

# Making Wales a Deforestation Free Nation

**Paper for Policy Makers** 



# What does being a "Deforestation Free Nation" mean?

A **deforestation free nation** is one that has done all it can, within its decision-making ability and power, to **eliminate imported deforestation** from its economy. In practice, this means that a nation has to:

- Introduce mandatory due diligence obligations on companies that place commodities and derived products that may contribute to deforestation onto the market.
- Ensure all public procurement is deforestation free.
- Ensure that all lending and investments, including pension funds do not contribute to deforestation overseas.
- Introduce sustainable food and farming policies and practices that do not contribute to overseas deforestation (addressing the use of soy in animal feeds in particular).
- Provide support to producer nations to ensure that supply chains do not contribute to deforestation and are sustainable, inclusive and equitable for farmers, forest communities and Indigenous People.
- Implement trade agreements with third countries that will guarantee environmental and human rights standards.



Making Wales a Deforestation Free Nation Paper for policy makers
November 2020

Written and edited by: Kevin Rahman-Daultrey Size of Wales

Barbara Davies-Quy Size of Wales

Rhys Evans RSPB



We are grateful to the Joseph Rowntree Charitable Trust (JRCT) for their support. Special thanks to all those who provided valuable input and feedback for this report. A big thank you to WWF Cymru who provided vital information for this paper.

Cover image: CIFOR

# SUMMARY OF KEY RECOMMENDATIONS

Wales is at a critical crossroads in its history and needs to address multiple emergencies – COVID-19 recovery, the climate and ecological emergency and ongoing inequalities in our nation.

Our response to the crisis must go hand in hand with Wales' Well-being of Future Generations (Wales) Act 2015. This requires us to create a resilient Wales which maintains and enhances a bio-diverse environment, make a positive contribution to global well-being, and address the ways in which we contribute to global ecological degradation and climate change. Wales needs to significantly reduce its ecological footprint, so that it lives within planetary boundaries. This is essential for the survival and prosperity of future generations. The next Welsh Government must make a commitment to becoming a **deforestation free nation**. If we do not act quickly, future generations will not only have no forests of their own but will also be faced with the many devastating impacts climate change and nature loss presents, including increased risk of pandemics.

For Wales this would mean implementing the following recommendations so that Wales can commit to becoming the first deforestation free nation. To enable this, Welsh Government needs to:

- 1. Include emissions for imported deforestation in their analysis and target setting for moving Wales towards a Net Zero Nation.
- 2. Ensure that the Welsh Government's Economic Contract, which aims to strengthen a relationship with business and drive inclusive growth and responsible business behaviour, is strengthened so that signatories to the contract commit to deforestation free supply chains.
- 3. Call on the UK Government to implement mandatory due diligence legislation that applies to all companies in the UK that place commodities and derived products that may contribute to deforestation onto the market.
- 4. Introduce deforestation free targets in procurement policy in Wales as part of our transition to utilising locally produced and sustainable goods.
- 5. Introduce sustainable farming practices that do not contribute to deforestation at home or overseas. This includes ending the reliance on imported soy animal feed that originates from forest risk areas and adopting nature and climate friendly farming methods such as organic farming, agro-ecology and agroforestry.
- 6. Introduce a new cross-departmental food system strategy that both drives and rewards local sustainable Farm to Fork supply chains and prioritises only sustainable goods from overseas to support livelihoods at home and abroad.
- 7. Work with the UK Government to ensure that new trade agreements will guarantee high environmental and human rights standards, particularly around deforestation, accompanied by strict enforcement measures.
- 8. Work with non-traditional partners such as NGOs to further strengthen teaching on climate change, nature and deforestation within the new curriculum and support educators towards achieving this goal.
- 9. Examine the financial risks that deforestation presents to the investments of the Wales Pension Partnership and explore the potential for engagement with or divestment from companies driving deforestation on the basis that this presents an investment risk to the pool.
- 10. Ensure vulnerable countries and communities suffering the effects of climate change, nature loss and deforestation are supported to help them adapt and prosper as part of Wales' ambition to be a globally responsible nation through the Wales and Africa programme.

# WHY WE NEED TO ACT

We are facing a climate and nature crisis. Despite irrefutable evidence that man-made emissions are heating our planet and destabilising our climate, global greenhouse gas emissions continue to rise. Fast and deep cuts to global emissions are needed, and trees and forests are an essential part of the solution. An estimated 18 million hectares (44.5 million acres) of forest are being lost globally every year. That is roughly nine times the size of Wales, every year. Global deforestation itself is now estimated to account for 10-15 per cent of global manmade greenhouse gas emissions. The Intergovernmental Panel on Climate Change's (IPCC) 2018 Special Report on Global Warming of 1.5°C makes it clear that stopping and reversing global deforestation is a critical component of limiting global warming to 1.5°C above pre-industrial levels. However, time is running out.

Halting global deforestation is not just important in our fight against climate change, but also in our fight against the ecological crisis and protecting Wales from future pandemics. The COVID-19 pandemic has put our complex relationship with nature in the spotlight – including the role that converting and degrading ecosystems plays in increasing the risk of emergence of deadly viruses, and the fragility of our global supply chains. As we further degrade our natural habitats and forests, deforestation increases the risk of further viruses like COVID-19 emerging. As more natural habitats disappear, viruses have more opportunities to jump the species gap into the human population. As long as we keep using products that drive deforestation, we risk more global pandemics.

million hectares
of forest are
lost every
year, roughly
equivalent to
nine times the
size of Wales.iv

Research widely recognises that Indigenous People and local forest communities play an essential role as guardians of our precious forest. Nevertheless, indigenous and other forest communities are often risking their lives to protect their forests, their livelihoods and their culture. By reducing the drivers of deforestation, Wales can also help protect the rights of those at the forefront of efforts to tackle climate change.

Wales not only needs to act on deforestation from environmental and health perspectives. Preventing climate change and pandemics also makes sound economic sense. Over the last 15 years, economic analysis demonstrates that climate change will cost Wales economically both in mitigation and impacts<sup>vi</sup>, and we are currently witnessing the economic harm that pandemics can inflict with one of the deepest recessions faced by the UK.

"Today we live in a forest island surrounded by palm oil plantations and desert. My community have been risking thier lives fighting for justice and the future of our children for years, but since the government has been unable or unwilling to enforce its own laws, we turn to the courts. We hope that the time has come for the judges to ensure the authorities respect the law and bring us hope for our future,"

Indigenous community from Peru that

Indigenous community from Peru that have been dispossessed from their land due to palm oil plantations.



# **BECOMING A GLOBALLY RESPONSIBLE NATION**

For Wales to establish itself as a Globally Responsible Nation, we must address the ways in which we contribute to global ecological degradation and climate change. Wales needs to significantly reduce its ecological footprint, so that it lives within planetary boundaries. This is essential for the survival and wellbeing of future generations. A key component of this is ensuring our supply chains are fair, ethical and sustainable. A commitment to eliminating imported deforestation is a major step in Wales' commitments to becoming a Globally Responsible Nation as part of the **Wellbeing of Future Generations Act (2015)**. If we do not act quickly, future generations will not only have no forests of their own but also will be faced with the many devastating impacts climate change and nature loss presents, including increased risk of pandemics.

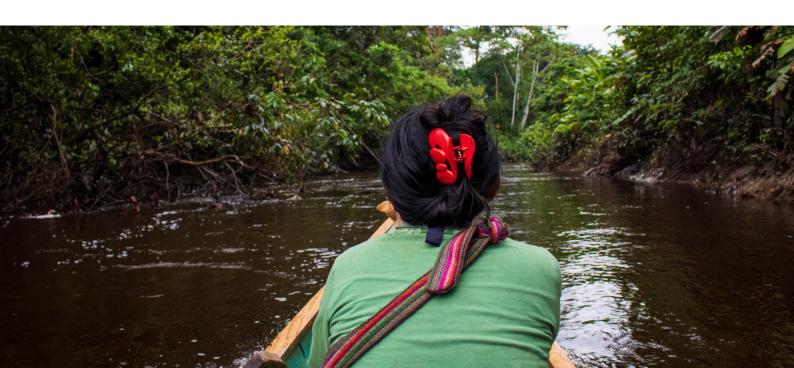
Our response to COVID-19 has shown that when faced with urgent threats to our wellbeing, we can as a nation respond with swift and decisive action and we should treat climate change and its drivers, such as deforestation, in much the same way we have treated COVID-19.

With **87 per cent of the public wanting action on deforestation**<sup>vii,</sup> there is a growing voice to support commitments to eliminating imported deforestation. Alongside which are the now growing calls from the public, NGOs and private sector for a green recovery that must include action on deforestation.

% of public want action on deforestation

Very few nations have so far made a commitment to becoming a deforestation free nation. France and Norway are making some progress and the UK and EU have launched public consultations on deforestation issues. So there is a real opportunity for Wales to lead the way, especially in the run up to COP26 when the eyes of the world will be on the UK. Wales can replicate the global leadership is showed when it became the first **Fair Trade Nation** and now commit to be the first deforestation free nation.

Wales' ecological footprint is **five times the size of Wales** and it has been estimated that if everyone in the world were to consume the same as the average Welsh citizen, we would need over **2.5 planets** worth of resources. Wales has a legal duty to report on how it is reducing its ecological footprint. Decreasing our consumption of forest risk commodities is a clear way we can reduce our global footprint.



# WHAT IS DRIVING DEFORESTATION?

Tropical deforestation is being driven by the production of just a handful of commodities - commodities we buy, use and consume in Wales every day. This makes all of us here in Wales part of the deforestation economy.

#### **BEEF**

The UK is one of the top five importers of Brazilian beefviii and forest clearing for cattle is the largest single driver of deforestation in tropical regions, especially in South America. This meat often finds its way into fast food or highly processed foods, which are also driving obesity levels in Wales.



#### SOY

The second biggest driver of tropical deforestation is soybean production, particularly in South America.\* 80-90 per cent of imported soy is used for animal feed, particularly in poultry and pork farming here in Wales\*i. So, by eating meat that is fed on soy animal feed that comes from high risk deforestation areas, we are indirectly contributing to the problem of deforestation without knowing it. We need to address how we produce meat and animal products here in Wales.



#### **PALM**

Palm oil is an ingredient in over 50 per cent of packaged products found in supermarkets<sup>xii</sup> and is driving deforestation in South East Asia. In Indonesia, palm plantations were responsible for up to nine per cent of global emissions from land use changes between 2000 and 2010.<sup>xiii</sup> Unsustainable Palm oil can be found in products ranging from ice cream and biscuits to lipstick. Often not labelled 'palm oil', its derivatives have over 200 names which can be hard to spot - from lauric acid to glycerol.



#### **COCOA**

According to Mighty Earth, between 1988 and 2008 cacoa has driven around 2-3 million hectares (or the size of Wales!) of deforestation.xiv Cocoa production is increasing to meet global demand for chocolate and in turn is driving deforestation. The Ivory Coast for example saw a 50 per cent increase in production from 2011 to 2018, whilst also losing 2.4m ha of trees.xv



#### **COFFEE**

Coffee is the world's second most tradable commodity<sup>xvi</sup> and coffee production is growing by 2 per cent year on year. In the majority of cases, this increase in demand is grown on land that was previously primary forest<sup>xvii</sup>. Worldwide, the use of monocrop coffee production is leading to deforestation, soil erosion, and water pollution.<sup>xviii</sup>



#### OTHER DRIVERS

We have identified the key five agricultural commodities that are imported into Wales that are driving deforestation loss. However, there are numerous other commodities (timber, rubber) and other drivers e.g. mining, oil explotation, large scale infrastructure projects that are causing deforestation.



In order to address the deforestation caused by commodities, we need to adopt a collective approach across different sectors. This collective approach starts with an understanding of the key commodities and how we can reduce, replace or remove them from the Welsh economy.

# KEY COMMODITIES RECOMMENDATIONS

**BEEF** 

Buy locally produced beef that is 100 per cent grass fed or organic. Reducing our meat consumption will also help.



SOY

Buy organic soy-based products and buy grass and corn fed animal products.



**PALM** 

Buy products that contain sustainable palm oil and are certified by the Round Table on Sustainable Palm Oil.



COCOA & COFFEE

Stick to Fairtrade which includes a no deforestation criteria.

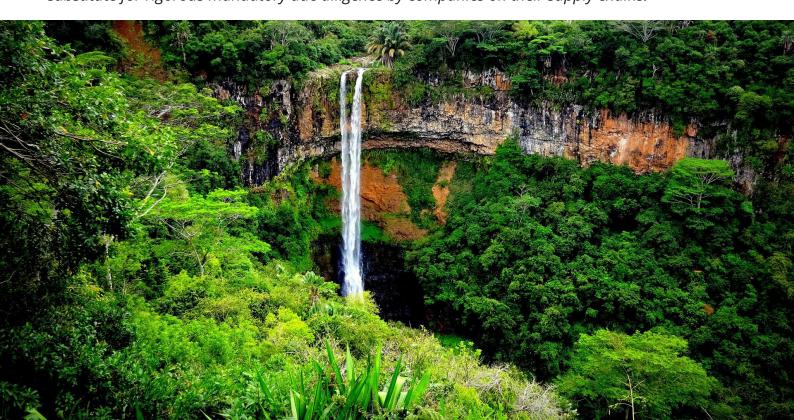


OTHER DRIVERS

Stick to recognised certification processes such as FSC for timber and Fairtrade for sugar.



Current forest risk commodity certification schemes are an important step forward however they do have their limitations including the challenge of monitoring, disclosure and enforcement. There is no substitute for rigorous mandatory due diligence by companies on their supply chains.



# KNOWING OUR TRUE CARBON FOOTPRINT

Wales has made clear commitments to move towards **reducing its emissions by 95 per cent**. However, much of Wales' carbon footprint now comes in the form of imported emissions, which includes the large footprint caused by global deforestation. It is essential that Welsh Government carries out an analysis of these emissions, so that they can be factored into the targets in our carbon budgets and reduced alongside internal emissions. This ensures that Wales is not simply outsourcing its emissions overseas as we move towards net zero.

#### The Welsh Government will need to:

 Set clear targets to eliminate imported deforestation from Wales' economy that are captured and monitored.

# SUSTAINABLE PROCUREMENT & INVESTMENTS

Wales' annual public sector procurement budget is around £6 billion. The Wales Procurement Policy Statement issued in 2012 set a clear definition of value for money in Wales, taking a holistic view of public procurement as a driver of social, economic and environmental benefits. Community Benefits is a requirement of the policy statement and a principle in its own right, reinforcing its importance. Wales is already on the road to deforestation free procurement having become a Fair Trade Nation ten years ago, and the commitment to discourage business from using "non-ethical" palm oil in their products and manufacturing processes within the Welsh Government's Economic Contract. However, more action is needed to make what we buy truly sustainable. These changes are required at different levels to achieve this.

#### The Welsh Government will need to:

- Commit to deforestation free targets in its procurement practices across all levels of government and public sector bodies.
- Implement new procurement guidelines for the public sector in Wales that include a clear commitment to deforestation free target, risk assessments and due diligence processes in public sector procurement practices.
- Develop a nationwide registration of deforestation free companies and products to enable procurement teams across Wales to easily source sustainably.
- Strengthen capacity in procurement teams, Welsh Government Business Relationship Managers and Welsh businesses to enable due diligence processes to be undertaken.
- Include deforestation risk as part of the decarbonisation and climate resilience pillar of the Welsh Government's Economic Contract, requiring signatories to the contract to commit to deforestation free supply chains.

#### Public bodies will need to:

- Commit to a deforestation free approach.
- Train procurement teams in due diligence processes.
- Implement due diligence processes in their procurement practice to ensure forest risk commodities are addressed.

Much of
Wales' carbon
footprint
now comes
in the form
of imported
emissions,
which includes
the large
footprint
caused
by global
deforestation

# INTERNATIONAL POLICY

#### **TRADE**

As we exit the EU, new trading arrangements will be signed with countries throughout the world and tariffs, environmental standards and human rights clauses might be modified from those currently held by the EU. We could see an increase in forest risk commodities coming into Wales, such as beef, soy, palm oil and cacao, thereby driving deforestation even higher. New trade agreements should include provisions to conserve or sustainably manage forests and other ecosystems. Furthermore, trade and sustainability chapters should be made mandatory and accompanied by strict enforcement measures.

The Welsh Government must work with the UK Government to ensure that trade policy will guarantee environmental and human rights standards. This is essential if Wales wants to uphold its commitment to sustainability and to act as a responsible nation on the global stage. We must ensure that new trade deals not only benefit Wales, but also protect and enhance nature and the environment both here in Wales and the world over.

#### SUPPORTING OTHER NATIONS

We cannot achieve the Paris 1.5°c warming target without working with other nations and while we must ensure we implement nature-based solutions to tackle our own impacts and the ecological crises at home, we must also support nature-based solutions in the regions where they have the most impact. Climate change will disproportionately impact on developing nations and communities, those who have benefited the least from the industrialisation that has driven greenhouse gas emissions. \*\* Wales must ensure that wellbeing, sustainability and climate change are at the forefront of it's international policy. This is particularly critical given the climate and nature emergencies and COVID-19 pandemic, which could see poverty levels in developing countries set back by up to 30 years. The Welsh Government should support efforts to ensure vulnerable countries and communities suffering the effects of climate change and deforestation are provided expertise and financial support to help them adapt and prosper. This could be through supporting community led tree growing, forest protection and sustainable livelihoods initiatives in Africa such as those already supported through the Wales and Africa Programme.

At the heart of this work should be support to indigenous communities who are on the forefront of the fight to save our precious forests and ecosystems, often putting their lives at risk. Forests protected by indigenous communities store more carbon than those unprotected.

The Welsh Government will need to:

- Use its influence to push for due diligence legislation at a UK level, and that any such legislation is implemented within Wales, as well as ensure that future trade deals do not open the UK markets to forest risk commodities.
- Ensure vulnerable countries and communities, particularly Indigenous People, suffering the effects of climate change and deforestation are provided expertise and financial support to help them adapt and prosper as part of Wales' ambition to be a globally responsible nation through the Wales and Africa programme. This could be through tree growing, forest protection and sustainable livelihoods initiatives.

With the threat that the Amazon could soon be a greater source of CO² emissions than it absorbs in a decade's time, it has never been more important to protect indigenous communities' rights.

# SUSTAINABLE FOOD AND FARMING

As the main drivers of deforestation are linked to how we produce and consume food, we will need to address our food supply chain and farming systems. While there is some movement on this at a UK wide level with the possible introduction of legislation on reducing deforestation in UK supply chains, there are still areas that we can tackle in Wales that go above and beyond work being explored at a UK level. As we exit from the EU, Wales should strive to introduce sustainable, nature based farming practices that not only help restore and protect the environment and biodiversity here in Wales and abroad.

Wales could explore introducing a label for deforestation free goods in Wales as part of the development of Brand Wales. This would open up markets for Welsh producers - the EU and nations within and beyond the EU, such as Germany, Norway and France and the US, are all exploring deforestation legislation. Wales should also introduce a new cross-departmental food system strategy that both drive and reward local sustainable Farm & Fishing to Fork supply chains and prioritise only sustainable goods from overseas to support livelihoods at home and abroad.

Not only does a commitment to eliminating imported deforestation benefit the global environment but it will also support the local economy<sup>xix</sup> in Wales and create jobs at home. By reducing imports of goods that we can produce locally in a sustainable way, we will positively impact the Welsh economy, support local jobs and reduce our global impact.

#### The Welsh Government will need to:

- Introduce a new cross-departmental food system strategy that both drive and reward local sustainable Farm & Fishing to Fork supply chains and prioritise only sustainable goods from overseas to support. livelihoods at home and abroad.
- Promote sustainable food choices for the Welsh consumer and encourage the consumption of less but better quality meat.
- Adopt the 'Less is More' approach in Wales' post-Brexit agricultural policy that promotes nature based and organic practices.
- Support farms in Wales to move away from using soy feed linked to deforestation, towards sustainable alternatives such as growing on-farm animal protein, using sustainable (deforestation free) livestock feed, or transitioning to 100 per cent pasture fed livestock systems.
- Introduce a Welsh deforestation free label.

#### Public bodies will need to:

- Undertake a forest risk assessment on all current food suppliers engaged in public procurement.
- Implement new procurement guidelines to ensure future suppliers are deforestation free.
- Ensure bodies that fall under their guidance are committed to eliminating imported deforestation in food supply. For example, Local Authorities will need to work with schools to ensure that schools meals are deforestation free.



#### Welsh companies will need to:

- Commit to eliminating deforestation from their supply chains by carrying out due diligence checks.
- Source certified products that help eliminate global deforestation e.g. Fair to Nature, Organic, Pasture Fed.

### **LESS IS MORE**

Nethergill Associates' Less is More report demonstrates how farming with nature can help achieve a more profitable, resilient farm business model. Nature provides farmers with free 'natural capital' for their businesses in the form of soils, grass, water and geology; and the report recommends that the amount grass/crops that you can naturally grow on your farm (without using inputs) should dictate livestock numbers. Because once this threshold is crossed and you exceed the number of livestock that can be fed by farm's naturally available grass, the only option is to buy-in expensive imported feed, fertiliers, and other inputs. These external inputs increase farm costs and reduce profitability.

'Reducing output (and hence stock numbers) to a level where stock are grazed only on the farm's naturally available grass (i.e. without artificial fertilisers), increases profit (or reduces losses), through significant savings of variable costs.'

This approach therefore would reduce or even remove Welsh agriculture's reliance on soy imported feed, thus reducing our global carbon and ecological footprint. The Less is More approach should form the cornerstone of the new agricultural policy in Wales.

"When I took over the farm over 20 years ago, I adopted the less is more approach, which included reducing sheep number from 1800 to 600, and reintroducing a small herd of cattle to the farm. We now farm on a low input organic model which avoids using any imported fertilizers and very little bought in feed. The beauty of it lies in the fact that it is actually profitable - we're a business at the end of the day and we do make money. There is also another benefit...I have created a farmed landscape which appeals to lots of insects, bees, moths, butterflies, birds and mammals. We're also producing food! The sheep that are needed to manage this habitat produce enough meat for 50,000 lamb burgers every year."

Tony Davies, Henfron Farm, Elan Valley

## **FINANCE**

Often overlooked is our contribution through investments to unethical and unsustainable practices. Pension funds and investments across Wales through the Wales Development Bank and Welsh Pension Partnerships could be inadvertently funding the very destruction of the natural resources we rely on. While there has been a movement towards divestment from fossil fuels across pension funds in Wales, there is still more that needs to be done to ensure our investments are not driving deforestation. Climate change presents a material financial risk to investment funds and therefore investing in practice driving climate change does not make for sound investments.

# Classification of biodiversity-related financial risk:

	Credit	Market risk	Operational Risk
Transitional risk	Investee suffers substantial losses due to sanctions, damages or increased taxes stemming from its negativeimpact on biodiversity	Long-term price increases as a result of biodiversity change	Image loss resulting from failure to switch to biodiversity management
Physical risk	Revaluation of debt- servicing capacity and collateral	Rating downgrades and share price losses after biodiversity loss	Biodiversity loss affects balance sheet
Litigation risk	<ul> <li>Litigation as pertaining to biodiversity loss and breach of the underlying legal frameworks</li> <li>New regulatory rules impose limitations on investing in activities with an impact on</li> <li>Damages due to false reporting of biodiversity risks</li> <li>Damages due to greenwashing</li> </ul>		
Systemic risk	Economy can no longer be insured at reasonable cost	Market-threatening effects from biodiversity loss in an entire region	Reputational losses for entire industries/entire markets

Source: adapted from BaFin (2019)xxiii

#### The Welsh Government will need to:

- Promote deforestation free investments.
- Conduct a forest risk assessment on the Welsh Parliament Members' pension scheme.
- Engage with or divest from companies that are driving deforestation.

#### **Public Bodies will need to:**

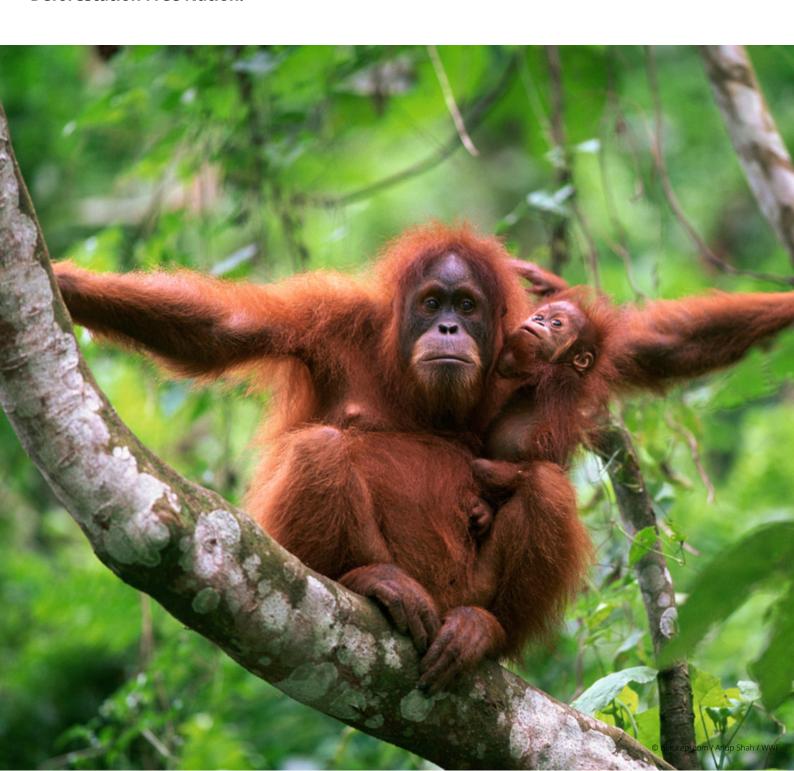
- Welsh Pension Partnership pool to ask their investment advisors and managers to conduct
  a risk assessment of the pool's investments to assess the level of investment in forest risk
  companies. Based on the risks this presents, then develop an action plan for engaging with
  or divesting from those companies over time to mitigate the risks.
- Local Authorities and NHS trusts should engage their staff on forest risks and explain why
  their pensions investments need to be changed.

# **LEADING THE WAY**

By recognising a deforestation free approach as part of our goal to be a Globally Responsible Nation, we can lead on the global stage; showing other nations how we can live within our means and protect vital global resources.

A deforestation free approach enables us to address other issues here in Wales. From the quality of our food and its associated health impacts, through reductions in the amounts of highly processed foods we eat that also contain forest risk commodities; to promoting local goods, which in turn reduces the transport emissions associated with our consumption.

Some of the certifications, processes and recommendations in this document are not the final step as there is still work to do to strengthen them and improve their accountability and traceability. The recommendations in this document are the first steps towards making Wales a **Deforestation Free Nation**.



# **REFERENCES**

- i. https://www.wri.org/news/2015/09/release-new-global-data-fnds-tropical-forests-declining-overlooked-hotspots
- ii. https://www.worldwildlife.org/threats/deforestation-and-forest-degradation
- iii. https://www.nature.com/articles/s41467-018-05340-z
- iv. https://www.wri.org/news/2015/09/release-new-global-data-fnds-tropical-forests-declining-overlooked-hotspots v. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5654761/
- vi. https://www.eiu.com/n/global-economy-will-be-3-percent-smaller-by-2050-due-to-lack-of-climate-resilience/
- vii. https://d25d2506sfb94s.cloudfront.net/cumulus\_uploads/document/v3p20mpf8i/YG-Archive-030519-FernDeforestationAllMarkets065.pdf
- viii. https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation
- ix. https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation
- x. https://sustainablefoodtrust.org/articles/dairy-cows-livestock-behind-growth-soya-south-america/
- xi. https://www.soilassociation.org/media/4959/policy report 2010 feeding the animals.pdf
- xii https://www.wwf.org.uk/updates/8-things-know-about-palm-oil#:~:text=Palm%20oil%20is%20in%20nearly,in%20 xiii. https://www.ucsusa.org/resources/palm-oil
- xiv and xv. https://www.mightyearth.org/wp-content/uploads/2017/09/chocolates\_dark\_secret\_english\_web.pdf xvi. https://ohiostate.pressbooks.pub/sciencebites/chapter/a-bitter-brew-coffee-production-deforestation-soil-erosion-and-water-contamination/
- xviii.https://www.researchgate.net/publication/273445289\_Global\_Coffee\_Production\_and\_Land\_Use\_Change Ibid. xix. https://www.wildlifetrusts.org/sites/default/files/2019-11/Hill%20farm%20profitability%20report%20-%20FINAL%20 agreed%2015%20Nov%2019.pdf
- xx. https://www.un.org/press/en/2019/gaef3516.doc.htm
- xxi. https://www.pwc.ch/en/publications/2020/nature-is-too-big-to-fail.pdf