

# Welcome to your CDP Water Security Questionnaire 2022

## W0. Introduction

### W0.1

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

Sappi Limited is a leading global provider of pulp, paper and biotech solutions manufactured from woodfibre-based renewable resources. As a diversified, innovative and trusted leader focused on sustainable processes and products, we are building a more circular economy by making what we should, not just what we can. Our raw material offerings (such as dissolving pulp, wood pulp, biomaterials and timber) and end-use products (packaging and speciality papers, graphic papers, casting and release papers and forestry products) are manufactured from woodfibre sourced from sustainably managed forests and plantations, in production facilities powered, in many cases, with bio-energy from steam and existing waste streams. Headquartered in Johannesburg, South Africa, we are powered by the expertise of 12,500 people worldwide. We have manufacturing facilities on three continents in ten countries, as well as customers in over 150 countries worldwide. By continent, production facilities are as follows: ten in Europe, four in North America and five in South Africa. Sappi works closely with customers to provide relevant and sustainable dissolving pulp, paper (speciality, packaging and graphic), paper pulp and biomaterial solutions and related services. Sappi drives product innovation and the development of new uses for woodfibre, as well as residues and by-products from our production processes. One such area is in the field of biomaterials (cellulose composites, nanocellulose and lignins), biochemicals including hemicellulose sugars and bio-energy forest products materials which Sappi believes will play a key role in its future range of products, both as commercial products and for applications within Sappi. Value for Sappi is not only about delivering returns to our shareholders but also about maximising the value of every resource along our value chain to ensure those returns are sustainable. Through this lifecycle approach that harnesses the power of the circular bio-economy, we strive to minimise our negative impacts and increase our positive impacts on people and the planet while securing sustainable profit margins. All woodfibre used at the Sappi mills is either certified (77% in FY2021) or sourced from controlled, non-controversial sources in accordance with the certified FSC™ [FSC™ N003159] and PEFC [PEFC/01-44-43] (incl. SFI®) Chain of Custody systems.

Assets total US\$6.1 billion and in FY2021, sales amounted to US\$5,265 million. Sappi has a primary listing on the JSE Limited and a Level 1 ADR programme that trades in the over-the-

counter market in the United States. At the end of FY2021 Sappi had 9,675 public shareholders. Annual production capacity is: 5.5 million tons of paper; 2.5 million tons of paper pulp; 1.4 million tons of dissolving pulp.

Our value streams include:

- Pulp: Our dissolving (DP) brand, Verve, creates renewable alternatives for raw material feedstock to textiles, pharmaceuticals, foodstuffs, and more. DP is a highly purified form of cellulose extracted from sustainably grown and responsibly managed trees using unique cellulose chemistry technology. Sappi is one of the largest manufacturers of DP with a capacity of 1.4 million tons per annum and a 17% share of the global market
- Packaging and specialty papers: We offer a broad range of paper-based sustainable solutions as an alternative to fossil fuel-based, non-renewable packaging. Applications include: flexible packaging, containerboard and paperboard. The applications for our speciality papers include: label papers and self-adhesives, casting and release papers, dye sublimation papers, digital imaging papers and tissue paper. Sappi casting and release papers serve as moulds to impart textures on other surfaces, ranging from decorative laminates and synthetic leather to engineered films and rubber.
- Graphic papers: The group's market-leading range of coated and uncoated graphic paper products are used magazines, corporate reports and accounts, direct mail, high-quality brochures, catalogues, calendars and books
- Bioproducts: We are unlocking the chemistry of trees and meeting the challenges of a carbon-constrained world by establishing a strong position in adjacent businesses including: nanocellulose, sugars and furfural, lignosulphonates, biocomposites and bio-energy. Extracting more value from each tree is at the core of our core business model.
- Timber: Sappi's FSC and PEFC -certified tree plantations in South Africa give the company a high-quality woodfibre base. We own and lease approximately 394,000 hectares of which 136,000 hectares are maintained by Sappi Forests to conserve the natural habitat and biodiversity found there.

## 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	October 1, 2020	September 30, 2021

## W0.3

**(W0.3) Select the countries/areas in which you operate.**

Austria  
 Belgium  
 Canada  
 Finland  
 Germany  
 Italy  
 Netherlands  
 South Africa

United Kingdom of Great Britain and Northern Ireland  
 United States of America

## 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

## W0.7

**(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	ZA E000006284

## 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	Vital	Direct use of freshwater is vital for production in our manufacturing operations and for our nurseries providing trees for our plantations in South Africa. Sappi's pulp and paper operations are highly dependent on the use and responsible management of water resources. Water is used in

			<p>all major process stages, including: raw materials preparation; pulp cooking, washing and screening; and paper machines; process cooling, generating steam for process use and onsite power generation and various other purposes. Water used for pulp and paper production is mostly circulated within the system. A closed water system is possible in theory, but usually not the option with the lowest impact. The best option usually requires some make-up water which in turn requires some process water to be released back to the environment — after it is treated in simple or multiple stage waste water treatment processes. Sappi’s integrated mills use higher amounts of water than non-integrated mills which buy in pulp.</p> <p>In terms of indirect use, both our plantations in South Africa and the forests from which we source woodfibre are dependent on rainfall. In South Africa, we do not irrigate our plantations and, in line with legislation, maintain a certain planting distance from riparian zones. Given that we have experienced drought in South Africa which has negatively impacted our plantations, our tree improvement programmes are applying selective breeding techniques to breed more drought-resistant trees, amongst other attributes. We also apply best practice management techniques in our plantations to produce woodfibre with properties that allow it to be pulped using less energy and water.</p> <p>We are modifying bleaching technology if possible. At Gratkorn Mill, Austria, we have modified the pulp bleaching technology to enable more water and waste circularity, reducing water consumption in a partially closed circuit and decreasing the effluent load.</p>
Sufficient amounts of recycled,	Not very important	Not very important	Water inputted into our processes needs to be of a certain quality, which means that brackish water is not relevant to our operations.

<p>brackish and/or produced water available for use</p>			<p>Water is recycled and reused up to ten times throughout our mills and requires different levels of treatment depending on its use. For example, water used in the steam systems (boiler feedwater) must be purified to minimise corrosion. Once steam is condensed it is recaptured and reused in the steam system. By contrast, raw water can be used without any treatment for non-contact cooling systems and can be returned directly to the environment as long as it is not too warm.</p> <p>Recognising the pressure on a finite resource that is core to our processes, we focus on identifying opportunities to save water throughout our pulp- and paper-making production process, recycling extensively within these processes and improving the quality of the waste water (effluent) we discharge.</p> <p>We anticipate that the recycling of water will become increasingly important going forward, particularly as climate change accelerates. Accordingly, this is a major focus of research going forward.</p> <p>One such successful project was an evaporator super-concentrator (Tubel) flush reduction project at Cloquet Mill. The goal of the Tubel flushing project was to reduce the flush water volume by 25%, also reducing the amount of energy needed to reprocess the flush water by this amount. The team re-evaluated the current flushing techniques, triggers, duration and source of water as in-scope parameters for the project. New flushing operational parameters and appropriate best practices for flushing duration were established. The project has resulted in the savings of over 7.6 million litres of water, 1.5 million kilograms of steam and supported increased production via increased black liquor firing.</p>
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## 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%	<p>We monitor absolute water withdrawal at mill, region and global levels, reporting withdrawal in our annual group sustainability report on an annual basis. We measure water withdrawn at our manufacturing facilities. Withdrawal is measured or taken from invoices, but in some cases where these are not available, estimations are made, or volumes are calculated by doing overall mass balances.</p> <p>Total water withdrawal includes water from rivers, own storage dams, groundwater from boreholes and potable water.</p>
Water withdrawals – volumes by source	100%	Water withdrawal volumes by source are monitored at 100% of our operations. We monitor water withdrawals from surface water (rivers and dams); groundwater (boreholes) and third-party water (municipal potable).
Water withdrawals quality	100%	All our mills use, treat and return water in accordance with comprehensive environmental permits. Water management is included in our operational environmental management plans, which are reviewed and updated annually.
Water discharges – total volumes	100%	Most of the water used in the pulp and papermaking process requires treatment prior to discharge to any receiving waters. Solid materials collected in the various treatment stages are dewatered and used as a fuel for energy production. Converting waste to energy also reduces the volume of organic materials sent to landfill. At our mills, once the water is used, reused, and treated, it is returned to surface water sources. In FY2021, 97% of our water intake was returned.
Water discharges – volumes by destination	100%	We monitor volumes discharged. We discharge into rivers, dams, the ocean, onto land (for agricultural purposes at Ngodwana Mill), send to

		other users (Saiccor Mill), and also discharge to sewers, drains and offsite water treatment at 100% of our operational sites.
Water discharges – volumes by treatment method	Not monitored	
Water discharge quality – by standard effluent parameters	76-99	Effluent testing for Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS) is routinely conducted at all mill sites. We measure these parameters per mill and report on them by region and globally in our annual group sustainability report.
Water discharge quality – temperature	76-99	We use temperature controls, oxygen level controls and other metrics to ensure that we comply with all relevant environmental regulations.
Water consumption – total volume	76-99	This KPI is measured internally, reporting the percentage of process water discharged over the process water abstracted. Last year, process water consumption was 3%. Globally, we return 97% of water extracted to the environment.
Water recycled/reused	Not monitored	There are closed-loop internal water recycling systems within each mill operations which are not specifically measured. There is no water recycling back into the mill operations after final treatment or final effluent discharge.
The provision of fully-functioning, safely managed WASH services to all workers	76-99	Provided to all workers in our mills and forestry offices

## 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	287,141	About the same	There was a slight increase of 4% compared to the previous year. A change of less than

			5% is interpreted as stable or about the same. The Total water withdrawal includes water used for all purposes.
Total discharges	231,456	About the same	There was an increase of 3% compared to the previous year. A change of less than 5% is interpreted as stable or about the same. The process effluent is included in the discharge.
Total consumption	55,684	About the same	There was an increase of 5% compared to the previous year. A change of 5% and less is interpreted as stable or about the same.

## 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	Yes	26-50	Higher	WRI Aqueduct	<p>Lomati Sawmill and Ndogwana Mill (Mpumalanga): low to medium water stress; Saiccor Mill and Stanger Mill in Kwa-Zulu Natal (South Africa), identified as located in regions of medium-high water stress; Tugela Mill extremely high water stress</p> <p>Assumption that the whole of South Africa is water stressed. Total water withdrawn is 287141 megalitres, where water drawn in SA is 90917 megalitres which is 32% of total.</p>

## W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	251,854	About the same	Fresh surface water withdrawal increased slightly by 2% from the previous year mainly due to increase production. Production increased by 9%. The fresh surface water usage in FY20 was 246,828 megalitres.
Brackish surface water/Seawater	Not relevant			
Groundwater – renewable	Relevant	18,652	Higher	Renewable groundwater withdrawal increased by 6% from the previous year mainly due to increase production. Production increased by 9%. The renewable ground water usage in FY20 was 17 625 megalitres.
Groundwater – non-renewable	Not relevant			
Produced/Entrained water	Not relevant			
Third party sources	Relevant	16,636	Much higher	Third party water usage increased by 32% from the previous year. Production increased by 9%. The third-party water usage in FY20 was 12,603 megalitres.

## W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous	Please explain
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			reporting year	
Fresh surface water	Relevant	199,123	Higher	The group's FY20 performance was severely impacted by the Covid-19 pandemic, related lockdowns and the economic aftereffect. Demand for graphic paper and dissolving pulp was particularly hard hit. Sales volumes for these products decreased by 20% and 18% respectively. The market conditions forced us to take more than 1.1 million tons of commercial downtime in FY20. The 9% increased production in FY21 was driven by resumption of economic activity, particularly in Europe, which increased demand for our products.
Brackish surface water/seawater	Relevant	45,927	About the same	Only Saiccor Mill in South Africa discharges to seawater. During FQ3 and FQ4 in FY20 we temporarily shut one of our production lines at Saiccor Mill due to Covid-19 related reduced demand through the textile value chain. Due to resumption in global economic activity and increased demand for textile products we restarted the line in FQ1 of FY2021. This accounts for the increase in discharge to seawater of 18% compared to the previous year
Groundwater	Not relevant			
Third-party destinations	Relevant	32,333	Higher	Discharge to third-party destinations increased by 5% compared to FY20. In FY20, the discharge to third party destinations was 30,903 megalitres. The increase is mainly due to increase in production.

				Sappi's third- party destinations include irrigation to land at Ngodwana Mill, effluent sold at Saiccor Mill, and discharge of effluent to sewer or drain or the sending of effluent to an off-site water treatment facility.
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### W1.3

**(W1.3) Provide a figure for your organization's total water withdrawal efficiency.**

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	5,265,000,000	207,141	25,417.4692600692	We cannot predict a forward trend with any confidence, but water use efficiency is a focus, particularly in South Africa which is classified in WRI terms as a water stressed country.

### 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**

26-50

**% of total procurement spend**

26-50

**Rationale for this coverage**

During 2021, we initiated our first campaign to onboard suppliers onto EcoVadis which contains a number of questions specific to water and waste water. Approximately 100 priority suppliers were contacted directly and invited to share an EcoVadis scorecard.

**Impact of the engagement and measures of success**

By the end of FY2021, 90 suppliers were sharing their scorecards with us and another 19 were in progress to disclose on the platform.

**Comment**

This equates to 33% of Sappi's global procurement spend.

## W1.4b

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

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**Type of engagement**

Other

**Details of engagement**

Other, please specify  
Technical advice

**% of suppliers by number**

1-25

**% of total procurement spend**

1-25

**Rationale for the coverage of your engagement**

Under Sappi Khulisa, our enterprise development scheme in South Africa, we employ qualified extension officers, training facilitators and managers who assist growers in selecting the most appropriate areas for planting trees. The extension officers also offer advice and assist in preparing, fertilising and planting. They visit the growers frequently after the trees have been established to provide assistance with weed control and the preparation of fire breaks. Our extension officers work with growers to ensure that their plantings do not affect environmentally sensitive areas – for example that planting does not take place in riparian zones.

**Impact of the engagement and measures of success**

Sappi actively contributed to the development of SAFAS (Sustainable African Forestry Assurance Scheme) and was the first forestry company in South Africa to achieve certification. The PEFC-endorsed SAFAS now offers affordable forest certification solutions and thus market access especially for the country's smallholders. Principle no 4 under this standard relates to the Protection of Soil, Carbon and Water. We are actively working with smallholders to achieve certification and should be able to report on results in our next financial year.

**Comment**

Our woodfibre procurement costs in FY21 for Sappi SA were US\$218 million, Sappi Khulisa woodfibre procurement costs in FY21 were US\$13.9 million.

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

Our strategy prioritizes engagements with partners in the value chain in water catchment areas where we operate in water-stressed regions and where we believe we can make a significant, long-lasting difference that is replicable and scalable. Community upliftment and capacity development are also key strategic considerations. We have initiated a Water Stewardship agreement with WWF-SA, aimed at improving water security in the uMkhomazi catchment area. With our significant manufacturing and forestry footprint in this catchment area, which forms part of the Southern Drakensberg Strategic Water Source Area in KwaZulu-Natal, it makes sense for us to focus our collaborative efforts here, where our Saiccor Mill and 42,000 ha of forestry land are situated. The catchment also serves commercial farmers, subsistence farmers and domestic users in dispersed settlements across the area. To meet the future needs of all users, sufficient water at an acceptable level of assurance and quality must be secured. We believe that this can only be achieved through multi-stakeholder collaboration across the landscape. To help coordinate and facilitate the approach, we have launched a two-year project with WWF-SA to engage local communities, civil organisations, leadership and regulatory authorities in dialogue and cooperation focused on water stewardship. This collaborative approach is an extension of an innovative structure, known as the Integrated Community Forum (ICF), which we pioneered and through which we engage with local adjacent communities. The multi-stakeholder engagement will provide a platform for open dialogue regarding water resources in the catchment and will concentrate on four main focus areas to improve water security in the uMkhomazi, namely: • Improved water governance through multi-stakeholder engagement • Water-use efficiency • Removal of alien invasive plants and wetland rehabilitation • Capacity development of local communities in natural resource management.

**W2. Business impacts****W2.1****(W2.1) Has your organization experienced any detrimental water-related impacts?**

Yes

**W2.1a****(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.**

**Country/Area & River basin**

South Africa  
Incomati

**Type of impact driver & Primary impact driver**

Chronic physical  
Precipitation and/or hydrological variability

**Primary impact**

Increased production costs

**Description of impact**

In 2019/2020, drought in Kwa-Zulu Natal negatively impacted Sappi's plantations, resulting in a loss of 32,609 white wet tons (wwt).

**Primary response**

Other, please specify  
Site-genotype matching

**Total financial impact**

1,600,000

**Description of response**

Site-genotype matching to ensure drought tolerant genotypes are deployed in areas subjected to drought. Timeous salvage operations when drought occur to minimize utilizable timber loss.

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**Country/Area & River basin**

South Africa  
Tugela

**Type of impact driver & Primary impact driver**

Acute physical  
Drought

**Primary impact**

Increased production costs

**Description of impact**

In 2014/2015, drought in the inland region of Kwa-Zulu Natal negatively impacted Sappi's plantations, resulting in a loss of 145,616 white wet tons (wwt).

**Primary response**

Other, please specify  
Site-genotype matching

**Total financial impact**

7,300,000

**Description of response**

Site-genotype matching to ensure drought tolerant genotypes are deployed in areas subjected to drought. Timeous salvage operations when drought occur to minimize utilizable timber loss.

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**Country/Area & River basin**

South Africa  
Other, please specify  
uMgeni

**Type of impact driver & Primary impact driver**

Acute physical  
Drought

**Primary impact**

Increased production costs

**Description of impact**

In 2016, Stanger Mill was impacted by drought which affected the uMvoti River, the mill's primary source of water. However, the entire mill did not shut, only the pulp mill was shut. Stanger Mill's paper and tissue machines utilised bought-in fibre (hardwood and softwood) and ran at reduced machine speeds.

**Primary response**

Other, please specify  
Use of alternative water sources

**Total financial impact**

898,000

**Description of response**

When the uMvoti River flow reduces, the mill abstracts water from the uMbozambo River. Abstraction boreholes are also available.

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**Country/Area & River basin**

South Africa  
Other, please specify  
uMgeni

**Type of impact driver & Primary impact driver**

Acute physical  
Other, please specify

Low flows on the Umkomazi River, the prime source of water to Saiccor Mill

**Primary impact**

Reduction or disruption in production capacity

**Description of impact**

Saiccor Mill, one of Sappi's dissolving pulp mills in South Africa, has been impacted from time to time by low water flows on the uMkomazi River, the prime source of water to the mill.

**Primary response**

Other, please specify  
Invest in raising dam wall.

**Total financial impact**

3,390,000

**Description of response**

In FY2016 we completed a project to raise the Comrie Dam wall, upstream of Saiccor Mill, tripling the amount of water in the dam. In addition to the cost of raising the dam wall given here, the annual maintenance cost is approximately US\$6,153 per annum and the five-yearly inspection cost is approximately US\$7,792.

## 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.**

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**Value chain stage**

Direct operations  
Supply chain

**Coverage**

Partial

### **Risk assessment procedure**

Other, please specify

Both as part of an enterprise risk management system (annually) and, at certain mills, as a stand-alone issue

### **Frequency of assessment**

Annually

### **How far into the future are risks considered?**

More than 6 years

### **Type of tools and methods used**

Other

### **Tools and methods used**

Internal company methods

External consultants

Scenario analysis

Other, please specify

WRI Aqueduct tool, IPCC climate change projections, Enterprise Risk Management, RCP scenarios.

### **Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

### **Stakeholders considered**

Customers

Employees

Investors

Local communities

NGOs

Regulators

Water utilities at a local level

Other water users at the basin/catchment level

### **Comment**

In South Africa, we monitor water risks in terms of our manufacturing and forestry operations.

Manufacturing

The consequences of floods and droughts in South Africa, which we view as almost certain and we assess as moderate in impact are:

- Increased cost of production and loss of margins

- Restricted production volumes.

Mitigation actions include an integrated water management strategy. At specific mills, this is as follows:

- Stanger – Use of borehole water and recycled water
- Tugela – Improved washing in NSSC pulping process
- Saiccor – Drawing from nearby Comrie dam (in 2016, we were involved in a project to raise the dam wall at a cost of US\$1,637,538) which provides an additional eight weeks' worth of water. Shuts at the mill are also timed to coincide with low water flows. For Saiccor Mill, we have employed external consultants to identify risks under four RCP scenarios and provide mitigation strategies.

#### Forests

In Sappi Forests, there are two key risks which could impact our assets: drought and water legislation. We mitigate drought through tree improvements and site-genotype matching. The legislative risk is linked to the possible limitation of our strategies to increase timber supply through conversion and expansion. We mitigate this risk by:

- Supporting Forestry South Africa's legal initiatives to resolve lawfulness of water use (licences) and genus exchange
- Building relationship with national and local government departments like the Department for Forestry, Fisheries and the Environment (DFFE) and the Department of Water Affairs and Sanitation (DWS)
- Strengthening proactive communication initiatives to support pro-forestry sentiment
- Driving implementation of the South African Government's Forestry Master Plan through the Public Private Growth Initiative.

## W3.3b

**(W3.3b) 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.**

We require substantial amounts of oil-based chemicals, fuels, water and other raw materials for our production activities and transportation of our timber and other products. The prices for and availability of these energy supplies, water and raw materials may be subject to change or curtailment, respectively, due to, among other things, new laws or regulations, imposition of new taxes or tariffs, interruptions in production by suppliers, worldwide price levels, drought or other severe weather and market conditions. The cost, availability and use of our water supply also have a direct impact on our input costs and operating profit.

#### ***Selection of tools and their application***

The World Resources Institute (WRI) has categorised South Africa as being characterised by medium/high water stress (with water stress being defined as freshwater withdrawn as a proportion of available freshwater resources). Use of the WRI's Aqueduct tool which goes into a level of granular detail, indicates that two of our mills are in areas of low/medium risk, two in an area classified as medium/high risk and one in an area of high risk. These factors, together

with devastating droughts in recent years and on the fact that South Africa's rainfall, at 490 mm per year, is half the world average, led us to establish water targets in South Africa.

Given that our Saiccor Mill in South Africa accounts for 800 tons per annum (tpa) dissolving pulp (DP) capacity out of total DP capacity in South Africa of 1,055 tpa DP and just under half of total pulp capacity (1, 679 tpa) and the strong link between climate change and water, we retained an independent consultant who used publicly available IPCC models to conduct climate and water risk assessment. This work built on earlier flood risk assessment work conducted in 2010 and again in 2017. We used Representative Concentration Pathways (RCPs) 2.6, 4.5 and 8.6. The models considered 1) the impact of floods and droughts on water availability and flood damage and 2) the impact of floods and drought on increased turbidity.

***How the risk assessment informs internal decision-making:***

We categorise risk as follows:

- Acceptable risks – Risks deemed so low that additional risk reduction efforts are not necessary
- Tolerable risks – Adaptations are required for risk reduction within reasonable levels
- Intolerable risks – Those which exceed a pre-determined value despite adaptive action.

Opex and capex spend together with strategy are informed by the tolerable risks identified, as is research direction.

## **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?**

EBITDA (earnings before interest, taxes, depreciation, and amortization) is considered a key indicator of the underlying profit performance of the group, reflecting both revenues and costs and aligning closely with our strategic goals of achieving cost advantages and growth. We define substantive financial impact as 20-25% of EBITDA, which, in FY2021, was between US\$98 – 130 million, based on an EBITDA of US\$532 million (excluding special items).

## 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	5	26-50	<p>The percentage of company-wide facilities this represents has been calculated in terms of sales. In FY2021, sales per region were: – SEU: €2,090 million – SNA: US\$1,688 million – SSA: ZAR16,083 million. Using the average exchange rates for FY21 as defined in the Sappi 2021 annual integrated report of ZAR14.9 – US\$1 and EUR1.2 = US\$1, means that in dollar terms SSA’s sales were US\$1,079 million and SEU’s were 1,741 million.</p> <p>However, the figure given above does not take Sappi’s extensive landholdings in South Africa into account. We own and lease 394,000 hectares of plantations, of which 258,000 is planted, the rest managed for biodiversity conservation.</p>

## 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

South Africa  
Incomati

### Number of facilities exposed to water risk

2

### % company-wide facilities this represents

26-50

### % company’s total global revenue that could be affected

31-40

### Comment

Lomati Sawmill and Ngodwana Mill are both located in the Incomati River Basin. They are two of the five facilities that are exposed to water risk in South Africa. All five

facilities are included in the % of company-wide facilities given above, and all five are also included in the % of company global revenue given above.

---

**Country/Area & River basin**

South Africa  
Tugela

**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

26-50

**% company's total global revenue that could be affected**

31-40

**Comment**

Tugela Mill is situated in the Tugela River Basin. The mill is one of the five facilities that are exposed to water risk in South Africa. All five facilities are included in the % of company-wide facilities given above, and all five are also included in the % of company global revenue given above.

---

**Country/Area & River basin**

South Africa  
Other, please specify  
uMgeni

**Number of facilities exposed to water risk**

2

**% company-wide facilities this represents**

26-50

**% company's total global revenue that could be affected**

31-40

**Comment**

Saiccor and Stanger Mills are both located in the uMgeni River Basin. These mills are two of the five facilities in South Africa that are exposed to water risk. All five facilities are included in the % of company-wide facilities given above, and all five are also included in the % of company global revenue given above.

---

**Country/Area & River basin**

South Africa  
Other, please specify

- Assegai • Blyde • Crocodile • Inkomati • Hlelo • Hluhluwe • Kaap • Lovu • Mfolozi • Mlumat • Mlumati • Mpuluzi • Mooi • Mtwalume • Nwempisi • Olifants • Sabie • Sundays • Tugela • Umgeni • Umkomazi • Umvoti • Umzimkulu • Waterval

**Number of facilities exposed to water risk**

**% company-wide facilities this represents**

**% company’s total global revenue that could be affected**

**Comment**

The system did not allow for the input of the following river basins: White Umfolozi and Vaal River Basins. The river basins given here reflect those in which Sappi's 394,000 hectares of owned and leased plantations are situated. As these are not mill operations, it is not possible to give the % of company-wide facilities these represent, or to give the % of global revenue that could be affected.

**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**

South Africa  
Incomati

**Type of risk & Primary risk driver**

Chronic physical  
Water stress

**Primary potential impact**

Constraint to growth

**Company-specific description**

The uMkomazi River is the primary source of water for Sappi’s Saiccor dissolving pulp mill in Kwa-Zulu Natal province. In FY21, the mill withdrew 52 million m3 (abstraction licence 60 million m3). There are a number of proposed dams in the catchment: Smithfield, Ngwadini and Impendle dams which could impact both water quantity and quality (sedimentation). Population growth in the province, the second most populous in South Africa, could also impact the availability of water. A shortage in water supply could result in a reduction of production volume as a consequence of running on reduced capacity, while reduced water quality could lead to higher costs related to water treatment prior to use. In a worst-case scenario, reduced supply could lead to a short-term shut of the production at the mill.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

High

**Likelihood**

Very likely

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

58,700,000,000

**Potential financial impact figure - minimum (currency)**

**Potential financial impact figure - maximum (currency)**

**Explanation of financial impact**

The figure given here is loss due to lack of water availability should no action be taken by 2050.

**Primary response to risk**

Other, please specify

Secure alternative water supply; adopt water efficiency, water reuse, recycling and conservation practices

**Description of response**

We mitigated this risk to some extent in 2016, when we completed a project to raise the Comrie Dam wall upstream from the mill, tripling the amount of water available in the dam. A more recent project which will help to mitigate the impact is the ZAR7.7 billion environmental improvement and capacity expansion project at Saiccor Mill. The project scope includes increasing the digesting and chemical recovery capacity of the mill, improving washing and screening of the pulp produced by the digesters and upgrading the pulp bleaching and drying plants. Key to improving the sustainability of the operation is the substitution of a large part of the original calcium cooking plant with state-of-the-art magnesium cooking, which allows for chemical recovery. Magnesium oxide cooking is considered Best Available Technology (BAT) as it is a closed loop process which does not generate a significant amount of effluent as most of the effluent is recovered. Environmental benefits include carbon dioxide emissions being halved, water consumption being reduced by 5%, water use efficiency increasing by 17%, energy efficiency being improved by 10% and renewable-energy use increasing by 20%.

**Cost of response**

52,000,000

**Explanation of cost of response**

The figure given here is the whole cost of the capacity expansion and environmental enhancement project. It is not possible to isolate out specific costs related to water

---

### **Country/Area & River basin**

South Africa

Other, please specify

Assegai • Blyde • Crocodile • Inkomati • Hlelo • Hluhluwe • Kaap • Lovu • Mfolozi •  
Mlumat • Mlumati • Mpuluzi • Mooi • Mtwalume • Nwempisi • Olifants • Sabie

### **Type of risk & Primary risk driver**

Chronic physical

Changing precipitation patterns and types (rain, hail, snow/ice)

### **Primary potential impact**

Constraint to growth

### **Company-specific description**

In South Africa, where we own and lease 394,000ha of plantations, we are 67% self-sufficient in woodfibre. As we do not irrigate our plantations, changing precipitation patterns and subsequent drought could have a significant impact on our woodfibre supply. Approximately 69% of our plantations falls in the moist climate category and 31% falls in the dry category where the ratio of Mean Annual Precipitation (MAP) to Potential Annual Evapotranspiration (PET) is less than one. Having to source higher percentages of woodfibre externally would like to significantly higher costs.

The response system does not allow enough space for all the river basins in which our owned and leased landholdings are situated, the list is as follows:

- Assegai
- Blyde
- Crocodile
- Inkomati
- Hlelo
- Hluhluwe
- Kaap
- Lovu
- Mfolozi
- Mlumat
- Mlumati
- Mpuluzi
- Mooi
- Mtwalume
- Nwempisi
- Olifants
- Sabie
- Sundays

- Tugela (Thukela)
- Umgeni
- Umkomazi
- Umvoti
- Umzimkulu
- Waterval
- White Umfolozi
- Vaal (Mooi River)

**Timeframe**

1-3 years

**Magnitude of potential impact**

High

**Likelihood**

More likely than not

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure - minimum (currency)**

50,899,936

**Potential financial impact figure - maximum (currency)**

508,999,360

**Explanation of financial impact**

The maximum value is based on timber standing in Sappi Forests at end February 2021 projected to September 2021. It assumes a complete loss of standing timber due to drought, while the minimum value represents a 10% loss of the value of standing timber.

The value of mature timber is calculated using a rolling twelve quarter Standing Value Method. Standing value is the delivered market price less the cost of delivery (including harvesting). Standing value is calculated by Sappi using the following equation:  
Standing value (R/ton) = Market delivered price (R/ton) – harvesting related costs (R/ton) – transport costs (R/ton) .

Due to fluctuating harvesting and transport costs, as well as market prices, a rolling twelve quarter standing value is considered to be the most prudent method of valuation of Sappi's timber. A different standing value is used for each plantation, and genus grouping, due to differing markets, harvesting and transport costs. The value of mature timber compartments is then calculated using the following equation:

Compartment value (R) = rolling twelve quarter standing value (R/ton) x rot mean annual increment (MAI) x age x area

### **Primary response to risk**

Other, please specify

Research and development

### **Description of response**

Sappi Forests' fibre base is continuously enhanced through leading-edge tree and genetic improvement programmes which aim to produce low-cost wood with the required pulping characteristics and increase pulp yield per hectare. This is done mainly through testing various species and hybrid varieties across Sappi's diverse landholdings. As well as growth improvements, trees are bred for superior wood properties and resistance to biotic and abiotic threats including frost, drought, pests and diseases. There is a sustained focus on mitigation of climate change effects through both tree breeding and improved silvicultural practices.

Sappi have over the last 8 years invested approximately US\$13.4 million into state-of-the-art nursery facilities for the production of genetically improved cuttings (hybrid varieties). This allows Sappi to meet the seedling requirement of both its own plantations as well as that of contracted farmers. These seedlings are supplied from four commercial nurseries based at Clan and Richmond in KwaZulu-Natal, and Ngodwana and Escarpment in Mpumalanga. Together, these nurseries supply more than 55 million plants each year (43 647 million plants for own use. Sappi's largest nursery, Clan Nursery produces approximately 17 million vegetatively propagated cuttings per annum.

Sappi's Land Management Programme researches and develops best practice guidelines for optimal deployment of genetically improved material (site species matching, fertilisation, planting density prescriptions, planting and coppicing practice as well as weeding prescriptions) to ensure that the environmental and climatic factors which impact negatively on growth; such as drought, hail, snow, pests and diseases; are mitigated to ensure maximum fibre yield per hectare. World class silvicultural best practices have been developed over time to ensure that the rotation age of each species is kept as short as possible and that the genetic potential developed through tree breeding is realised.

### **Cost of response**

17,404,984

### **Explanation of cost of response**

US\$3.2 million- the annual of the R&D programme for Sappi Forests in South Africa).

Plus US\$ 13, 400,000expansion cost of nurseries.

Plus US\$804,984 fire risk insurance

## 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

Germany  
Rhine

### Stage of value chain

Supply chain

### Type of risk & Primary risk driver

Acute physical  
Other, please specify  
Reduced rainfall and hence negative impact on rivers used for transportation

### Primary potential impact

Supply chain disruption

### Company-specific description

In Europe, in 2018, exceptionally low water levels in most of the region's rivers did not affect our mills directly, but negatively impacted transport logistics. Research cited by the WEF indicates that in the present day and far future, there is a high variability of drought intensities across various European climate regions. There will be greater differences between winter and summer precipitation: it will increase during winter and decrease during summer. For mid-Europe, the annual occurrence probability of an extreme drought strongly increases during the summer months, mounting to 25%.  
<https://www.weforum.org/agenda/2021/09/climate-crisis-droughts-europe-environment/>

### Timeframe

Unknown

### Magnitude of potential impact

Medium

### Likelihood

Likely

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

178,500

**Potential financial impact figure - minimum (currency)**

**Potential financial impact figure - maximum (currency)**

**Explanation of financial impact**

The figure given here represents the transportation surcharge paid in 2018

**Primary response to risk**

Supplier engagement  
Develop supplier drought emergency plans

**Description of response**

In FY2018, the low water situation led to shortage of vessels/barges on the inland waterways as the vessels were able to carry less containers per vessel. We paid surcharges to secure the required barge capacity and also made use of alternative options (train and truck traffic to ports). Should the situation be repeated, we would follow the same procedures

**Cost of response**

214,200

**Explanation of cost of response**

The figure given here represents a 20% increase on the surcharge paid in 2018.

## 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**

Resilience

**Primary water-related opportunity**

Increased resilience to impacts of climate change

### **Company-specific description & strategy to realize opportunity**

Research and development of genetically improved planting stock has been conducted at Sappi's Shaw Research Centre in Howick for over 25 years. Tree improvement is aimed at increasing pulp yield produced per hectare by testing various species and hybrids across Sappi's diverse landholdings. As well as growth improvements, trees are bred for superior wood properties and resistance to biotic and abiotic threats including frost, drought, pests and diseases. Available water is the main driver of tree growth in South African industrial plantations. Thus, through tree breeding, breeders inadvertently are selecting genotypes that produce more wood with less water. The Eucalyptus genotypes that are currently planted such as Eucalyptus (E.) dunnii, E. grandis x E. nitens hybrids and E. grandis x E. urophylla hybrids have much higher water use efficiency (WUE) than pure E. grandis that was planted in the past.

### **Estimated timeframe for realization**

Current - up to 1 year

### **Magnitude of potential financial impact**

Medium

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

50,899,994

### **Potential financial impact figure – minimum (currency)**

### **Potential financial impact figure – maximum (currency)**

### **Explanation of financial impact**

Amount given is 10% of standing value of trees in Sappi's tree plantations in South Africa at the end of September 2021 of USD508 999 940. The value of mature timber is calculated using a rolling twelve quarter Standing Value Method. Standing value is the delivered market price less the cost of delivery (including harvesting). Standing value is calculated by Sappi using the following equation: standing value (R/ton) = Market delivered price (R/ton) – harvesting related costs (R/ton) – transport costs (R/ton).

## **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)**

Lomati Sawmill

**Country/Area & River basin**

South Africa

Incomati

**Latitude**

-25.7726

**Longitude**

31.0402

**Located in area with water stress**

Yes

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

25

**Comparison of total withdrawals with previous reporting year**

Higher

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

24

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1

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

0.2

**Comparison of total discharges with previous reporting year**

Higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0.2

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

24.5

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

The facility coordinates are taken at one location.

The WRI Aqueduct Water Risk Atlas was used to classify the location of the facility as water stressed.

Total water withdrawal includes water withdrawn for all purposes. "Total Water Consumption at this Facility" includes 1. Mill Process water 2. Cooling Water. 3. Domestic water (for mill use). 4. Backwash Water. 5. Dilution Water. Total Water Discharge includes water effluent from the facility.

For the thresholds, a change less than 5% from the previous year is "About the same", a Change more than 5% but 25% and less is "Higher", a change more than 25% will be classified as "Much Higher".

Withdrawal and effluent volumes are mainly measured, but in some cases where there are no installed flow meters, estimations are made or volumes are calculated by doing overall mass balances.

The withdrawal from third party is a municipal supplier.

---

**Facility reference number**

Facility 2

**Facility name (optional)**

Ngodwana Mill

**Country/Area & River basin**

South Africa

Incomati

**Latitude**

-25.57803

**Longitude**

30.66549

**Located in area with water stress**

Yes

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

14,513

**Comparison of total withdrawals with previous reporting year**

About the same

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

14,513

**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)**

8,740

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

402

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

8,338

**Discharges to third party destinations**

0

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

6,175

**Comparison of total consumption with previous reporting year**

About the same

**Please explain**

The facility coordinates are taken at one location.

The WRI Aqueduct Water Risk Atlas was used to classify the location of the facility as water stressed.

Total water withdrawal includes water withdrawn for all purposes. "Total Water Consumption at this Facility" includes 1. Mill Process water 2. Cooling Water. 3.

Domestic water (for mill use). 4. Backwash Water. 5. Dilution Water. Total Water Discharge includes water effluent from the facility.

For the thresholds, a change less than 5% from the previous year is "About the same", a Change more than 5% but 25% and less is "Higher", a change more than 25% will be classified as "Much Higher".

Withdrawal and effluent volumes are mainly measured, but in some cases where there are no installed flow meters, estimations are made or volumes are calculated by doing overall mass balances.

For Ngodwana Mill, the withdrawal from fresh surface water is from own storage dam.

**Facility reference number**

Facility 3

**Facility name (optional)**

Saiccor Mill

**Country/Area & River basin**

South Africa

Other, please specify

uMgeni

**Latitude**

-30.18078

**Longitude**

30.77091

**Located in area with water stress**

Yes

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

52,011

**Comparison of total withdrawals with previous reporting year**

Higher

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

52,006

**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**

5.4

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

51,428

**Comparison of total discharges with previous reporting year**

Higher

**Discharges to fresh surface water**

5,429

**Discharges to brackish surface water/seawater**

45,927

**Discharges to groundwater**

0

**Discharges to third party destinations**

73

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

583

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

The facility coordinates are taken at one location.

The WRI Aqueduct Water Risk Atlas was used to classify the location of the facility as water stressed.

Total water withdrawal includes water withdrawn for all purposes. "Total Water Consumption at this Facility" includes 1. Mill Process water 2. Cooling Water. 3. Domestic water (for mill use). 4. Backwash Water. 5. Dilution Water. Total Water Discharge includes water effluent from the facility.

For the thresholds, a change less than 5% from the previous year is "About the same", a Change more than 5% but 25% and less is "Higher", a change more than 25% will be classified as "Much Higher".

Withdrawal and effluent volumes are mainly measured, but in some cases where there are no installed flow meters, estimations are made or volumes are calculated by doing overall mass balances.

For Saiccor Mill, the withdrawal from fresh surface water is from a river. The withdrawal

from third party is a municipal supplier.

---

**Facility reference number**

Facility 4

**Facility name (optional)**

Stanger Mill

**Country/Area & River basin**

South Africa

Other, please specify

uMgeni

**Latitude**

-29.36743

**Longitude**

31.28908

**Located in area with water stress**

Yes

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

7,787

**Comparison of total withdrawals with previous reporting year**

Higher

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

7,787

**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)**

5,639

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

5,639

**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)**

2,148

**Comparison of total consumption with previous reporting year**

About the same

**Please explain**

The facility coordinates are taken at one location.

The WRI Aqueduct Water Risk Atlas was used to classify the location of the facility as water stressed.

Total water withdrawal includes water withdrawn for all purposes. "Total Water Consumption at this Facility" includes 1. Mill Process water 2. Cooling Water. 3. Domestic water (for mill use). 4. Backwash Water. 5. Dilution Water. Total Water Discharge includes water effluent from the facility.

For the thresholds, a change less than 5% from the previous year is "About the same", a Change more than 5% but 25% and less is "Higher", a change more than 25% will be classified as "Much Higher".

Withdrawal and effluent volumes are mainly measured, but in some cases where there are no installed flow meters, estimations are made or volumes are calculated by doing overall mass balances.

For Stanger Mill, the withdrawal from fresh surface water is from a river.

---

**Facility reference number**

Facility 5

**Facility name (optional)**

Tugela Mill

**Country/Area & River basin**

South Africa

Tugela

**Latitude**

-29.15216

**Longitude**

31.40536

**Located in area with water stress**

Yes

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

16,581

**Comparison of total withdrawals with previous reporting year**

Higher

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

16,581

**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)**

11,716

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

11,716

**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)**

4,865

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

The facility coordinates are taken at one location.

The WRI Aqueduct Water Risk Atlas was used to classify the location of the facility as water stressed.

Total Water withdrawal includes water withdrawn for all purposes. "Total Water Consumption at this Facility" includes 1. Mill Process water 2. Cooling Water. 3. Domestic water (for mill use). 4. Backwash Water. 5. Dilution Water. Total Water Discharge includes water effluent from the facility.

For the thresholds, a change less than 5% from the previous year is "About the same", a Change more than 5% but 25% and less is "Higher", a change more than 25% will be classified as "Much Higher".

Withdrawal and effluent volumes are mainly measured, but in some cases where there are no installed flow meters, estimations are made or volumes are calculated by doing overall mass balances.

For Tugela Mill, the withdrawal from fresh surface water is from a river.

**W5.1a**

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

**Water withdrawals – total volumes**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water withdrawals – volume by source**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water withdrawals – quality by standard water quality parameters**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water discharges – total volumes**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water discharges – volume by destination**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water discharges – volume by final treatment level**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water discharges – quality by standard water quality parameters**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

**Water consumption – total volume**

---

**% verified**

Not verified

**Please explain**

For FY2022 we have contracted KPMG to perform limited assurance on our specific water consumption in South Africa

## 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	Select facilities, businesses, or geographies only	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement 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 stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Acknowledgement of the human right to water and sanitation	This policy is applicable to Sappi Southern Africa as a water-stressed region   1

 1Sappi-Southern-Africa-Water-Stewardship-Policy (1).pdf

### 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
Board Chair	<p>The Sappi Board of Directors, together with the Audit and Risk Committee and the Social, Ethics, Transformation and Sustainability (SETS) Committee have responsibility for water-related issues. The Sappi CEO, to whom the regional CEOS report, is a member of the Board and of the SETS Committee. The SETS committee monitors compliance with Sappi’s Thrive25 targets, applicable legal and regulatory requirements, and the Group Sustainability Charter and water-related issues. The committee reviews and assesses strategic and operational risks and opportunities and their impact on operations and strategy. The Audit and Risk and SETS committees also have responsibility for water-related issues within the context of Sappi’s environmental management approach of producing more with less — an approach that has obvious economic benefits and which serves to further climate, circularity and water efficiency goals. This approach necessitates using less water and improving effluent quality, mitigating our impact on biodiversity and promoting sustainable forestry through internationally accredited, independent forest certification and environmental management systems. The latter include ISO 14001, ISO 9001, ISO 50001 (SEU and SSA) and EMAS (SEU).</p> <p>The chairman of the SETS committee has served as the President of the International Union for the Conservation of Nature; Chairman of the UN Commission for Sustainable Development; Chairman of WWF(SA) and currently serves as the deputy chair of the South African President’s climate change commission. He was South Africa’s Minister of the Environment and Tourism between 1998 and 2004. Achievements during this time included the establishment of Africa’s first environmental court, as well as five new marine protected areas.</p>

## 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	Sporadic - as important matters arise	Monitoring implementation and performance Overseeing major capital expenditures	The Sappi board is briefed on water-related risks, both current and potential and mitigation plans. The board also reviews progress against water targets on a quarterly basis.

		Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing innovation/R&D priorities	
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## W6.2d

**(W6.2d) Does your organization have at least one board member with competence on water-related issues?**

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	The criteria to assess board members' competence on water-related issues include: 1) Experience and expertise in material sustainability issues 2) Experience and expertise in the pulp and paper industry and in forestry-related issues

## 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)**

Other C-Suite Officer, please specify  
 Group Head: Technology

**Responsibility**

Assessing future trends in water demand  
 Assessing water-related risks and opportunities  
 Managing water-related risks and opportunities  
 Other, please specify  
 Water-related research and development

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

As important matters arise

**Please explain**

The Group Head Technology reports directly to the CEO, sits on the Social, Ethics, Transformation and Sustainability (SETS) committee and is an executive member of Sappi Limited. Responsibility for water-related issues has been allocated to this individual because of their expertise in engineering, research, manufacturing and project execution as well as operational and risk management. This individual is responsible for overseeing:

- Climate-change and water- related research and development,
- Research related to the reduction of greenhouse gas (GHG) emissions and energy as well as more efficient water usage—particularly important in South Africa, where climate change is putting pressure on freshwater resources
- The work of the E4 ‘cluster’, a global team tasked with ensuring consistency and accuracy of environmental metrics. This includes metrics related to specific water usage which are reported on quarterly in SSA in line with the region’s specific water use target.

## 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	Yes	Our compensation packages are designed to attract, retain and motivate executives and all employees to deliver on performance goals and strategy. Sappi’s Thrive25 strategy emphasises the importance of sustainability, including natural resources like water. Examples of personal objectives for executives under the management incentive scheme include the roll out of the Thrive25 strategy, Sappi’s annual regional and global Thrive 2025 sustainability targets. Sappi SA has a specific Thrive25 water-related target.

## W6.4a

**(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?**

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Corporate executive team	Improvements in efficiency - direct operations	Sustainability targets, including climate, forestry and water-related issues, form part of the overall business plan for Sappi Limited and globally. The outcomes of the Management Incentive Scheme in relation to all the sustainability targets are contained in the performance

			objectives of each mill and the personal objectives of all senior management. The personal objectives of the Group Exco are disclosed in the Annual Remuneration report. The payable amounts of incentives are linked to the executive's position and achievement of annually set business and individual targets.
Non-monetary reward			

## 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

Yes, other

## 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?**

The Group Head: Corporate Affairs and the Group Head: Strategy and Legal, liaise with the Group Head: Investor Relations and Sustainability, as well as the regional CEOS and sustainability heads regarding direct activities that influence policy. At the Regional Sustainable Development Councils (Europe, North America and South Africa), Global Sustainable Development Council, as well as the SETS and Risk and Audit committee meetings, policy and legislative items that can or do affect the sustainability of Sappi's business, including climate change and water, are discussed and appropriate actions are agreed with management and EXCO to ensure our positions are consistent with our water policy.

## W6.6

**(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?**

Yes (you may attach the report - this is optional)

📎 Sappi 2021 AIR.pdf

## 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	21-30	This timeline takes into account the nature of our mill operations and capital investments for long life assets; as well as Sappi Forests' research planning horizons
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	21-30	Water-related risks - both internal and external developments, together with climate change trends - and opportunities are built into our long-term strategic objectives.
Financial planning	Yes, water-related issues are integrated	21-30	Water-related issues are built into our opex and capex plans

### 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)**

12.5

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

12.5

**Water-related OPEX (+/- % change)**

12.5

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

12.5

**Please explain**

For FY21, both OPEX and CAPEX increased by 5-30% depending on site and geography (hence the mid-point of 12.5% indicated here). We expect this trend to continue over next few years.

### W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	<p>Saiccor Mill appointed external consultants to undertake a Water Risk Forecasting and Strategy Optimisation study with the objectives of:</p> <p>1) Identifying the mill’s key water risk areas and evaluating the significance of this risk to the business in the short, medium, and long term (up to 2050), and 2) Facilitating the development of an optimised water strategy designed to manage the most significant risk areas.</p> <p>To achieve these objectives, the consultants developed a Water Risk Forecasting Model customised to Saiccor Mill’s operating and external context. This model incorporates five sub-models covering Saiccor Mill’s industrial process, climate change, catchment, tariff, and regulatory context. Each of these sub-models contain multiple scenarios that can be selected to evaluate Saiccor’s water risk to 2050 under different conditions. Risk is translated as financial impact resulting from production loss, operating cost, legal compliance, and market accessibility.</p>

### W7.3a

**(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.**

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related Other, please specify Financial	The first step was to unpack the financial, operational, legal and market water-related risk for Business as Usual (BaU) and identify the most significant risk factors. Following this identification, a range of strategic scenarios, incorporating selected water initiatives, were run and the impact on risk significance evaluated. The (BaU) scenario was	The most significant risk to the mill is the proposed development of Smithfield Dam upstream from the mill. In other words, catchment water availability presents the most significant risk to Saiccor with significant impacts on lost production by	In the short term (to 2025), the mill is focusing on water optimisation as this has a significant impact on the mill’s future exposure to operating cost. Optimisation initiatives include the incorporation of Saiccor’s water cycle into Rapid Miner to identify the following throughout the mill: Water wastage, water contamination,

		<p>developed to project the significance of the impact of water issues to Saiccor to 2050 should no strategic interventions be taken to manage water risk. Market, operational, catchment, climate change, tariffs (water and wastewater), regulatory and infrastructure (potential new dams) were included using time horizons to 2025, 2030 and 2050</p> <p>Assumptions related to drought and floods (water availability, flood damage, increased turbidity) were made using four RCP (Representative Concentration Pathways) projections, RCP2.6, RCP 4.5 and RCP8.5, using both quantitative and qualitative information.</p>	<p>2030.</p> <p>Saiccor's water-related production loss cannot be mitigated through</p> <ul style="list-style-type: none"> <li>•water efficiency,</li> <li>•water recovery,</li> <li>•water storage or</li> <li>•process water optimisation.</li> </ul> <p>The mill requires an alternative water source to effectively manage water-related production loss.</p>	<p>malfunctioning and inefficient equipment , process improvements, reuse opportunities (such as the reuse of TCF bleaching effluent), treatment and recovery opportunities, behavioural issues and usage efficiencies linked to production cycles</p> <p>Focus on water optimisation will also result in a significant improvement in wastewater generation and quality.</p> <p>Saiccor's short-term 2025 target is to reduce the mills water supply requirement by a minimum of 10 m3 / t product to 45 m3 / t product.</p> <p>The priority in the medium term (2026 – 2030) is to identify and commission alternative water supply sources to provide the mill with water security once Smithfield Dam is developed.</p> <p>Viable alternative sources for Saiccor are desalination and recovered water from the local sewage treatment works. Saiccor has the option to utilise both these sources together or develop a standalone larger desalination supply.</p> <p>Saiccor's long term (2031 – 2050) priority and target is to reduce the mill's freshwater requirement to zero to eliminate the mill's</p>
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				dependence on the uMkhomazi Catchment.
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## W7.4

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

Row 1

**Does your company use an internal price on water?**

No, and we do not anticipate doing so within the next two years

**Please explain**

## W7.5

**(W7.5) Do you classify any of your current products and/or services as low water impact?**

	Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, but we plan to address this within the next two years	Important but not an immediate business priority	We are assessing the methodology for low water impact.

## 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	Country level targets and/or goals	Targets are monitored at the corporate level	In 2019, we established a working group drawn from colleagues across all regions to prioritise the SDGs most relevant to our business, develop related action plans and translate them into specific business targets. United Nations Sustainable Development Goal 6 (UN SDG 6): SDG6: Clean water and Sanitation is relevant to Sappi because water is one of our key process materials. In addition, our tree plantations in South Africa, while not irrigated, depend on rainfall to grow. Using

			World Resources Institute (WRI) data, we identified our operations in South Africa (2,369 tpa of capacity out of a global total of 9,433 tpa of capacity) as subject to certain levels of water stress. We also focused on this region because with Africa's most industrialised economy and a growing population, South Africa is struggling to keep pace with water demand. The country is one of the world's 30 driest. Rainfall, while variable across the nation, averages less than 500 millimetres per annum and climate change is expected to make the county even more arid.
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## 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

Water consumption

### Level

Country level

### Primary motivation

Reduced environmental impact

### Description of target

Our 2019 baseline was 44.5 m<sup>3</sup>/adt. Our target for FY2021 was 42.2 m<sup>3</sup>/adt.

### Quantitative metric

% reduction per unit of production

### Baseline year

2019

### Start year

2020

### Target year

2025

### % of target achieved

### Please explain

We did not achieve this in FY21, with specific water usage for SSA standing at 46.2 m<sup>3</sup>/adt

During FY21 Saiccor Mill increased water usage due to cold commissioning activities related to the significant capacity expansion and energy efficiency project as well as Lyocell campaigns throughout the year increasing the water demand in order to maintain quality.

## W9. Verification

### W9.1

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

No, we are waiting for more mature verification standards and/or processes

## 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.**

### 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	Group Head: Investor Relations and Sustainability	Chief Sustainability Officer (CSO)

### 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)].**

No

## SW. Supply chain module

### SW0.1

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

	Annual revenue
Row 1	

## SW1.1

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

## 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		

## 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?

## SW3.1

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

## Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public



**Please confirm below**

I have read and accept the applicable Terms