical skills and additional networks.

Exhibit 1. WWF's theory of change



Source: WWF International at World Communication Forum, Davos

A Partnership Striving for Sustainability

In signing the global partnership agreement³ in March 2011, Rabobank and WWF wanted to make the financial sector more sustainable by prompting businesses to invest in sustainable practices. The partnership was specifically aimed at the international food and agribusiness sectors, where the partners wanted to demonstrate that profitable and sustainable enterprises could genuinely create added value for both the environment and local populations.

Rabobank Executive Board Chairman, Piet Moerland, said at the time: "The WWF and Rabobank both strive to achieve a sustainable environment. We have already demonstrated this shared commitment through our joint participation in the Dutch Greentech Fund... This partnership between a financial institution and an NGO, with the aim of setting an example for other participants in the production chain with respect to the concrete effects of sustainable enterprise in practice, is unique."

"Protecting nature reserves is today inextricably linked to human behaviour. Our choices as consumers determine the chances of survival of threatened ecosystems, which are in turn crucial for life on earth. Nature conservation consequently only works by establishing that connection and by ensuring the sustainability of the entire chain from raw material to plate. This is why having a partner such as Rabobank is invaluable for WWF," commented Johan van de Gronden, director of WWF Netherlands, in 2011.

Five projects were identified in five countries where Rabobank and WWF were actively present and where unsustainable farming challenges were evident and in need of urgent attention:

- Chile: Responsible production in the salmon industry
- Brazil: Sustainability in agribusiness
- Indonesia: Sustainable aquaculture and sustainable palm oil
- India: Sustainable water management in sugarcane production
- Netherlands: Biodiversity monitoring on dairy farms

These catalyst projects would focus on yield increase, cost efficiency and profitability, while lowering the participating companies' environmental footprint through reducing CO₂ emissions, energy use, chemical inputs, water consumption and raw materials.

Rabobank and WWF deemed a project successful if it demonstrated that "Producers are better off as a result of higher food production achieved by, for instance, making degraded or eroded land once again suitable for production through the use of fewer inputs (water, fertilizers and energy) and by improving the organisation of their activities; and if the pressure on the environment and ecosystems has been significantly reduced as a result of the sustainability measures implemented within the context of the projects."⁴

Sustainable Development and The Chilean Salmon Industry

The project in Chile was chosen after careful deliberation between the two partners. Rabobank Chile,⁵ present in the country since 1995, was a pioneer financier of the salmon sector. It participated in the creation of almost all Chilean salmon companies, which represented 20% of the corporate portfolio of the bank in that country. WWF Chile,⁶ legally established in 2002, had worked since its instigation to protect the terrestrial and marine environments of southern Chile in water management, forest management, sustainable fishing, marine conservation and responsible aquaculture.

Salmon aquaculture (Appendix 1) and salmon companies in general were heavily affected by social issues, such as the public acceptance of fish farming and their relationships with local communities. Climate change and environmental regulations also impacted their supply chains by affecting the availability of both farming areas and the raw ingredients needed to produce fish feed. In turn, salmon companies created jobs and contributed to the economic development of the communities where salmon was produced. The main sustainability topics with which salmon companies were confronted were:

- Reducing their carbon footprint: fish farming was one of the most climate-friendly forms of breeding, yet further improvements could be made;

- Improving their management of plastics, such as plastic waste reduction, beach clean-ups, and monitoring microplastic contaminants in fish;
- Preventing the escape of farmed fish, with the goal of zero escapes, because escaped salmon could weaken the species by interbreeding with wild populations;
- Higher assurance of fish health and welfare, including better management of sea lice, reduction of antibiotic use, improving fish feed and nutrition, and preventing disease;
- Protecting biodiversity through raising their awareness of the impact on rivers, lakes, and sea, and taking mitigation measures.
- Increasing their social awareness: being conscientious neighbours, socially responsible, caring and working with the local community.

The farming of Coho salmon and rainbow trout began in Chile in 1974 for domestic consumption and commercial export. At that time, open circuit farming was being used, and 400,000 salmon were released in two lakes within the southern Chilean region of Los Lagos. Four years later, the Deputy Ministry of Fisheries and the National Fish Services (Sernapesca) were created, attracting a series of private initiatives dedicated to salmon farming. In 1986, total Chilean salmon production reached 2,100 tons, and the consolidation of the industry led to the creation of the Association of Salmon and Trout Producers of Chile, known as SalmonChile. Starting in 1990, technological changes propelled an even stronger growth of the salmon industry, and a scientific breakthrough was made to obtain the first Chilean Coho salmon eggs. Improvements were made in feed and farming techniques that led to the further professionalisation of the industry. In 2011, Chile was already the world's second largest salmon producer after Norway, with exports of combined salmon and trout that reached 385,000 tons, equivalent to US\$ 2,926 million.

This explosive growth, however, was full of controversy. Different sectors of society, from scientific organisations to fisher organisations and environmental NGOs, questioned the impact salmon companies had on the environment and their relationships with the diverse local communities. The source of these concerns lay in various environmental disasters that had occurred in the vicinity of the salmon farms. Massive fish escapes, salmon diseases and high-density stocks were some of the most criticised issues. Thousands of trout and salmon escaped from broken nets due to heavy storms in 1994 and 1995, and this was assumed to have caused environmental problems for the surrounding native species. In 2008, the virus ISA (Infectious Salmon Anemia) massively reduced the farmed salmon population, which apparently was overpopulated, causing the worst salmon health crisis in the history of the industry and left 10,000 people unemployed. Adding to these events, the salmon industry had been criticised for the excessive use of antibiotics, for generating anaerobic conditions at sea, and for expanding production to pristine areas considered important refuges for biodiversity in Chile and the world.

Even though many of the environmental events had been related to unpredictable weather conditions and had involved only a few companies, the public image of the

whole sector had been badly impacted. Long before 2011, however, salmon companies had already been interested in moving towards sustainable farming. The partnership between Rabobank and WWF came at the right moment, providing a platform for dialogue and cooperation to drive change and create more awareness of sustainability within the salmon sector.

Paving the Way for a Durable Collaboration

Rabobank Chile and WWF Chile agreed that immediate attention was needed to address the environmental and social impacts salmon production had caused since its beginnings. But the two were such different organisations, with diverse objectives, goals and approaches to doing business. Rabobank, as a financial services provider for the food and agricultural sector, focused on food security, with priority on people and communities. WWF, with its biodiversity conservation objectives, focused on protecting the environment by educating and influencing human behaviour. The partners would inevitably encounter many challenges, starting with the necessity of finding a common language with which to communicate. Nevertheless, they had much in common: their cooperative approach, an open-mindedness regarding the partnership, and a willingness to work towards sustainability. How could they make this truly happen? What would it take to make the relationship last and to have it result in the creation of a sustainable salmon industry in Chile?

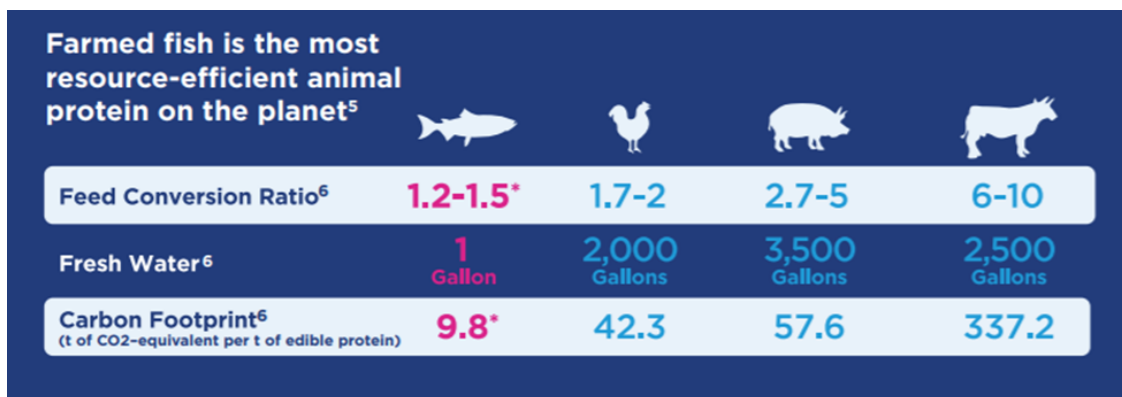
Appendix 1: Salmon aquaculture

Salmon is the common name for several species of fish of the family Salmonidae (e.g. Atlantic salmon, Pacific salmon and Coho salmon), which also includes other species called trout. Although these species are available from both wild and farmed sources, about 72% of commercially available salmon worldwide is farmed.

Salmon live in the Atlantic and Pacific Oceans, as well as many large landlocked lakes. Typically, salmon are anadromous, which means they are born in fresh water, migrate to the ocean, and then return again to fresh water at the end of their lives to breed. Farming takes place in large nets in sheltered waters such as fjords or bays. The production cycle is about 3 years. During the first year the eggs are fertilised and the fish are grown to approximately 100-150 grams in a controlled freshwater environment. The fish are then transported to seawater cages where they are grown to 4-5 kg over a period of 12-24 months. When salmon reaches harvestable size, they are transported to processing plants where they are slaughtered and gutted. After a site is harvested, the location is normally fallowed for 2 to 6 months before being used for a new generation of fish.

Salmon is considered a healthy food due to its high content of good quality, easy digestible proteins and Omega-3 fatty acids, and it is also a good source of minerals (iodine and selenium) and vitamins (D and B12). It is regarded as a resource-efficient production because it has high protein, energy, and edible meat ratios, and a Feed Conversion Ratio (FCR)^a of 1.1, which are highly efficient figures compared to chicken, pork, and cattle production (**Exhibit 2**).

Exhibit 2. Resource efficiency comparison between fish, chicken, pork and cattle



Source: <https://globalsalmoninitiative.org/en/>

In addition, farmed fish is considered a climate-friendly protein source because of its low carbon footprint.^b At 9.8, it is approximately 25% of that of chicken or pork, and only 3% of that of cattle. Salmon, therefore, is expected to become a solution to

^a Kilograms of feed needed to increase the animal's bodyweight by one kg.

^b Tons of CO₂ equivalent per ton of edible protein.

providing the world with healthy protein while limiting the negative effect on the environment.

Endnotes

¹ From Green Economies to Green Societies, UNESCO's Commitment to Sustainable Development, 2011, at <https://unesdoc.unesco.org/>

² <https://www.un.org/sg/en/content/sg/speeches/2011-01-28/remarks-world-economic-forum-session-redefining-sustainable>

³ <https://wwf.panda.org/?199896/WWF-and-Rabobank-enter-into-partnership>

⁴ <https://www.rabobank.com/en/about-rabobank/in-society/sustainability/partnership-wnf/index.html>

⁵ <https://www.rabobank.com/en/locate-us/americas/chile.html>

⁶ http://www.wwf.cl/wwf/sur_chile/