

Chapter 3



Business transformation as the gateway to sustainability: A tobacco company's perspective

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3.1 OUR APPROACH TO SUSTAINABILITY

For Philip Morris International (PMI), sustainability is an organizational value that affects every aspect of its operations. For a tobacco company, sustainability must begin with addressing the negative health impacts of its products. For around 20 years, PMI has been working to develop and commercialize better alternatives to cigarettes. Experts including many regulatory bodies such as the US FDA, indicate that the primary cause of smoking-related diseases is not nicotine but the inhalation of harmful and potentially harmful constituents (HPHCs) formed as a result of burning tobacco. To leave combustion behind, PMI has developed a portfolio of smoke-free products which are likely to lead to reduced risk of harm when compared with cigarettes, with the ultimate goal of eliminating cigarettes and offering better alternatives as soon as possible to smokers who otherwise would continue smoking.

While replacing cigarettes is the biggest overall contribution we can make towards achieving the United Nations Sustainable Development Goals, PMI can also make significant progress by managing both its social impact and its environmental footprint. Effective environmental management across our operations and value chain goes beyond compliance with applicable laws and regulation; we're committed to continuous improvement of our business activities in order to achieve the highest standards of environmental sustainability (PMI, 2018). To that end, we have reduced environmental impact and improved performance of our manufacturing operations.

The majority of our environmental footprint is generated elsewhere in our value chain, however, especially in tobacco growing and curing. This chapter describes how the implementation of

international water management standards in our operations have supported our collaborative work with tobacco growers, suppliers, NGOs, and governments to reduce PMI's overall water footprint through enhanced agricultural and industrial water management.

In addition, PMI has set science-based targets for greenhouse gas emission levels, aiming to achieve carbon neutrality by 2030. By 2017, PMI had already achieved a 31% reduction of all scope emissions, and by 2019 PMI had reached the A-list of global disclosure system CDP, in both greenhouse emissions and sustainable water management (PMI, 2019a). PMI also works with farmers and suppliers across its supply chain with the goal of reducing greenhouse gas emissions during tobacco curing by 70% by 2020, and eliminating net deforestation by 2025 (PMI, 2019c).

3.2 ACTING AS A WATER STEWARD

Globally, the organization sources tobacco from 335,000 farmers and processes it in 38 manufacturing facilities that supply approximately 150 million consumers of PMI products. Water is used in our manufacturing facilities, our agricultural supply chain, and in the production of other raw materials and supplies, such as cellulose acetate filters, paper, electronic devices, and packaging materials. (Although water is not a major input in conventional cigarette production, manufacturing smoke-free products is more water intensive.) To manage an operation of this scale, PMI takes decisive actions in areas where its work can have the greatest impact to minimize the amount of water used per unit manufactured.

Being part of such a large integrated value chain represents a great opportunity, as we participate in each step of the production cycle. In our sustainability programs, we seek not only to reduce what we must use, but also to act as a water steward. This means responsibly using water, without negatively affecting the needs of others, consistent with the following principles (PMI, 2019d):

- Protect the quality of water resources;
- Provide access to water, sanitation, and hygiene at all PMI facilities, and foster availability of these services to tobacco farmers;
- Respect the vulnerability of water and its importance to the community;
- Seek partnerships to improve our water management practices.

PMI works to continuously improve these practices through our ongoing program to educate, encourage, and enable farmers to increase sustainability in the tobacco supply chain. Launched in 2002, PMI's Good Agricultural Practices (GAP) program aims to maintain the quality of water resources and ensure access to safe water and sanitation for tobacco-growing communities (PMI, 2019b).

In addition to its focus on farmers, PMI also invests in improvements in the use of water in the production of both cigarettes and smoke-free products. While a Global Water Footprint analysis conducted by PMI showed that water consumption in manufacturing operations accounted for only around 6% of total water consumed across our value chain, that amount still translated to 4.4 million cubic meters per year. As we ramp up production capacity to meet the increased water demand, since the manufacturing of smoke-free alternatives is more water intensive, PMI considers both local and regional water availability in siting new factories or making any structural changes to existing facilities.

Our water strategy considers the risks we face from water stress and pollution, and the significance of those risks in catchments relevant to operations up and down the supply chains. This analysis drives action to ensure that water is managed sustainably, as a shared resource. By systematically adopting an integrated water management strategy along our value chain, we can go beyond optimizing our manufacturing process and positively influence water quality in the communities where we operate, improving the lives of thousands of people.

We believe that communities neighboring our factories should not experience any negative impact on water resources due to our operations. We regularly consult with local communities on environmental and community issues, and recognize the importance of engagement with external stakeholders.

3.3 AWS STANDARDS GUIDE PMI'S SUSTAINABLE WATER MANAGEMENT

Beginning in 2017, PMI began working with the Alliance for Water Stewardship (AWS), a leading organization dedicated to better water catchment management. By adopting the AWS International Water Stewardship Standard, PMI has been able to better understand and manage its own water use and to work collaboratively and transparently with others to increase the sustainability and resilience of the communities where we operate. The AWS framework (AWS, 2019) takes into account the needs of local communities by addressing five key areas:

- *Water governance*: analyzing the procedures and rules that govern industrial water use, and respecting local customary rights and applicable regulatory aspects;
- *Water balance*: ensuring that water use is compatible with naturally available volumes through mitigation of water risk and adverse impacts on water availability;
- *Water quality*: mitigating physical risk and reducing the adverse impact of poor water quality on the economic, environmental, and social dimensions;
- *Water-related areas*: assessing the condition of relevant areas of the water basin which, if damaged or lost, would adversely impact environmental, social, cultural or economic benefits;
- *Water, Sanitation and Hygiene (WASH)*: ensure access to safe and sufficient water for drinking, food preparation, and other basic human water needs (including washing and toilet facilities), and provide hygiene education to combat the spread of water-related illness.

AWS not only requires excellent management of water at an industrial site, it also requires an understanding of the local watershed and extensive engagement with local stakeholders on water-related topics. PMI's factory in Brazil, certified by AWS in March 2018, offers a good example of the AWS Standard in action. The first factory in Latin America to be AWS-certified – and first in the world to be certified under the newest (2.0) standard – PMI is now building on the experience at its Rio Grande do Sul facility to apply the AWS Standard across its operations to certify all PMI factories by 2025, with 10 certifications during 2020 alone.

3.4 THE EXPERIENCE IN BRAZIL

Brazil is a global leader in tobacco production and accounts for 25% of global sales. More than 150,000 families grow tobacco in Brazil, mostly in small farms in three states the South Region of the country. Directly or indirectly, over 2.1 million Brazilians are involved in tobacco production, exporting some 549,000 tons in 2019 with an estimated value of \$2.14 billion USD. Nearly half of Brazil's tobacco output is destined for EU markets.

Philip Morris Brazil operation is based in the state of Rio Grande do Sul, where tobacco output accounts for 9.62% of the region's total exports. PMI's Rio Grande do Sul operation is a vertically integrated industrial facility, engaged in every step of the process, from development of tobacco seeds to manufacturing cigarettes for domestic and foreign markets, with tobacco supplied directly or indirectly by 47,000 farmers in the region. It was in this facility that PMI piloted implementation of the AWS Standard (Figure 3.1).



Figure 3.1 Philip Morris International factory in Santa Cruz do Sul, Brazil.

The factory had already achieved ISO14001 certification, and because it already had strong environmental management policies and record-keeping practices in place it was able to internalize the AWS Standard in only four months. The combined effect of on-site initiatives implemented throughout the years have cut water use in half (57% compared to 2010 usage). These initiatives included the following:

- Collection of information regarding the source and use of all process water, including storage and reuse;
- Preparation and maintenance of a water balance for the facility, updated annually;
- Mitigating operational risks by monitoring water consumption in all production areas, identifying incidents and taking immediate corrective actions;
- Development of a water contingency and resilience plans with clear definition of roles and responsibilities;
- Reusing water from cooling towers and capturing rainwater for reuse;
- Engaging all employees by soliciting suggestions to improve water use efficiency, and establishing an expert panel to assess the feasibility of new initiatives.

To date (2020), eight recommendations from employees have been successfully implemented, including the development of a system that combines a water compressor, heater, and pressurizer to reduce up to 50% water used to clean the factory's production lines.

3.4.1 Working in collaboration with tobacco farmers and the community

Sustainable water management requires an inclusive approach, taking into consideration the priorities of the river basins and the communities where companies are present. It goes beyond requiring excellence in managing water-related issues within the manufacturing process, requiring deep understanding of the local watershed and extensive engagement on water-related topics with local communities, suppliers, and stakeholders. Industries do not usually have enough understanding of the water challenges beyond their

own fence-line, so the AWS Standard helps them look for solutions in collaboration with others, including governments, organized civil society, and academia.

3.4.2 Engaging suppliers on sustainable practices

PMI works with tobacco farmers through our GAP program to support the sustainability of family farming in Brazil. Key GAP initiatives include (PMI, 2019b):

- *Improve working conditions on the farms*: systematically adopt international labor and human rights standards to improve employment conditions all through our value chain. Unique in terms of scale, scope, and level of transparency, PMI's Agricultural Labor Practices (ALP) program, provides specific initiatives training, monitoring, and other areas, resulting in tangible improvements 'on the ground';
- *Address the impact of tobacco farming on the environment*: reduce carbon emissions, promote water stewardship, conserve biodiversity, and combat deforestation;
- *Make tobacco farming profitable and sustainable*: monitor and support farmers implementing good agriculture practices to improve yields and quality and reduce labor requirements, resulting in higher income for farmers. Help them maximize tobacco production to allow more land for alternative crops, to increase food security, and generate additional sources of income.

3.4.3 Engaging with the community and external stakeholders

The Hydrographic Basin Committees are community groups representing certain hydrographic basins and part of the Water Resources National Management System, the governing body in charge of implementing the National Policy for Water Management, the regulatory framework set by the Brazilian Government to manage water resources in the country. With membership including both citizens and government authorities, these committees periodically debate and decide issues regarding water management in Brazil and play a key role in shaping public policies, especially in regions subject to floods, droughts, and water quality problems. PMI has actively engaged with the River Basin Committees surrounding its operations to better understand basin-risks and identify opportunities to support collaborative water management.

As an example, the Water Guardian Project grew out of an effort by the Pardo River Hydrographic Basin Management Committee to restore the degraded river margins of the Andreas Creek. The city of Vera Cruz's main water source, Andreas Creek is within the Pardo River Basin, home to Philip Morris Brazil. The initiative aims to protect springs around Andreas Creek by incentivizing farmers to adhere to good water and soil conservation practices, financially compensating them for their environmental services. Farmers' adherence to the program is voluntary, and the amount paid to each farmer is calculated based on technical criteria, taking into account the crops grown at each farm and the size of the protected area.

The Water Guardian Project began by collecting data from area farms along with information on existing springs. This provided a basis for creating action plans for recovery and protection of damaged areas. The River Basin Committee initially identified 66 farms that negatively impacted Andreas Creek with their agricultural practices, which PMI was able to improve by annually compensating them for reforestation, spring protection, and other environmental services. The environmental work of each farmer is evaluated and certified once a year by the University of Santa Cruz do Sul (UNISC), prior to payment. PMI is accountable for the financial support to both farmers enrolled at the program and the technical support provided by the University of Santa Cruz do Sul, being one of the few initiatives on this model financed by the private sector in Brazil.

Since its implementation, there has been a significant improvement in the water quality in the Andreas Creek. When the project has first started, less than half (45%) of the water analyzed by the program was considered fit for consumption. Based on recent current analysis, according to the National Water Agency criteria some 90% of the water in the creek is now considered suitable for consumption after simple treatment (filtration, disinfection, or pH correction). This upgrade in water quality has improved the lives of more than 18,000 people in the urban area of Vera Cruz and has been recognized by Brazil's National Water Agency (ANA) as a benchmark achievement. In addition to the direct benefit to the population, the initiative allowed significant savings for municipal government, reducing costs for water treatment. The National Water Agency's recognition of the benefits of this program also made the municipality eligible for federal funding for investments in infrastructure.

Based on the experience acquired through this initiative, in 2019 we expanded our efforts to another area, located in Sinimbu, a town of 10,000 with a strong presence of tobacco growers. Also in partnership with the University of Santa Cruz do Sul (UNISC), PMI is now evaluating the quality of water from springs that currently have no treatment or protection. From the diagnosis made, an individualized intervention project will begin at the springs of each farmer selected for participation in the project. To date environmental improvements have been completed at 20 farms and there are still 6 to be evaluated. Water quality is also being performed (Figure 3.2).

PMI has also implemented a program called +Campo, which consists of an itinerant training unit that visits rural areas and trains farmers on our GAP principles. The program emerged from the challenge of reaching out to farmers and workers for training sessions, since the vast majority of farms are located on remote areas. Rather than inviting them to specific locations (such as community centers), our



Figure 3.2 Philip Morris Brazil field technician, UNISC environmental specialists and a tobacco farmer in Sinimbu, Rio Grande do Sul.

experience demonstrated that the most effective way to provide those trainings was visiting them at their properties. Since 2015, dedicated instructors traveling in two special vehicles have trained 8,000 people on topics such as health and safety on the farm, the importance of controlled use of pesticides, and proper usage of crop protection agents (CPA) to prevent water contamination. In 2018, a new module including WASH, among other subjects, was launched.

Bringing transparency and making our efforts on water management public are also important recommendations from the AWS Standard. Since 2019, in addition to the data disclosed in our Annual Sustainability Report and platforms such as CDP, PMI is also disclosing its water performance locally. Philip Morris Brazil is part of the Brazilian Business Commitment on Water Security, a business coalition focused on sustainable water management practices led by the Brazilian Business Council for Sustainable Development (CEBDS), a leading sustainability organization in Brazil, where companies are encouraged to disclose their commitments and goals for the upcoming years and have their progress monitored. The platform also allows companies to exchange experiences, best practices and develop joint initiatives.

3.5 KEY LEARNINGS AND STRATEGY MOVING FORWARD

A key lesson from the broad approach that the AWS Standard requires is that water issues are always more complex than anticipated, but that engagement with stakeholders can help to resolve problems that individually may be viewed as insurmountable. The standard fosters an active involvement of the private sector in water-related discussions, especially at the local level, promoting collaboration and the development of innovative solutions by different stakeholders (farmers, NGOs, public and private sector, academia, and others).

In terms of challenges, our experience demonstrated that the most critical factor in successful implementation of a long-term sustainable water management strategy is the development of a diverse network of stakeholders with clear roles and accountabilities. In line with our commitment to certify all factories by 2025, we have collected our practical experience and learnings from the AWS implementation in Brazil into a toolbox that has been shared with PMI factories across the world. In addition to the PMI factory in Brazil, six other PMI factories are already certified on the standard, in Italy, Indonesia, Turkey, Portugal, Russia and Mexico.

As a matter of principle, we take a collaborative approach and seek out partnerships. Although the controversies surrounding the tobacco industry make it difficult for many stakeholders to even consider collaborating with us, we know that if we are transparent about our intentions and the challenges we face, and are willing to make clear commitments that we consistently honor, there are stakeholders willing to hear about the concrete contributions we can make.

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