



## FACT SHEET

# IMPACTS OF USING NATIVE FOREST BIOMASS FOR ENERGY

The combustion of native forest biomass for energy production at the industrial scale poses serious threat to the climate, and to Australia's unique forests and forest dependent species. It also hinders the capacity of nature to remove carbon from the atmosphere and the deployment of genuinely clean, renewable energy technologies.

Burning native forest biomass is promoted by its advocates as carbon neutral and simply utilising waste efficiently. In reality this is incorrect and misleading.

**EMISSIVE** – Burning forest biomass for electricity production is more emissive of carbon per unit of energy produced than is burning coal. This is scientific fact. These emissions are immediate in their effect on the atmosphere. We need to urgently move away from emissive power sources like coal and other fossil fuels, but should not make the mistake of substituting with an emissive alternative.

**CREATES A CARBON DEBT** – The simplistic claim that the large greenhouse gas emissions generated by combustion of wood biomass are recovered by subsequent regrowth of forests ignores the crucial point that such regrowth takes time – a lot of time. It creates a carbon debt that will take many decades or even centuries to repay - if the forests are ever actually allowed to recover to their carbon carrying capacity.

**TIME MATTERS** – We have only a short time in which to turn around human induced climate change, hence targets for 2030 and 2050 in the Paris Agreement. Time taken for forest restoration to naturally replace the carbon removed from the standing forest carbon stock and burnt, is measured in many decades and in centuries for the carbon dense natural forests of south-eastern Australia. During this time carbon is in the atmosphere contributing to global warming. This is therefore an exacerbation of climate change not capable of breaking even on its carbon balance within relevant time frames, let alone reducing emissions.

### **VITAL CONTRIBUTION OF FORESTS TO REMOVE CARBON FROM THE ATMOSPHERE IS UNDERMINED**

– to successfully restrain climate change to 1.5 or 2 degrees of temperature rise it is vital to achieve two things: deep cuts to greenhouse gas emissions and removal of carbon from the atmosphere. The only proven method of pulling carbon back out of the atmosphere at scale is through sequestration in natural ecosystems. Forests contain enormous stocks of standing carbon which must be kept out of the atmosphere. Their continuing growth coupled with strategic ecological restoration of degraded natural forests is a most significant source of carbon sequestration fundamental to turning around the dire situation we face. To cut and burn forests is to undermine the potential for removals from the atmosphere whilst also contributing to large, immediate emissions.

**NOT CARBON NEUTRAL** – On top of the simplistic claims that growing trees make burning forest biomass innocuous, the carbon accounting rules developed for the Kyoto Protocol and the way they have been applied has also enabled a false perception of carbon neutrality. The IPCC recognised the emissive nature of biomass burning but in recommending how to account for it advised that the emissions impact be set at zero in the energy sector on the understanding that the emissions would be fully accounted in the land sector. This was meant to avoid double-counting. Not only is the zero in the energy sector misconstrued by some to mean that the impact is actually zero, but emissions from the land sector have never been comprehensively accounted and forest emissions from areas subject to logging not properly accounted at all. This is a matter of serious concern and debate at the international policy level. Failure to account for substantial forestry emissions due to flawed carbon accounting for the UN creates a false impression of the extent of emissions reduction by developed countries under the Kyoto Protocol, but the actual impacts on the atmosphere are real.

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**NOT WASTE** – Although often claimed to be simply cleaning up ‘waste’ or ‘residues’ this is misleading. Large volumes are required on an ongoing basis. The feedstock comes directly from logging operations in the forest and is at volumes much larger than those of sawlogs produced. It is only because it is a lower value product by weight (or volume) that these freshly cut trees are called ‘residues’. This ‘waste’ would be 30% minimum of what was a standing forest before logging, and up to 70 or 80% is not unusual. The real waste is that intact native forests are destroyed for such purposes. Only a small fraction of feedstock is sawmill residues, and in the case of plans for northern NSW the use of stumps and branches left over after logging is explicitly ruled out.

**THE ‘NEW WOODCHIPPING’** – following the collapse of the export woodchip industry, forest biomass burning initiatives are designed to provide a substitute and thus entrench native forest logging when the other prospect is to end it. The high volume pulp log category is explicitly targeted.

**UNSUSTAINABLE, INTENSIFIES LOGGING** – Native forest logging in Australia is not ecologically sustainable as evidenced by the increasing levels of endangerment of forest dependent species and of some forest types themselves. The introduction of an industrial scale forest biomass trade will further intensify the impacts. In places where clearfell logging is not already the norm, such logging regimes are likely to be introduced to scour the forests of trees. This is what is proposed for northern NSW.

**DEEPLY UNPOPULAR** – Opinion polls have consistently shown strong community opposition to burning forest biomass for energy. It is at least as unpopular as woodchipping. Retaining our forests for biodiversity, catchment protection, carbon retention, recreation and enjoyment are strongly supported.

### **UNECONOMIC, REQUIRES PUBLIC SUBSIDY**

– The income stream generated by forest biomass sales is sought to try and make native forest logging economically viable, although this is doubtful considering the loss making history of such logging. The reliance of biomass burning on government subsidies or other forms of support should be taken into account. Government subsidy is the hallmark of this energy source all around the planet; in fact it drives the industry.

### **DESTROYS BIODIVERSITY AND RESILIENCE OF FORESTS TO CLIMATE CHANGE**

– the prospect of continued destruction of the biodiversity of our native forests is alarming. The loss of iconic species such as regional koala populations, the Swift Parrot, Leadbeaters possum, the Numbat, and many more due to ongoing logging is increasingly of serious concern. However the impacts are even broader. As the complex web of forest life is degraded so is the resilience of those forests in the face of climate change, making a perfect storm of threat to the healthy intact forests we need to maintain vital ecological services on which all life depends.

### **DISPLACES GENUINELY CLEAN, RENEWABLE ENERGY TECHNOLOGIES**

– subsidies directed to biomass burning can displace those available to solar, wind and other energy solutions, especially within a limited renewable energy target. Burning wood in coal-fired power stations, either by co-firing or by complete conversion hinders transition to new ways of non-emissive energy production.



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