



2017 ICFPA Sustainability Progress Report





About the International Council of Forest & Paper Associations (ICFPA)

The ICFPA serves as a forum of global dialogue, co-ordination and co-operation. Currently, the ICFPA represents 18 pulp, paper, wood and fibre-based associations that encompass 28 countries, including many of the top pulp, paper and wood producers around the world.

www.icfpa.org

ICFPA Mission

Serve as a forum of global dialogue among national and regional industry associations and their leadership to co-operate in the development of common positions on issues of mutual interest; represent the forest, paper, wood and forest fibre-based industries with global policy organisations; and co-ordinate action and distribute information through member associations.

ICFPA Purpose

To benefit global society through collaboration with industry, governments and non-governmental organisations on public policies that facilitate the manufacture of sustainable products from virgin and recycled forest-based resources that meet human needs for information, packaging, housing, hygiene, energy and other innovative products.

About this Progress Report

The 2017 ICFPA Sustainability Progress Report is the sixth biennial report highlighting ICFPA members' collective progress on the sustainability commitments listed in the 2006 CEO Leadership Statement on Sustainability¹:

1. Creating solutions to global climate change and energy supply challenges
2. Promoting sustainable forest management worldwide
3. Combatting illegal logging
4. Recovering and recycling fibre
5. Improving environmental management
6. Investing in workers and communities

ICFPA member associations contributing data to this report represent up to 246 million metric tons of pulp and paper production. The National Council for Air and Stream Improvement, Inc., headquartered in North Carolina, United States, performed the indicator calculations.

ICFPA members support efforts to prevent illegal logging.² Acknowledging that legislation intended to combat trade in illegal timber and advance forest law enforcement—e.g., the *Lacey Act* in the United States; the *European Union Timber Regulation* and Voluntary Partnership Agreements; and the *Australia Illegal Logging Prohibition Act*—are the responsibility of domestic authorities and addressing these at the international level raises issues of national sovereignty and interpretation, ICFPA members may develop country-specific approaches to address the question of verifying legality in timber trade. In addition, third-party certification systems are complementary with national or regional timber legality legislation in promoting sustainable forest management practices.

For the first time, a water use indicator is added to help demonstrate ICFPA members' progress on their commitment to improve environmental management.

Performance on several indicators for the sustainability commitments is starting to level off, reflecting strong improvement in the earlier reporting period—notably on indicators for sustainable forest management; recovering and recycling fibre; and improving environmental management. The ICFPA and its members remain committed to the principles of sustainable development, and are working on advancements in technologies and processes to further improve performance in areas where it is already strong.

ICFPA members contributing data to this progress report:

Australia

Australian Forest Products Association (AFPA)

Brazil

Brazilian Tree Industry (Ibá)

Canada

Forest Products Association of Canada (FPAC)

Chile

Corporación Chilena de la Madera (CORMA)

Europe

Confederation of European Paper Industries* (CEPI)

Japan

Japan Paper Association (JPA)

New Zealand

New Zealand Forest Owners Association (NZFOA)

South Africa
















Paper Manufacturers Association of South Africa (PAMSA)

United States

American Forest & Paper Association (AF&PA)

*Represents 18 members from the following countries: Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom

Progress on our Commitments

INDICATOR	2014/2015 PERFORMANCE	CHANGE FROM BASELINE	CHANGE FROM PREVIOUS REPORT (2012/2013 DATA)
GHG EMISSIONS INTENSITY	0.57 MT CO ₂ EQ/MT PRODUCTION	 -16% (2004/2005)	 +0.5%
SHARE OF BIO-ENERGY IN THE FUEL MIX	63.3% OF ONSITE ENERGY NEEDS MET BY BIOMASS AND RENEWABLE FUEL SOURCES	 +10.3 PERCENTAGE POINTS (2004/2005)	 +2.6 PERCENTAGE POINTS
SFM-CERTIFIED HECTARES	54% OF PROCURED WOOD FIBRE IS FROM THIRD-PARTY CERTIFIED SUSTAINABLY-MANAGED FORESTS	 +42 PERCENTAGE POINTS (2000)	 +2 PERCENTAGE POINTS
GLOBAL PAPER RECYCLING RATE	58.9% OF PAPER AND PAPERBOARD CONSUMED GLOBALLY IS USED BY MILLS TO MAKE NEW PRODUCTS	 +12.4 PERCENTAGE POINTS (2000)	 +1 PERCENTAGE POINT
ONSITE ENERGY INTENSITY	18.0 GJ LHV/MT PRODUCTION	 -1.1% (2004/2005)	 +3.4%
SO ₂ EMISSIONS	1.04 KG SO ₂ /MT PRODUCTION	 -48% (2004/2006)	 -13.3%
WATER USE	33.5 M ³ PROCESS WATER DISCHARGE / MT PRODUCTION	 -7.2% (2004/2005)	NOT APPLICABLE
RECORDABLE INCIDENT RATE	2.53 (NUMBER OF RECORDABLE INCIDENTS X 200,000 HOURS / NUMBER OF HOURS WORKED BY ALL EMPLOYEES)	 -24.5% (2006/2007)	 -15.7%

Creating Solutions to Global Climate Change and Energy Supply Challenges

To support climate change mitigation efforts and reduce greenhouse gas (GHG) emissions, ICFPA members invest in energy efficiency improvements at their facilities; increase their use of low carbon fuels; and provide substitutions to reduce their reliance on traditional fossil fuels.

The forest products industry uses renewable energy from carbon-neutral biomass—including spent pulping liquors recovered from the production of wood pulp, wood manufacturing residuals and forest residues—to produce a significant portion of the energy needed to run its operations. The ICFPA advocates the carbon neutrality of biomass³ and the industry's role in delivering climate benefits to society through sustainable forest management and carbon sequestration.

To demonstrate ICFPA members' performance related to climate change and energy supply challenges, two aggregate indicators were calculated:

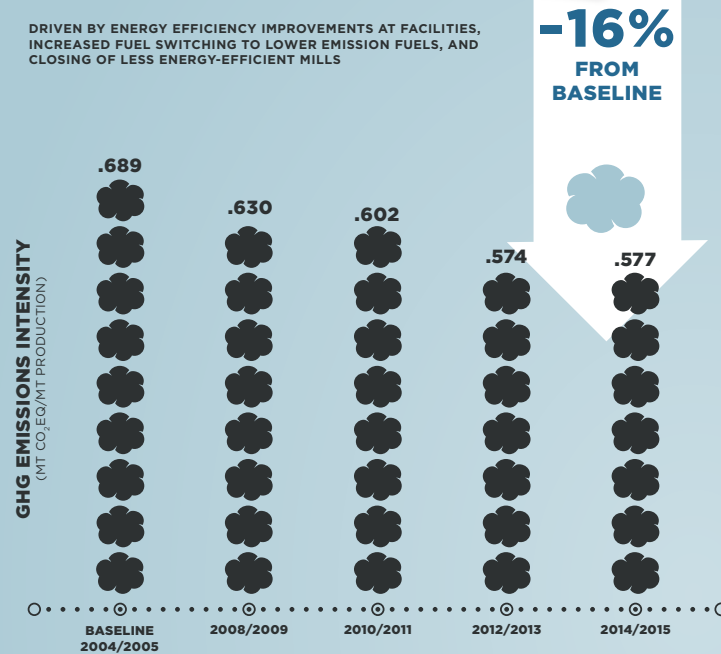
- The **GHG emissions intensity indicator** shows ICFPA members' reduction of their GHG emissions (metric tons of carbon dioxide equivalent) relative to their production. Since the 2004/2005 baseline year, ICFPA members reduced their GHG emissions intensity by 16%.
- The **share of bio-energy and renewable fuels indicator** demonstrates ICFPA members' increase of the share of bio-energy in the fuel mix on a lower heating value energy content basis. Since 2004/2005, members increased the share of bio-energy in the fuel mix by 10.3 percentage points.



GREENHOUSE GAS (GHG) EMISSIONS INTENSITY

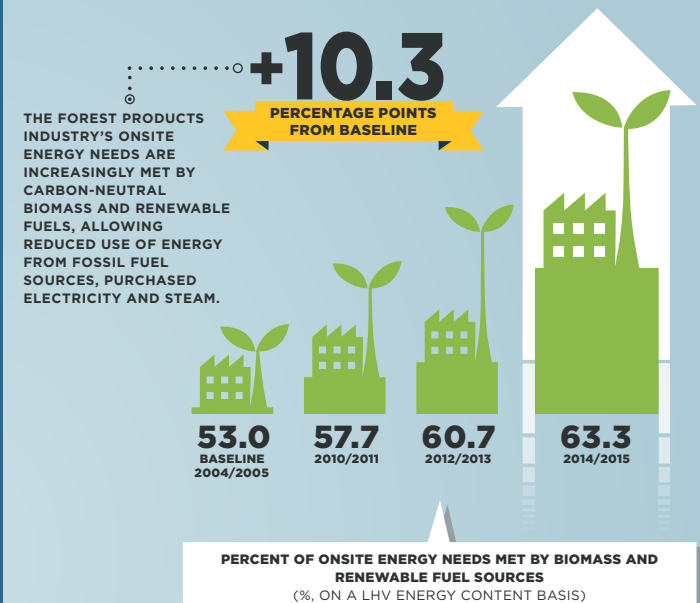
ICFPA REPORTING MEMBERS: AF&PA, CEPI, FPAC, IBA, JPA, AND PAMSA, COLLECTIVELY REPRESENTING 23 COUNTRIES

DRIVEN BY ENERGY EFFICIENCY IMPROVEMENTS AT FACILITIES, INCREASED FUEL SWITCHING TO LOWER EMISSION FUELS, AND CLOSING OF LESS ENERGY-EFFICIENT MILLS



SHARE OF BIO-ENERGY IN THE FUEL MIX

ICFPA REPORTING MEMBERS: AF&PA, CEPI, CORMA, FPAC, JPA, AND PAMSA, COLLECTIVELY REPRESENTING 23 COUNTRIES



30 by 30 Climate Change Challenge

Canada signed the Paris Agreement on climate change, promising to reduce its emissions by 30%, the equivalent of cutting 225 megatonnes of CO₂ a year by 2030. FPAC issued a "30 by 30" Climate Change Challenge, making the forest sector the first to voluntarily contribute to the federal government's climate goals: the Canadian forest products industry is pledging to help Canada move to a low-carbon economy by removing 30 megatonnes of CO₂ per year by 2030—more than 13% of the Canadian government's goal—by focusing on four areas for mitigation efforts: forestry; mill efficiency and bio-products; transportation; and the built environment. <http://www.fpac.ca/sustainable-forestry/30by30/>



U.S. Industry Exceeds GHG Reduction Goal

AF&PA members shared a *Better Practices, Better Planet 2020* sustainability goal to reduce GHG emissions from their manufacturing facilities by 15% by 2020. Improved energy efficiency and the increased use of less carbon-intensive fuels and carbon-neutral biomass enabled them to surpass this goal ahead of schedule, reducing their GHG emissions per ton of production by 16% between baseline year 2005 and 2014. In 2017, members committed to reduce GHG emissions from their facilities even further—aiming for a 20% reduction by 2020. <http://sustainability.afandpa.org/>

Promoting Sustainable Forest Management Worldwide

ICFPA members are committed to Sustainable Forest Management (SFM)⁴ and sustainable production of forest products across a range of forest types and landscapes to meet the growing needs of society. SFM protects one of Earth's most important resources and ensures the long-term viability of the global forest products industry. Forests, when sustainably managed, can play a central role in climate change mitigation by storing carbon.

The ICFPA promotes key principles to ensure the continued credibility of SFM certification systems worldwide and advocates the increasingly important role of planted forests in providing sustainable raw material for the growing industry.⁵

To demonstrate ICFPA members' efforts to increase the use of SFM-certified sources in the supply of forest-based wood fibre, the **sustainable procurement indicator** reflects the percent of forest-based wood fibre supplied from certified sustainably-managed forests, which are defined as wood that has been certified to a system formally recognized by the Forest Stewardship Council (FSC®) and/or the Programme for the Endorsement of Forest Certification (PEFC™).⁶

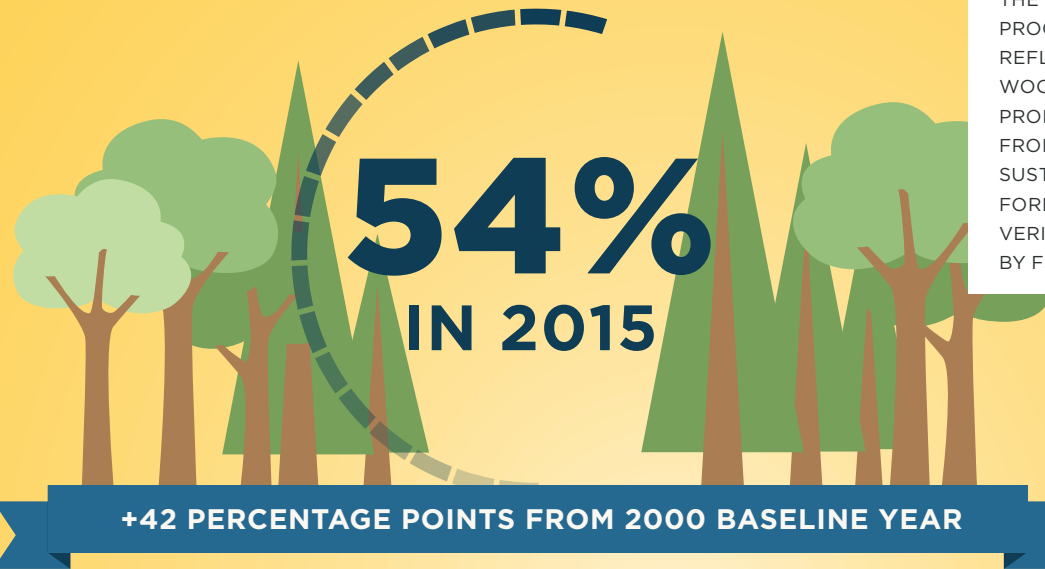
The total SFM-certified area used to supply the industry reached 54% in 2015 to 310.32 million hectares. In the 2000 baseline year, total SFM-certified area to supply the industry was just 12% or 62.16 million hectares.

Performance on this indicator is beginning to level off, as the vast majority of the rest of the wood supply in countries covered by the reporting associations is either commercially unavailable or owned by private—often small—landowners, who are not SFM certified for economic and/or practical reasons. In addition, a large proportion of the world's uncertified forests is in developing countries, where there has been minimal penetration of credible SFM certification systems.



SUSTAINABLE FOREST MANAGEMENT-CERTIFIED HECTARES

ICFPA REPORTING MEMBERS: AF&PA, CEPI, CORMA, FPAC, IBÁ, JPA, NZFOA, AND PAMSA, COLLECTIVELY REPRESENTING 25 COUNTRIES



THE SUSTAINABLE PROCUREMENT INDICATOR REFLECTS THE SHARE OF WOOD FIBRE THE FOREST PRODUCTS INDUSTRY SOURCES FROM THIRD-PARTY CERTIFIED SUSTAINABLY-MANAGED FORESTS. THIRD-PARTY VERIFICATION IS CARRIED OUT BY FSC® AND/OR PEFC™.



Promoting Forest Certification

In 2016, about 5.5 million hectares of forest area that belong to Ibá's member companies were certified by independent organisations such as FSC® and PEFC™, which is represented by Cerflor in Brazil.

This is an increase of 8% compared to 2015, and the number of forest management certificate holders has increased 14%. Ibá remains deeply involved in promoting certification standards by working with Latin American Economic Chamber members to align positions and common interests considering certification policies and standards.
<http://iba.org/en/planted-trees/certification>



Protecting the Biodiversity of Planted Forests

The NZFOA, in conjunction with a number of forest managers and the New Zealand Department of Conservation, designed a comprehensive web-based tool that offers information for plantation forest owners about rare or endangered species found in a plantation forest site, such as falcons, kiwi, bats, lizards and certain plants. While a number of conservation guides exist for these species, this tool provides specific information for harvesting crews and forest managers to ensure biodiversity is preserved and celebrated in New Zealand's planted forests.

Recovering and Recycling Fibre

ICFPA members support increased and improved fibre recovery and recycling⁷, which reduces the amount of paper in the waste stream and diverts it from landfills; can reduce harvesting by reducing demand for pulpwood; and allows fibre to be reused in the manufacture of new products.

By working with stakeholders to increase recovery rates and investing in technology to increase recycled fibre input into modern paper and wood products, ICFPA members are further optimising the use of wood as a raw material.

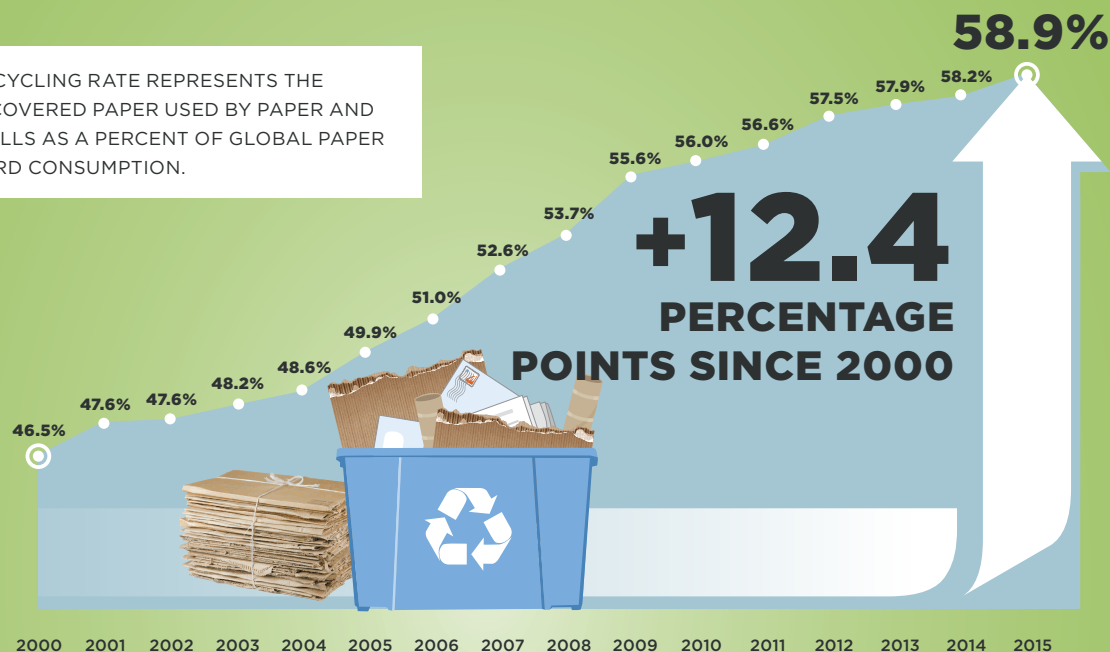
This report provides the **global recycling rate** from RISI's Annual Review of Global Pulp and Paper Statistics⁸, which reached 58.9% in a 2015—up from 46.5% in the 2000 baseline year.

On average, ICFPA members' individual recycling rates are higher than the global rate. Recovery rates above 70% are difficult to sustain, and indicator performance is starting to level off.



GLOBAL PAPER RECYCLING RATE DATA FOR 175 COUNTRIES WORLDWIDE

THE GLOBAL RECYCLING RATE REPRESENTS THE AMOUNT OF RECOVERED PAPER USED BY PAPER AND PAPERBOARD MILLS AS A PERCENT OF GLOBAL PAPER AND PAPERBOARD CONSUMPTION.



SOURCE: RISI



European Industry Exceeds Paper Recycling Target

In 2000, the industry created the European Recovered Paper Council to monitor progress towards meeting the paper recycling target set out in the 2000 European Declaration on Paper Recycling, of which the commitments are renewed every five years. In the 2011 European Declaration on Paper Recycling, signatories declared their commitment to reach 70% paper recycling by 2015. The industry exceeded this target with 71.5% of all paper consumed in Europe recycled that year.

www.paperforrecycling.eu



Deinking and Recycling Plant Diverts Paper from Landfill

Australian Paper's new deinking and recycling plant in Victoria's Latrobe Valley annually diverts up to 80,000 metric tons of office grade wastepaper from landfill and export. The production output of up to 50,000 metric tons of high value recycled pulp per year is used to manufacture a range of recycled office and printing papers. The plant also supports 218 full-time jobs, provides AUD71.5 million in economic value to the economy, and contributes to carbon emissions reduction efforts in Australia.

Improving Environmental Management

ICFPA members are committed to reducing the environmental footprint of their facilities and operations, ensuring that they maintain the natural resources on which the industry depends. This includes complying with relevant regulations in the jurisdictions in which they operate, managing material environmental issues, and continually improving environmental practices and performance in response to increasing societal and industry expectations.

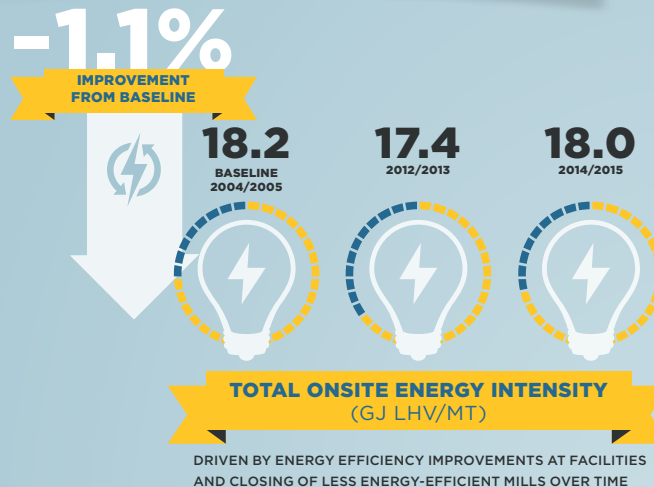
To demonstrate members' improvement on three material environmental issues, the following aggregate performance indicators were calculated:

- The **onsite energy intensity indicator** shows ICFPA members' decrease of onsite energy use relative to their production output. Since the 2004/2005 baseline year, ICFPA members improved their onsite energy intensity by 1.1% to 18 gigajoules of lower heating value per metric ton. Low energy prices, particularly for natural gas, have put a damper on energy efficiency programs, resulting in the deterioration in this metric performance since the last reporting period.
- The **sulphur dioxide (SO₂) emissions indicator** demonstrates members' reduction of their SO₂ emissions—a major contributor to acid rain—from onsite combustion sources during the paper manufacturing process. Members reduced their kilograms of SO₂ emissions per metric ton of production by 48% from the 2004/2006 baseline.
- The new **water use indicator** shows members' reduction of water used for process purposes in their manufacturing facilities. Members' use of process water, measured in cubic metres per metric ton of production, was reduced by 7.2% from the 2004/2005 baseline.



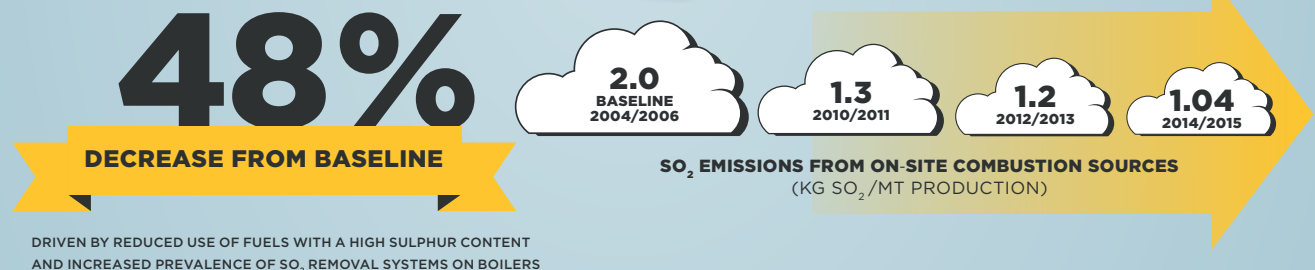
ONSITE ENERGY INTENSITY

ICFPA REPORTING MEMBERS: AF&PA, CEPI, CORMA, FPAC, JPA, AND PAMSA, COLLECTIVELY REPRESENTING 23 COUNTRIES



SULPHUR DIOXIDE (SO₂) EMISSIONS

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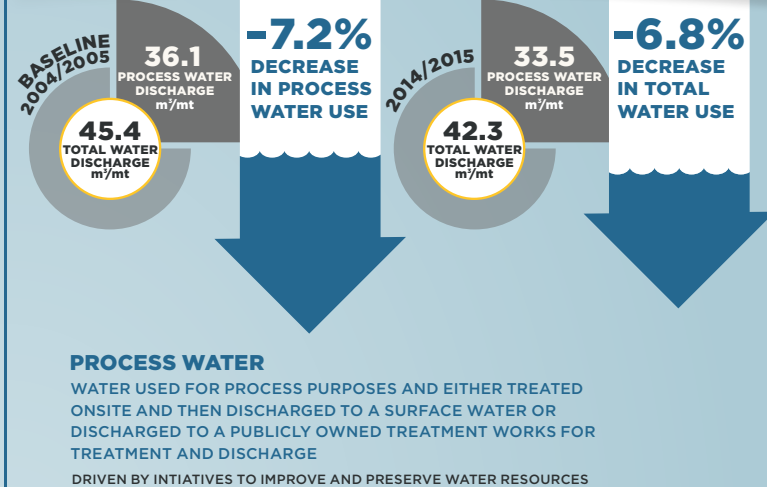
Community Water Preservation

The Global Climate Change Index ranks Chile among the top ten countries most affected by climate change. Decrease in precipitation, temperature increases, reduced water availability in aquifers and a long drought period have led to water scarcity, forest fires and desertification. In the most affected areas, CORMA and its members are working with local authorities to implement community training programs where participants learn how to harvest rainwater, construct deep water wells and water-efficient irrigation systems, and preserve organic fertilizers and soils.



WATER USE

ICFPA REPORTING MEMBERS: AF&PA, CEPI, FPAC, IBÁ, AND PAMSA, COLLECTIVELY REPRESENTING 22 COUNTRIES



Investing in Workers and Communities

ICFPA members are committed to contributing to the economic and social well-being of their workers and the communities where they operate.

The global forest products industry employs 13.2 million people directly, and another 41 million people indirectly⁹, particularly in rural areas in many parts of the world. Companies that operate in the industry want to ensure the well-being of their workers, and work to improve safety awareness and to implement improved safety processes.

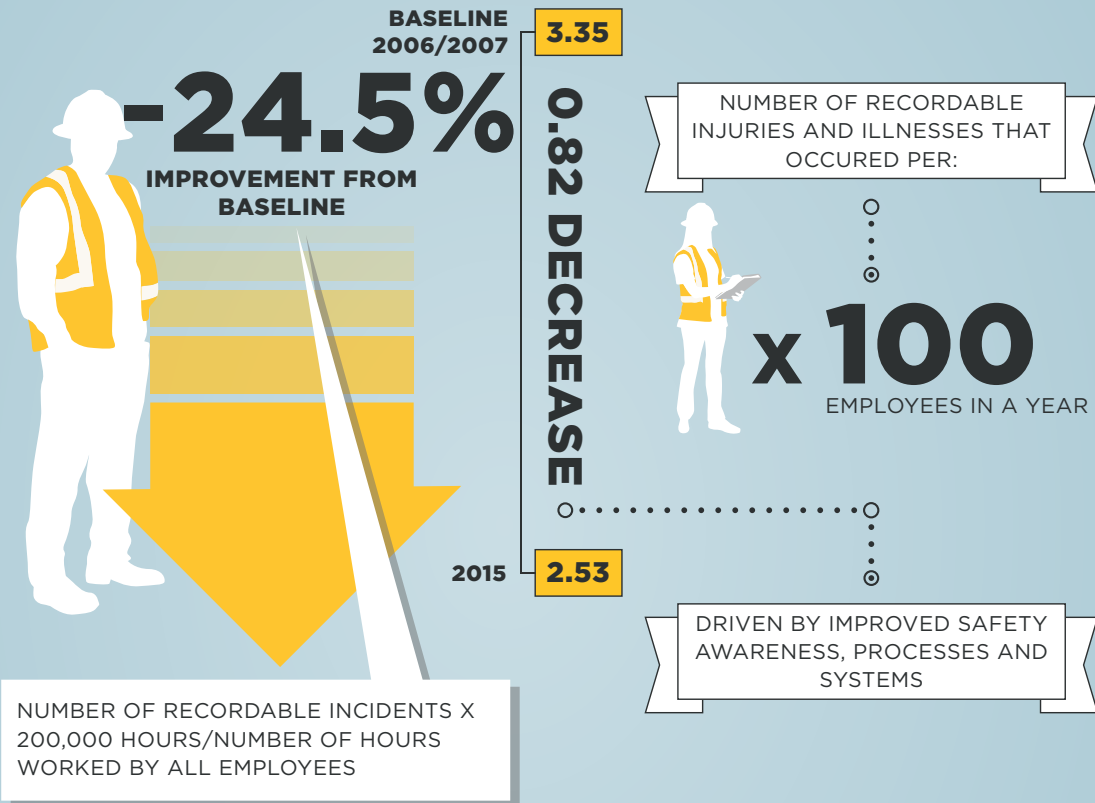
To demonstrate ICFPA members' commitment to their workers' health and safety, this report calculates the **recordable incident rate indicator**, which reflects the number of recordable injuries and illnesses that occurred per 100 employees in a year.

ICFPA members have improved their recordable incident rate by 24.5% since the 2006/2007 baseline year.



RECORDABLE INCIDENT RATE

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Training Recycling Entrepreneurs

The Paper Recycling Association of South Africa, through sponsorship from the Fibre, Processing and Manufacturing Sector Education and Training Authority, offers basic entrepreneurship training courses that cover recycling education and basic business principles. Primarily aimed at South Africans who are not formally employed, the courses assist in economic emancipation and small business development. The success rate of the courses is evident, with small recycling business development increasing throughout South Africa.

Innovation

Around the world, the forest products industry invests in new technologies and processes to enter into new markets and expand the commercialisation of bio-products. Regional and national industry associations and their member companies are supporting innovation through:

- **Manufacturing:** Wood fibre can be used in all types of innovative products. Examples include wood fibre used as a substrate for 3D printing; cellulose products substituting for glass fibre in reinforced plastics; carbon fibre from lignin used for high-end sporting equipment; and bio-plastics used in the medical industry.
- **Chemicals:** Bio-methanol (a by-product of pulp mills) can be used in plastics, glues, and fabrics, or can be blended with gasoline to fuel cars.
- **Cosmetics:** Wood cellulose can make cosmetic creams smoother and more luxurious; and wood fibre's iridescent properties can be used in lipstick and nail polish.
- **Mining:** Wood-based chemicals can help remediate tailings ponds and landfills; and cellulose nanocrystals can be added to drilling fluids to minimise loss in geological pores.



Harnessing Cellulose Nanofibre

Cellulose nanofibre (CNF) is a green, high-strength and lightweight material derived from wood fibre. The Japanese government has a target to create a one trillion Japanese yen market for CNF-related materials by 2030, and established an industry-government-academia consortium to promote co-operation between suppliers like paper manufacturers and chemical companies, and customers such as auto companies and cosmetic companies. One paper manufacturer launched a disposable diaper containing CNF in 2015, and more paper manufacturers are expected to start mass production of CNF for use in products like automotives, food and cosmetics.



Blue Sky Young Researchers
and Innovation Award 2016-2017

Blue Sky Young Researchers and Innovation Award

The ICFPA launched the Blue Sky Young Researchers and Innovation Award in 2015 to create interest in the industry as a workplace that offers opportunities for innovation and a bright employment future. The program is open to students and other researchers under the age of 30 who are carrying out projects in a wide range of activities relevant to forest-based science, products using forest-based raw materials, process improvements or other innovations throughout the value chain.

<http://www.icfpa.org/who-we-are/blue-sky-young-researcher-and-innovation-award>

Notes

¹2006 CEO Leadership Statement: <http://www.icfpa.org/publications/22/32/Forest-Products-Industry-A-commitment-to-global-sustainability>

²ICFPA Policy Statement on Illegal Logging: <http://www.icfpa.org/uploads/Modules/Publications/icfpa-statement-on-illegal-logging.pdf>

³ICFPA Policy Statement on the Carbon Neutrality of Biomass: www.icfpa.org/uploads/Modules/Publications/icfpa-statement-on-biomass-carbon-neutrality.pdf

⁴ICFPA Policy Statement on SFM Certification: www.icfpa.org/uploads/Modules/Publications/icfpa-statement-on-sfm-certification.pdf

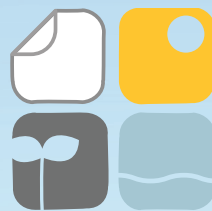
⁵ICFPA Policy Statement on Forest Plantations: www.icfpa.org/uploads/Modules/Publications/icfpa-statement-on-forest-plantations.pdf

⁶The ICFPA is a member of the Programme for the Endorsement of Forest Certification (PEFC™) and the Forest Stewardship Council (FSC®).

⁷ICFPA Policy Statement on Paper Recycling: <http://www.icfpa.org/uploads/Modules/Publications/icfpa-statement-on-paper-recycling.-updated-2017.pdf>

⁸<http://www.risiinfo.com/product/annual-review-of-global-pulp-paper-statistics/>

⁹Food and Agriculture Organisation of the United Nations, State of the World's Forests, 2014



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