

**UPM Changshu**

# ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY 2019



# UPM Changshu

UPM Changshu paper mill is situated at Changshu Economic & Technological Development Zone against south bank of Yangtze River, approximately 90 km west of Shanghai. The mill is a subsidiary of UPM - Kymmene Corporation.

Founded in 1995, the mill started its operation in early 1999. Currently, the mill has three paper machines producing both wood-free fine paper and specialty paper. Pulp, used as the main raw material for paper-making, is exclusively sourced from sustainably managed forests. In fine paper production, calcium carbonate is used as a filler of paper and kaolin is applied for coated paper as a pigment. Filler is not used in the production of specialty paper grades.

The mill is also equipped with auxiliary facilities including an in-house thermal power plant, a fresh water plant and a wastewater treatment plant. These facilities supply electricity, steam and fresh water for paper-making and purify the wastewater and other wastes from the production processes. Water used for paper production is taken from the Yangtze river. The water is purified before being discharged back into the river.

In addition to the paper mill, UPM Changshu site accommodates other two UPM units, UPM Asia R&D Centre and UPM Raflatac label plant. The scope of this report includes UPM Asia R&D Center which was merged with paper mill in 2012, but excludes UPM Raflatac label plant.



UPM Changshu Environmental and Societal Responsibility 2019 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 2019. 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 2021.



We deliver renewable and responsible solutions and innovate for a future beyond fossils across six business areas: UPM Biorefining, 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 18,700 people worldwide and our annual sales are approximately EUR 10.2 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. [www.upm.com](http://www.upm.com)

<b>Production capacity</b>	1,400,000 tonnes			
<b>Personnel</b>	1,235			
<b>Products</b>	Office Paper: UPM Jetset® UPM Copykid® UPM Yes® UPM Future	UPM Office® SOHO® Horizon® Excellent Print®	Graphic Paper: UPM Finesse Classic Matt UPM Finesse Classic Gloss UPM Fine	Specialty Paper: UPM Blue UPM Brilliant
<b>Certificates</b>	EMAS – EU Eco Management and Audit Scheme ISO 14001 – Environmental Management System OHSAS 18001 – Occupational Health and Safety System ISO 9001 – Quality Management System ISO 50001 – Energy Management System FSC® Chain of Custody – Forest Stewardship Council PEFC™ Chain of Custody – Programme for the Endorsement of Forest Certification CFCC – China Forest Certification Council Jiangsu High Technology & Innovation Enterprise China Work Safety Certification level II  All certificates can be found from UPM's Certificate Finder (available at <a href="http://www.upm.com/responsibility">www.upm.com/responsibility</a> ) >Principles and Performance > Certificate finder			
<b>Environmental labels</b>	China Green Label for copy paper Singapore Green Label for copy paper			
<b>Awards</b>	Jiangsu Provincial Smart Factory - PM2 workshop 2019 FSC Asia Pacific Leadership Award			



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China Environment Friendly Enterprise

# Review of year 2019

UPM Changshu paper mill is committed to the continuous improvement of its environmental and societal performance. By optimizing the management system and investing in the best available technology, the mill made great progress in sustainable development during 2019.

## Achievement of target

The mill reached all Clean Run targets for 2019. The mill has had no Clean Run deviations for more than three years. The number of Clean Run deviations is our main performance indicator, with zero deviations as our ultimate target. In addition, the mill's safety and societal targets were also reached with good results.

## Improved results in 2019

The mill's environmental emission levels were within the optimum ranges as indicated by Best Available Techniques (EU BAT BREF 2014). Despite good results, efforts continued to be made in 2019 in order to further reduce emissions as well as water and energy consumption. In late 2018, the Changshu Mill boiler was modified to meet China's super-low emission requirements. Thanks to the successful completion of the project, the boiler's air emissions have been significantly decreased by 64% for total suspended particles and 15% for acidifying flue gases compared with the figures in 2018. On the other hand, energy reduction projects have also generated positive results: the specific electricity and heat consumptions have been cut by 3% and 1% per ton of paper in 2019, respectively.

## Environmental study and project continued

UPM has set 2030 responsibility targets focusing on various aspects including water, climate change, waste and forests. At Changshu mill, several project feasibility studies have already kicked off in order to secure the realization of the mill and group 2030 targets.

Three pilot tests of water recycling at the effluent plant was carried out in 2019, Each using different technical solutions. An investment proposal for targeted capacity 5,000m<sup>3</sup>/day of water recycling has been prepared for consideration. A concept for introduction renewable energy at the mill was further developed. A feasibility study was made for the installation of 10 megawatts solar power to be installed on, for example, roofs or other installation opportunities.

In response to China's Yangtze River protection plan, the mill decided to build a system in the jetty for collecting initial rainwater and water containing coal dust, for further purification before discharge.

A trial project for the use of wastewater sludge as raw material in construction was continued last year. The trial was promising, indicating that in the future sludge can be used as a raw material.

PM3 was further modified in 2019 to make it more suitable for a swing machine that can produce both specialty and fine papers.

## Awards and recognitions

In addition to the provincial level smart factory of PM2, the mill was also recognized as a water saving company by the Jiangsu provincial authority and safety and environment front runner by Changshu Economic and Technological Development Zone in 2019. The mill has not received any complaints about environmental protection throughout 2019 from any organizations or individuals.

## Environmental Monitoring

The following environmental monitoring

activities are performed in the mill area:

- A. Sampling of Yangtze River water quality nearby the mill by Changshu Water Bureau on a bi-monthly basis and sampling by Suzhou Ecological & Environmental Bureau on a monthly basis
- B. Measurement of mill wastewater
  - pH, COD, TSS, BOD<sub>5</sub>, P, N, NH<sub>4</sub>-N (daily by mill laboratory)
  - flow, pH, COD, NH<sub>4</sub>-N, TN and TP (24h-7d/w non-stop by on-line meters)
  - pH, COD, TSS, BOD<sub>5</sub>, P, N, NH<sub>4</sub>-N, AOX, and color (monthly by external laboratory)
  - All elements above are sampled by the authority quarterly or at random
  - Mill area rainwater is tested quarterly by an external laboratory
- C. Air emission (mill boiler stack)
  - SO<sub>2</sub>, NO<sub>x</sub>, particulates and CO (24h-7d/w non-stop measurement)
  - SO<sub>2</sub>, NO<sub>x</sub>, and particulates (quarterly sample tested by third-party and randomly by authority)
- D. Quarterly test were done for the mill border noise by a third party
- E. Monthly site inspections by local environmental authority



王志强

Mr. Steven Wang  
Mill EHS Director



Jukka Saarelainen

Mr. Jukka Saarelainen  
Mill General Manager

# Responsibility figures 2019

## Waste



**99.7%**

of mill solid wastes are reused, recycled or incinerated with energy recovery.

**0** process waste

to landfill was achieved. We also achieved a 3% year-on-year reduction of total solid waste, mainly due to use of coal with less ash-content.

## Air



Mill air emission reduced

**64%** for total suspended particulates

and

**15%** for acidifying gas

respectively from coal-fueled boiler flue-gas in 2019.

## Energy



Specific energy consumption by per tonne of paper was reduced by

**1.8%**

in 2019. The reduction was mainly thanks to energy saving projects realization.

## Water



There was

**10%** reduction of COD

discharge comparing with 2018.

## Certified Fibre



**77%**

of fibre used in paper production was FSC® and/or PEFC™ certified. UPM's target is to use only certified fiber by 2030.

## Employment



**1,235** personnel

directly employed by UPM Changshu mill. In addition, there were 361 full-time service staff and 32 interns working at the UPM mill site.

## Supply chain



**99%** of raw materials

spend qualified against UPM Supplier and Third Party Code.

## Community



More than

**2,000** students and local citizens

participated in events designed to increase environmental, safety and health awareness as well as social welfare provided by UPM and UPM volunteers in 2019.

## Health



Annual health check covered

**100%** mill employees

and zero occupational illnesses was reported in 2019.

## Safety



**13%** decrease of TRI\*

was achieved comparing to 2018.

### And

- 99% of safety incident were handled within 6 weeks from initial reporting.
- 98% actions closed where proactive actions were required as a result of all incidents, safety walks etc. carried out in 2019.

\*TRI: Total Recordable Injuries

## Taxes



Annual tax contributions to Chinese government was

**20** million USD

Including:

- State taxes (Corporate income tax)
- Local taxes (Real estate tax, Land use tax, Environmental protection tax, Stamp duty and Local levies)
- Customs duty on imported materials and equipment
- Individual income tax and social security contributions for UPM China employees (indirect contributions through employment)

# Air



UPM Changshu power plant is a combined heat and power (CHP) plant. It is equipped with two coal-fueled boilers rated at 241t/h each and four gas boilers rated at 56t/h each. The power plant produces electricity and steam for paper production. In supplement to its in-house capacity, external electricity and steam are occasionally purchased to cover any shortages. The gas boilers are only used for steam production during the overhaul of the coal-fueled boilers.

The coal-fueled boiler's flue-gas is purified through denitrification, desulphurization and particulate removal processes. The rebuilt project of the flue-gas treatment system was successfully completed in late 2018 to meet the super-low emission permit limits, the strictest emission permit in China. Boiler air emissions have decreased significantly in 2019 after this rebuilt. In response to the "Action Plan on Hundred Days of Air Pollution Control in Changshu" in the winter of 2019, the mill successfully further reduced the air emission concentration by 20% on the basis of the super-low emission permit limits.

In China, local and national authorities limit air pollutant emissions for industrial enterprises by the total volume and unit concentration, as specified in the table below. The emission quota were based on the mill's existing boiler capacity and authority permitted limits of pollutant concentration.

### Air emission quota permits 2019 (t/a)

Nitrogen oxides, NO <sub>x</sub>	456.37
Sulphur dioxide, SO <sub>2</sub>	221.88
Particulates	90.16

### Super-low air emission permit (\*mg/nm<sup>3</sup>)

Nitrogen oxides, NO <sub>x</sub>	50
Sulphur dioxide, SO <sub>2</sub>	35
Particulates	10

*\*Hourly average values for thermal power plant emissions required by government*

# Water

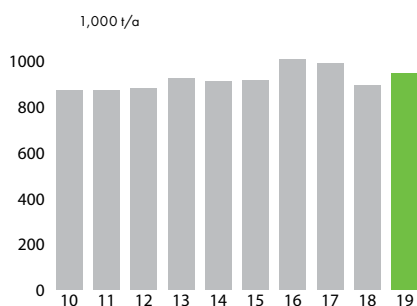


The designed capacity of the mill's wastewater treatment plant (WWTP) is 26,400 m<sup>3</sup>/d. The processes mainly consist of pre-sedimentation, bio-activated sludge stage, anoxic denitrification and finally the disc filtration processes.

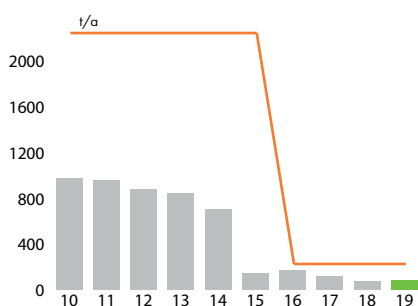
The wastewater treatment plant continues to maintain excellent operation throughout the year, and most of the wastewater pollutant indicators were significantly lower than the emission permit values in 2019. However, UPM's own preventive measures such as the research of paper chemicals' impact on the wastewater treatment process were implemented. On-site tests regarding water reduction at the paper machines and the reuse of purified wastewater were continued.

Limits for both the quantity and the concentration of the water pollutants for industrial enterprises are set by local and national Chinese authorities (quantity is set by local authority in a basis of production capacity and concentration is specified in the table 3 of "Discharge Standard of Water Pollutants

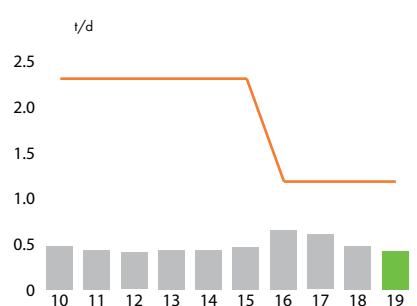
### FOSSIL CARBON DIOXIDE, CO<sub>2</sub>



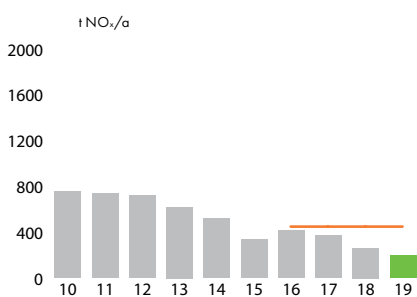
### SULPHUR DIOXIDE, SO<sub>2</sub>



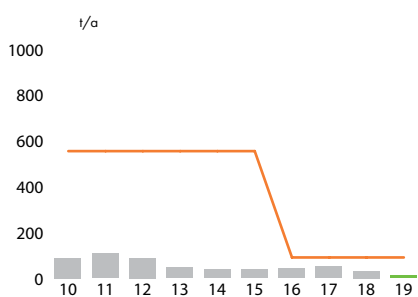
### CHEMICAL OXYGEN DEMAND, COD<sub>cr</sub>



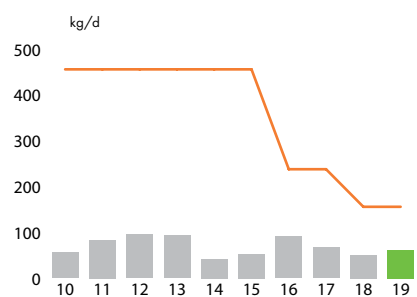
### NITROGEN DIOXIDE, NO<sub>x</sub>



### PARTICULATES



### TOTAL NITROGEN, TN



Remark 1: Above measurements are done according to Chinese standards which are derived from ISO standards, but they might not be fully comparable.  
 Remark 2: NO<sub>x</sub> are monitored by measuring NO and calculated into NO<sub>2</sub>

— Permit limit

# Waste



for Pulp & Paper Industry”, standard code GB3544-2008).

### Water pollutant quota permits (t/a)

Chemical oxygen demand, CODcr	417.56
Total suspended solid, TSS	83.52
Total nitrogen, TN	54.63
Total phosphorus, TP	2.732

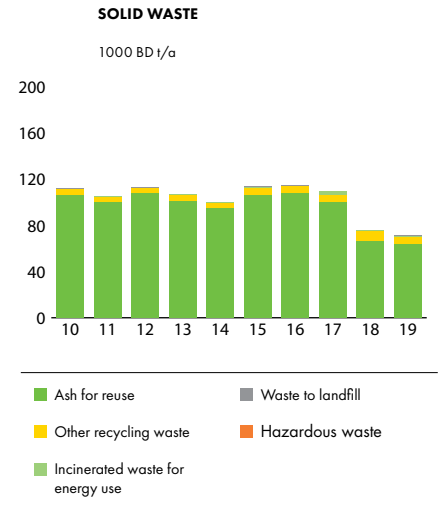
### Water pollutant concentration permits (\* mg/l)

Chemical oxygen demand, CODcr	50
Total suspended solid, TSS	10
Total nitrogen, TN	10
Total phosphorus, TP	0.5

\*Hourly average values stipulated in Standard GB3544-2008

Solid waste from the mill is mainly derived from boiler ashes, waste packaging, maintenance waste and a small amount of non-recyclable waste. Waste is 99.7% recycled or reused. Non-recyclable waste is incinerated or landfilled. The landfill site is located 30 km west of the mill. The site is rented and operated by a private company with a legal license. The combustible non-hazardous waste from the mill is incinerated in an external power plant with energy recovery. A small amount of hazardous waste is treated by qualified environmental companies in compliance with relevant laws and regulations. A majority of effluent sludge is incinerated by the mill’s in-house boilers as biofuel. Trial is continued for using effluent sludge to make construction material.

Total amount of mill waste was reduced by 3% year-on-year. The mill achieved zero landfill of process waste, total mill landfill waste was reduced by 50%.



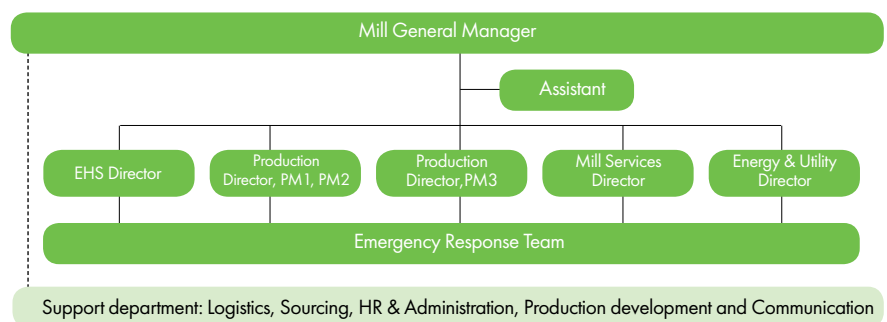
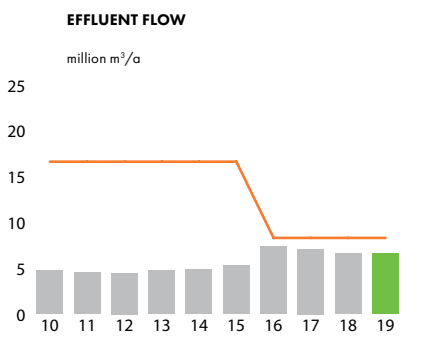
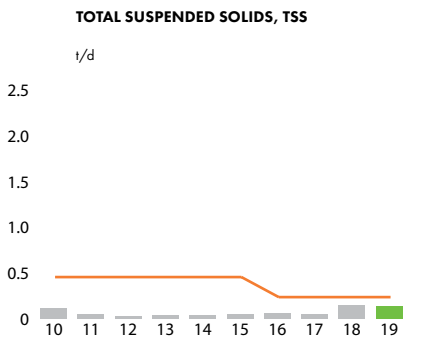
Remark: The weights included in the figures are dry weights.

## Organizational structure and emergency organization

Changshu Mill’s organization structure and emergency response team are well defined with responsible persons nominated according to government regulations. Emergency response procedures are also established and communicated with all employees in response to any kind of emergencies such as fire, environmental deviation, safety accident, individual injury as well as natural disaster. The goal is to achieve a quick response and to minimize the losses possibly caused by emergency incidents by means of immediate and well-organized reactions.

Under the mill emergency management organization, there is an emergency response team (ERT) whose members come from each workshop and shift. Annual waste-water emergency drill was carried out to respond to sudden, but unlikely, wastewater deviation.

In addition, there are designated representatives responsible for the integrated management system (occupational health & safety, environment, quality and energy).



# UPM Changshu Social Responsibility

UPM places emphasis on economic, social and environmental responsibility in its daily operations, and aims to be a leader in sustainable development. UPM Changshu Paper Mill attaches great importance to social responsibility.

UPM’s Code of Conduct forms the framework for all company operations and sets out standards of behaviour for all UPM employees without exception. It was renewed in 2019 to better adjust to the changing business environment, avoid major compliance risks, and support the implementation of UPM goals, visions and strategies.

In 2019, Changshu Mill has initiated the “World Class Manufacturing 2019-2022 plan”; safety and environment protection form the foundation of this plan.

## Occupational health and safety

The UPM Changshu Paper Mill is committed to developing a world-class safety culture and being a safe, fair and responsible employer. Safety is a top priority at UPM and we are continuously driving new improvements to ensure it. All UPM employees, suppliers, contractors and visitors are required to strictly comply with UPM safety standards. Rigorous management and trainings are conducted to avoid accidents and to provide a safe working environment. In 2019, Changshu mill achieved a 13% reduction of total recordable injuries.

In 2019, Changshu mill focused on updating its standard operation procedures (SOP) to create a standard approach to safety. To help others correct unsafe behaviour, we improved e-learning of all safety related topics. The long-term objective is to build an interdependent safety culture.

In response to the safety requirements of UPM Group and in line with the national initiative of “Safety Production Month” in June, Changshu Mill holds “UPM Safety and Health Week” activities each year, reviewing safety performance and positive development and organizing various activities. Each

employee is encouraged to participate, in order to share best practice and to strengthen safety and health awareness, while continuously improving safety performance in all working areas of the mill.

In 2019, UPM was recognized as the “Top Employer in China” for the eighth time, and “Jiangsu Healthy Organization”. This is a recognition of UPM’s long-term commitment to developing a safe, healthy and inspiring working environment in which people can participate and grow as professionals.

UPM focuses on long-term career development, emphasizing performance and employee engagement. Smooth two-way communication stimulates professional development of employees, 45% of employees in China have worked for UPM for more than 10 years, while more than 21% of employees in China have been with the company for more than 20 year.

In order to enrich employees’ spare time, employee clubs have organized team building activities and public welfare activities, such as “UPM Olympic” sport game and hiking trips in order to continuously improve the physical and mental health of employees and enable them to enjoy a high-quality life.

## Contribution to local society

Building and maintaining good relations with local communities close to our operations are essential for ensuring our business success. Our environmental volunteer teams co-operate with the local government as well as local communities and schools in an effort to improve people’s environmental awareness. In 2019, UPM volunteers in APAC devoted more than 650 hours into various local social responsibility activities, under the Biofore Share and Care initiative.

The “Green Future” project is a partnership between the Changshu Environmental Bureau, Changshu Education Bureau and UPM to support interactive education programs. “Green Future” aims to provide environmental education in order to evoke students’



2019 FSC Asia Pacific Leadership Award



2019 UPM Changshu mill Olympic game

## SUPPLIER MANAGEMENT INFORMATION

Total number of contracted suppliers	151
– Direct raw material suppliers	44
– Other material and service suppliers	95
– Transportation service providers	12
Number of suppliers been audited on-site in 2019	21
Number of suppliers to be audited in 2020	21





Pupils in UPM Green Future summer camp

sense of shared responsibility from an early age, including habits that promote energy saving and environment protection. The year 2019 marked the ten-year anniversary of the project. More than 13,000 students from 63 local schools in Changshu city, Shanghai and Jiangxi province have participated our program. The program has been effective and well received by teachers and parents. The program has also been recognized by the Changshu government and local media.

“Green lifestyle” information sharing has been another volunteer campaign organized by UPM and Changshu Environment Bureau for several years. Activities have been held in many local communities to encourage people to take action in order to protect the environment. During the past seven years’ time, more than 4,000 local citizens in different communities in Changshu city have received our training and support.

UPM has been supporting “Blue April” project to help autistic children for three years. UPM volunteers offer their love and help to the children, and were granted “love support award”.

Other departments and clubs also organized volunteer activities for social activities that promote public good, such as “Hello Finland!” Finnish Culture Week at the local college in Changshu and “Clean up Yushan Mountain” events. Both programs aim to contribute to the environmental protection and social welfare in Changshu.

### Stakeholder engagement

UPM’s compliance with laws and regulations - in particular, competition and anticorruption laws – lays a solid foundation for us as a trusted business partner, and our responsible and ethical practices create long-term value for both UPM and its stakeholders.

Supplier audits are an integral part of responsible sourcing. UPM requires its supplier to adhere to the “UPM Supplier Code and the Third Party Code” that defines the minimum compliance requirements for suppliers in terms of responsibility including environmental impact, human rights, labour practices, health and safety, and product safety. Suppliers’ environmental and social performance is monitored through regular data collection and analysis.

At UPM’s 2019 supplier day, UPM shared UPM’s new brand promise “UPM Biofore - Beyond Fossils”, and the significance of innovation and responsibility. UPM firmly believes that a long-term responsible partnership with suppliers is critical to ensure responsible sourcing throughout the entire supply chain.

On 22 Oct. 2019, Mr. Jarno Syrjälä, Finland’s Ambassador to China, visited UPM Changshu mill. Mr. Jarno Syrjälä said: “The successful investment and operations of UPM in China over the last two decades not only contributes to the local economy but also strengthened the bilateral relations between China and Finland.”

UPM promotes responsible practices throughout the value chain and is actively finding sustainable solutions in co-operation with its customers, suppliers and partners. Guided by the new brand promise “Beyond Fossils”, inspired by the limitless opportunities of the bio-economy, UPM is delivering renewable and responsible solutions, and innovating for a future beyond fossils.



Mr. Jarno Syrjälä (left), Finland’s ambassador to China, visited UPM Changshu Mill

# Environmental Parameters

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental Statement.

		2017	2018	2019
<b>Production capacity</b>	Wood-free and specialty paper	1,400,000 t	1,400,000 t	1,400,000 t
<b>Raw materials and additives</b>	Pulp Fillers and coating pigments Chemicals for paper production Others	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
<b>Energy</b>	Fossil and biomass-based fuels Purchased power	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
<b>Emissions to air</b>	Particulates	52 t	31 t	11 t
	Sulphur dioxide, as SO <sub>2</sub>	119 t	76 t	86 t
	Nitrogen oxide, as NO <sub>x</sub>	372 t	263 t	201 t
	Carbon dioxide, as CO <sub>2</sub> (fossil)	989,812 t	911,715 t	940,342 t
<b>Water intake</b>	Process and cooling water including power plant use	10,856,194 m <sup>3</sup>	10,583,540 m <sup>3</sup>	11,133,921 m <sup>3</sup>
	Municipal water	285,919 m <sup>3</sup>	331,387 m <sup>3</sup>	372,491 m <sup>3</sup>
<b>Discharges to water</b>	Clean cooling water	237,250 m <sup>3</sup>	237,250 m <sup>3</sup>	237,250 m <sup>3</sup>
	Process effluent volume	7,111,681 m <sup>3</sup>	6,653,232 m <sup>3</sup>	6,636,141 m <sup>3</sup>
	BOD <sub>5</sub>	12 t	22.9 t	33.4 t
	COD <sub>cr</sub>	210 t	165 t	147 t
	Solids	19 t	52 t	47 t
	Phosphorus, P	0.5 t	0.5 t	0.4 t
	Nitrogen, N	23 t	18 t	22 t
<b>Side-product</b>	Ammonia sulfate	4,007 t	3,138 t	3,684 t
<b>Non-hazardous waste <sup>1)</sup></b>	Waste to recycling, energy recovery and or composting (see below for breakdown)	<sup>2)</sup>	74,779 t	71,312 t
	-Boiler ash		66,202 t	63,952 t
	-Sludge		1,128 t	778 t
	-Wood waste		255 t	259 t
	-Paper and board		3,876 t	2,841 t
	-Metals		2,389 t	2,567 t
	-Other recycling waste		648 t	620 t
	-Domestic waste		281 t	295 t
	Waste to landfill		323 t	157 t
	-Construction and maintenance waste		303 t	157 t
	-Production process waste		20 t	0 t
<b>Hazardous waste</b>	Hazardous waste	115 t	105 t	159 t
<b>Size of mill area</b>	Total Area	184.5 ha	184.5 ha	184.5 ha

<sup>1)</sup> All waste are dry weight.

<sup>2)</sup> Reporting of waste data was changed in 2018.



# Performance against the targets in 2019

TARGET	ACHIEVEMENT	COMMENTS
<b>1 Clean Run deviations</b> – Category 5 = 0 – Category 4 = 0 – Category 3 = 0	Yes Yes Yes	Actual results 0 0 0
<b>2 Clean Run observations ≥ 150 reports /year</b> – Encourage employees to report Clean Run observations	Yes	167 observations reported in 2019
<b>3 Occupational, health and safety</b> – Number of lost time accident (LTA) = 0 case	No	One LTA occurred, a minor injury with an employee's little toe bone dehiscence.
<b>4 Solid waste management</b> – Landfill waste cut 20%	Yes	Achieved zero production process waste to landfill and construction waste to landfill reduced by about 50% in 2019.
<b>5 Mill-wide energy and water saving versus 2018 results</b> – Electricity reduction 0.5% per unit product  – Steam reduction by 0.5% per unit product – Water usage reduction 2% per unit product	Yes  Yes No	Thanks for the contribution of energy saving projects, energy reduction was achieved better than targets.  Water reduction target not realized due to lower average paper grammage and Fine paper output related market shutdowns in 2019.

## Targets for year 2020

TARGET	MEASURE	RESPONSIBLE PERSON
<b>1 Clean Run deviations</b> – Category 5 = 0 – Category 4 = 0 – Category 3 = 0 <b>Clean Run observation report ≥ 150</b>	Improving all employees' environmental awareness by annual trainings and launch of "Environmental Week" activities.	All employees
<b>2 Occupational, health and safety</b> – Number of lost time accident (LTA) = 0 case	A variety of measures to be taken including review of closing process for corrective actions and audit findings, promoting positive safety behaviour and establishment of safety e-learning platform for employees and contractors	Mill EHS director and all employees
<b>3 Jetty wastewater collection project implemented</b>	To install tank, pump and pipeline to collect and pump the wastewater, initial rainwater and sanitary wastewater from jetty to WWTP.	Mill logistics manager and environment manager
<b>4 Mill-wide energy and water reduction versus 2019 results</b> – Electricity reduction by 0.5% per unit product – Steam reduction by 0.5% per unit product – Water usage reduction by 2% per unit product	- To implement the energy and water saving projects - To improve employees' awareness of energy saving by training - Continue studies for reuse of wastewater	Production managers



### Revalidation Statement

As an accredited environmental verifier (FI-V-0001), Inspecta Sertifointi Oy has examined the environmental management system and updated UPM Changshu mill Environmental and Societal Responsibility 2019 report as well as the information concerning UPM Changshu mill in the Updated UPM Corporate Environmental Statement 2019. On the basis of this examination, the environmental verifier has herewith confirmed on 2020-05-22 that the environmental management system, the updated UPM Changshu mill Environmental and Societal Responsibility report and the information concerning UPM Changshu mill in the Updated UPM Corporate Environmental Statement are in compliance with the requirements of the EMAS Regulation (EC) No. 1221/2009.

We reduce the world's reliance on fossil-based materials by developing renewable and responsible products and solutions in all our businesses. **UPM Biofore – Beyond fossils.**



[www.upm.com](http://www.upm.com)

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