**Circular Economy**

09:21:35 From Michael Jakobsen, Preferred by Nature: The transition to circular is likely to vary a lot between sectors and geography.

09:28:58 From Alberto Romero: The timber sector is sustainable bioeconomy which is much more than just circular economy. Other very pollutant materials claim to contribute to circular economy.

09:39:07 From Annemarie Bastrup-Birk: how do you define sustainable? apart from stating the three pillars.

09:39:09 From James Hewitt: A circular economy is good only if it does not have a negative impact on biodiversity or climate change (the greenhouse effect from burning wood remains much longer than the time it takes for trees to sequester – and emissions must decline to zero before seedling trees can grow to maturity, especially in natural tropical forest).

09:39:42 From Wim Ellenbroek: Our economy is highly energy dependent - why then is biomass for energy consider 'low value'?

09:40:36 From Petra Westerlaan: What are the main challenges to overcome to move towards a circular economy - as far as can be foreseen at this point? Thank you.

**Species and plantations**

09:53:10 From Annemarie Bastrup-Birk: What about native species in plantations?

09:54:50 From Lee White: Native species are much slower growing but we are working on it and I hope we will get there also.

09:55:36 From Sandra van Hulsen: Mostly also important for biodiversity, so it would contribute to your 'biodiversity positive' strategy.

09:57:01 From J. Williams: RSK: Plantation species are usually exotics and not native and will have different material properties - depends on what the intended end use if for. African plantation teak is good at colonising but properties are nowhere near as good as Burmese T. Fast grown plantation timber could be used as biomass or engineered wood products - just a few thoughts.

09:57:11 From David Vincent: That’s quite a generalisation - how many native species does Gabon have?
09:57:48 From Bert Remerink 28 years of AFRICA experience: about 300 species, 15 species are used.

09:58:36 From Jacqueline LARDIT - ATIBT: ATIBT has done some studies about plantations that include native species: https://www.atibt.org/fr/media/49/reforestation-and-agroforesterie

09:58:50 From J. Williams: RSK: So there is an opportunity for the other 285 no?

10:00:21 From Bert Remerink 28 years of AFRICA experience: Yes, we need to develop those "Lesser Known Timber species" in the near future.

10:01:22 From Benoit Jobbé-Duval: But no 285 are possible to develop. For the moment, about 10-12 are possible to develop.

10:01:31 From Lee White: Gabon has about 600 spp that grow above 50 cm - we focus on about 10 today but are looking into new technologies such as laminated timber replacing concrete and steel in construction, where some of our woods are giving very promising results.

10:01:33 From J. Williams: RSK: I’ve carried out loads of research into LKS/LUS in the UK for civil engineering end uses. Quite a challenge. Joinery and non-structural end uses far easier.

10:03:02 From Bert Remerink 28 years of AFRICA experience: Interesting J. Williams. Need to contact soon.

10:15:17 From Kristian Jørgensen - FSC Denmark: On species promotion - there is a lot that needs to be considered: availability and sustainability of the species (stable supply), yield per log and other sawmill complexity and the possible end uses... getting end users comfortable and ensuring data and not least getting real reference cases on them. But species diversity starts in a species for species promotion effort. Start small - and build up. The LKTS Congo Network lead by FSC NL have pointed at 8 species there is up for promotion - Limba - Gombé - Okan - Monvingue - Olon - Omvong - Limbali - Kosipo - Ozigo - selected based on availability and harvest plans - LKTS is just one part of the species diversification agenda.

10:17:36 From Benoit Jobbé-Duval: About LKTS vs log ban from CEMAC for 2022, maybe some difficulties to develop. A possible deal could be to maintain the log export within CEMAC area.

10:18:14 From Lee White: Kristian - agreed - those are interesting for sustainable use - they don't play a keystone ecological role in the forest and they are fairly common - but are mostly already exploited - how about Sorro and Ozouga which we are trying now?

10:19:14 From Lee White: It is the plan that logs can be traded between CEMAC spp.

10:20:51 From Olman Serrano (ATIBT): That would very positive, as opposed to have a complete log export ban.

10:21:01 From Bert Remerink 28 years of AFRICA experience: Dr White, I agree. Sorro/Ossoko is number 6 on the list of most available species in the Congo Basin. After Okoume, Sapele, Frake, Ayous en Limbali. In terms of Volume potential 1.2 Million M3 logs / year.

10:22:24 From Lee White: And it peels like Okoumé, is beautiful when sliced, and is a good construction timber.
Challenges and opportunities

09:56:02 From Felipe Caffaro: In Gabon, how has this transition from exporting logs to increasing transformation influenced national economy and social development indicators? How can forestry compete with agriculture (economically speaking)?

09:58:15 From Kristian Jørgensen - FSC Denmark: @Lee White - taking the step away from a log-based sector to the producing of finished product... what do you see most needed to meet possible challenges concerning things like "product quality" and meeting design trends and standards (especially seen on the European market.)

09:58:41 From David Vincent: - and if heat treatments are an integral part of the circular economy strategy, then thermal modification of less dense but faster growing species might also be an option..

10:00:10 From J. Williams: RSK: Yeah, not just heat treatment (Frakke) from Cameroon but also acetylation - IMO bobbins - why not use the natural product - less carbon/energy intensive. They key is to extract maximum end product for minimum energy input: that is where the advantage of strong durable tropical timber lies

10:03:18 From Lee White: To get products of international standards we need investment - rather than banning tropical timber EU and other developed states should invest in putting modern technology into Africa and making high quality products in the timber producing nations - that is the way to slow deforestation and secure a future for tropical forests
10:03:35 From J. Williams: RSK : CLT is a huge opportunity for durable tropical timbers. Gabon as oukoume (?) which is a light easy to work timber which could work well as CLT - it only has to outperform spruce in terms of strength, stability and workability. You still need to address the durability aspect; "wet happens" especially in NW Europe.

10:08:21 From Kamkuimo Pat, Forest Governance Facilitator Gabon : The Gabon export logs ban is inspiring other Congo Basin countries and a commitment of Ministers from COMIFAC space has been done for generalizing this measure. Is it a panacea, or is there any difficulties and prior challenges to be addressed in order to reach effective effects from log export ban. The experience or lessons learnt from Gabon may help

10:08:51 From Lucas : @James Hewitt, in my opinion your argument about emission from biomass use is flawed. At the tree scale, yes, it takes much more time to sequester that carbon when compared to the time to burn it. But at the estate or forest level, biomass use can be virtually carbon free. The reasoning is that for each tree used for biomass now, many trees are sequestering carbon at the same moment (if you have sustainable forest production, in the wood volume production sense).

10:14:11 From James Hewitt : Is the market in China (and the practices of Chinese and Malaysian companies who supply tropical timber to China) an obstacle to maximising the value of tropical forest – and to the economies of the Congo Basin, PNG and Solomon Islands? The Netherlands is investigating a case for the supply of illegal plywood from China under the EUTR but the UK is the leading destination for China’s exports of tropical plywood from China (and China is the UK’s leading source of that plywood).

10:22:53 From Klaus Schmidt : I experience that the european industry is increasingly looking for a cost reduction through technical solutions. Unfortunately, this is increasingly taking place with so-called local woods instead of tropical woods. The question is who is faster? the industry or the exporting countries with investments in modern technology in order to find technically and attractively priced products?

10:30:03 From Lee White : Logging in Gabon is undertaken in by private sector companies in government audited concessions

10:32:52 From Wim Ellenbroek : Gabonese forest sector needs investments: how are profit margins for logging concessions in Gabon?

10:33:44 From Jacqueline LARDIT - ATIBT : Very little. Many prices of production costs have gone up considerlly

10:34:39 From Olman Serrano (ATIBT) : .... and trade barriers continue to increase

**Innovations in certification**

11:06:05 From J. Williams: RSK : One market to look at is railway sleepers/rail ties. It is highly likely that the EU will ban creosote in 2021. The UK alone uses 10,000m3 of creosoted softwood per annum alone. End users are now looking at cast concrete, steel or plastics as alternatives. There is a
huge opportunity here. However, it will need investment, determination and momentum. This may be too much for an individual private sector exporter but possibly an area that would benefit from govt/forest dept funding. The industry already uses azobe/ekki: there are many candidates out there.

11:16:37 From Jan Willem Hunink: Great target of VDC. The EU should set the same target and go for import and use of only sustainable produced timber and timber products. In this way we will get all markets (Asia/Africa/All Americas) on board. At the same time the market have the possibility to go for the Lesser Known Timber species

11:16:45 From David Vincent: It would be even more wonderful if we could AFFORD to certify our timber!!

11:19:28 From Wim Ellenbroek: How does VDC enable or motivate its timber suppliers to become certified?

11:49:47 From Steve Ball - FSC Africa: FSC is working on better labelling of its certificate base so we hope soon it should be live reportable from our database as available on our website. By "it" I mean the area / proportion of natural tropical forest

11:51:12 From Sandra van Hulsen: So Mark, on your first slide, the natural forests and semi natural but certified forests are not included in the figures?

11:51:40 From J. Williams: RSK: Hi Everyone - many thanks for inviting me to speak. Unfortunately I have to leave for another meeting which is shame. I've been enjoying the speakers. See you all next year - hopefully not on Zoom! For any technical advice on LUS/LKTS and developing new products my deets are jrwilliams@rsk.co.uk cheers, J.

12:00:05 From Steve Ball - FSC Africa: And we now have the first FSC-certified Ecosystem Services claim in Africa: with CMO’s sustainable charcoal group certificate

12:02:05 From Juliane Lemcke: Yes, what CMO has achieved is great!

12:02:59 From Petra Westerlaan: For more info on FSC ecosystem services: https://fsc.org/en/for-forests/ecosystem-services

12:04:20 From Jayco Fung@FSC APAC: There was a site in the middle of Vietnam had the FSC ES verified for Carbon - looking for investor to get the carbon claim valid again.

12:04:21 From Steve Ball - FSC Africa: More info on the CMO project should soon be published on the FSC Ecosystem Services webpage (see link from Petra above).

12:04:25 From James Hewitt: It is impossible for auditors (even those of the FSC scheme) to guarantee the future (especially the carbon flux of natural forest - already reversing in Amazonia). The scheme of the SBP (Sustainable Biomass Partnership) is designed by the (heavily subsidised) electricity industry for itself.

12:06:33 From Steve Ball - FSC Africa: But I can say that the CMO project is focused on the biodiversity conservation supported by the ecological restoration that results from clearing the encroacher bush species into the wooded savannah landscape. (The charcoal is made from those bushes.)
12:11:15 From David Vincent: FSC started an initiative with Gold Standard Foundation to facilitate joint certification. However Gold Standard’s own requirement are already far too onerous for smallholder/community based forestry projects and the standard is now totally redundant for this. In contrast, The Plan Vivo Foundation has a far greater understanding and empathy for smallholder/community based forestry and also far more expertise. Can FSC initiate a dialogue with Plan Vivo to see if a more productive partnership can be established?

12:12:47 From Liesbeth Gort (FSC Netherlands): @David, will inform my colleagues from new approaches to reach out to Plan Vivo ok?

12:14:35 From David Vincent: Thanks Lisebeth.

12:19:21 From Celia G Pedroza: Thanks for the conference. I am fascinated, your work is amazing. The earth needs more actions like these. Congratulations.

12:19:43 From Martijn Beekman: Isn't the big palm oil industry in Indonesia the biggest threat to the forests instead of illegal lodging?

12:21:12 From Kamkuimo Patrice, Gabon Facilitator, Palladium-FGMC: some countries for avoiding double certification within the framework of VPA-FLEGT have set up a mechanism of recognition a private certification schemes in issuance process of FLEGT l'égalité certificates. Could that be also one or the options in Indonesia?

12:21:28 From Chris Schwarz (Rainforest Alliance): break even point is 7%

12:23:26 From Paolo: I was expecting a number or at least a range as an answer. I did not get the drift

12:23:34 From Petra Westerlaan: On certification costs: it varies per country/region and concession size from 1-8 USD/ha

12:24:23 From Wim Ellenbroek: I think a price premium of 3-5% is needed to recover the audit costs.

12:24:53 From Mark Diepstraten (SKH): Like Liesbeth just said; depends on the definition of costs. For instance direct versus indirect. Depends also for instance on the availability of local auditors

12:25:23 From Petra Westerlaan: My comment reflects the larger definition of costs

12:25:25 From Michael Jeffree editor STTC: What is view of FSC on dual audits for FSC and FLEGT/SVLK?

12:25:32 From James Hewitt: Is lowering cost the wrong question. Should the question be “how can the cost of unsustainable logging increase relative to the cost of certified sustainable logging?”

12:25:35 From Chris Schwarz (Rainforest Alliance): there are also approaches that lower the costs

12:25:44 From Luca Costa: question on that 10% of FSC exports which could be increased with 'FSC building on FLEGT': what is intended by that exactly? aside from exploring synergies with FSC and local schemes audits

12:23:48 From Armand stockmans: Can somebody tell something about situation in Cameroon?
From Akouemo houllier (Cameroon): Armand Stockmans, in Cameroon, it’s near similar as in Gabon. In Cameroon, some privates compagnies are certify, FSC and OLB.

From Steve Ball - FSC Africa: we are hoping that the legal requirement in Gabon will drive down some of these costs since neighbouring concessionaires can collaborate on studies that span both of their concessions.

From Wim Ellenbroek: Lower tariffs can be alternative to price premim.


From marieke CNV Internationaal: From CNV Internationaal we are developing a portal For risk based analysis through local network verification methods, especially on tropical wood.

From Kristian Jørgensen - FSC Denmark: Cost of certification should also be seen in context of other requirements such as EUTR and the synergy made in verified chains...

From Michael Jakobsen, Preferred by Nature: Costs should be seen in the context of market value and demand and the risk of not taking steps to meet responsibility criteria.

From Michiel Hendriksz: quality and integrity of auditors (humans) remains bottleneck of certification (against any standard).

From Tullia Baldassarri Höger von Högersthal: It is interesting that Central Africa / the Congo Basin should be leading the way, in terms of the government making certification a national legal requirement - could that inspire EU countries and the EU at large with her Green Deal ambitions? And what about Asia - the majority of tropical timber is exported to Asia.

From Mark Diepstraten (SKH): Maybe the instrument “(voluntary) certification” is not the right tool to provide the assurance we want.

From Jacqueline LARDIT - ATIBT: There’s also this study about costs and benefits related to forest certification in the Congo basin, it’s unfortunately only in French: [http://www.ppecf-comifac.com/files/interventions/Tableau%201_Amelioration%20des%20conditions/Co%C3%BBts%20%26%20B%C3%A9n%C3%A9fices%20Certification%20BC_Final.pdf](http://www.ppecf-comifac.com/files/interventions/Tableau%201_Amelioration%20des%20conditions/Co%C3%BBts%20%26%20B%C3%A9n%C3%A9fices%20Certification%20BC_Final.pdf).

From Petra Westerlaan: @Jacqueline/Chris: perhaps chapter 2 of this publication would be of interest? [https://www.tropenbos.org/resources/publications/strengthening-the-business-case-for-sustainable-forest-management/](https://www.tropenbos.org/resources/publications/strengthening-the-business-case-for-sustainable-forest-management/)

**Market uptake**

From Kristian Jørgensen - FSC Denmark: Just a little promotion... for us all to continue sharing knowledge and inspiration. Join the LinkedIn Group “Promoting sustainable tropical timber” [https://www.linkedin.com/groups/8876625/](https://www.linkedin.com/groups/8876625/)
12:34:44 From Lisanne de Wit - Van den Berg Hardhout (NL): Valuable contribution, Tullia. I think the approach here in the Netherlands has also shown that government can have a huge influence on uptake of certified sustainable hardwood in the market. Currently many organizations are promoting a forest law at EU-level not to have products from deforested areas. I also seriously hope there will be a component of positive stimulation of running business sustainably. Thanks!

12:35:02 From Armand stockmans: Cameroun stops log export in 2022. What about the community forests and 'ventes de coup'?

12:37:23 From Jan Willem Hunink: Fully agree Mark, but unfortunately as long as illegal timber still enters EU at a much lower price importers and customers still go for this unfortunately and this will make it difficult.

12:37:24 From Sandra van Hulsen: That certification is not voluntary any more, but obligatory - part of 'business as usual'!

12:37:44 From Christian Körting-Pacheco: We try to do our part as traders in offering sustainable sourced products but it’s really hard sometimes to compete with other companies that offer the non-certified, non-verified exact same product for a much better price. The solution should be also financially sustainable.

12:38:57 From Klaus Schmidt: I agree Christian

12:42:39 From Tullia Baldassarri Höger von Högersthal: Yes Christian, that is exactly the point. Any trade is about, supply and demand. Unless governments do their part by giving incentives or sanctioning those who are not up to government-set requirements, sustainability will be a losing game - first and foremost for the hundred thousands of people employed. Forests are about people.

12:44:46 From Genevieve Standaert Vandecasteele Houtimport: I think the only way forward to get our industry into the light is to go for certified timber. There is no other way. We have to stimulate and inspire our suppliers, our team, our customers to be able to survive as an industry. The moment is now! We have a beautiful product and we all need to spread the news that by buying certified timber you are saving the forest.

12:46:25 From Liesbeth Gort (FSC Netherlands): Yes, we are now in this green wave for more timber in construction. Pre-condition is that is certified, otherwise it will not fit in a circular economy

12:50:53 From Isabelle Polfliet Vandecasteele Houtimport: End consumers must also be more aware about certified products. So they can ask about it! We all agree on what has been said but the message needs to get out of our club.

12:54:31 From Armand stockmans: is the aim of 100 % FSC in Gabon still going on?

12:56:05 From Benoit Jobbé-Duval: Is PAFC - Congo Basin considered?

12:57:43 From wondee supprasert: Hopefully certification cost is not double with national standard audit cost. Thank you very much for the valuable meeting. I have had learned a lot.

Closing speech Lee White
12:58:23 From Lisanne de Wit - Van den Berg Hardhout (NL) : Great moment :-)

12:58:41 From Juliane Lemcke : I am becoming a fan of Gabon!

12:58:50 From Claude Durocher : Same here!

13:00:34 From Olman Serrano (ATIBT) : @Dr Lee White: great news, thanks

13:00:49 From XIAO Jianmin : Gabon will be a good example to promote sustainable tropical forest management in the world.

13:01:25 From Remi Sournia - PEFC : Isn’t the new Gabonese tax law putting PAFC and FSC at the same incentive level?

13:01:29 From Genevieve Standaert Vandecasteele Houtimport : I think this is a great idea for all countries!!!! money is a good driver!

13:03:31 From Joeri Zwerts : How realistic is it to expect that smaller to medium sized forestry companies with export markets that have little interest in FSC certified products, and which may not have enough capacity, skills and funds for certification, will become certified any time soon?

13:03:32 From Tullia Baldassarri Höger von Högersthal : I remember a fabulous campaign launched more than 10 years ago, to make rainforests more worth alive than dead - launched by The Prince’s Rainforest Project. We are now at the tipping point and need to abandon any residual indecisiveness

13:04:35 From Claude Durocher : Do you have a national policy to encourage wood use locally?

13:06:14 From Petra Westerlaan : Thank you very much for your contributions, Lee. Interesting to get more background on the developments, especially that Gabon is looking at variable taxing based on the level of sustainability.

13:07:37 From Jacqueline LARDIT - ATIBT : I fully support what Hendrix stated earlier, the most important is to have auditor of good quality and integrity

13:10:31 From paolo : Promoting the engagement of smallholders and communities, including young people and women, in natural forests management

Thank you everyone, both speakers and participants for your relevant contributions in the presentations and via the chat!