

Southern African Institute of Forestry



Delivering a professional service to forestry

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From the President's desk

Plastic versus Paper

The use of eco-friendly packaging has grown in popularity over the last few years. The goal of using eco-friendly materials is to protect the environment; to become more sustainable and to reduce energy and resource consumption. Plastic is the most common form of packaging and is used globally today. Plastic is extremely versatile, light weight, resistant and cheap to produce, however its long-term, damaging effects on the environment are a reason to explore packaging alternatives.

Plastics can either be synthetic or biobased. Synthetic plastic is derived from crude oil, natural gas or coal, whereas bio-based plastics are derived from renewable resources, such as carbohydrates, starch, vegetable fats, oils and bacteria. Most plastics (single-use plastic) that are produced for our use are synthetic and are non-biodegradable. Examples of single-use plastics include; plastic forks and knives, shopping bags, coffee cup lids, water bottles, styrofoam and plastic take-out containers and straws.

Unless these plastics are recycled, they will begin to accumulate in landfills, and can remain there for the next 500 years. High-income countries are known to produce the most plastic waste per person; however, these countries tend to have effective plastic management systems in place that can cope with the volume of waste produced. High income countries will recycle and contain their waste efficiently, thus preventing plastic from entering the oceans and



Sneak Preview of SAIF 2021 Calendar Cover



natural ecosystems. Poorer countries produce less plastic per person, but their waste management services are less efficient and are thus responsible for the majority of the ocean's plastic load. It has been estimated that approximately 4.8-12.7 million tonnes of plastic enter the ocean every year. The packaging industry produces the most waste when compared to the transport, textiles and other waste producing industries. In order to reduce the amount of waste produced and reduce the effect this rate has on the environment we must change the way we package.

The simplest way to reduce waste production is to eliminate it completely. This can be done by removing all unnecessary plastic packaging associated with the purchase of goods, such as the plastic wrapping covering certain vegetables and new bed linen. Some companies have become very innovative in their effort to reduce their plastic usage. Certain beer companies use dots of glue to hold beer cans together rather than plastic rings or plastic wrapping. In Sweden, vegetables are labelled directly using a laser instead of using plastic stickers and some detergent companies have started using water soluble films to encase their product, rather than plastic. In certain cases where plastic packaging cannot easily be eliminated (soap and shampoo bottles), companies have offered their clients the option to reuse and refill their plastic packaging. Plastic can also be recycled and repurposed at recycling plants to limit the amount entering landfills. The best way to reduce waste, however, would be to use packaging that is easily recycled and biodegradable.



Paper packaging is derived from plant-based sources, which are planted, harvested and then regrown, making paper a renewable and sustainable resource. Paper products can also be recycled into completely different paper products, a process that can be repeated up to seven times. The process of recycling paper releases less toxic and poisonous gases into the atmosphere, compared to what is typically seen during plastic recycling. In the past, trees were the primary source for paper packaging production. Today, however, other plant-based alternatives can be used, thus reducing the effect of deforestation, and essential for the protection of natural forests. Examples of tree-alternatives include; sugarcane pulp (bagasse), straw, coconut husks and even seaweed.

Paper is an extremely versatile product that can be recycled into several new products. The rate at which paper is broken down in landfills and the environment is approximately 2-5 months compared to plastic. The degradation of plastic relies on UV radiation from the sun (photodegradation) rather than on microorganisms in order to complete the break down. The environmental impacts of plastic have been long known but only received attention in recent years due the impact on rivers and oceans across the world as a result of poorly controlled waste management processes. Paper packaging, on the other hand, is less likely to cause harm to wildlife and have negative impacts on the food chain.

Local and international forestry companies have seen growth particularly in the paper packing sector where products can be sourced from sustainably grown plantation trees. It also aligns with their goals of creating a circular economy from raw materials, design, manufacturing, distribution, consumption, collection, recycling and reduced residual waste (Figure 1). Producers of natural fibres can offer solutions to combat the plastic pandemic by increasing product offerings to the customer through innovative solutions with the use of paper-based or bio-based plastics, molded food storage .



containers, which are biodegradable and compostable. As the demand for natural fibre-based products increases, sustainable management of plantation grown forests is essential, offering many opportunities within various circular economy streams by influencing consumer behavior with a positive impact on the environment.



Figure 1: The Circular Economy.

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News from Forestry South Africa

(<https://www.forestrysouthafrica.co.za/>)

Forestry Sector Masterplan has been approved

Members will recall that at the end of 2019, we reported the PPGI commitments had to be captured in a Masterplan, with details on implementation, structures for delivery etc. The process, led by the Department of Trade, Industry and Competition has recently been concluded and FSA is delighted to report that the **Forestry Sector Masterplan** was formally endorsed by the Executive Oversight Committee and the Deputy Minister of the Department of Environment, Forestry and Fisheries. The Master Plan is supported by a **Governance Structure**, an **Implementation Plan** and a **Monitoring and Evaluation Plan**.

The approved Forestry Sector Masterplan has at its core the same commitments (of both the public and private sectors), as those captured in the Presidentially-led Public Private Growth Initiative (PPGI). FSA would like to acknowledge all our members for their participation and informing this process.

Phase 1 : Secondary data analysis and research which resulted in a Research and SWOT Analysis baseline report.

Phase 2 : Extensive stakeholder engagements to refine the Goal statement, priority focus areas and outcomes of the Forestry Sector Masterplan, documented in a separate report.

Phase 3 : Draft Masterplan report, with Focus Areas, outcomes and deliverables fully developed, with further stakeholder engagement.

Phase 4 : The Masterplan report completed. During this phase, the deliverables, key actions, Implementation Plan and Monitoring and Evaluation (M&E) Plan were finalised, with further engagement with those responsible for implementation.



The Rob Thompson Column:

The last days of 2020

Literally every discussion that one engages in, during these last remaining days of 2020, contains some reference to just how “over” 2020 everyone is! Like horses with the smell of home in their nostrils, people from all walks of life are fixated onto the new year, expectant of new beginnings, and, welcome change from the year that elevated the simple word “pandemic”, into the word of the decade.

Let’s just hope that 2021 lives up to the expectations being heaped upon it and that it does not just merely present “more of the same”.

As we witness the death knell of 2020, thoughts do regress to recent times and our experiences in what has been a truly “interesting” year (said in context of the ancient Chinese curse).

Are the constraints placed upon us by the pandemic inherently guiding peoples odd behavior of late or are we displaying what we truly are and cannot control?

Disturbingly a “Lord of the Flies” analogy comes to mind at this juncture. Where will we end up if the situation perpetuates indeterminately?

Commencing the 2020 discussion on the more negative side of the spectrum, one must accept that the forestry industry has not escaped the ramifications of the 2020 meltdown. Currently we don’t bat an eyelid as we plan our timber supply logistics from field to mill around daily service delivery protests on most major highways and daylight travel limitations so as to avoid unwitting participation in the new national sport of truck burning.

Financial stress being experienced by many has inevitably led to some near physical clashes on the occasion of stressed timber suppliers interacting with the timber marketing organization that I work for. A few recent demands for market allocation from desperate suppliers have been accompanied with threats of bodily harm to staff as an incentive to compliance.

I shudder to think of the reaction from the accounts department to any future requisitions escalating staff PPE issue from face masks, to face masks and flak jackets. I’m also expecting the HR guys to question the unarmed combat training programme that’s been requested.

We have a patch of indigenous forest alongside our office. Whilst walking past this patch on a rainy day last week, a young lad appeared from the shadows and in a very well spoken manner explained that he had fallen upon hard times over the past months and had lost everything. He had apparently hitchhiked from Krugersdorp and his ambition now was to become a car guard at the nearby mall, but, needed the funds to apply for a temporary ID before he could become registered as a guard by mall management. He showed me the concealed camp that he had set up for himself and the compulsory reflective bib kept in a tattered bag, which I later learnt he had obtained from a colleague of mine. This was quite an emotive and humbling experience for me given that the tragic story he told certainly appeared plausible. A while later I encountered him again and he gave me feedback as to progress made and a promise to repay me once he was able. Upon reflection, I concluded that even if his story was made up, a person would have to be desperate to go to such lengths. This youngster was certainly, yet another victim of 2020.

After months of social distancing and virtual meetings the opportunity arose for well controlled, spacious, open air general staff meeting, in a unique and very scenic part of the Midlands. Everyone looked forward to the day and all due preparations were made. We arrived at the venue in full anticipation of a glorious day of interaction and fresh air only to encounter.....rain and mist! Dammit 2020!

Another opportunity arose to conduct a field day focused on wattle. This time the weather held, albeit that temperatures rose to the high 30’s resulting in some well scorched foresters and farmers. 2020 playing with us yet again. Other than the weather, the field day revealed another anomaly relating closely to the 2020 experience.



Wattle yields (both timber and bark) are showing concerning declines year on year, with experts indicating that this is likely the combined result of previous drought conditions, the scourge of the wattle rust pathogen, and opportunistic pests such as wattle myrrid. All natural pandemics in their own right, this time affecting a timber resource and not attributable to either bats or China (as far as we know).

The rain encountered on the day of the staff meeting continued and continued and continued. It's raining as I write this article. Is it right for a forester to say "enough" to rain? For those of us in the business of wattle however, the combination of rain and heat makes for easy bark strip-ability and the onset of the wattle supply season. Fantastic! Money to be made! But wait...we need to access the timber to transport to mill and the soggy ground is just not playing ball. Another score for 2020.

So it's not all been totally bad. Let's move onto matters more positive lest I draw you into the depths of depression. With the emphasis on matters "health" during 2020, we decided on involving staff in a step challenge in order to draw awareness to testicular cancer and mental health. We, like most forestry organisations, have our fair share of energy bunnies and Rambo's with sage predictions accordingly made as to which freak of nature would accumulate the most steps over the allotted month. Not factored into these predictions however, was the positive effect that 2020 has had on some less conspicuous individuals. Lockdown has created some walking gurus, who, like stealth ninjas, totally obliterated the once highly regarded, and now embarrassed athletic meat machines when it came down to total step count achieved. Health consciousness and the time to move and exercise has been a plus point of 2020.

A month dedicated to breast cancer awareness also provided its fair share of distraction away from the torment of 2020. A particular day was dedicated to the colour pink, with staff encouraged to celebrate the colour in whichever way they found appropriate. Certain disturbing observations were made and likely attributable to the nuances of 2020.

Rough and tough male foresters adorned in lipstick and pink wigs seemingly at ease with practiced sweeping head movements and stroking each other's long tassels. Could it really be that they were enjoying this just a tad too much? Maybe...but the emphasis should be on enjoyment. 2020 has made interaction, when possible, fun, unique and memorable. May this perpetuate into 2021.

These few recollections illustrate the last days of a most strange year.

Perhaps it is opportune that you reflect on the year that was as well, and the experiences that you had, both good and bad? This may place much needed perspective onto 2021 and assist you in maintaining your sanity should the new year not present significant improvement.

In any event, here's wishing you all the very best and doses of good humour for 2021. I think that we are all going to need it!

The graphic is a promotional poster for 'AGRO WORLD 2020'. It features a collage of agricultural images: a drone flying over a field, a tractor in a field, a close-up of wheat stalks, a cow in a field, and a basket of oranges. The text includes the ICA logo (Indian Chamber of Food and Agriculture) at the top right. The main title 'AGRO WORLD 2020' is in large, bold letters, with 'AGRO' in green and 'WORLD 2020' in blue. Below the title, it says 'THE GATEWAY TO GLOBAL MARKET AND AGRIBUSINESS' in yellow and white. The dates '10 - 11 - 12 December 2020 | New Delhi' and a 'REGISTER NOW' button are also present. A 'HIGHLIGHTS' section lists: VIRTUAL BOOTHS, DIGITAL PRODUCT LAUNCH, NETWORKING AND PARTNERSHIPS, LIVE WEBCASTING AND STREAMING, and VIRTUAL EXHIBITION / CONFERENCES / SUMMIT. A 'BENEFITS' section lists: PARTICIPATION AT NATIONAL AND INTERNATIONAL LEVEL and QUALITY OF LEADS - ONLY PROSPECT BUYER AND SELLER. The website 'www.agroworldindia.com' and social media icons are at the bottom.



SAIF Photo Competition 2020

It is with great pleasure to let you know who the top 15 winners of our 2020 Photo Competition are. The first three winners will each receive a prize from Stihl.

The SAIF would like to sincerely thank Izette Greyling and the regional judges:

WESTERN CAPE	Deon Malherbe
SOUTHERN CAPE	Desmond Scholtz
GAUTENG	Dr. Rob Morley
MPUMALANGA	Gerrit Marais
KZN	Nicci Edwards

Here are the Winners in order of Merit.

1st	JOS LOUW
2nd	BRETT HURLEY
3rd	MIKE HUNTER
4	PHILLIP FISCHER
5	MIKE HUNTER
6	JOS LOUW
7	SEAN SNEYD
8	ROBIN HULL
9	LEIGH WILLIAMS
10	PHILLIP FISCHER
11	JACO-PIERRE V.D. MERWE
12	SAMANTHA BUSH
13	LEIGH WILLIAMS
14	SAMANTHA BUSH
15	MIKE HUNTER

Details of the Winning Photos appear lower down in the Newsletter and will be featured during 2021.

The SAIF would also like to thank the following sponsors for their valuable financial contributions .

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- Mondi
- Andreas Stihl (Prizes)

FAO launches policy brief on COVID-19 impacts to wood value chains



Rome, 16 November 2020 – Wood value chains have been hard-hit by the COVID-19 pandemic but the side effects of the crisis have not all been negative for the sector, according to a new FAO policy brief.

Impacts of COVID-19 on wood value chains and forest sector response summarizes the findings from a global survey on the impacts of the crisis on wood value chains and makes recommendations for harnessing their contributions to the post-COVID-19 recovery phase.

More than 200 stakeholders representing all segments of wood value chains responded to the survey, including the private sector, forest and farm producer organizations, governments and academics. Responses came from almost all regions, with highest participation from Africa.

“Disruptions to production and trade of forest products associated with the COVID-19 crisis have put essential livelihoods and forest-based industries at risk,” said Senior FAO Forestry Officer Thais Linhares Juvenal.

“Providing countries with a clearer picture of how different segments of wood value chains have been experiencing the pandemic will help them to better integrate sustainable wood value chains in COVID-19 recovery and stimulus programmes.”

Risks and opportunities

Among the negative effects of COVID-19 on wood value chains were the temporary closure of commercial outlets and reduction of salaries, impacting livelihoods. Respondents were also concerned about the risks to forest governance, including monitoring and enforcement, illegality and tenure rights, as well as decreased financial resources to implement sustainable



forest management.

However, respondents believed that response to the COVID-19 pandemic may have some positive effects on the sustainability of the sector, such improved health and safety standards along wood value chains, and adoption of digital technologies in recovery strategies.

“The wood sector may emerge from the crisis with higher social and operational standards and social measures,” the brief states.

Building back better

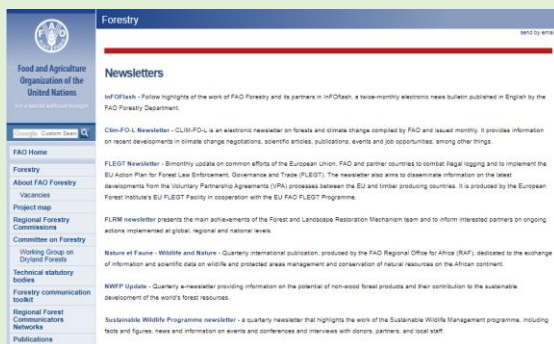
The brief suggests a series of policy recommendations to address the vulnerabilities of wood value chains and build on emerging opportunities to reduce poverty and increase sustainable forestry. These include making wood value chains part of recovery strategies and measures and promoting the trade and consumption of legal and sustainable wood products. The brief also recommends

supporting smallholders, communities and small and medium forest enterprises (SMFEs) in value chains by providing adequate finance as well as incentives for increased organization, including horizontal and vertical integration.

The policy brief was compiled by FAO and is a product of the [Sustainable Wood for a Sustainable World \(SW4SW\)](#) joint initiative of the [Collaborative Partnership on Forests](#).

For this Story and more on forestry globally, go to

<http://www.fao.org/forestry/news/>



Hans Merensky EucXylo Project well underway

By Dr David Drew, Lead Investigator

The Hans Merensky Chair in Advanced Modelling of Eucalypt Wood Formation kicked off in mid-2019 at the Department of Forest and Wood Science at Stellenbosch University. The initiative, funded mainly by the Hans Merensky Foundation, is undertaking basic research into how wood forms in the important group of genera known as the eucalypts. The vision of the project is to ultimately to distil this growing knowledge into interconnected predictive models at multiple scales.

Little did we know, when the project began, that the year of COVID-19 was soon to be upon us! And so, no sooner had some of our new students arrived in January, we found ourselves in lockdown. Despite the huge handicap, the team managed to make the best of a difficult situation. Some students made great progress digging into the scientific literature, while others sharpened their computer programming skills. Once lab access was again permitted, the team was excited to shift from doing lots and lots of reading to getting back to their experiments.



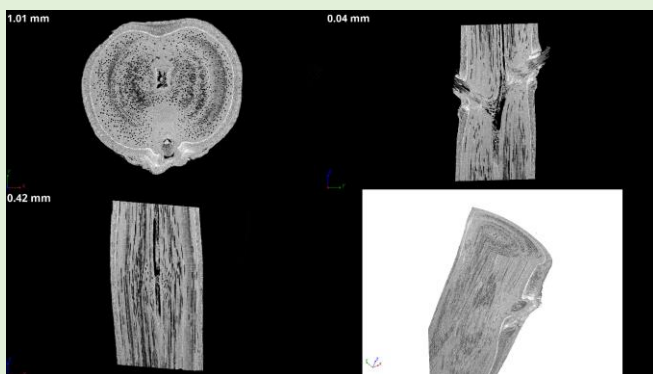
The EucXylo team celebrating the installation of base blocks for a new monitoring experiment





Student Alta Saunders busy testing her experimental set-up in the lab

Six postgraduate students (M.Sc. and PhD) are already working on projects at various scales, from the stand-level to the molecular. Student Alta Saunders is busy with a PhD project investigating the photosynthetic and hydraulic trade-off during drought recovery in eucalypts. Brian Mandigora is focusing in his PhD on developing models of short-term variation in growth and wood physical and chemical properties to periodic rainfall events. Rafael Keret has just kicked off his PhD to understand the molecular basis (from the transcriptome to the functioning proteome) of vessel characteristics in *Eucalyptus grandis*. Two post-doctoral fellows are also working on the project. The first of these fellowships is developing an approach to connecting models of plant physiology and wood formation, and building a framework for simulating xylogenesis in the whole-plant context. The second is investigating the feasibility of non-destructive imaging of the cambial zone and developing xylem.



A three-dimensional view of the xylem formed in a young eucalypt obtained using high-resolution CT scans. In cross-section (top-left) the individual vessel cells can be seen as little black dots. In the longitudinal sections (top-right and bottom-left) they can be seen as dark lines.

There are still opportunities for new students to join the team. Please visit <https://blogs.sun.ac.za/eucxylo/> for more information about EucXylo. Any students interested in applying for a scholarship to undertake an M.Sc. or PhD with us (biological or modelling oriented) can contact Dr Drew, the Primary Investigator on the project at drew@sun.ac.za.

Forestry in the Western Cape : Quo Vadis ?

MTO Forestry(Pty) Ltd historically the biggest single grower of timber in the Western Cape , finally handed back the last remaining portions of the Exit Plantations at the start of October 2020. This brings to a close a twenty year process of phasing out commercial forestry operations on ±45,000 ha , the so-called Exit program which commenced in 2000. This will inevitable have major implications for the forest and forest products industry in the Western Cape Province.

According to a Cabinet decision in 2008 based on the 2006 recommendations to government by the VECON group of consultants, 22,500 ha (50% of original EXIT area) should be retained for forestry. This decision was ratified by the IDC / Louis Heyl & Associates study done in 2014 but execution did not commence.

Government confirmed all of these previous decisions and committed itself to the process of re-capitalisation of the 22,500 ha Exit Plantations as one of their Focus Area No.1 : “Expanded Forestry Resource” .

Until such time as government is ready to enter into new Lease Agreements with successful forestry bidders, DEFF has commissioned the Forestry Support Programme (FSP) in the Western Cape & Southern Cape to manage the Future Land-use : Forestry of the former MTO Exit Plantations primarily focussing on Fire Management . This programme is done in conjunction with the Working on Fire Program which forms part of government’s Expanded Public Works (EPWP) Program.



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BIRTHDAYS : DECEMBER 2020			
VON KROSIGK F.K.	Dec-02	ROGANS D.M.	Dec-14
HEATH R.N.	Dec-02	THEART G.F.	Dec-15
CHAPMAN C.	Dec-02	PEROLD M.	Dec-15
MONNIG N.H.	Dec-03	FISCHER P.M.	Dec-15
BESTER J.J.	Dec-03	LINDNER G.E.	Dec-16
LYLE G.R.	Dec-05	LOUW J.H.	Dec-18
VERMEULEN W.J.	Dec-05	MALLOCH-BROWN D.	Dec-19
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JAKAVULA M.G.	Dec-06	ALGERA M.	Dec-20
ODENDAAL P.B.	Dec-10	STRYDOM H.L.	Dec-25
VIERO P.	Dec-10	DLAMINI C.	Dec-25
MASON M.J.	Dec-11	KOMAKECH C.	Dec-29
SCHOOMBEE P.W.	Dec-11	PANNIFER W.P.	Dec-30
HERRON D.	Dec-12	HURLEY B.P.	Dec-30



The Southern African Institute of Forestry

Handbook order form

The Southern African Institute of Forestry publishes three industry specific handbooks.

I would like to order:

South African Forestry Handbook

Price: SAIF members: R400

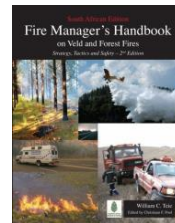
Non members: R500



Fire Manager's Handbook on Veld and Forest Fires

Price: SAIF members: R300

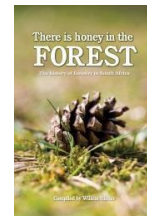
Non members: R400



There's Honey in the Forest

Price: SAIF members: R100

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