

## What Works

### **Green Fire: A Chilean firewood certification program spares both the air and indigenous business**

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## Green Fire

A Chilean firewood certification program spares both the air and indigenous business *by Laila Weir*

In southern Chile, wood fires keep chilly winters at bay. Potbellied stoves, crackling logs, and curling smoke make for picturesque scenes, but the widespread use of firewood comes with some big negatives. It contributes to the country's massive deforestation, as well as to the air pollution that's choking urban centers.

The Association of Forestry Engineers for the Native Forests (*Agrupación de Ingenieros Forestales por el Bosque Nativo*, or AIFBN), a non-profit based in the southern city of Valdivia, wants to stop the rapid degradation of native forests. The group knows that firewood is the cheapest – and sometimes the only – energy source available to southern Chileans. It also knows that selling firewood is an important source of income for small-scale, often indigenous landowners.

So AIFBN has developed a multifaceted plan that addresses firewood's environmental costs while supporting local firewood producers. In November 2005, the group worked with various public and private partners to create a firewood certification system in Valdivia. A local council certifies firewood that complies with AIFBN's standards, which not only protect forests and reduce air pollution, but also ensure a drier and therefore better-burning wood. Producers pay a fee – less than 1 percent of the wood's market value – for certification, to finance the system. Certified sellers then give customers detailed information about the firewood, confirming that it meets the certification standards and that it is the amount and type of firewood it claims to be. Customers, in turn, pay an average of 30 percent more for the certified firewood – a premium many are willing to pay for wood's greater burning efficiency and for the accurate information that sellers provide.

"The certification system solves the problem in a very innovative way," says Nicolas Böttges, who works with the National Forestry Corporation, the government department



Outside the city of Valdivia, Chile, landowners Mario Ojeda (above) and Hernan Arnaldi (inset) harvest firewood in an ecologically and financially sustainable way.

charged with promoting the forestry industry and protecting native forests. "[It] creates demanding consumers who are informed and request dry firewood and demand a receipt. This demanding consumer is prepared to pay a bit more."

AIFBN has also conducted a publicity campaign that advertises the benefits of certified firewood. "It's different to talk in the schools about biodiversity, about the birds and rivers, about caring for water, from treating it as an issue that's so daily, so routine as firewood," says René Reyes, vice president and director of the Valdivia certification program. "Every day, people take their firewood and put it in the fire. So it's about connecting something routine with these other big themes."

### Kinder Kindling

Certified firewood meets two environmental standards. First, it is logged according to a forest management plan. According to AIFBN, landowners who follow management plans created by forestry experts can extract plenty of firewood to meet demand without overexploiting the forests.



“Cutting trees is not bad,” Reyes says. “What’s bad is cutting trees in the wrong way. If you manage the cutting well, the forest is conserved and biodiversity is conserved.” This is important because much of the wood logged from Chile’s native forests – 80 percent in the region surrounding Valdivia – is for firewood.

Second, the wood must contain no more than 25 percent humidity. Wood fires can be a major source of air pollution because they let off smoke containing potentially harmful chemical compounds. Dryer wood, though, burns much more efficiently, meaning that more of the wood is converted into heat and less into smoke. More efficiency also means that people need to burn less wood – reducing the demand for logging.

AIFBN’s three-year public education campaign has targeted Valdivia’s 33,000 households and all of its firewood producers. After the organization distributed the campaign’s posters and brochures, consumers and producers began calling its offices. Within the first six months of the program, 10 percent of Valdivia’s firewood producers had sought certification, says Reyes. Also, more than 300 families have expressed interest in buying certified firewood, according to Jorge Reyes, who is in charge of marketing and publicity for the certification program.

One of those consumers was Iris Elissetche, the administrator of a commercial building in Valdivia, who says she called AIFBN after seeing a poster advertising the program at a local government office. Elissetche began buying certified firewood this year and was impressed by its efficiency: She says she needed 20 percent less wood to heat the building this winter than she did last year. “It’s dry, generates more heat and less pollution,” she says. “Personally, I’ve had a very good experience using certified wood.”

In a customer satisfaction survey of 80 Valdivia households that bought certified firewood this year, 89 percent rated the wood as “excellent” (the highest rating), according to a summary provided by AIFBN.

The program not only pleases consumers, but also tries to make getting certified as easy as possible for producers by granting them initial certification and then giving them up to two additional years to comply with all of the standards. “If we were more demanding regarding compliance with regulations, the small merchants would be eliminated and the commerce would be centralized in large corporations,” says René Reyes. “Our focus is strongly social. We want to maintain the local culture and give small merchants the opportunity to stay in business and to modernize.”

AIFBN’s approach also will help small landowners make a

## DEFENDING ECOLOGY AND BUSINESS

- Start with highly desirable eco-friendly products
- Educate consumers about pollution and its solutions
- Lower barriers to business’s participation in solutions
- Make solving environmental problems profitable

better living. Currently, landowners sell their firewood to middlemen for a pittance compared to the price that middlemen charge consumers. To make up for the low prices, many landowners overexploit their forests. In so doing, however, they reduce the quality and quantity of their wood, which ultimately diminishes their earning capacity. Getting landowners a higher price for their wood can help them pay for forestry experts and reverse this cycle.

### Enterprising Solutions

AIFBN now has a new tool to promote certified firewood: social enterprise. With support from the Nonprofit Enterprise and Self-Sustainability Team, a nonprofit that helps other nonprofits develop commercial activities to decrease their reliance on donations, AIFBN is creating a business to fund its work and to help its network of landowners pay for forestry advisers. The enterprise buys wood from farmers at higher prices than do other middlemen, stores it while it dries, and then sells it to consumers in Valdivia.

In the longer term, AIFBN plans to transform the business into a firewood producers’ cooperative, of which the landowners will become shareholding partners. When this happens, the landowners will take on a more active role in the organization’s leadership and will receive a larger share of the profits.

Now the Valdivia program is expanding to the rest of Chile. Last June, a national certification council met for the first time. Its goal is for half the country’s firewood market to be certified in five years, and for certification to become mandatory in 10 to 15 years.

The Valdivia program has demonstrated the certification system’s promise as a way to limit environmental damage. In the future, AIFBN and its certification partners will need to go a step further to reduce environmental damage even more. They will need to promote – and perhaps help finance – more efficient wood stoves and better insulation for southern homes, so that consumers will need to burn even less firewood for the same heat. At that point, the project may realize its long-term goal of turning firewood into a viable renewable energy source for Chile. □