

Southern African Institute of Forestry



Delivering a professional service to forestry

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From the President's desk Biological Diversity

The diversity of life on planet Earth is fascinating and incredibly vast. Life on Earth comes in many different forms including; plants, animals, fungi and micro-organisms, which can be found in many different habitats. Biological diversity or biodiversity are terms that are used to describe the great variation of life on Earth. All life is interconnected, which can make ecosystems extremely sensitive to change.

Removing even one element from an ecosystem may potentially have cascading negative effects on all life forming part of the ecosystem. This year, two days have been set aside to educate the public and ultimately raise awareness about the importance of biodiversity. The first was the International Day of Biological Diversity (IDB) on the 22nd of May, which aimed to increase the understanding and awareness of biodiversity and World Environment Day (WED) on the 5th of June 2020, which encourages environmental awareness.

The theme for the IDB for this year was "Our solutions are in nature", and serves a call for the global community to re-examine its relationship with the natural world. One thing is undeniably clear, that despite all of our technological advances, the health of humans will always be directly related to the health of the environment and animals. In addition to food and water, humans require healthy environments for the continued production of medicines, clothes, fuel, shelter and energy, to name a few.



Photograph from the 2020 Calendar (Month: Aug.) taken by Prof. Coert Geldenhuys from Gauteng Branch depicting Miombo Woodland in Liwonde Forest Reserve in Malawi



In light of our current situation regarding the global pandemic, 2020, has been a year of reflection and learning. Many people will come out of this experience with a new-found respect for the environment and will understand the importance of keeping ecosystems healthy and thriving. As the Earth slowly recovers, we need to use this time and experience to come up with solutions that are aimed at rebuilding for a better and healthier future. The need to “bend the curve” back on biodiversity loss for the benefit of humans and all life on Earth has never been more important. This aligns with the WED theme for this year, which was Biodiversity, a concern that is both urgent and existential. Recent events, from bushfires in Brazil, the United States, and Australia to locust infestations across East Africa – and now, a global disease pandemic – demonstrate the interdependence of humans and the webs of life, in which they exist.

Currently, there are nearly one million species out of an estimated 8 million species on the brink of extinction, which is an extremely worrying statistic. Loss of biodiversity can be attributed to climate change, building infrastructure and the need to expand farm lands that produce food for a growing human population. It is therefore important to ensure that people minimize the adverse effects of these activities by keeping the effect it may have on an ecosystem’s biodiversity in mind.

Forestry organisations, government departments, commercial companies and private individuals are the custodians of land allocated for commercial forestry operations. This requires sustainable management, which includes biodiversity conservation and management at local, national and international level. Biodiversity conservation also forms part of The United Nations Sustainable Development Goals (SDGs) of which SDG 15 “Life on Land”, makes biodiversity a top priority on the international development agenda.

Part of sustainable forestry practice is the production of timber or fibre along efficient logistics supply chains, which have an effect on ecosystems and biodiversity.

These ecosystem services are essential to economic activities and form the foundation of ecological infrastructure.

These include soil conservation, water network management and species diversity protection. One practical example is the conservation of insect biodiversity and habitats in adjoining ecozones facilitating essential pollination services for a range of species but also within commercial tree seed orchards for the production of improved tree seed.



Site management practices, particularly, during harvesting, post-harvesting, biomass management and pre-plant operations will significantly influence the very sensitive topsoil layers crucial to maintaining the soil microbiome biodiversity and thus positively influence sustained tree growth. The use of herbicides, burning of biomass or mulching requires applied best operating practices to achieve the desired results. Management of open areas is crucial to support a sustained network of delineated conservation and wetland zones. These areas form some of the most biodiverse areas within the plantation landscape and act as eco-corridors from one landowner to the next.

Conservation of these areas is only possible with substantial investments, adequate burning regimes and alien invasive control in these important conservation areas.



These areas are the main drivers of water resource management, which feed larger systems ensuring viable inland water ecosystems. Management of pests and diseases by developing tree varieties that can tolerate a level of predation and deploying biological control and alternative technologies to contain populations significantly reduces the use of approved chemical options.

Biodiversity is the foundation that supports all life and it affects every aspect of human health, providing clean air and water, nutritious foods, scientific understanding and medicine sources, natural disease resistance, and climate change mitigation. While continuing to manage our land holdings responsibly to produce forest products, the industry recognizes the crucially important role it plays in protecting, conserving and enhancing biodiversity through people, investment, training, and conservation programmes.

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Rob Thompson's Column: The Curse of Common Logic Disease.

They say that there is an ancient Chinese curse through which you damn your victim into a life lived in "interesting times". Well, we are all living in extreme and interesting times currently, which by coincidence (or not?), were most likely caused by a recent inopportune incident, in Wuhan, China.

The ramifications of the current pandemic that we are all facing, have an ability to permeate into literally everything that one does these days. What one does, what one says and where one goes, all carry some or other consequence of the pandemic. Even the content of articles written for the SAIF newsletter!

By way of further illustration, and on the more obvious front, Heaven forbid that you try and enter a mainstream store without wearing a face mask, or inadvertently park your trolley less than two metres away from the next shopper in the queue. A flushed and harassed floor manager will pounce and berate you to the point of submission and ultimate conformance.

More insidiously, have you noticed the serious effects that the pandemic is having on people's logic and reason?

For sake of reference, and knowing that there are lots of science based forestry practitioners out there, reading this article, who align better towards reference and acronym, let's call it Common Logic Disease or CLD. This disease presents in various ways, however, by way of clarity, common signs of such affliction are just that...commonly seen but rarely acknowledged by the afflicted... which is concerning in itself.

Convuluted logic is the primary symptom, often emanating, and particularly noticeable, from within our general leader group.



Guidance proffered from afflicted leaders includes an array of amazing insights:-

Who knew for instance, that haircutting is the single most potent vector towards COVID-19 spread. "Of course we can allow seven people into a taxi but we cannot risk a single salon client". Regular hair cutting practices are accordingly closed down and replaced with a thriving underground salon network. "Hey, it's underground so Covid obviously cannot survive there... ok?"

Another insight from our leaders is that drinking is the lesser evil to smoking. "We must ban smoking to prevent licking of zols and the rampant spreading of saliva ... OK, open the bottle stores...it's quite safe. No-one will consider sharing a beer or driving under the influence".

CLD has another, as yet not clinically proven side effect, providing the sufferer with an impenetrable thick skin. This symptom presents with associated ill humour and sense of invincibility:-

"Yes, we are making the rules and no...there is no absolutely need at all for us to tell you why and from where we got the advice that we are (definitely / of course / maybe) following".

CLD apparently invokes deep seated hallucinations providing the carrier with insights transcending all speciality fields and delusions of expertise in all domains:-

"It goes without question therefore that physical exercise may not occur on the beach - or on your surfboard on the water. That would be terrible...and unhealthy. It is far healthier to crowd-out the promenade as long as no-one stands still. Keep moving dammit!"

Expertise levels have no bounds sometimes even delving into the realms of community welfare.

Accordingly we have been called on to believe that COVID-19 deaths are far worse than itinerant starvation mortality events.

"It is important to now provide water and sanitation and housing to reduce COVID spread!" ... this after decades of neglect!

Don't be fooled, CLD is an affliction spreading rapidly across the globe, even in first world countries. One specific world super power has a leader taking malaria tablets daily to ward off COVID-19 and advocates swallowing disinfectant and / or application of bright light (from inside the lungs) via appropriate orifice, to destroy the virus instantaneously.

Similarly, the leader of the largest country within the Latin America's, regularly shares his insular insight of Covid merely being akin to a light cold. Seemingly his eyes are also seriously afflicted given his inability to notice the tragic demise of thousands of his citizens.

Arguably the next most serious symptom of CLD is the sense of invisibility that the carrier experiences.

Let's start this commentary with a given fact. We live in a day and age where literally every second person is carrying an internet connected device capable of instantaneous video or audio communication across the globe and into space. Therefore, logic will tell us that an interesting or stand-out occurrence, where ever it may occur, may just, on the off chance, attract some attention and a globally shared digital record...just as was the case in all of the following events:-

In marches the SA National Defence Force ostensibly to assist in "gentle" control of the general populace during lockdown. Carriers of CLD within the ranks, absolutely sure of their invisibility, most unlike the Emperor and his new clothes, proceed to force civilians to do demeaning exercises and beat up (in one case... beyond the point of death) those they deem as having transgressed the lockdown regulations. "Of course we are doing this for their own good!"



Un-masked traffic police enter civilian property to forcibly arrest a young child and her father for having dared to walk on that obviously disease riddled beach. “We are making you criminals for your own good!”

In the USA, a Minnesota police-man kneels for 9 minutes on the neck of a handcuffed and helpless young man until he dies, whilst supposedly effecting an arrest for a petty crime, triggering race based riots across the country. “Hey...It was self-defence...didn’t you see?”

Extreme cases of CLD invisibility syndrome have even led to top politicians taking selfies (yes ... a picture that one wittingly takes of oneself) at dinner parties with friends, whilst under level 5 lockdown, and sharing such on social media. “Eissh!...But how did you find out?”

Bravado is arguably the most apparent symptom of CLD. It commonly presents amongst ordinary folk and is likely to be one of the main causes of the insidious, unchecked spread of Covid through communities:-

To illustrate the state of bravado, a drive through the centre of the city over the weekend (under level 4 lockdown) revealed literally hundreds of people afflicted with bravado. No social distancing, very few face masks, friendly handshakes and back slapping, shared street food and general non-adherence to any set virus containment protocols. Even law enforcement personnel were noticeably ignoring the widespread lack of compliance.

Further illustration of the bravado affliction came via that brash school opening announcement. “We will open the schools tomorrow...maybe...or next week...but I’ll confirm tonight...or tomorrow”. Tomorrow came and the schools open next week!

Despite all of the above commentary, there are many positives to be drawn from the pandemic we are experiencing. We have a situation of extremes.

On one side, the CLD sufferers showcasing just how not to do things by actually doing them and demonstrating first-hand the resultant ramifications and fallout. On the other side, we have those people who are consciously defying CLD, applying sound reason and logic and are making a significant difference. These range from those who simply adhere to protocols through to those who are contributing heroic and selfless efforts on the front line of the virus.

By watching events unfold and the various actions and decisions that people are taking, at both ends of the spectrum, we are being presented with a real time “life laboratory”, the likes of which have arguably not been experienced before, within our lifetimes.

It’s a wonderful opportunity to measure our intentions, conduct, and leadership, against actual case studies. We can move forward in our professional and personal lives more certain than ever before of what we ought to be doing. It’s rather like precision forestry but without all of the repeat measures. We know exactly which way the tree will fall before even starting, merely by watching what the others are doing right before our eyes.

Its taken a pandemic to teach us that we all carry common logic disease. We have also learnt that this affliction is easily remedied by the application of a reasonable dose of introspection and reason, before making, and voicing, any decision. The realisation, that we do not have an invisibility cloak to protect us from our ourselves, should assist in the process of improved decision making, no matter in which sphere or at which level we operate.

This pandemic has certainly presented a crisis that is just far too valuable to waste!



The Economy of the Future will Grow on Trees (Part 2)

Planting more trees and using more wood in our daily lives can help us mitigate the effects of climate change, reverse biodiversity loss and reduce pollution - as long as we do it right

Some of the most striking benefits are already being seen in the construction sector. Most building components - from structural elements and exteriors to floors and insulation - can be made from wood, and technological advances are opening up new opportunities. Engineered wood products like cross-laminated timber panels (multiple layers of wood glued together at right-angles to form super-strong panels) allow for larger and taller wooden buildings. Timber towerblocks are already becoming a reality. Vancouver currently boasts the world's tallest wooden residence at 53m and 18 floors, but sights are being set even higher: Japanese company Sumitomo Forestry is planning a 350m tall 70-storey skyscraper in Tokyo, which would contain around 180,000 cubic metres of wood.

The benefits of using wood vary according to the material it is replacing. A study by the European Forest Institute suggests that every tonne of wood used in place of a tonne of concrete reduces CO2 emissions by 2.1 tonnes over the product's life cycle. Given that 4.6 billion tonnes of cement is poured into concrete structures every year, there is huge climate mitigation potential in replacing concrete with timber where possible. It's been estimated that replacing conventional construction materials with wood could remove 0.5-1 gigatonnes of CO2 from the atmosphere, and save up to 31% of global CO2 emissions.



Replacing conventional construction materials with wood could save up to 31% of global carbon emissions.
© Stora Enso

Wood also plays an important role in meeting global energy needs. Today, bioenergy provides around 13% of total global energy consumption, and is by far the largest source of renewable energy. By comparison, hydropower contributes 3% to the global energy mix, and all other renewables combined just 2%. While this figure also includes bioenergy from crops like sugarcane, agricultural residues and municipal waste, 87% of the total comes from solid biomass. The vast majority of this - about 80% of all global bioenergy - is in the form of burning wood for cooking and heating, primarily in Asia and Africa.

In fact, according to FAO statistics, around half of the nearly 4 billion cubic metres of annual global wood production is burnt for energy. Inefficient use of wood can contribute to overharvesting, forest degradation, loss of ecosystem services, and indoor and outdoor air pollution. However, there is huge scope to lessen the environmental and social impacts of traditional biomass use - including more efficient stoves, using offcuts and recycled wood products rather than virgin timber, and substituting other renewable energies for cooking and heating where suitable.

Modern bioenergy will be a vital part of a future low-carbon, fully renewable energy mix, particularly for functions not so easily filled by other renewable energy sources like wind and solar power - including heat, baseload electricity and transport fuel. While wood will continue to be burnt in home stoves and power stations, new thermo- and bio-chemical processes are opening up possibilities for producing liquid fuels from wood products. Some companies are already producing biodiesel from tall oil and black liquor, residues from the pulp-making process. And the range of products that can be derived from cellulose and lignin - the main components of wood - is increasing all the time.

As fossil fuels are phased out, we will see oil refineries replaced by biofineries which use wood and other biomass to make everything we currently derive from petroleum - not just fuels, but paints and adhesives, asphalt and detergents, and various types of plastic. With plastic pollution increasingly capturing the headlines, biodegradable bioplastics offer obvious environmental benefits.



Viscose and Tencel fibres derived from cellulose can be a substitute for cotton, the cultivation of which uses huge quantities of arable land, water and agrochemicals. Other products derived from wood that are under development or already on the market range from food additives and hygiene products to pharmaceuticals and LCD screens.



Just some of the products that can be made from timber. © Stora Enso

It's clear, then, that we're likely to be using more wood in future. Global timber demand is projected to almost quadruple from 3,401 million cubic metres in 2010 to over 13,000 million in 2050. So where is all this wood going to come from? There is a limit to how much more timber we can sustainably harvest from natural forests, either by intensifying production in already managed forests or expanding into unlogged areas. Forests are not simply timber factories: they provide a habitat for four-fifths of all land species, support the livelihoods of nearly one-fifth of the world's population, and provide us all with vital services, from supplying fresh water and controlling erosion to regulating the climate.

New plantations offer an important part of the solution. Today, planted forests cover only about 7% of the global forest area, but provide around half of all commercial timber. While intensively managed plantations of eucalyptus or pine are a highly efficient way of producing timber, they have at times provoked controversy. Instances exist of plantations being established in place of natural forests and other important ecosystems, or without the consent of indigenous people and local communities.

But this picture is changing. In response to these challenges, international organizations such as FAO have worked with governments to create and support voluntary guidelines for responsible management of planted forests. of timber, make a positive contribution both to the environment and to the lives of people. living nearby.

The New Generation Plantations platform (www.newgenerationplantations.org), convened by WWF in collaboration with leading companies and government forest departments, envisions tree plantations that, as well as providing an efficient supply of timber, make a positive contribution both to the environment and to the lives of people living nearby.

Numerous examples demonstrate that well-managed plantations in the right places can have significant ecological value while also supporting community development, improving incomes and creating opportunities for smallholders and new SMEs. Collectively, the NGP participants manage around 11 million hectares of land, of which highly productive plantations make up a little under half: the rest consists of natural and restored forests, wetlands and other habitats, and agricultural land that is often managed by local communities. In Brazil's Atlantic forest, for example, some 2 million hectares of former cattle pastures have been transformed into mosaic landscapes that combine stands of intensively managed eucalyptus, which can be ready to harvest in just seven years, with restored native rainforest. In Chile, following the devastating forest fires of 2017, natural forests and plantations are being sensitively restored to strengthen landscape and socioeconomic resilience. In Africa and Asia, agroforestry schemes that combine trees and crops are improving soils and farmers' incomes. In the UK and New Zealand, commercial timber plantations host walking routes and mountain biking trails, as well as supporting rare species and important habitats.

Co-authored by the working group New Generation Plantations platform - IUFRO Task Force 'Resilient Planted Forests Serving Society & Bioeconomy': Benjamin Caldwell (FAO), Bjorn Sundberg (Stora Enso), Brent Corcoran (Mondi), Cecilia Alcoreza (WWF), Christophe Orazio (IEFC), Denis Popov (Mondi), Elaine Dick (FR), Elisabeth Potzelsberger (BOKU), Francisco Rodriguez (CMPC), Helena Almeida (ISA), Jaboury Ghazou (UEd), Juan Anzieht (ARAUCO), Karen Mo (WWF), Luis Silva (WWF), Manuel Guariguata (CIFOR), Margarida Tomé (ISA), et al Source: [New Generation Plantations](http://www.newgenerationplantations.org)



The Great Knysna Fires of June 2017 commemorated

It is hard to believe that three years have passed since the catastrophic fires in the Garden Route and near Thornhill (P.E) between the 7th and 15th of June 2017 .

Although this period was characterized by several fires between Sedgefield and Port Elizabeth, the Knysna-Plett fires stand out as the most destructive and received most attention. The summarized statistics are shown below

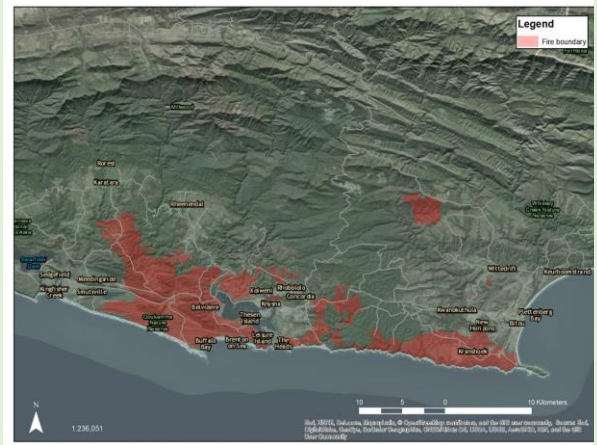


Comments from experts after the fires:

Dr. Neels de Ronde (Veldfire expert and long-standing member of the SAIF):

The main damage in Knysna and surrounds was caused by the very old fynbos (with few contributing invaders in patches mostly further away) sitting on the edges and WITHIN the areas where most damage took place NOT FROM THE larger PLANTATIONS west and east of Knysna, which were well-managed. Sure, the invaders increased the fire in places, but take note where the most serious fires came from: Non-invaded, very old, Fynbos estimated to be older than 50 years! Reasons: Mostly a total neglect of the protection of the Urban Interface. Own observations in and around Knysna.

Mr. Theo Stehle (retired forestry official) : With such a lethal cocktail: Hurricane force wind (120 km/h), high temperature (30 deg), humidity (8%) and high fuel loads of all kinds of vegetation, the exact type of vegetation would have hardly mattered, as long as there was enough fuel to feed the appetite of the fire. Forestry plantations can hardly be blamed for being the root cause of the disaster. In Knysna Heights itself, ironically, a kloof with indigenous scrub forest, which normally is quite fire resistant, was devoured as if it was a pine plantation, and that is where most houses burnt down. Yes, the urban interface neglect is a major problem.



The Question:

Did we learn anything from the devastating fires and if so what did we do differently?

Several meetings and debriefings were held and reports compiled with specific recommendations made eg. the “ **Situational Analysis of the 2017 Knysna Fires**” compiled by Vulcan Wildfire Management as well as “**The Knysna Fires of 2017: Learning from this disaster**” a collaborative research report between Santam , CSIR and Stellenbosch University.

The fire was therefore very well analysed and excellent recommendations were made but the question remains whether the authorities as well as land-owners /-managers and residents living in the Urban Interface will be bold enough and have sufficient funding to apply the interventions and steps to reduce the risk of future fires and avoid another disaster ?

In commemoration of the fires three years ago, Vulcan Wildfire Management produced a series of short films (videos) which can be accessed on **Youtube** : <https://youtu.be/pqiEPJiqEA>

Forestry South Africa launches the Timber Industry Presents... Magazine (TIP-Mag)

FSA is proud to announce the launch of the Timber Industry Presents... Magazine TIP-Mag for short.

It can be accessed following the link shown below:

<https://www.forestrysouthafrica.co.za/tip-mag/>

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Birthdays – June 2020



BIRTHDAYS : JUNE 2020			
MEYER W.K.	Jun 01	HENDERSON C.S.	Jun 15
GERMISHUIZEN I.	Jun 01	KOTZE H.	Jun 15
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FOMO P.	Jun 04	RAMANTSWANA M.	Jun 17
POOL J.G.	Jun 05	BOTHMA J.C.	Jun 17
FEELY J.E.	Jun 06	THOMPSON R.	Jun 19
LUBALA D.	Jun 06	SIVPARSAD B.J.	Jun 21
MORRIS A.R.	Jun 08	HARRISON I.	Jun 23
CRAWFORD-BRUNT R.J.	Jun 08	GARDINER P.J.B.	Jun 25
MEINCKEN M.	Jun 10	DEMBURE T.P.	Jun 26
LAWRIE D.G.	Jun 11	JANSEN J.F.	Jun 30
GEVERS W.K.E.	Jun 14		



The Southern African Institute of Forestry

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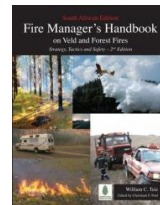
Non members: R500



Fire Manager's Handbook on Veld and Forest Fires

Price: SAIF members: R300

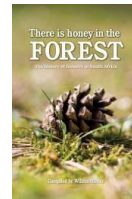
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There's Honey in the Forest

Price: SAIF members: R100

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