

UPM Tervasaari

ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY 2022



UPM Tervasaari

The Tervasaari mill is located in the town centre of Valkeakoski, Finland, at the end of the canal between the Mallasvesi and Vanajavesi lakes. The mill is located right next to a populated area, so careful attention must be paid to environmental issues during everyday operations.

The Tervasaari integrated mill has two paper machines, a power plant, a hydropower plant and a biological effluent treatment plant. Several businesses also operate onsite as tenants. The environmental load of these tenants' effluent emissions is included in this report's data.

The heat required by the Tervasaari mill is produced by the mill's own power plant, and approximately one fifth of the required electricity is produced at the mill. Heat is also sold to external users as district heating and steam.

The Tervasaari mill's industrial landfill in Suikki was in use through the whole of 2022. The closure of the Kalatonlahti landfill went ahead as planned in 2022.

UPM Tervasaari is a centre of expertise for label papers, with a strong focus on the development of both existing paper grades and new products.



UPM Tervasaari Environmental and Societal Responsibility 2022 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental and societal performance data and trends for the year 2022. The annually updated mill supplements and the UPM Corporate Environmental and Societal Responsibility Statement together form the joint EMAS Statement of UPM Corporation. The next Updated UPM Corporate Environmental Statement and also this supplement will be published in 2024.



UPM delivers renewable and responsible solutions and innovates for a future beyond fossils across six business areas: UPM Fibres, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. As the industry leader in responsibility, we are committed to the UN Business Ambition for 1.5°C and the science-based targets to mitigate climate change. We employ 17,200 people worldwide and our annual sales are approximately EUR 11.7 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. www.upm.com

Production capacity	300,000 t/y	
Personnel	300	
Products	UPM Brilliant™ UPM Brilliant™ Forte UPM Brilliant™ Pro UPM Honey™ Plus UPM Honey™ Plus Forte UPM Golden™	UPM Golden™ Forte UPM Brilliant™ Duo UPM Crema™ Duo UPM Topaz™ duo UPM SCK™ Plus UPM SCK™ UPM Solide™ Lucent
Certificates	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ISO 9001 – Quality Management System ISO 22000 – Food Safety Management System ISO 45001 – Occupational Health and Safety System PEFC wood origin monitoring system – Programme for the Endorsement of Forest Certification FSC® wood origin monitoring system – Forest Stewardship Council	
	All certificates can be found at the UPM's Certificate Finder www.upm.com/responsibility	



For more information about FSC certification visit fsc.org



For more information about PEFC certification visit www.pefc.org

Review of the year 2022

In 2022, demand for UPM Specialty Papers' self-adhesive label materials and specialty paper products remained strong. At the Tervasaari mill, we achieved good results in the management of environmental issues and occupational safety. The implementation of the sustainable development strategy is continuing at our mill: We offer new and responsible solutions which, among other things, have to do with product safety, material efficiency and the ecodesign of products, as well as by innovating alternatives to the solutions of the fossil economy.

In early 2022, the paper machines were not operative, resulting in a significantly lower annual environmental load than usual at the Tervasaari mill. The biological treatment plant at Tervasaari was not receiving its normal load and went into hibernation. Until the paper machines began producing again, we managed to activate the biological treatment plant in an environmentally safe way. In 2022, a major investment started in Tervasaari to reduce the use of natural gas. At the Tervasaari power plant, a temporary electric boiler was commissioned at the end of the year as part of the natural gas reduction project. The electric boiler is temporary, as a more suitable boiler will be installed in 2023. The electric boiler will also decrease Tervasaari's fossil carbon dioxide emissions due to the reduced use of natural gas. For the first time in 2022, the electricity purchased in Tervasaari was fossil-free.

UPM has long focused on the continuous improvement of safety at work through its Step Change in Safety programme, and major efforts have been made at Tervasaari to improve occupational safety. The safety performance of the UPM Specialty Papers Tervasaari's internal personnel was the highest on record when compared to the TRIF (total recordable incident frequency) indicator. There were no serious accidents during 2022. Within the external workforce, there were also no work-related accidents during the year that resulted in sick leave. At Tervasaari, we strive to improve safety through various safety measures and projects.

We continued our company-wide Clean Run campaign to further improve the management of environmental issues. In 2022, we did not receive any notifications from stakeholders. Our operations continued to be evaluated by both environmental authorities and independent external product safety and environmental specialists in 2022.

Customer enquiries regarding our products were mainly related to product safety, the origin of wood raw materials, forest certification, the amount of recycled fibre used in paper and various management systems. In recent customer enquiries, the origin of wood has been one of the most popular topics. Product safety is especially important in the case of label and packaging papers used by the food industry. UPM papers are safe to use throughout their whole lifecycle, and papers approved for food use can be used in direct contact with dry and non-fatty foods.

We continued our research on how to recover fly ash and other industrial side-streams by using new technologies.

Material efficiency and the ecodesign of products form a part of the sustainable development programme at Tervasaari. Examples of material efficiency include minimising raw material losses and ensuring production efficiency.

Furthermore, in the production of paper products, the impact of the product on the whole value chain must be considered as comprehensively as possible. The material efficiency of the product's entire value chain is also improved, and, for example, the CO₂ emissions from the transportation chain are reduced. UPM Specialty Papers is committed to developing packaging materials from renewable raw materials for the food supply chain. These materials ensure the shelf life of food and minimise food loss in the production and storage chain.

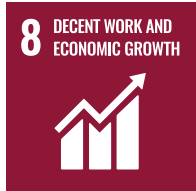
UPM's Biofore – Beyond Fossils strategy is all about seizing the unlimited opportunities of the bioeconomy. We deliver renewable and responsible solutions and innovate for a future beyond fossils. All of this is an integral part of the sustainable development strategy at Tervasaari.



Tomi Hytönen
Mill Manager

Ville Juutinen
HSE Manager

Responsibility indicators 2022



Taxes

The facility's tax contributions are approximately

14 million euros

Property taxes: 0.4 million euros
Estimated municipal taxes on personnel salaries: 2.2 million euros
Estimated corporate tax: 4 million euros based on the number of employees*

* municipalities receive approximately 30% of this amount, which is further allocated to each municipality according to its business activity factor and forest factor



Air

Fluidised bed boiler emissions after the purification unit investment in 2014 decreased by

SO₂ **94%**

CO₂ **66%**

Particulates **100%**



Energy

The share of biomass-based fuels

64%

of fuels used



Water

Use of recycled nutrients in the biological treatment plant:

42.3%

Chemical oxygen demand was 9% lower than in 2021

Nutrient phosphorus use was 9% lower than in 2021

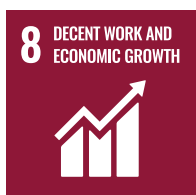


Certified fibre

82%

of fibre used in paper production was FSC- or PEFC-certified.

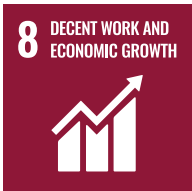
UPM's target is to use only certified fibre by 2030.



Health

Support for the personnel for physical activity and culture

105,000 euros



Consumption impact*

The local consumption impact of the mill in 2022 was

EUR **11** million

The consumption impact in the whole of Finland is approximately

EUR **17** million

* Private consumption of goods through the net income of internal and indirect employees



Supply chain

83%

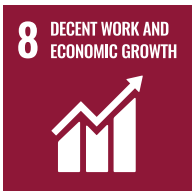
of raw material spent by value was from suppliers who have accepted UPM's Supplier and Third Party Code (excluding wood suppliers)



Waste

0%

Share of landfill waste



Safety

The injury frequency (TRIF) for accidents involving internal personnel has improved since 2013 by

83%

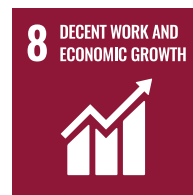
Safety and environmental observations, hazard situation reports, safety inspections and discussions recorded by the personnel at Tervasaari in 2022

614

We worked

364 days

safely in 2022



Employment

UPM Tervasaari directly employs

300 people

Indirect local employment impact around

216 people

Number of summer employees

45 people

Air

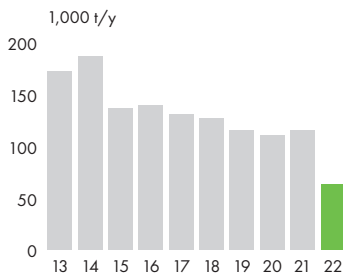


In recent years, the industry in the Valkeakoski city region has undergone dramatic changes that have resulted in a decrease in airborne emissions. Community air monitoring in Valkeakoski was therefore discontinued on 31/12/2015.

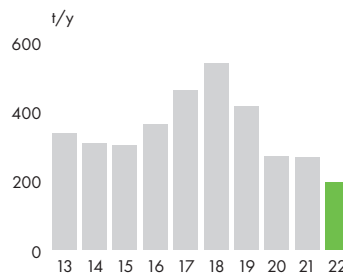
Airborne emissions from the Tervasaari mill remained below the permitted limits

throughout the year. The temporary electric boiler commissioned at the end of 2022, will significantly reduce the plant's fossil CO₂ emissions. For air emissions in 2022, NO_x emissions decreased from the previous year. The steady operation of the K2 fluidised bed boiler and the temporary electric boiler have reduced NO_x emissions.

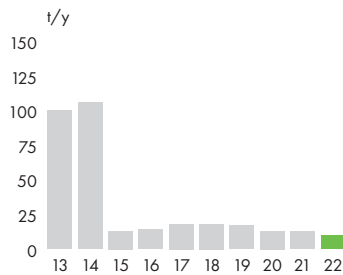
Carbon dioxide (fossil), CO₂



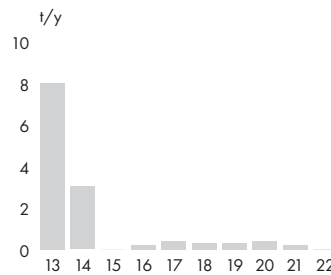
Nitrogen oxides, NO_x



Sulphur dioxide, SO₂



Particles



Waste



Tervasaari has been actively involved in UPM's Zero Solid Waste project. One of the project's aims is to eliminate all solid waste taken to landfill by improving the sorting and recycling of waste. Tervasaari already achieved this by the end of 2016.

We have set ourselves the permanent goal of recovering all fractions from UPM Tervasaari and not taking any production waste to the Suikki landfill. In 2022, we continued to collaborate with various research institutes and other operators to ensure the recovery of waste, and we aim to develop new methods to ensure the recovery of industrial by-products. However, the Suikki industrial landfill can continue to be used as an interim storage area for materials being directed to recovery, if necessary.

In 2022, fly ash and fluidised bed boiler bottom ash were used in the closure of UPM's Kalatonlahti landfill. We were able to keep the proportion of recovered waste at a high level through improved sorting practices. Essentially all waste produced in 2022 was recovered.

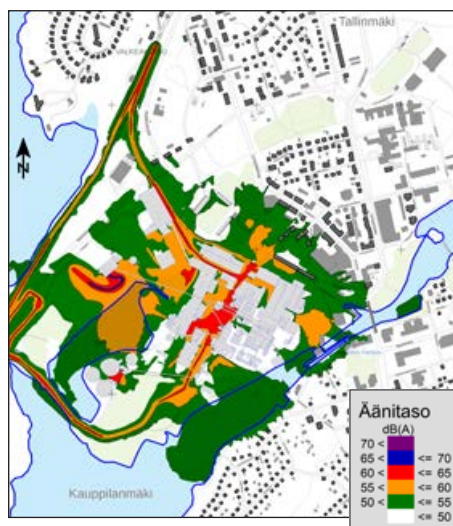
Filtration water from the Kalatonlahti and Suikki landfills is processed at Tervasaari's biological effluent treatment plant.

Noise

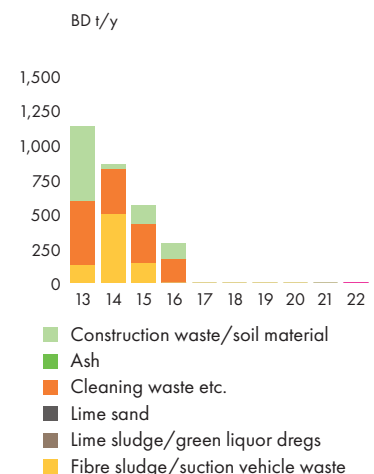


The annual noise measurements defined in the Tervasaari environmental permit were conducted in 2022. The results of the measurements have been reported to the environmental protection authorities of Valkeakoski and the Pirkanmaa Centre for Economic Development, Transport and the Environment.

Calculation of noise propagation was done using SoundPLAN software and the Nordic noise calculation method for road, railway and industry noise. The situation describes the average daytime sound level (LAeq7-22) of process noise, heavy traffic and rail traffic at the Tervasaari mill in the summer of 2019.



Solid waste taken to the landfill



Water



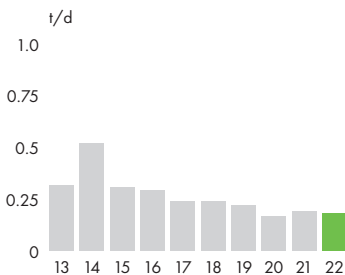
During 2022, we managed to bring the biological treatment plant out of hibernation mode as there was no paper production at the mill at the beginning of the year and then managed to keep the amount of wastewater generated from paper production at the previous year's level. The wastewater volume throughout the year was lower since the paper machines were not running at the beginning of the year.

The efficient use of nutrients used at the purification plant affected the COD contents of the wastewater going out. The COD emissions decreased compared to the previous year.

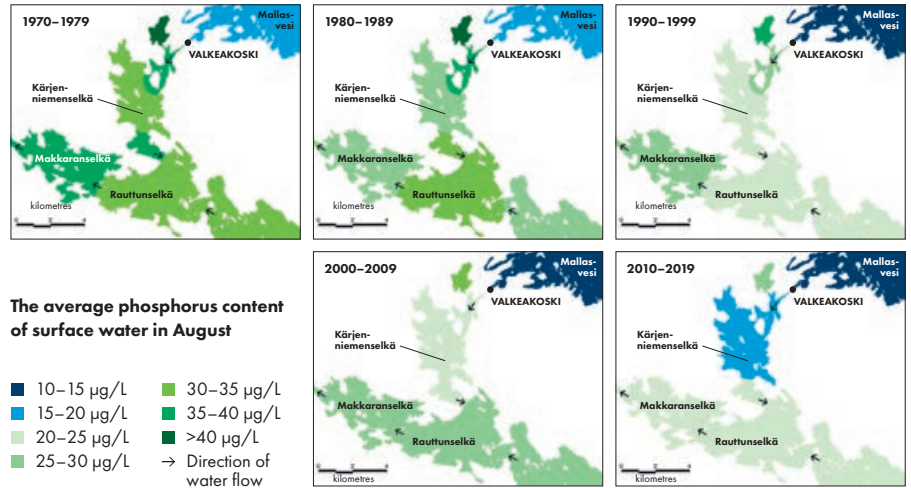
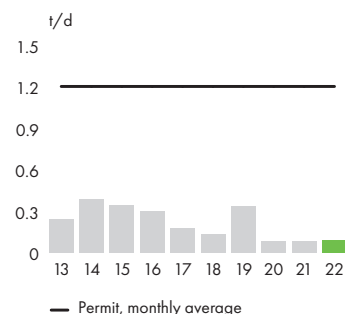
All the measurements related to effluent emissions remained well below the permit limits. The level of wastewater pollution remained clearly below the internal environmental targets set for 2022. We did not, however, reach the internal target level for nitrogen pollution, because the biological treatment plant started to produce excess nitrogen from its sludge when there was no normal load to the treatment plant in the early part of the year.

As was the case during the previous year, a controlled stream of warm process water was directed to the mill's effluent purification plant during the coldest time of the year to keep the temperature of the wastewater processed at the biological purification plant at an optimal level with regard to the conditions and to keep microbial activity vital.

Total suspended solid (TSS)



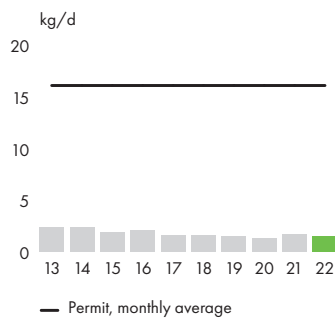
Biological oxygen demand, BOD,



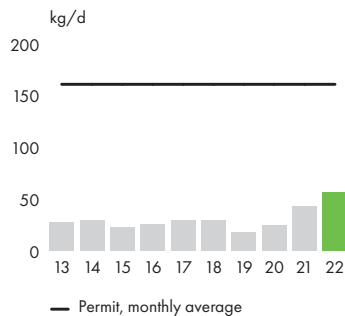
In the long term, the eutrophication level in the Valkeakoski area has decreased significantly due to the reduction in the point source load. This can be seen in the decrease in the average phosphorus content below Valkeakoski. Currently, the phosphorus contents there are already lower than in Rauttunselkä and Makkaran selkä, where the higher eutrophication level is sustained by scattered loading (Source: KVVY Tutkimus Oy).

During the year, 42.3% of the nutrients used were recycled nutrients. We significantly increased our use of recycled nutrients compared to the previous year.

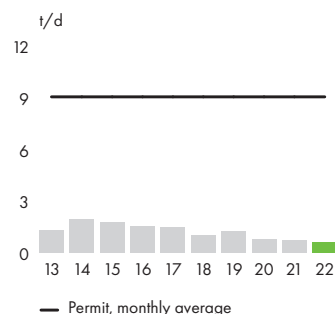
Phosphorus, P



Nitrogen, N



Chemical oxygen demand, COD



Management of crises and exceptional situations

The Tervasaari mill management and the safety organisation are responsible for the prevention of exceptional situations and the operational management of crises and exceptional situations. The Tervasaari mill has guidelines and rescue and firefighting plans for exceptional situations.

The Mill Manager heads the management of exceptional situations. Mill experts support the Mill Manager in this by providing their own specific expertise. In the event of a major exceptional situation, these experts form the mill's crisis management team, which is responsible for the operational management of the situation. A major exceptional situation is an unforeseen chain of events that proceeds rapidly and has a significant impact on operations. Exceptional situations include serious accidents and hazardous situations (large fires, explosions and chemical and traffic accidents on the mill site), environmental damage, serious work-related accidents, cybersecurity threats and information attacks.

The operations of the mill safety organisation cover expert tasks regarding occupational safety, mill guarding, firefighting and rescue operations, and the control of hazardous substances. Drills related to exceptional situations are an important part of the preventative safety work. Firefighting and rescue operations are always led by the rescue authorities.

Social responsibility

Engaging with society

A well-functioning dialogue and collaboration with stakeholders is key to our success. We are committed to promoting the vitality of the communities near our facilities through active collaboration and open dialogue with different stakeholders, as well as through different sponsorship projects and employee volunteering.

We affect local communities and society in various ways. Understanding the impact that we have is an essential component of our success in business. In many locations, we are a major employer, taxpayer and partner to local entrepreneurs, making positive contributions to the local economy.

Safety

UPM aims to be the industry leader in occupational health and safety matters. Our target is to avoid serious and fatal accidents completely. Safety is an inseparable part of our daily activities and is not seen as secondary to any other consideration. We strive to reduce and eliminate accidents through continuous improvements and effective risk management. In 2022, we set a mill's record of 3.0 for the Total Recordable Injury Frequency (TRIF).

Our employees, as well as business partners and their employees, are required to

adopt safe work practices and to comply with the rules and standards that we have set. For example, before accessing UPM production sites, contractors participate in UPM's safety training, which presents the basic safety requirements. This is complemented by job-specific safety induction and a work permit.

Tervasaari mill employees regularly take part in safety training, such as safety standard training, occupational safety card training, hot work licence training and first aid training. We organised the annual UPM Work Safety Week in autumn 2022, under the theme of well-being at work. For the people of Tervasaari, in the same week, the UPM Tervasaari Blood Group was created. In future, resident of Tervasaari will be able to join the group by indicating the name of the group at the blood donation site. The personnel is encouraged to record incident reports and safety observations in OneSafety and to carry out safety and clean-up rounds at the mill.

In addition to fire safety, the Tervasaari mill fire service is active in many other safety service areas, such as ensuring safety for work at heights, as well as training employees on different topics. The mill fire service employees are professionals in different fields who are also qualified for fire service tasks. A variety of exercises are held every week. The Tervasaari mill fire service is a contracted fire service in the Pirkanmaa region and is therefore an integral part of the local fire and rescue services organisation. Exit drills were organised at the plant during 2022.

The Biofore Share and Care programme

We support sustainable development and promote the financial and mental well-being of the communities around us by participating in numerous community projects as a company. Our operating model in this arena is clearly connected to our Biofore Strategy and responsibility targets. It is coordinated under the umbrella of our UPM Biofore Share and Care programme.

The Biofore Share and Care programme comprises three forms of support: sponsorships, donations and employee volunteering. The support can be a monetary contribution, products, materials or concrete work in projects agreed upon locally. Our focus is on activities and projects that are related to our business, support innovation and sustainable development, or promote

local vitality and well-being. The areas of focus of the Biofore Share and Care programme are reading and learning, engaging with communities, responsible water use and boosting bioinnovations.

As in previous years, Tervasaari has supported local communities through sports clubs and other activities. To celebrate the 150th anniversary of UPM Tervasaari, Tervasaari made a donation of 3,000 euros to charity.

The new boat of the Finnish Maritime Search and Rescue Association Pirkanmaa was launched and christened at Waltika pier in early July with a festive ceremony. The boat will be known as Tervasaari, as UPM Tervasaari has been one of the main sponsors of the project. Previously, search and rescue operations were carried out in a two-person open boat. The new boat has capacity for a maximum of eight people, including three crew. Another significant improvement is that the interior provides shelter in cold and rainy weather.

Tervasaari was involved in two different relief projects to help victims of the war in Ukraine. The Tervasaari mill fire brigade participated in a collection coordinated by the Finnish National Rescue Association (SPEK), in which Finnish fire brigades and other communities donated a total of 94 pallets of rescue supplies to Ukraine. In addition, Tervasaari participated together with the city of Valkeakoski, the local Lions Club, along with other associations, in a project to furnish apartment buildings in the city of Valkeakoski for use by Ukrainian refugees. UPM employees around the world donated 47,245 euros to the Ukrainian Red Cross.

Health and well-being at work

Matters related to occupational health and safety and well-being at work are regularly discussed in working groups, such as the occupational safety steering group, the occupational protection committee and the well-being at work group. These groups include representatives from the Tervasaari mill and the occupational health care. The well-being at work programme for employees aims to strengthen supervisory work that enhances work capacity, support individual work capacity and encourage employees to participate in, for example, UPM's fitness training courses. The Tervasaari mill has its own gym that employees can use free of charge. UPM also supports the employees' exercise and cultural activities.



From Tervasaari, firefighting equipment, fire helmets, fire boots, hose equipment, a motor sprayer and its equipment, spray hoses, concentration meters and a chemical protection suit were donated to the collection coordinated by the Finnish National Rescue Association (SPEK) in Ukraine.



In the photo from the left, Markku Äyhönen, Hanna Laurila, Taru Hyökyvaara, Marika Stenman and Tuulikki Moisio. Missing in the photo are Saara Järvinen and Ville Juutinen, who were donating blood when the photo was taken.



The Finnish-built "Tervasaari" has a length of 13.5 metres, a width of 4.5 metres, a weight of 15 tonnes and a speed of 30 knots.

UPM has also supported the protection of its personnel from the coronavirus during their time off by distributing single-use face masks and coronavirus quick test kits to them on a monthly basis.

Personnel development

We support the development of our personnel's skills through a range of training and coaching events. We encourage an active feedback culture and knowledge sharing as part of our joint development. Job rotation and job exchanges, as well as rotational exchange programmes between mills, for example, contribute to the development and sharing of knowledge.

In 2022, around 45 summer workers were hired in Tervasaari. As part of the on-boarding process, the support of the supervisor and the team, online

and face-to-face training and self-study materials helped our new recruits to integrate. Based on the feedback survey, we received positive feedback, especially on job training, safety at work and fair treatment in the workplace.

At the end of 2022, Tervasaari recruited a significant number of future talents for apprenticeships. A total of 16 people started the programme. In addition, students and recent graduates started at our mill as interns, apprentices and in the UPM Graduate programme.

In the UPM's annual employee survey, the strengths of our mill were good supervisors, freedom of self expression at work and safety. The 2023 action plan was based on increasing the positive feedback from the factory and preparing for personnel retirements.

Tax impact

The tax revenue generated by UPM's operations has a significant social impact. We pay corporate income taxes in the countries where we create added value and generate profits resulting from that. Due to our corporate and operational structure, we mainly report and pay corporate income taxes in the countries of production and in the countries where innovations are being developed. In addition to the income taxes that we pay, our various production inputs and outputs are also subject to taxation. Taxes are paid in accordance with the local tax decrees and regulations. In 2022, UPM's corporate income taxes and property taxes paid were

approximately 349 million euros in total (306 million euros year 2021).

The operations of our mills also support local communities in many ways. The property taxes paid and the municipal share of corporate income taxes support the local economy. In addition, the municipal taxes and social security contributions that the employees pay from their wages have a significant local impact. Furthermore, the purchasing power of UPM's employees and subcontractors maintains and enhances the vitality of local communities.

Responsible Sourcing

UPM is committed to responsible procurement practices throughout the procurement chain. We work closely with our suppliers to ensure that they understand and meet all of the company's requirements for sustainable development and responsibility. We require all suppliers to comply with the UPM Supplier and Third Party Code, which specifies the minimum requirements for responsibility relating to environmental impacts, human rights, labour practices, occupational health and safety, product safety and bribery.

UPM's target is that by 2030, 100% of the value of raw material purchases and 80% of the value of all purchases come from suppliers that are committed to UPM's Code of Conduct. In 2022, 86% of the value of UPM's raw material procurements and 83% of the value of all procurements came from suppliers like these.

Environmental parameters

The key figures related to production, as well as raw material and energy consumption, are published as aggregated figures at a group level in the UPM Corporate Environmental and Social Responsibility Statement.

		2020	2021	2022
Production capacity	Paper	300,000 t	300,000 t	300,000 t
Raw materials	Pulp Chemicals	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
Energy	Biomass-based fuels	55%	55%	64%
	Fossil fuels	45%	45%	36%
	Purchased energy ¹⁾			
Emissions to air	Particles	0.4 t	0.2 t	0 t
	Sulphur dioxide, SO ₂	13.1 t	12.7 t	10.0 t
	Nitrogen oxides, NO _x	287.2 t	285.1 t	187.5 t
	Carbon dioxide, CO ₂ (fossil emissions from own energy production, scope 1)	110,190 t	115,000 t	62,900 t
	Carbon dioxide, CO ₂ (fossil emissions from purchased energy, scope 2)		26,000 t	0 t
Water intake	Process and cooling water	10,372,244 m ³	11,052,148 m ³	8,931,666 m ³
Discharges to water	Clean cooling water	6,126,915 m ³	6,457,717 m ³	5,569,869 m ³
	Process effluent	4,245,329 m ³	4,594,431 m ³	3,361,797 m ³
	BOD ₇	29.8 t	29.2 t	32.3 t
	COD _{Cr}	274.8 t	265.7 t	227.8 t
	Solids	59.8 t	70.3 t	65.9 t
	Phosphorus	0.5 t	0.6 t	0.6 t
	Nitrogen	8.8 t	15.7 t	20.3 t
Waste²⁾	Landfill waste	0 t	0 t	0 t
	Recovered waste			
	– Metal waste	261 t	261 t	170.5 t
	– Ash	7,201 t	7,525 t	1,039.5 t
	– Incinerated wood and packaging waste		658 t	509.9 t
	– Others	751 t	279 t	166.1 t
	Ashes are stored temporarily	0 t	0 t	3,957.6 t
	Hazardous waste ³⁾	102.6 t	194.1 t	95.9 t
Total amount of land use	Total land use	110 ha	110 ha	110 ha
	Area impermeable to water	43 ha	43 ha	43 ha
	Area directed towards nature conservation	67 ha	67 ha	67 ha

¹⁾ See the Group's Corporate Environmental and Societal Responsibility Statement for more information (e.g. energy indicators)

²⁾ Waste amounts given as dry weight

³⁾ Hazardous waste stated as total weight



Performance against targets in 2022

TARGETS	ACHIEVEMENT	COMMENT
The most significant measures for improving safety and protecting the environment in 2022 were:		
1 Preventing environmental deviations and achieving the Clean Run objectives: COD < 1.5 t/d; BOD ₇ < 0.3 t/d, N < 29 kg/d and P < 2.3 kg/d Active optimisation of nutrients	Partially	The purification plant has operated reliably. Emissions below the internal target, except for nitrogen. No Clean Run deviations in categories 3, 4 and 5. We managed to increase the use of recycled nutrients.
2 Airborne emissions; fluidised bed boiler – NO _x < 200 mg/m ³ (n) – SO ₂ < 10 mg/m ³ (n) – Particulates < 0 mg/m ³ (n) – Optimisation of the combustion conditions of the boiler and the functioning of the flue gas purification unit	Yes Yes Yes Yes	Emissions into the air were lower than the established targets.
3 Reducing water consumption, the loss of solids and the amount of solid waste: Water consumption 8.2 m ³ /t Solids losses 0.60% Improving the sorting of waste to be incinerated 0 t/y of taxable waste taken to landfill	No Yes Yes Yes	On average, typical effluent consumption exceeded the target, although Tervasaari was able to reduce wastewater volumes. The target was met for solids losses. Sorting of the different types of waste produced by the mill was improved. No taxable waste was taken to landfill.
4 Increasing opportunities for ash recovery: Aim to recover 100% of fly ash Participation in one or more ash road projects or other recovery project	Yes	The fluidised bed boiler's sand recycling worked outstandingly, which significantly reduced the amount of bottom ash removed from the system. Fly ash was recovered according to plan.
5 Improving energy efficiency: – Reducing CO ₂ emissions by 7% compared to the 2021 level – Paper machine energy efficiency audits	Yes Yes	We managed to reduce CO ₂ emissions with the new electric boiler. The paper machines were used to optimise the settings of the drying section.

Targets for 2023

TARGETS
1 Preventing environmental deviations and achieving the Clean Run objectives: COD < 1.5 t/d; BOD ₇ < 0.3 t/d, N < 29 kg/d and P < 2.3 kg/d Active optimisation of nutrients
2 Airborne emissions; fluidised bed boiler – NO _x < 200 mg/m ³ (n) – SO ₂ < 10 mg/m ³ (n) – Particulates 0 mg/m ³ (n) Optimisation of the combustion conditions of the boiler and the functioning of the flue gas purification unit
3 Reducing water consumption, the loss of solids and the amount of solid waste: Water consumption 8.2 m ³ /t Solids losses 0.60% Effective maintenance of the sorting of waste to be incinerated 0 t/y of taxable waste taken to landfill
4 Increasing opportunities for ash recovery: Aim to recover 100% of fly ash Participation in at least one ash road project or other recovery project
5 Improving energy efficiency: Reducing CO ₂ emissions by 7% compared to the 2022 level Paper machine energy efficiency audits



Revalidation statement

As an accredited environmental verifier (FI-V-0001), Inspecta Sertifiointi Oy has examined the environmental management system and UPM Tervasaari Environmental and Societal Responsibility 2022 statement as well as the information concerning UPM Tervasaari in the Updated UPM Corporate Environmental and Societal Responsibility Statement 2022.

On the basis of this examination, the environmental verifier has herewith confirmed on 2023-04-25 that the environmental management system, the Finnish UPM Tervasaari Environmental and Societal Responsibility 2022 statement and the information concerning UPM Tervasaari in the Finnish Updated UPM Corporate Environmental and Societal Responsibility Statement 2022 are in compliance with the requirements of the EMAS Regulation (EC) No 1221/2009.



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