

UPM Jämsänkoski

# ENVIRONMENTAL AND SOCIAL RESPONSIBILITY 2023



# UPM Jämsänkoski

The UPM Jämsänkoski mill is located in central Finland along the Jämsä river. Production at the mill dates back to the 1880s and there are three paper machines in operation. At the Jämsänkoski mill, paper is produced by UPM Communication Papers, which produces graphic papers, and UPM Specialty Papers, which produces specialty papers.

The main raw material for magazine and newsprint papers is wood pulp made from spruce wood, and for specialty papers it is pulp from UPM's own mills, or purchased from the market. The plant also includes a debarking plant, a thermomechanical pulp (TMP) plant, a water supply plant, a biological wastewater treatment plant and a power plant.

The heat and a small part of the electricity needed for the process is produced in the company's own power plant, which uses more than 80% biomass-based fuels. In addition, heat is efficiently recovered from the TMP plant for use in the process. The water used by the mill comes from the Koskikeskinen lake.



UPM Jämsänkoski mill site Environmental and Societal Responsibility 2023 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM's pulp and paper mills (available at [www.upm.com](http://www.upm.com)) and provides mill-specific environmental and societal performance data and trends for the year 2023. 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 2025.

We deliver renewable and responsible solutions and innovate 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 16,600 people worldwide and our annual sales are approximately EUR 10.5 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. [www.upm.com](http://www.upm.com)

<b>Production capacity</b>	605,000 tonnes of paper
<b>Personnel</b>	468
<b>Products</b>	<b>Magazine papers:</b> UPM Cat, UPM Max, UPM Max S, UPM Smart, UPM Smart Plus <b>Newsprint:</b> UPM News, UPM Brite <b>Label and packaging paper:</b> UPM Label Papers, UPM Packaging Papers, UPM Release Papers, UPM Barrier Papers
<b>Certificates</b>	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ETJ+ – Energy management system ISO 9001 – Quality Management System ISO 22000 – Food Safety Management System ISO 45001 – Occupational Health and Safety System PEFC Chain of Custody – Programme for the Endorsement of Forest Certification FSC® wood origin monitoring system – Forest Stewardship Council®  The certificates can be found with the Certificate Finder tool at <a href="http://www.upm.com/responsibility">www.upm.com/responsibility</a>
<b>Environmental labels</b>	EU Ecolabel



The mark of responsible forestry

For more information about FSC certification visit [www.fsc.org](http://www.fsc.org)



For more information about PEFC certification visit [www.pefc.org](http://www.pefc.org)



EU Ecolabel : FI/011/001

# Review of the year 2023



Overall, 2023 can be described as challenging. Cost competitiveness posed challenges in all operations due to rising raw material and energy costs. Specialty Papers was significantly affected by the low turnover rate and the challenging business environment in terms of predictability.

Communication Papers completed an energy-saving project started in 2022 to reduce energy use in pulp production. The project was commissioned in the spring of 2023 and the energy savings achieved are in line with the target. In the summer of 2023, a water-saving project to improve water balance was introduced in mechanical pulp production. Planning for a major water-saving project on the paper machine was launched and commissioning is scheduled for early summer 2024.

The Communication Papers business rewarded a local employee who, through action and attitude, promoted safety at work in an exemplary manner. The person shared knowledge and skills effectively and supported safety at work with the idea of continuous improvement.

During 2023, UPM's lost time accidents to personnel were related to movement, one outdoors and one indoors. Neither of the two accidents at work left people permanently disabled. Moving around mills and large outdoor areas is part of many of our work activities. Observation of the working environment, weather conditions, route choice and seasonal footwear are essential factors in avoiding pedestrian accidents.

Contractors had two accidents on the mill site. One person was sent home sick leave from work due to incorrect working practices when using a tool and another person suffered a wound requiring stitches after the tool slipped. From 2023 onwards, accidents at work of contractors working on the mill site are also included in the KPI – indicators.

In November, a Safety Day was celebrated with local themes, including updated TOP5 workplace or job-specific safety risks with management measures and PPE – protection plans (PPE = personal protection equipment). Protection plans refer to instructions for personal protective equipment for work tasks involving protection against chemicals, dust, gases, hand protection from cutting blades, etc.

At the end of the year, a UPM-wide project "A new boost to safety culture" was launched. The first measure was to hold safety discussions with employees locally to gather a wide range of challenges, ideas and areas for further development of safety at work and to create a local safety vision. Based on the responses received from all UPM businesses, an updated UPM Safety Vision will be published in early 2024. In addition to UPM-level actions, local plans will be developed based on the responses received.

As part of UPM's decision that affects several mills, a project to further reduce fossil carbon dioxide emissions from energy production was launched in Jämsänkoski in 2022. The project is also important for energy security, as the provision of solid fuels was sometimes a challenge. The oil-powered power plant boilers, which served as back-up power, were replaced by electric boilers. The first boiler was commissioned in the summer of 2023 and the second boiler will be commissioned in early 2024.

In the summer of 2023, we received a noise complaint from a nearby resident about an occasional shrill noise. The noise was caused by the power plant's fuel conveyer, which was refurbished during the mill shutdown.



*Pia Siirola-Kourunen*

Pia Siirola-Kourunen, HSEQ Manager



*Kari Isokääntä*

Kari Isokääntä, General Manager

# Contribution to UN Sustainable Development Goals in 2023



## Waste

Amount of waste taken to landfill

# 0 kg

Waste is recovered as material or energy



## Taxes

The mill's tax contributions are approximately

# 9 million euros

Property taxes: 0.29 million euros

Estimated municipal taxes on personnel salaries: 0.5 million euros.

Estimated corporate tax: 8.4 million euros based on the number of employees.

The tax impact on wages, and therefore the overall tax impact, will be significantly lower than in previous years (14 million euros in 2022). This is due to the introduction of social welfare regions. Welfare regions are financed by the state, which means that the municipal tax rates on wages are lower than in the past.



## Certified fibre

# 82%

is the proportion of PEFC- and FSC-certified fibre used in paper production.

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



## Energy

Biomass-based fuels account for

# 87%

of the fuel used by the power plant.



## Safety

# 1451

proactive safety observations, near-misses, safety walks and discussions recorded and processed in the system (UPM personnel and contractors)



## Nature's biodiversity

The foundation of a flower meadow to be planted in the spring of 2024 has been modified on the site.

# Air



## Energy

Fossil CO<sub>2</sub> emissions were reduced by

# 60%

in own power plant energy production compared to 2015



## Supply chain

# 95%

of raw materials spend qualified against UPM Supplier and Third Party Code (wood suppliers not included).

The air emissions from the Jämsänkoski power plant were below all the emission limit values in the environmental permit. Total fossil carbon dioxide emissions at the power plant decreased as the use of peat and heavy fuel oil continued to decline. The power plant's fossil carbon dioxide emissions have decreased by 60% compared to 2015. In line with UPM's 2030 target, the reduction target for fossil carbon dioxide emissions from Jämsänkoski's own energy production is a 65% reduction compared to 2015 levels. The target will be reached through further reductions in peat use and targeted investments.

Nitrogen and sulphur dioxide emissions were almost at the previous year's level. Both sulphur dioxide and nitrogen oxide emissions have halved over the last ten years. Particulate emissions from energy production have remained at a very low level.

The use of biomass-based fuel – forest bioenergy, bark and sludge

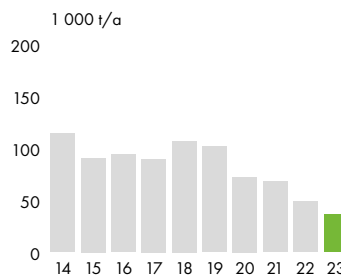
– increased significantly compared to the previous year. These fuels' share of the total volume of fuel was 87.3%. Peat accounted for 12.4% and oil for only 0.3%.

The Jämsänkoski mill provides district heat to the district heating grid in Jämsänkoski and Jämsä. The share of the heat provided is approximately 10% of the mill integrated site's heat production.

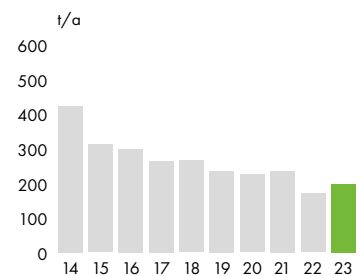
About 90% of the electricity used by the mill is purchased from outside the mill by UPM Energy. From the beginning of 2022, the energy purchased from outside the mill has been carbon dioxide-free.

Two 50 MW electric boilers were purchased for the Jämsänkoski mill to replace the old oil-powered backup boilers. This will improve the mill's reliability in the event of possible main boiler failures and during maintenance shutdowns. Electric boilers can replace not only oil but also solid fuels, reducing all air emissions from combustion.

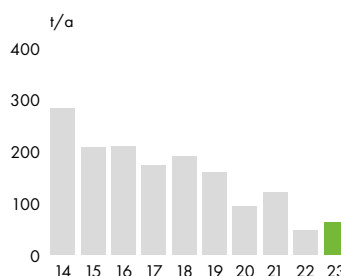
Carbon dioxide (fossil), CO<sub>2</sub>, scope 1



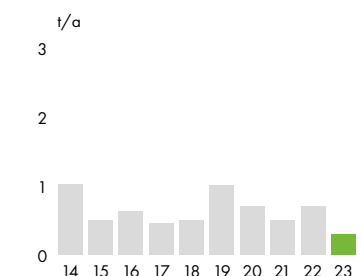
Nitrogen oxides, NO<sub>x</sub>



Sulphur dioxide, SO<sub>2</sub>



Particles



# Waste



All waste generated at the mill was sorted and delivered for reuse, either as material or through further processing. Fractions that the mill and other operators cannot use as materials were used as sources of energy. The total amount of waste generated at the Jämsänkoski mill increased from the previous year because the strike in early 2022 resulted in a significantly lower than normal amount of waste.

The main waste was fly ash from the power plant, which was at the 2022 level and well below the level of previous years due to lower production and the commissioning of the electric boiler. The ash met the requirements of the Fertiliser Preparation Act, and in addition to self-monitoring, the Finnish Food Authority monitored the quality of the ash. The fly ash and bottom ash from the power plant are CE marked, which means that they meet the requirements guaranteed by the manufacturer and are technically usable in earthworks.

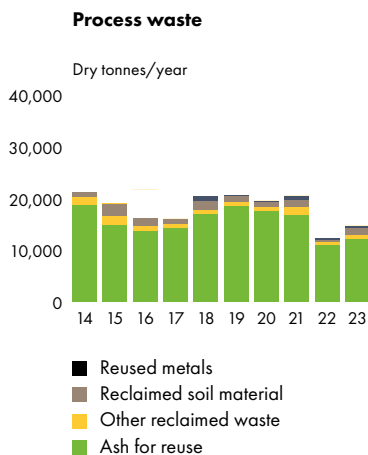
In 2023, the main use of fly ash was as a raw material in cement production (70%). Ash was also used in earthworks to replace natural stone and to increase load-bearing capacity, and resistance to frost. Small amounts of ash were diverted to fields for soil improvement.

In addition to ash, the most significant waste was soil carried over with energy and pulpwood. This soil was screened and diverted for use in the construction of the Himos slope. The wood material separated during the screening process was diverted to fuel an on-site power plant.



Plastics, paper and cardboard were recycled. The hazardous waste was sent to Fortum Oy in Riihimäki, where it was treated using different methods. Wood waste, plastics, and paper and cardboard waste unsuitable for recycling were used to produce recovered fuel, or sent to facilities such as the Biovoima energy plant for burning.

At the Vierelä landfill, power plant ash is temporarily stored before being diverted to beneficial uses. No waste has been permanently dumped at the Vierelä landfill since 2016.



# Water



The treated wastewater from the Jämsänkoski mill is discharged into the Jämsänjoki river. The Jämsänjoki river is also impacted by the city's municipal treatment plant and nonpoint source pollution from forestry and agriculture. The water quality of the Jämsänjoki river and Tiirinselkä lake depends on the quality of water coming from the Kankarisvesi lake. The water contains humus and is quite nutrient dense.

According to the Central Päijänne monitoring results for 2022, the Jämsänkoski mill's wastewater accounted for 5.8% of the monitoring area's phosphorus load and 1.7% of its nitrogen load (Figure 1).

Nonpoint source pollution makes up a significant part of the load of Central Päijänne. The load coming from the water of the Kankarisvesi lake, located above the Jämsänjoki river, accounted for on average 20% of the phosphorus load and 21% of the nitrogen load in the monitored area. The phosphorus load coming from upstream Jämsänjoki and the leakage area of Jämsänjoki and Tiirinselkä accounted for 42% of the total load and the nitrogen load coming from these same areas made up 34% of the total load in 2022. Diffuse pollution also includes natural pollution.

The amount of process water used in paper production per tonne of paper produced was higher than in the previous year. A significant challenge to the effort to reduce process water use was posed by the different production scenarios during 2023.

The wastewater load from the Jämsänkoski mill was within the pollution limits allowed by the environmental permit. The Jämsänkoski mill's environmental permit imposes both monthly and annual discharge limits on the wastewater's COD, phosphorus, nitrogen and solid material.

The wastewater load from the Jämsänkoski mill decreased slightly in terms of phosphorus load. Organic load and suspended solids load were at the same level as in the previous year. The nitrogen load increased slightly compared to the previous year. Of the nitrogen nutrient and phosphorus nutrient used in wastewater treatment, 31% and

36% respectively were recycled nutrients. Wastewater treatment performance was very stable throughout the year, with no incidents or discharges.

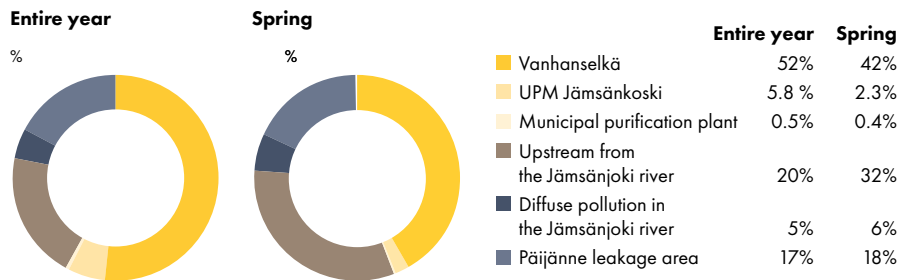
Throughout the year, there were 75 environmental observations and minor deviations that were dealt with in the daily operations of the mills, in accordance with the UPM operating model.

The air intake compressors for the biological treatment plant's aeration basins, which were replaced at the end of 2022, demonstrated excellent reliability and controllability under different load conditions. The good controllability of the new equipment has also led to savings in electrical energy. To ensure the biological treatment plant is trouble-free, the membranes of the fine bubble aerators in aeration tank 1 were replaced in the spring of 2023 and the membranes in aeration tank 2 will be replaced in the summer of 2024.

At the biological treatment plant, a new unloading station for chemicals used as nutrients to improve environmental and personal safety was commissioned in 2023. Chemical dosing and storage equipment was upgraded to meet current practice, including chemical spill control. The new nitrogen nutrient storage tank will allow the recycled nutrient target to be advanced in 2024.

The environmental impacts of the mills, in terms of watercourses and fishery will be monitored by the Eurofins Environment Testing unit in Jyväskylä. The monitoring is carried out in accordance with the programme approved by the Centre for Economic Development, Transport and the Environment, in co-operation with the Water company of Jämsä. Air quality is being monitored in co-operation with Jämsän Aluelämpö Oy and the town of Jämsä.

**PHOSPHORUS LOAD**



**NITROGEN LOAD**

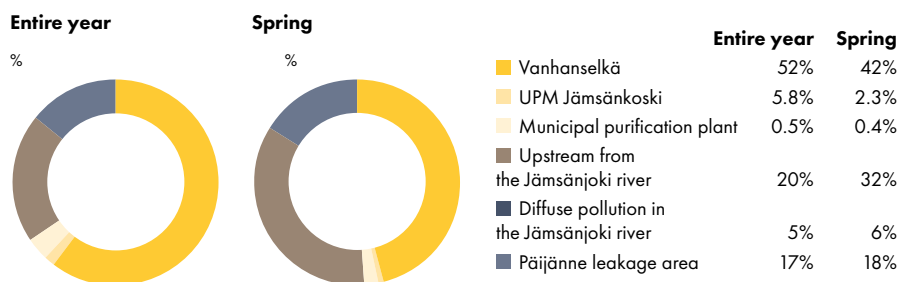
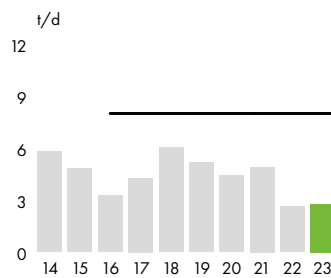
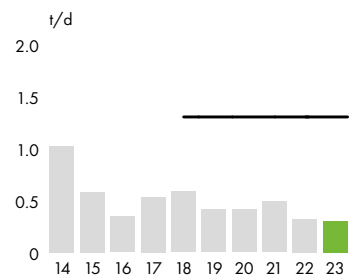


Figure 1. Central Päijänne joint monitoring, distribution of Tiirin-Lehtiselkä's phosphorus load and nitrogen load allocation in 2022.

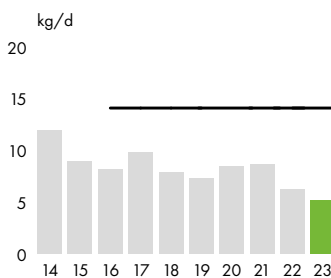
**Chemical oxygen demand, COD**



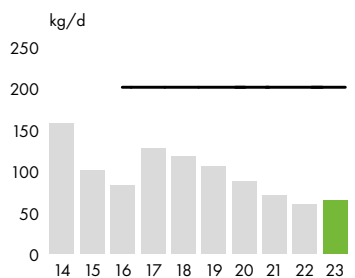
**Total suspended solid (TSS)**



**Phosphorus, P**



**Nitrogen, N**



— Permit limit

# Management of crises and exceptional situations

The Jämsänkoski mill's joint operations are responsible for occupational and mill safety, environmental protection, quality, mill services and energy. The group's general functions also operate in our unit: business control, sourcing, IT and HR services.

The activities 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.

The Jämsänkoski mill management, function organisations and the safety organisation are responsible for the prevention of exceptional situations and the operational management of crises and exceptional situations. The general manager heads the management of exceptional situations. Mill experts support the general manager in these efforts by providing 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. Firefighting and rescue

operations are always led by the rescue authorities.

The mill has emergency procedures and rescue and firefighting plans for exceptional situations. 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.

## Social responsibility

### Biodiversity can be promoted even on the mill site

A project to support biodiversity in the mill area, started with local birdwatchers in the spring of 2022, was completed in 2023. Bird boxes have now been installed for sparrows, barn swallows, barn owls, starlings, ladybirds, tree swallows, blue tits, barred owls and kestrels, among others. The bird boxes are located in the forested area of the mill and there are already observations of nesting in the new bird boxes in 2023.

In the autumn of 2023, groundwork was laid on the mill site to prepare an area to be sown in the spring of 2024 as a flower meadow to attract butterflies and insects.

### Product safety and sustainable development

Customer enquiries regarding our products have been mainly related to product safety, carbon footprint, wood raw materials origin, forest certification, recyclability and various management systems. Forest certification, and the origin of our timber raw materials, were of interest to both the customers who bought label and packaging paper and those who bought magazine and newsprint paper. The carbon footprint shows the carbon dioxide emissions from the raw materials and manufacturing used in products. The carbon footprint of Jämsänkoski's products is low, with a high share of biomass-based fuels in its own energy production and carbon dioxide-free purchased electricity from the market.

Product safety is especially important in the case of label and packaging papers used by the food industry. Our papers are safe

to use throughout their product lifecycles, and papers with food contact certificates can be used in direct contact with dry and non-fatty foods. Certain types of paper are also suitable for use with moist and fatty foods. Our papers are also recyclable and compostability certificates have been obtained for selected products in tests (industrial compostability and home compostability).

Changes in consumer behaviour, such as the growth of online shopping and the increasing demand for sustainable products, are expected to support Jämsänkoski Specialty Papers' operations. Cooperation and product development projects will increase the range of recyclable fibre-based products as an alternative to non-renewable materials.

At Jämsänkoski, the properties of barrier papers in particular are constantly being developed to enable them to be used for the most demanding end-uses, such as packaging for food. Specialty papers can be used, for example, in food packaging as an alternative to plastic laminated packaging solutions.

### External performance evaluations improve operations

UPM Finland's paper mills have a joint Multisite certificate and the external auditor is Inspecta Sertifiointi Oy. The certification includes the ISO 9001 quality management system, the ISO 14001 environmental management system, the ISO 45001 occupational health and safety management system and the ETJ+ energy efficiency management system. In addition, the ISO 22000 food safety management system



applies to speciality papers. PEFC and FSC are systems for monitoring the origin of wood.

The 2023 external audit was in November. Four minor anomalies were recorded in the audit. The conclusions and actions of management reviews should be clearly summarised for all certificates. There were shortcomings in the acknowledgements on the authorisation forms and the definition of quality management processes was not sufficiently clear. Some bins had labels from different periods. Corrective measures to be taken have been identified for all anomalies.

Experts from the Jämsänkoski mill participated in the internal audit of the Kymi paper mill, which also provided us with good practices for the Jämsänkoski mill.

In terms of food safety, internal audits have been carried out amongst the three





mills, Tervasaari, Kymi and Jämsänkoski. Two mills will jointly carry out an audit of the target mill. Good ideas for improving operations have also been transferred from one mill to another in these audits.

No anomalies were found in the spring of 2023 internal audit on the timber origin monitoring systems. In August 2023, an external auditor concluded that the operation complies with the requirements of these certificates.

### Safety

UPM's new safety standard Process Safety was published in 2023. In Jämsänkoski, the most significant process safety issues are fire protection and chemical safety, which are closely related to both personal safety and property safety. The correctness of preventive maintenance programmes for machinery and equipment and the correct functioning of various safety devices are also an integral part of process safety. At the UPM level, a three-year plan for implementing the requirements of the Process Safety Standard in different operations is underway.

By utilising the experience gained and UPM's best practices, the mill has continued to improve personal and fire protection at various sites, for example, we made improvements in fire compartmentalisation, enhanced our fire-extinguishing systems and further refined our safety practices for fire related work. An external auditor, required by the insurance company, annually assesses the safety of machinery and equipment and the level of fire protection. Annual fire inspections are also carried out by the rescue authority.

In accordance with UPM's guidelines, a safety coordinator is always appointed for each project, who is responsible for, among other things, project-specific safety briefings for contractors and the implementation and documentation of the weekly safety walk. In the projects, fire safety, site cleanliness and tidiness, and lifting operations were particularly monitored, as they were high-risk activities. In projects, continuous safety monitoring, guidance and incident response are very important in a shared site between different actors.

In 2023, the mill's personnel participated in accident response training, firefighting drills, occupational safety card training and hot work card training. A refresher course on safety in lift work was given to the first responders. Summer workers and new apprentices received training on safe working practices and awareness of and preparedness for hazards in the workplace.

For the permanent personnel of the Rescue Department and the local Voluntary Fire Brigades, mill risk inspections and exercises on various topics were organised.

Annual chemical safety inspections were carried out in the autumn of 2023 and inspections of chemical storage and dosing systems were carried out as planned. A new inspection of the risk-based selected chemical pipeline was carried out by an external inspection body. UPM's advisor on the transport of dangerous goods carried out the audit in the autumn of 2023. Good working practices and continuous improvement in chemical safety were particularly positive. Improvements will be made to signs and markings for some emergency showers.

In 2023, UPM's lost-time accident frequency (LTAF) – i.e., the number of on-the-job accidents that led to worker absences, per million working hours – was 3.4. The total recordable injury frequency (TRIF) – i.e., the number of accidents per million working hours – was 5.2. The TRIF figure includes not only accidents that led to worker absence, but also any accidents that require medical treatment or compensatory/rectifying work. In 2023, the accident frequency rate, or TRIF, at the Jämsänkoski mill was 4.4. All the above figures include UPM's workforce and contractors.

### Health and well-being at work

Employees' ability to work was also taken care of through a wide range of health checks. These health checks include both age group-based examinations and statutory examinations for people whose job duties involve risks of hazardous exposure. The age group examinations are performed every 5 years for people under the age of 50 and every 2.5 years for people over the age of 50. New employees are always

subjected to an employment general check, which includes a mandatory drug test for all.

UPM supports employees' sports and cultural hobbies and well-being with an e-Pass. More places have been added to the offering in line with personnel requests.

### 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 2023, UPM (Group) will pay a total of approximately 221 million euros in corporate taxes and property taxes.

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.

### The 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. The Jämsänkoski mill provided financial support, as in previous years, to local activities through culture and sports clubs. A local active residents' association was also one of the beneficiaries.

# Environmental parameters

The 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 Societal Responsibility Statement.

		2021	2022	2023
<b>Production capacity</b>	Paper	625,000 t	625,000 t	605,000 t
<b>Raw materials</b>	Timber Recovered paper Pulp Fillers and coating pigments Process chemicals	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
<b>Energy</b>	Biomass-based fuels Fossil fuels	81% 19%	79% 21%	87% 13%
<b>Emissions to air</b>	Particles Sulphur dioxide, SO <sub>2</sub> Nitrogen oxides, NO <sub>2</sub> Carbon dioxide, CO <sub>2</sub> (fossil emissions from own energy production, scope 1) Carbon dioxide, CO <sub>2</sub> (fossil emissions from purchased energy, scope 2)	0.5 t 120 t 235 t 67,917 t 114,061 t	0.7 t 46 t 169 t 48,796 t 0 t	0.3 t 63 t 196 t 36,116 t 0 t
<b>Water intake</b>	Process and cooling water	12,061,573 m <sup>3</sup>	7,368,435 m <sup>3</sup>	8,757,004 m <sup>3</sup>
<b>Discharges to water</b>	Cooling water Effluent discharge Chemical oxygen demand, COD Biological oxygen demand, BOD <sub>7</sub> Phosphorus, P Nitrogen, N	4,595,350 m <sup>3</sup> 7,466,223 m <sup>3</sup> 1,792 t 88 t 3.1 t 26 t	2,092,130 m <sup>3</sup> 5,276,305 m <sup>3</sup> 1,040 t 33 t 2.3 t 23 t	2,807,390 m <sup>3</sup> 5,926,211 m <sup>3</sup> 1,127 t 44 t 1.9 t 25 t
<b>Waste<sup>1)</sup></b>	Taken to landfill for disposal	0 t	0 t	0 t
	Reused waste			
	– ash	16,676 t	10,830 t	11,940 t
	– soil	1,309 t	386 t	1,515 t
	– metals	881 t	233 t	353 t
	– other	1,546 t	676 t	795 t
	To interim storage	0 t	0 t	0 t
<b>Hazardous waste</b>		52 t	14 t	12 t
<b>Total amount of land use</b>	– total amount of land usage – areas not permeated by water – nature conservation-oriented areas – nature conservation-oriented areas outside the place of business	79 ha 63 ha 16 ha 6 ha	79 ha 63 ha 16 ha 6 ha	79 ha 63 ha 16 ha 6 ha

<sup>1)</sup> Waste stated as dry weight



# Performance against targets in 2023

TARGET	ACHIEVED	COMMENTS
Jämsänkoski: 0 environmental deviations in categories 3–5	Yes	Operation in compliance with the emission limit values according to the environmental permits and no accidental emissions have occurred
Further improvement of safety performance in Jämsänkoski, TRIF < 3	No	The realised TRIF of the Jämsänkoski mill was 4.4, including UPM personnel and contractors
Contributing to the UPM Group's 2030 environmental targets		
– Fossil CO <sub>2</sub> emissions from the power plant reduced by 5% compared to 2022	Yes	– Fossil CO <sub>2</sub> emissions reduced by 26% compared to 2022. 1. commissioning of the electric boiler in May 2023.
– Use of industrial process water reduced by 5% compared to 2022	No	– Varying production situations make the target challenging

## Targets for 2024

TARGET	MEASURES
Jämsänkoski: 0 environmental deviations in categories 3–5	Proactive measures and rapid response to incidents
Further improvement of safety performance in Jämsänkoski, TRI max 2 during the year	UPM new safety vision measures. Local safety priorities identified on the basis of the 2023 safety discussions identified and measures implemented.
Contributing to the UPM Group's 2030 environmental targets	
– Fossil CO <sub>2</sub> emissions from the power plant reduced by 5% compared to 2023	– The power plant has a plan to replace peat with biomass-based fuels Full utilisation of the boiler project in zero emission steam production.
– Use of industrial process water reduced by 5% compared to 2023	– Completion and verification of the impact of projects to reduce water use.
– Increasing the use of recycled fertiliser	– Testing the performance of the recycled nutrient as a nutrient for the biological treatment plant according to the plan.



### Validation Statement

As an accredited environmental verifier (FI-V-0001), Inspecta Sertifiointi Oy has examined the environmental management system and the UPM Jämsänkoski Environmental and Societal Responsibility Statement 2023 as well as the information concerning the UPM Jämsänkoski mill in the updated UPM Group Environmental and Societal Responsibility Report 2023.

On the basis of this examination, the environmental verifier has herewith confirmed on 2024-04-04 that the environmental management system, the UPM Jämsänkoski Mill Environmental and Societal Responsibility 2023 statement and the updated information concerning UPM Jämsänkoski mill in the UPM Corporate Environmental and Societal Responsibility Statement 2023 are in compliance with the requirements of the EMAS Regulation (EC) No 1221/2009.



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