Asia Pulp & Paper - Water Security 2021

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Asia Pulp & Paper (APP) Sinarmas is responsible for delivering quality products to meet the growing global demand for tissue, packaging and paper. On any given day, our products find their way into the hands of consumers in various branded forms from all over the world.

Started in 1972 with Tjiwi Kimia producing caustic soda, now we run operations across Indonesia and China with an annual combined pulp, paper, packaging product and converting capacity of over 20 million tons per annum. Today, APP markets its products in more than 120 countries across six continents.

Sustainability has always been at the core of our business. We strive to create products and deliver services responsibly through sustainable and innovative processes at every product life stage. Apart from doing our business, we also improve the livelihoods of the communities around us. Our newest sustainability strategy is detailed in our Sustainability Roadmap: Vision (SRV) 2030. The strategy is broken down into three pillars—Production, Forest, and People. We have set ourselves targets for each of these pillars, intending to drive improvement in processes that concern our business, wider supply chain and environmental sustainability. Vision 2030 also details our efforts and strategy in our continued support of the UN's Sustainable Development Goals (SDGs) and the Paris Agreement on climate change.

Our sustainability strategy has ten targets pillars—Fibre Sourcing, Reforestation, Conservation & Biodiversity, Human Rights & Indigenous People, Community Empowerment,
Climate Change, Emissions, Water Management, Solid Waste, and Employee Welfare.

Vision 2030 affects all areas of our business. It is a minutely detailed strategy, with firm targets surrounding sustainability, that uses Company KPIs to monitor progress. Contrasts between Vision 2030 and its predecessor --Vision 2020 --include a focus on a broader range of sustainability issues and tighter alignment with both the UN SDGs and the Paris Agreement, increased stakeholder engagement.

Water is a vital ingredient for our production process, we use it in pulp and paper production and to produce steam at various stages of our processes. We recognise our responsibility to protect local water sources at each of our mill sites, we do this by minimising consumption and ensuring the water we return to source meets the highest environmental standards.

Learn more about APP's path to operational excellence by reading our Sustainability Reports and Forest Conservation Policy on: www.asiapulppaper.com

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2020	December 31 2020

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Indonesia

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	We need a large water consumption it's about 29m3 per tonne. We also use the production process water as a raw material solvent, and also use it for generating steam, heating, cooling, and cleaning. We closely monitor water for contaminants and recognize that we have a responsibility to protect local water sources at all of our mill sites. We are constantly striving to reduce our water consumption through the use of the latest technology and initiatives. We have a water treatment plant to process water from the river into water that can be used for the production process, the quantity of water taken from the river has a bigger role than the water quality. In the future we will still depend on water resources from the river, however we also maximize the reuse & recycle process to reduce dependence water from the river.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Neutral	In 2020 we reused & recycled 13% of our water in processes, the amount of reused recycled water is needed to replace water intake from the river so we categorize it as important.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	We measures continuously the water intake / withdrawal from the water sources by using online measurement devices. All of our operation have to ensure proper and comprehensive water balance besides measurement is one of the mandatory requirements set by the Authority.
Water withdrawals – volumes by source	Not relevant	In all of our operations, we make sure that we will not take any water sourced from water stressed area.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	The intake water quality is very important and it will decide the raw water treatment method that we need to implement in our operation facilities. This is also to optimize the total water usage and not discharge too much volume back to the environment (back washing).
Water discharges – total volumes	100%	We continuously measure the discharge rate by installing a continuous flowmetering devices, to ensure: - we balance the total water intake, consumption and the discharge - to make sure the water loss during distribution is under control and as minimum as possible within the best acceptable manufacturing practices - able to make water emission load calculation - meet the requirements of the government regarding water discharge.
Water discharges – volumes by destination	100%	Discharge volume is continuously measured and this will be implemented in all of discharge points. Most of our mills have single discharge point, however one of them has 2 discharge points, to follow technical decision and circumstances set by the Authority.
Water discharges – volumes by treatment method	100%	All discharges despite the treatment method applied by the mills, are fully measured continuously.
Water discharge quality – by standard effluent parameters	100%	All effluent parameters are checked in regular basis either by manually test (laboratory test) or by online system. Effluent parameters and their monitoring result are mandatory by the government and have them reported to government in regular basis. Full compliance against effluent parameters are our utmost target in all of operation facilities.
Water discharge quality – temperature	100%	Temperature is not a mandatory parameter by the government. however, our mills ensure that temperature of effluent is around the ambient temperature. Temperature is checked during operation bu not in regular basis.
Water consumption – total volume	100%	Refer to the above, we make sure that we have proper and comprehensive water balance, including all streams to all production lines.
Water recycled/reused	100%	Volume of recycled water is part of important element of water balance, hence they are measured as required.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Non production consumption of clean water is also important element of water balance., hence they are also monitored and measured.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	345369	Higher	Our operation add new equipment in the production process such as de-inking equipment. In addition to increasing the production of paper with grade brown paper therefore increasing water consumption in our operations.
Total discharges	233604	Higher	Water consumption in our production increasing and impacted to water discharge compare to last year
Total consumption	265976	Higher	Water consumption in our production increasing and impacted to water discharge compare to last year

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	No	<Not Applicable>	<Not Applicable>	WRI Aqueduct	Based on WRI Aqueduct tool, we were mapping our facilities location to water stress area with high and extremely high area. We identified none of our facilities included to water stress area.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	233604	Higher	Some of our facilities have a discharge pool before water discharged to rivers. The capacity of water pool impacted to the change of water discharge.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	We only able to discharge water to river as government permit
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	We only able to discharge water to river as government permit
Third-party destinations	Not relevant	<Not Applicable>	<Not Applicable>	We only able to discharge water to river as government permit

W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	233604	Higher	100%	We use Primary, Secondary and Tertiary as voluntary to get best quality water to discharge. The water discharge is higher from last year due to usage of water is increased. the increase of water consumption caused by the increased of production
Secondary treatment	Relevant	0	About the same	100%	
Primary treatment only	Relevant	0	About the same	100%	
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Discharge to a third party without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Other	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number
51-75

% of total procurement spend
51-75

Rationale for this coverage
During 2012 and 2013, together with our pulpwood suppliers, we developed a comprehensive scorecard system to enforce and monitor these commitments throughout our supply chain. The scorecard system was developed to measure social and environmental performance of each of our suppliers, in line with regulatory requirements and best practices from internationally recognized Sustainable Forest Management certification standards.

Impact of the engagement and measures of success
Regular assessments using the system enable us to ensure that our suppliers meet our commitment and action plans are developed to address any existing gaps in timely manner.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement
Innovation & collaboration

Details of engagement
Educate suppliers about water stewardship and collaboration

% of suppliers by number
51-75

% of total procurement spend
51-75

Rationale for the coverage of your engagement
APP engage with 39 supplier of forestry concession. Our main raw material is pulpwood then coverage of supplier is about 53%

Impact of the engagement and measures of success
We implement best practices water management for all pulpwood supplier

Comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

Today, people around the world identify water issues as the most serious sustainability challenges facing the planet. Furthermore, there are increasing concerns about access to water and water pollution have outpaced concerns about other well-recognized sustainability challenges, such as global climate change, natural resource depletion, and biodiversity loss.

Historically, access to water has been an important strategic concern for many companies including APP group, but recent global trends show increased threats to the supply, quality, and reliability of water resources and services, adding substantial immediacy and pressure for business to improve the way it manages water risk.

In response. as chair of the Indonesia Water Mandate Working Group (IWMWG), a special organization under the United Nations Indonesia Global Compact Network, APP has been working to address these water challenges. We have begun developing strategies to mitigate water-related risks and capitalize on opportunities. Some companies are investing in operational efficiencies, such as closed-loop production processes or water recycling. APP and the IWMWG are also exploring alternative technologies, such as biopores, to help mitigate climate-related water issues. Through these international and local collaborations, APP is helping Indonesia press on toward a clean and sustainable water future, one project at a time.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?
No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?
No

W3. Procedures

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?
Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage
Full

Risk assessment procedure
Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment
Not defined

How far into the future are risks considered?
Unknown

Type of tools and methods used
Databases

Tools and methods used
Other, please specify (Guidelines developed by The Water Footprint Network.)

Comment
A Water Footprint Assessment has been undertaken in partnership with Nalco, one of the world's leading innovators in clean water technology and solutions, to conduct a company-wide water foot-printing analysis based on guidelines developed by The Water Footprint Network. The assessment will provide a baseline for APP to develop a more detailed roadmap for sustainable water management in its manufcturing processes, including extended plans for water reduction programmes in each mill. Due to the intensive and detailed nature of the assessment, we completed the assessment for all mills by 2015. In addition to the on-going Water Footprint Assessment, all of our mills continue to implement various water improvement programmes, including reduction in water consumption, increase efficiency and water quality enhancement.

Supply chain

Coverage
Full

Risk assessment procedure
Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment
Annually

How far into the future are risks considered?
1 to 3 years

Type of tools and methods used
Databases

Tools and methods used
Other, please specify (internal methode, scorecard)

Comment
During 2012 and 2013, together with our pulpwood suppliers, we developed a comprehensive scorecard system to enforce and monitor these commitments throughout our supply chain. The scorecard system was developed to measure social and environmental performance of each of our suppliers, in line with regulatory requirements and best practices from internationally recognized Sustainable Forest Management certification standards. Regular assessments using the system enable us to ensure that our suppliers meet our commitment and action plans are developed to address any existing gaps in timely manner. In 2012, we began working together with our pulpwood suppliers in implementing the High Conservation Value (HCV) assessment. The assessment, which is also a part of our Natural Forest Moratorium commitment in line with APP Forest Conservation Policy (FCP), is done to recognize areas with outstandingly significant or critically important ecological, social or cultural value. The HCV assessment will enable APP and its suppliers to develop proper management plan for those valuable areas. Water level in peatland area plays a critical role in ensuring hydrology balance in the surrounding ecosystem. To further ensure sustainable water management in our suppliers' area, together with our pulpwood suppliers we develop Best Practice for Peat Management & Monitoring Plan.

Other stages of the value chain

Coverage
None

Risk assessment procedure
<Not Applicable>

Frequency of assessment
<Not Applicable>

How far into the future are risks considered?
<Not Applicable>

Type of tools and methods used
<Not Applicable>

Tools and methods used
<Not Applicable>

Comment

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water is essential to the pulp and paper making process, from stock preparation where the pulp is diluted into water for further processing, through to its conversion to steam for process heat and electricity generation. It's a water intensive process, but one that offers the opportunity to recycle and re-use a significant amount of water, reducing the amount of water our mills withdraw from local sources.
Water quality at a basin/catchment level	Relevant, always included	Water is essential to the pulp and paper making process, from stock preparation where the pulp is diluted into water for further processing, through to its conversion to steam for process heat and electricity generation. It's a water intensive process, but one that offers the opportunity to recycle and re-use a significant amount of water, reducing the amount of water our mills withdraw from local sources.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	The use of low quality water for production will have an impact on reduce of the water waste released to water water basin. To minimize it, we always conduct a thorough monitor for the quality of water used for production.
Implications of water on your key commodities/raw materials	Relevant, always included	Water is essential to the pulp and paper making process, from stock preparation where the pulp is diluted into water for further processing, through to its conversion to steam for process heat and electricity generation. It's a water intensive process, but one that offers the opportunity to recycle and re-use a significant amount of water, reducing the amount of water our mills withdraw from local sources.
Water-related regulatory frameworks	Relevant, always included	Full compliance is always one of our main target. Water withdrawal and water discharge are regulated by authorities and we ensure all initiatives, monitoring and measurement are in place to ensure full compliance, and even demonstrating beyond compliance performance.
Status of ecosystems and habitats	Relevant, always included	Water level in peatland area plays a critical role in ensuring hydrology balance in the surrounding ecosystem. To further ensure sustainable water management in our suppliers' area, together with our pulpwood suppliers we are currently developing Best Practice for Peat Management & Monitoring Plan (PMMP). The Plan will be developed based on assessment and recommendations from internationally recognized team of peat experts. An assessment to find best approach in peatland management will also be a part of our High Conservation Value (HCV) assessment. APP committed to zero new development on peatland, including canal & infrastructure construction, before assessment and best practice recommendation from peat experts are completed. The result of these various assessments; HCV, Scorecard and Peat assessment, will feed into the Integrated Sustainable Forest Management APP and its suppliers are currently developing. The integrated management system will help ensure, amongst others, improved water and watershed management within the concession areas which will also affect water condition in the surrounding landscape.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Proper provision of clean water for employee services is also an important element
Other contextual issues, please specify	Not considered	

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Customers' demand and inquiry regarding water conservation also drives our water efficiency measures.
Employees	Relevant, always included	Input and concerns of employees are valuable feedback for internal development of our operation.
Investors	Relevant, always included	Sustainable developments is part of investors due diligence, and play an important feedback for our mills.
Local communities	Relevant, always included	As a responsible company and in line with the principles of the UN CEO Water Mandate, APP is also committed to addressing water related challenges outside its operational boundaries. Various community programmes are in place in community settlements across our mills, addressing many water related needs including clean water proficiency, disaster mitigations, hygiene and sanitation, education and facility provision
NGOs	Relevant, always included	APP is one of the first companies in Indonesia that pledged to The UN Global Compact CEO Water Mandate programme. This group is comprised of various organizations including private sector, educational institutions and international NGOs, works to promote the six principles of the UN CEO Water Mandate and as a platform for collaborative actions in addressing water challenges in various sectors.
Other water users at a basin/catchment level	Relevant, always included	Considerations of landscape approach is always applied for major operation such as pulp mills.
Regulators	Relevant, always included	As a part of its regulatory requirement, APP mills have developed the Environmental Management Plan (Rencana Pengelolaan Lingkungan/RKL) and an Environmental Monitoring Plan (Rencana Pemantauan Lingkungan/RPL). The RKL and RPL have to be completed and submitted every six months to the regional and national Environmental Agency to report its environmental monitoring and impact control activities and performance. The RKL (Environment Management Plan) and RPL (Environment Monitoring Plan) include monitoring the quality of the wastewater, which is treated in the wastewater treatment facilities before being discharged into water bodies and the water quality at both the intake and discharge points to assess the impact of its operation on the water sources. The parameters used in the IKPP mills monitoring system are biological oxygen demand (BOD), chemical oxygen demand (COD), suspended solid, dissolved oxygen (DO), AOX, temperature and pH values. In addition to the physical parameters, the mills also monitor the biodiversity in its water source and discharge points to ensure that its operations do not negatively affect the existing ecosystem. As well as meeting regional and national requirements, APP mills also benchmark their operational and environmental performance against international standards, such as the Environmental, Health and Safety Guidelines for Pulp and Paper Mills, published in December 2007 by the World Bank / International Finance Corporation (WB / IFC), when relevant.
River basin management authorities	Relevant, always included	Legal compliance is the basis of risk assessment in every aspect including water usage.
Statutory special interest groups at a local level	Relevant, always included	Stakeholder concerns is welcome to be included during risk assessment.
Suppliers	Relevant, always included	Water level in peatland area plays a critical role in ensuring hydrology balance in the surrounding ecosystem. To further ensure sustainable water management in our suppliers' area, together with our pulpwood suppliers we are currently developing Best Practice for Peat Management & Monitoring Plan (PMMP). The Plan will be developed based on assessment and recommendations from internationally recognized team of peat experts. An assessment to find best approach in peatland management was a part of our High Conservation Value (HCV) assessment. APP committed to zero new development on peatland, including canal & infrastructure construction, before assessment and best practice recommendation from peat experts are completed. The result of these various assessments; HCV, Scorecard and Peat assessment, will feed into the Integrated Sustainable Forest Management APP and its suppliers are currently developing. The integrated management system will help ensure, amongst others, improved water and watershed management within the concession areas which will also affect water condition in the surrounding landscape.
Water utilities at a local level	Relevant, always included	Water is essential to the pulp and paper making process, from stock preparation where the pulp is diluted into water for further processing, through to its conversion to steam for process heat and electricity generation. It's a water intensive process, but one that offers the opportunity to recycle and re-use a significant amount of water, reducing the amount of water our mills withdraw from local sources.
Other stakeholder, please specify	Not considered	

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

Water forms an essential part of APP's production processes, which is why we signed up to the UN CEO Water Mandate in 2012.

We announced Forest Conservation Policy (FCP) in February 2013. Both of these commitments set ambitious goals with regard to water management, both within our own operations as well as those in our supply chain. In 2013, we continued to work with various experts and partners to roll out initiatives to help us reach these goals.

Water management in our mills can be divided into two areas; reducing water consumption and maintaining effluent quality from our mill processes. In our supply chain, the focus is on ensuring hydrological balance within the landscape where our pulpwood suppliers' plantations are located, to support the ecological health of the surrounding ecosystem.

In line with the UN CEO Water Mandate principles, APP continues to reach beyond our operations to address community water challenges. APP will continue to seek sustainable water management innovations. We aim to preserve this precious natural resource for the good of our company, the community and the world globally.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

APP investing significant amounts of time, money and resources on initiatives that will not only help the company reduce its water footprint in Indonesia and deliver clean water to the nation's citizens, but also provide jobs and other economic and social opportunities in communities where APP operates. These many initiatives are underway at the local, national and international levels.

On the global front, APP was the first pulp and paper company in Indonesia to join companies around the world in endorsing United Nations Global CEO Water Mandate, a public-private initiative dedicated to developing strategies and solutions that help solve the emerging global water crisis. According to the United Nations (UN), every day millions of tons of inadequately treated sewage and industrial and agricultural wastes are poured into the world's waters, leaving 1 billion people without access to a sufficient water supply. In turn, this water contamination weakens or destroys natural ecosystems that support human health, food production, and biodiversity.

In endorsing the UN mandate, APP is working with governments, UN agencies, non-governmental organizations, and other stakeholders to address the global water challenge. APP embraces the Global Mandate's six core elements: Direct Operations, Supply Chain and Watershed Management, Collective Action, Public Policy, Community Engagement, and Transparency.

APP mills introduced the anaerobic (meaning "without oxygen") treatment process to Indonesia's pulp and paper industry. This water treatment process uses bacteria that do not depend on oxygen to convert contaminants in the water. The technology is unique because during conversion these bacteria produced methane gas which can be used as energy for production. The result: clean water and an efficient source of energy.

In addition, to ensure that the quality of their effluent meets or exceeds both Indonesian and world water quality standards, all of APP's mills treat water with high-efficiency activated sludge and chemical removal processes. And to reduce chemical oxygen demand (COD) levels, each mill employs oxygen bleaching in the water treatment process.

Through continuous innovations of waste water treatment technologies and series of production efficiency, APP strives to reduce its water consumption as well as improve its waste water quality significantly.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	10	100	APP has 10 mills that exposed to water risk. Water is essential to the pulp and paper making process, from stock preparation where the pulp is diluted into water for further processing, through to its conversion to steam for process heat and electricity generation. It's a water intensive process, but one that offers the opportunity to recycle and re-use a significant amount of water, reducing the amount of water our mills withdraw from local sources. As one of the first companies in Indonesia that pledged to The UN Global Compact CEO Water Mandate programme, we have a challenging task to ensure that a responsible approach to water management is implemented not only within our operating facilities but also across our supply chain. It is one of our strategic goals highlighted in our Roadmap and a key metric measured by our mills. Our mills focus on two areas; reducing water consumption and maintaining effluent quality from our mill processes. Reduced water consumption is achieved through reducing absolute consumption and increasing water re-use in our processes. A Water Footprint Assessment has been undertaken in partnership with Nalco, one of the world's leading innovators in clean water technology and solutions, to conduct a company-wide water foot-printing analysis based on guidelines developed by The Water Footprint Network. The assessment will provide a baseline for APP to develop a more detailed roadmap for sustainable water management in its manufacturing processes, including extended plans for water reduction programmes in total 10 mills. Our commitment toward sustainable water management also applies to our pulpwood suppliers. These commitments are reflected in our Forest Conservation Policy. During 2012 and 2013, together with our pulpwood suppliers, we developed a comprehensive scorecard system to enforce and monitor these commitments throughout our supply chain. The scorecard system was developed to measure social and environmental performance of each of our suppliers, in line with regulatory requirements and best practices from internationally recognized Sustainable Forest Management certification standards. Regular assessments using the system enable us to ensure that our suppliers meet our commitment and action plans are developed to address any existing gaps in timely manner. In 2012, we began working together with our pulpwood suppliers in implementing the High Conservation Value (HCV) assessment. The assessment, which is also a part of our Natural Forest Moratorium commitment in line with APP Forest Conservation Policy (FCP), is done to recognize areas with outstandingly significant or critically important ecological, social or cultural value. The HCV toolkit identifies 6 types of high conservation values within a forest that needs to be protected; among them are forest areas that provide basic service of nature in critical situations and forest areas fundamental in meeting basic needs of local communities. The HCV assessment will enable APP and its suppliers to develop proper management plan for those valuable areas. Water level in peatland area plays a critical role in ensuring hydrology balance in the surrounding ecosystem. To further ensure sustainable water management in our suppliers' area, together with our pulpwood suppliers we are currently developing Best Practice for Peat Management & Monitoring Plan (PMMP). The Plan will be developed based on assessment and recommendations from internationally recognized team of peat experts. An assessment to find best approach in peatland management will also be a part of our HCV assessment. APP committed to zero new development on peatland, including canal & infrastructure construction, before assessment and best practice recommendation from peat experts are completed. The result of these various assessments; HCV, Scorecard and Peat assessment, will feed into the Integrated Sustainable Forest Management APP and its suppliers are currently developing. The integrated management system will help ensure, amongst others, improved water and watershed management within the concession areas which will also affect water condition in the surrounding landscape.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Indonesia	Other, please specify (Siak River, Riau)

Number of facilities exposed to water risk
3

% company-wide facilities this represents
26-50

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
31-40

Comment

Country/Area & River basin

Indonesia	Other, please specify (Pangabuan River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment

Country/Area & River basin

Indonesia	Other, please specify (Citarum River)

Number of facilities exposed to water risk
3

% company-wide facilities this represents
26-50

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
11-20

Comment

Country/Area & River basin

Indonesia	Other, please specify (Baung River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected
11-20

Comment

Country/Area & River basin

Indonesia	Brantas

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
11-20

Comment

Country/Area & River basin

Indonesia	Other, please specify (Ciujung River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
11-20

Comment

Country/Area & River basin

Indonesia	Other, please specify (Cisadane River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment

Country/Area & River basin

Indonesia	Other, please specify (Lesti River)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Indonesia	Other, please specify (Siak river, Pangabuan river, Baung river, Citarum river, Ciujung river, Cisadane river, Brantas river, Lesti river)

Type of risk & Primary risk driver

Physical	Declining water quality

Primary potential impact
Increased operating costs

Company-specific description
As many company operates in surrounding of river, it will have a risk to water availability and its quality.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-low

Likelihood
Likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Low quality of rivers such as turbidity, conductivity, pH, salinity, etc. will impact to process-water production. Production planning will be changed and the resource to purify the water will increase.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
We have water treatment and waste water treatment facility with proper design to make sure all water parameters comply with requirements, both process water specification and effluent water. 3R principles are very important and we believe by doing it, our operation can anticipate abnormalities and even develop a contingency plan in term of incoming raw water quality issues.

Cost of response
1000000

Explanation of cost of response
Investment of water and waste water facility together with operational cost

Country/Area & River basin

Indonesia	Other, please specify (Siak river, Pangabuan river, Baung river, Citarum river, Ciujung river, Cisadane river, Brantas river, Lesti river)

Type of risk & Primary risk driver

Physical	Increased water scarcity

Primary potential impact
Increased operating costs

Company-specific description
Continued risks around water quality and availability may have immediate impact to our operations, while other potential risks such as sea water and peat water intrusion might be identified have impact to our operations.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-high

Likelihood
About as likely as not

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Pulp and paper industry use a quite substantial amount of water, therefore the disturbance of water source will effect the operation significantly, which in extreme condition it may stop the operation of the facility.

Primary response to risk
Develop drought emergency plans

Description of response
The main anticipated condition in term of water scarcity is the drought. Therefore drought emergency plans should be developed and supported by other mechanism such as efficiency and 3R implementation as well as working together with government and other stakeholders.

Cost of response
2000000

Explanation of cost of response
This is estimated investment for gap assessment / study, initial mitigation plans up to construction of physical mitigation facility in place (as required).

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Indonesia	Other, please specify (river surrounding of forestry operations)

Stage of value chain
Supply chain

Type of risk & Primary risk driver

Physical	Seasonal supply variability/inter annual variability

Primary potential impact
Constraint to growth

Company-specific description
Our supply chain operations impacted by water level in forestry area. Flooding and drought during unusual condition will impacted to the growth of tress as well as pulpwood supply to pulp & paper operations.

Timeframe
More than 6 years

Magnitude of potential impact
Medium-low

Likelihood
Likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unusual condition such as drought and flooding will impact to pulpwood production and supply to pulp & paper operations.

Primary response to risk

Supplier engagement	Promote investment in infrastructure and technologies for water saving, re-use and recycling among suppliers

Description of response
- Our supplier implement procedures to manage water levels in variety season - Research on plantation tress which more resistant to flooding and drought - investment of infrastructure to keep water level

Cost of response
500000

Explanation of cost of response
- cost of research on plantation tress which more resistant to flooding and drought - cost of investment of infrastructure to keep water level

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity
Efficiency

Primary water-related opportunity
Improved water efficiency in operations

Company-specific description & strategy to realize opportunity
Water is a vital ingredient for our production process, we use it in pulp and paper production and to produce steam at various stages of our processes. We recognize our responsibility to protect local water sources at each of our mill sites, we do this by minimizing consumption and ensuring the water we return to source meets the highest environmental standards. We conduct water balance studies at all mills and use external water experts to conduct regular sampling checks too to ensure our wastewater is safe for return to source. In 2020 we reused & recycle 13% of our water in processes, meaning we use less fresh water. At the end of 2020, we had achieved a water intensity reduction of 8%, as compared to a 2018 baseline. In 2020 we are on the track with our SRV commitment with the reduction 26% for COD and BOD.

Estimated timeframe for realization
More than 6 years

Magnitude of potential financial impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact
The impact will mainly gained from the cost of water intake from surface water source.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number
Facility 1

Facility name (optional)
PT. Indah Kiat Pulp & Paper Perawang Mills, PT. Pindo Deli Perawang Mills, PT. Univenus Perawang.

Country/Area & River basin

Indonesia	Other, please specify (Siak River, Riau)

Latitude
0.664278

Longitude
101.595668

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
147094

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
147094

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
106956

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
106956

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
112603

Comparison of total consumption with previous reporting year
Higher

Please explain
Increasing of water consumption comparison to last year due to product modification that changed a white paper product into a brown paper product in mills. Brown paper production required more water consumption compare to white paper production.

Facility reference number
Facility 2

Facility name (optional)
PT. Lontar Papyrus Pulp & Paper Industry

Country/Area & River basin

Indonesia	Other, please specify (Pangabuan River)

Latitude
-1.01

Longitude
103.08

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
29180

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
29180

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
17868

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
17868

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
21269

Comparison of total consumption with previous reporting year
Lower

Please explain
Reduction of water consumption due to water efficiency efforts made in mills, which result lower consumption compared to previous year.

Facility reference number
Facility 3

Facility name (optional)
PT. OKI Pulp & Paper Mills

Country/Area & River basin

Indonesia	Other, please specify (Baung River)

Latitude
-3.329272

Longitude
105.416347

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
87353

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
87353

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
47299

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
47299

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)

51704

Comparison of total consumption with previous reporting year
Higher

Please explain
Water consumption higher than previous year due to increasing the volume production of pulp & paper.

Facility reference number
Facility 4

Facility name (optional)
PT. Indah Kiat Pulp & Paper Serang Mills

Country/Area & River basin

Indonesia	Other, please specify (Ciujung River)

Latitude
-6.12

Longitude
106.15028

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
20788

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
20788

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
14302

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
14302

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
20173

Comparison of total consumption with previous reporting year
Lower

Please explain
Reduction of water consumption due to water efficiency efforts made in mills, which result lower consumption compared to previous year.

Facility reference number
Facility 5

Facility name (optional)
PT. Indah Kiat Pulp & Paper Tangerang Mills

Country/Area & River basin

Indonesia	Other, please specify (Cisadane)

Latitude
-6.17833

Longitude
106.63194

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
2270

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
2270

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
2263

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
2263

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
2270

Comparison of total consumption with previous reporting year
Lower

Please explain
Reduction of water consumption and discharge from water resource due to water efficiency efforts made in mills, which result lower consumption compared to previous year.

Facility reference number
Facility 6

Facility name (optional)
PT. Pindo Deli Karawang Mills

Country/Area & River basin

Indonesia	Other, please specify (Citarum River)

Latitude
-6.3125

Longitude
107.295

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
24627

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
24627

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
23337

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
23337

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
26627

Comparison of total consumption with previous reporting year
Higher

Please explain
Our operation add new equipment in the production process such as de-inking equipment. The mills also made effort to increase the production of brown paper therefore increasing water consumption in our operations.

Facility reference number
Facility 7

Facility name (optional)
PT. Pabrik Kertas Tjiwi Kimia

Country/Area & River basin

Indonesia	Other, please specify (Brantas River)

Latitude
-7.4716

Longitude
112.44

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
31734

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
31734

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
19421

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
19421

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
24447

Comparison of total consumption with previous reporting year
Higher

Please explain
Increasing of water consumption comparison to last year due to product modification that changed a white paper product into a brown paper product in mills. Brown paper production required more water consumption compare to white paper production.

Facility reference number
Facility 8

Facility name (optional)
PT. Ekamas Fortuna

Country/Area & River basin

Indonesia	Other, please specify (Lesti Water)

Latitude
-7.975985

Longitude
112.626878

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
2319

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
2319

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
2155

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water
2155

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
2289

Comparison of total consumption with previous reporting year
Higher

Please explain
Water consumption higher than previous year due to increasing the volume production of pulp & paper.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard

Water withdrawals – volume by source

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard

Water withdrawals – quality

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard, ISO 9001

Water discharges – total volumes

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard

Water discharges – volume by destination

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard, Government Environmental Audit

Water discharges – volume by treatment method

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard

Water discharge quality – quality by standard effluent parameters

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard, Government Environmental Audit

Water discharge quality – temperature

% verified
26-50

What standard and methodology was used?
Internal quality check

Water consumption – total volume

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard

Water recycled/reused

% verified
76-100

What standard and methodology was used?
AA 1000 AS, GRI Standard

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business impact on water Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitment to water-related innovation Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities	APP announced environmental stewardship policy in 2012 which including water efficiency and water management. It is also supported by our mills that certified ISO 14001, water management and efficiency is put on environmental policy that is required by that certification scheme. We began the Water Sanitation & Hygiene (WASH) started in 2013 the project by surveying the needs in our local community. This programme aims to build latrines and water supply systems, dig and cover sewage systems, create waste management systems, and educate on basic hygiene.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	The Sustainability Committee Board is headed by APP's CEO, members include APP's Deputy Chairman, Managing Director, Business Unit heads and the Director of Sustainability and Stakeholder Engagement. The Sustainability Commitee Board meets monthly, reviewing performance, overall direction and strategy, as well as any issues raised from stakeholders.
Chief Sustainability Officer (CSO)	Chief Sustainability Officer at Corporate Level holds the responsibility for water-related issues.
Chief Operating Officer (COO)	The COO (Mill Head) of each mill holds the responsibility for water-related issues.

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	The Sustainability Committee Board is headed by APP's CEO, members include APP's Deputy CEO, Managing Director, Business Unit heads and Chief Sustainability Officer. The Sustainability Commitee Board meets monthly, reviewing performance, overall direction and strategy, as well as any issues raised from stakeholders.

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)
Chief Sustainability Officer (CSO)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
Quarterly

Please explain
Quarterly reported to KPI achievement reports. Other situational conditions are also discussed.

Name of the position(s) and/or committee(s)
Chief Executive Officer (CEO)

Responsibility
Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues
As important matters arise

Please explain
The Sustainability Committee Board is headed by APP's CEO, members include APP's Deputy CEO, Managing Director, Business Unit heads and Chief Sustainability Officer. The Sustainability Committee Board meets monthly, reviewing performance, overall direction and strategy, as well as any issues raised from stakeholders

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	No, and we do not plan to introduce them in the next two years	

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?
Yes, direct engagement with policy makers

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Water is a vital ingredient for our production process; we use it in pulp and paper production and to produce steam at various stages of our processes. We recognize our responsibility to protect local water sources at each of our mill sites, we do this by minimizing consumption and ensuring the water we return to source meets the highest environmental standards.

We conduct water balance studies at all mills and use external water experts to conduct regular sampling checks too to ensure our wastewater is safe for return to source. In 2020 we reused & recycle 13% of our water in processes, meaning we use less fresh water. At the end of 2020, we had achieved a water intensity reduction of 8%, as compared to a 2018 baseline. In 2020 we are on the track with our SRV commitment with the reduction 26% for COD and BOD. Water use audits have been conducted at the mill since 2015, working backwards from water discharge to water source; the engineering team assess the water balance of the process and identify improvement areas.

We are also member of Pulp Paper Association in Indonesia which is the board for communication and negotiation with Authorities and Stakeholder concerning water related matters.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?
No, and we have no plans to do so

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	Vision 2030 was launched in 2020, and it acted as our comprehensive strategy for sustainability from 2021 until 2030. Vision 2030 is an evolution from APP's previous strategy Vision 2020 and has been developed through extensive internal and external consultation. Compared to Vision 2020, Vision 2030 covers an increased range of issues, and is aligned with the UN Sustainable Development Goals, and the Paris Agreement on Climate Change. Water is part of a vital ingredient for our production process; we use it in pulp and paper production and to produce steam at various stages of our processes. We recognize our responsibility to protect local water sources at each of our mill sites, we do this by minimizing consumption and ensuring the water we return to source meets the highest environmental standards. APP is also fully committed to supporting the SDGs. To devise our strategy of meeting these goals, we utilised the UN's SDG Compass tool to create a detailed map of APP's and our wider supply chain's activities and how these directly support the SDGs.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	Vision 2030 was launched in 2020, and it acted as our comprehensive strategy for sustainability from 2021 until 2030. Vision 2030 is an evolution from APP's previous strategy Vision 2020 and has been developed through extensive internal and external consultation. Compared to Vision 2020, Vision 2030 covers an increased range of issues, and is aligned with the UN Sustainable Development Goals, and the Paris Agreement on Climate Change. Water is part of a vital ingredient for our production process; we use it in pulp and paper production and to produce steam at various stages of our processes. We recognize our responsibility to protect local water sources at each of our mill sites, we do this by minimizing consumption and ensuring the water we return to source meets the highest environmental standards. APP is also fully committed to supporting the SDGs. To devise our strategy of meeting these goals, we utilised the UN's SDG Compass tool to create a detailed map of APP's and our wider supply chain's activities and how these directly support the SDGs. We apply reuse, recycle & reduce '3R' strategy to the resource of water as we do materials—reduce, reuse, and recycle. At the end of 2020, we had achieved a water intensity reduction of 8%, as compared to a 2018 baseline
Financial planning	Yes, water-related issues are integrated	5-10	Vision 2030 was launched in 2020, and it acted as our comprehensive strategy for sustainability from 2021 until 2030. Vision 2030 is an evolution from APP's previous strategy Vision 2020 and has been developed through extensive internal and external consultation. Compared to Vision 2020, Vision 2030 covers an increased range of issues, and is aligned with the UN Sustainable Development Goals, and the Paris Agreement on Climate Change. Water is part of a vital ingredient for our production process; we use it in pulp and paper production and to produce steam at various stages of our processes. We recognize our responsibility to protect local water sources at each of our mill sites, we do this by minimizing consumption and ensuring the water we return to source meets the highest environmental standards. APP is also fully committed to supporting the SDGs. To devise our strategy of meeting these goals, we utilised the UN's SDG Compass tool to create a detailed map of APP's and our wider supply chain's activities and how these directly support the SDGs. We apply reuse, recycle & reduce '3R' strategy to the resource of water as we do materials—reduce, reuse, and recycle. At the end of 2020, we had achieved a water intensity reduction of 8%, as compared to a 2018 baseline

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

0

Anticipated forward trend for CAPEX (+/- % change)

5

Water-related OPEX (+/- % change)

0

Anticipated forward trend for OPEX (+/- % change)

0

Please explain

No significant investment during reporting year as no significant challenge faced.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	No, but we anticipate doing so within the next two years	Some of our operation are integrated to raw material (wood), therefore landscape approach assessment is very critical for identification of long term water security. The analysis will be started in 2019.

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

Yes

Please explain

Beside water volume, process water price also contribute as a driving factor in controlling the water usage. The price consists of price of water intake paid to the Authority and the processing cost (energy, chemical, labor). The total price is then divided by total volume, to gain the unit price of water, USD/m3.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Activity level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Target and goals set up by analyze baseline performance and projection for coming years. We were also considering investment and stakeholder requirement.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number
Target 1

Category of target
Product water intensity

Level
Company-wide

Primary motivation
Reduced environmental impact

Description of target
Achieve 8% reduction in water intensity by 2020, based on 2018 baseline

Quantitative metric
% reduction per unit of production

Baseline year
2018

Start year
2020

Target year
2030

% of target achieved
8

Please explain
Water intensity decreased 8% in 2020 compared to 2018 baseline. In 2020 we maintained our commitment to ensure all our water returned to source was 26% below national and regional limits for COD and BOD.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal
Providing access to safely managed Water, Sanitation and Hygiene (WASH) in local communities

Level
Basin level

Motivation
Corporate social responsibility

Description of goal
Providing clean water services for the community Implementing community-based sanitation and waste management Build latrines and water supply systems Dig and cover sewage systems

Baseline year
2017

Start year
2018

End year
2020

Progress
The programme at Pindo Deli Karawang aims to improve the community's quality of life, after discussions with the village community, the programme output changed from providing clean water services for the community to providing clean water supplies and services for schools. Work was carried out in three schools where nine new handwashing facilities were installed, each unit containing three sinks. The schools also needed new toilets due to their poor condition or complete absence. Work went ahead well, and to ensure that its positive impact continues. And at Tjiwi Kimia mill So far, the project has seen several of achievements, showing it was a good coordination between Habitat, Tjiwi Kimia (APP), and the village government. We built trust by opening a dedicated office in the village hall, enabling open, two-way communication about the project, and the community members were established as the first line of support, making it easy to seek help or information if needed. As a result, Tjiwi Kimia was recognised for its efforts by the village community which further improve the relationship between the community and the company. In total, we have installed clean water house connection for 130 families, toilet for 26 families, provide WASH capacity building for 190 communities and 1 unit communal latrine in Singkalan Village.

Goal
Providing access to safely managed Water, Sanitation and Hygiene (WASH) in local communities

Level
Basin level

Motivation
Shared value

Description of goal
Since 2019, APP worked with the SPEAK Indonesia Foundation (SPEAK) to provide clean water and sanitation for the local community. One area of the project was Kutanegara Village, located near PDK mill, where basic sanitation facilities were built. Training and education on the importance of hygiene and sanitation were also provided under a Community-based Total Sanitation Programme (STBM). The programme's implementation saw a rise in demand for toilet construction. This stimulated economic growth for the STBM group that was formed when the program was implemented. Most of the members of the STBM group are members of the previously existing BUTEKA handicraft SMEs. STBM group involved in construction of toilet facilities, education and socialisation, as well as developing a recycling and handicraft business

Baseline year
2019

Start year
2019

End year
2020

Progress
By the end of the programme with SPEAK in 2019, 80 toilets had been constructed. In 2020, this has increased to 125 toilets, with community-led initiatives and funds managed by the village institution. Through their effort, Kutanegara village is now recognised as one of the pioneers in the Government's Open Defecation-Free Programme. Through their success in implementing community-based sanitation and waste management, the village is also designated as sampling for the government's programme to eradicate stunting

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W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?
Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W8 Targets	Company wide goal and achievement	AA1000AS	We verified our water related target and achievement through Sustainability Report verification

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

APP's Vision 2030 Roadmap include clear environmental commitments for our mills, focussed on our energy, carbon, water and waste. Aiming to achieve the highest standard of global environmental efficiency we are continuously investing in new equipment, process improvements and encourage continuous behavioural change to drive efficiency across all our operations. We combine national environmental guidelines with international environmental standards, supported by a KPI monitoring system to ensure compliance and drive performance improvements.

The UN Global Compact CEO Water Mandate programme, of which APP is a signatory, requires us to set an example by adopting a responsible approach to water management. With increasing global pressure on water resources, we recognise our responsibility to minimise its use and ensure any waste water we return to source is clean and safe.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Chief Sustainability Officer (CSO)	Director on board

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	7112209000

SW0.2

(SW0.2) Do you have an ISIN for your organization that you are willing to share with CDP?

No

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

We do not have this data but we intend to collect it within two years

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for all facilities	

SW1.2a

(SW1.2a) Please provide all available geolocation data for your facilities.

Identifier	Latitude	Longitude	Comment
PT. Indah Kiat Pulp & Paper Perawang Mills, PT. Pindo Deli Perawang Mills, PT. Univenus Perawang.	0.664278	101.595668	
PT. Lontar Papyrus Pulp & Paper Industry	-1.01	103.08	
PT. OKI Pulp & Paper Mills	-3.329272	105.416347	
PT. Indah Kiat Pulp & Paper Serang Mills	-6.12	106.15028	
PT. Indah Kiat Pulp & Paper Tangerang Mills	-6.17833	106.63194	
PT. Pindo Deli Karawang Mills	-6.3125	107.295	
PT. Pabrik Kertas Tjiwi Kimia	-7.4716	112.44	
PT. Ekamas Fortuna	-7.975985	112.626878	

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

Product name

Pulp and paper product

Water intensity value

29

Numerator: Water aspect

Water withdrawn

Denominator

Production volume in tonne

Comment

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms