



Drax Independent Advisory Board
Thursday, September 17th 2020 Interim Meeting

Invited Attendees

IAB: Sir John Beddington, Lord John Krebs, Professor Sam Fankhauser, Professor Virginia Dale, Elena Schmidt, Forest Research represented by Robert Matthews.

Drax: Rebecca Heaton, Ross McKenzie, Laura O'Brien, Richard Peberdy, Michael Goldsworthy, Selina Williams

Agenda:

1. 14:00 – 14:30: Introductory session

- 1.1 Welcome (John Beddington)
- 1.2 Minutes and actions arising from May meeting
- 1.3 Letter from IAB to Drax CEO Will Gardiner
- 1.4 Brief intro to the meeting

2. 14:30 – 15:00: How to demonstrate that biomass is sustainable?

- 2.1 Presentation by Laura O'Brien and Richard Peberdy.
- 2.2 Focus on Drax catchment area analysis.

3. 15:00 – 15:45: Discussion – Focusing on:

- 3.1 **Data:** Do the conclusions reflect the results? Does this information help us evidence the statements made in the responsible sourcing policy? Where might the gaps be?
- 3.2 **Communication:** How can this be presented in a more simple and meaningful way?
- 3.3 **Beyond Drax and into industry-wide certification and government policy:** How transferable and scalable might this be to implement into policy to ensure that global biomass use is sustainable?

4. 15:45 – 16:00: Conclusions



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Attendees

IAB: Sir John Beddington (JB), Lord John Krebs (JK), Professor Sam Fankhauser (SF), Professor Virginia Dale (VD), Forest Research, represented by Robert Matthews (RM)

Apologies were received from Elena Schmidt.

Drax: Rebecca Heaton (RH), Ross McKenzie (RMc), Laura O'Brien (LOB), Richard Peberdy (RP), Michael Goldsworthy (MG), Selina Williams (SW)

Introductory session

1. The Board approved the minutes from the May meeting and noted the letter written by JB to Drax CEO Will Gardiner.
2. RH introduced the subject of the meeting: How Drax can evidence that the biomass it uses is sustainably sourced as per its policy.

How to demonstrate that biomass is sustainable?

3. LOB and RP restated Drax's [responsible sourcing policy](#) for woody biomass, which exceeds current regulations and industry standards and has specific [commitments](#) on woody biomass.
4. Drax has been working on how to demonstrate it is meeting the commitments made in the policy. Many of the policy commitments can be evidenced using data from audits carried out through the Sustainable Biomass Programme (SBP) certification scheme. For some commitments, it is necessary to gather additional evidence. The Catchment Area Analysis (CAA) is designed to provide further evidence needed to demonstrate Drax is meeting the four pillars of the Drax responsible sourcing policy:
 - a. Pillar 1 – Reducing CO2 emissions: many of these commitments are additional to SBP and required bespoke analysis to be carried out in our sourcing areas (CAA).
 - b. Pillar 2 – Protecting the natural environment: most commitments are evidenced through SBP, but some required additional evidence through the CAA.
 - i. A brief discussion followed on pests, disease, and fire. LOB explained that SBP is designed to pick up on local standards, as the issues vary greatly by geography. VD explained that federal lands in the US, where harvests had been significantly reduced, had been vulnerable to fire. SF pointed out that managed lands in private ownership had been less prone to fire.
 - c. Pillar 3 – Supporting people and societies: all commitments are evidenced through SBP, but Drax carries out additional research on these points under pillar 4.
 - d. Pillar 4 – Research, outreach and intervention: commitments will be met on a continuous basis through Drax's science programme and also through work on



Healthy Forest Landscapes with the [Earthworm Foundation](#). Drax will keep the IAB updated on progress on these projects as they develop.

RH explained that the science programme included supporting PhD students, the work of IEA bioenergy and advising on research projects in the UK.

Introduction to Catchment Area Analysis

5. RP explained that the CAA aimed to provide data on the impact of biomass demand on the forests that Drax sources from. Eight studies have been carried out, covering about 70% of Drax's supply areas. Drax aims to cover all the areas over the next two years.
6. The type of data collected was based on the European Climate Foundation's considerations where there might be climate risks.

Key dynamics monitored were:

- a) deforestation
- b) a change in management practices (rotation lengths, thinnings, conversion from hardwood to pine)
- c) diversion from other markets (such that those markets were forced to reduce production)
- d) an abnormal increase in wood prices
- e) a reduction in the growing stock of timber
- f) a reduction in the sequestration rate of carbon (overall growth rate)
- g) an increase in harvesting above the sustainable yield capacity of the forest area

Summary of findings

7. [Chesapeake](#): This was the summary of results for a single catchment that covered three mills. All indicators were 'neutral' or 'positive' for all aspects mentioned above.

Key points from forest inventory changes in seven catchments, under two timescales: [CAA](#) data from Morehouse, Amite, LaSalle (all Drax Biomass facilities in the US south), Enviva Chesapeake, Georgia, Estonia and Latvia were shared

Two timescales were examined: 2006 to present and 2013 to present (i.e. after biomass demand picked up).

Discussion of the data

8. The IAB suggested modelling different system boundaries and recommended Drax consider an independent review of the CAAs.

Drawing conclusions from the data

9. To demonstrate causality, the IAB suggested comparison with a control forest where there was no bioenergy harvest. VD suggested using USDA Forest Service Forest Inventory and Analysis¹ (FIA) data.

¹ <https://www.fia.fs.fed.us/>



10. The FIA data are a statistically valid sample of all forests in the US collected over several decades. They provide a means to compare changes in forest conditions over time for forests under different management practices (an example of how the FIA can be used is made in article by Parish et al. (2017)², provided by VD).
11. Statistical analysis: SF suggested there may be new statistical techniques that could help with challenging data comparisons. JB, JK and SF agreed to suggest statistical approaches to Drax.
12. There was a discussion on how to measure the rate of sequestration.

How could the data be presented in a simpler and more meaningful manner?

13. The board discussed various types of presentation and data types that would support the evidencing of Drax's responsible sourcing policy.
14. There was a discussion of whether it would be useful to record the dimension of the trees used.
15. Although diameter can be a good guide to show that sawlogs aren't being used for biomass, citing diameter alone is not enough, VD said. RP explained that price data was used to show that sawlogs were not taken for biomass as sawlogs fetch much higher prices than what a pellet mill would pay. The IAB suggested that sharing price data would be very helpful in demonstrating that Drax met that part of the responsible sourcing policy.

Beyond Drax and into policy

16. RMcK discussed The Green New Deal in the US
17. JB suggested that the IAB commission a study on global policies on accounting of forest carbon to support discussion at the December IAB meeting.

Recommendations

18. JB summarised the actions and recommendations:
 - a. Drax to consider a control forest to help demonstrate causality.
 - b. Drax and IAB to consider more sophisticated statistical approaches for data analysis.
 - c. Drax to consider independent review of the CAA reports.

² Parish, E. S., Dale, V. H., Kline, K. L., Abt, R. C. (2017). Reference scenarios for evaluating wood pellet production in the Southeastern United States. *Wiley interdisciplinary reviews. Energy and environment*, 6(6), p.e259.