



## Biomass as a solution for rural area electrification. Opportunities and challenges

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### Abstract:

Biomass is widely available around south east asia. At the moment utilization is on a low-level due lack of technology and infrastructure in rural areas. Electricity is mainly generated by expensive diesel which emits high amounts of CO<sub>2</sub> not only when burned in genset but also during refining and transporting. Biomass at the rural areas is existing in large volumes and in many parts as a waste from agriculture and wood industries. One of the challenges is to have the local community to pay for the electricity as usually governments are subsidising the diesel, making it relatively cheap to be used as a fuel in generators. Other aspect is to look at the industrialization of the rural areas if biomass is used as a fuel. Local community would have opportunity to cultivate the energy crop and sell it to the power plant. This would bring employment to the areas and support the local community in long term.

### Biography:

Santeri Rantala is sustainability driven bio-energy business expert with expertise in building up, managing and consulting biomass projects in China, Indonesia, Sri Lanka and Thailand.

### Recent Publications:

1. Kinnunen, V. (2017). Tavarat tiellä: sosiologinen tutkimus. 2019



- 2: T. Jokela, M. Huhmarniemi, C. Haataja & T. Issakainen (toim.), Ympäristötaidetta Lapin matkailuun (s.122–126). Rovaniemi: Lapin yliopisto. <http://urn.f/URN:NBN:f:ula-201811061409>
- 3: 201811061409URN:NBN:f:ula-201811061408 Metsähalitus (2019). Oulangan kansallispuisto. Haettu 18.12.2019
- 4: osoitteesta <https://www.luontoon.f/oulanka> One with Nature (2018). Älykkään ja puurakenteisen loma-asuntoalueen
- 5: konsepti- suunnitelma Itä-Rukan kehittämisen vauhdittajaksi. Haettu 27.03.2018 osoitteesta <https://>

**International Webinar on Biodiesel; September 20, 2020; Dubai, UAE**

**Citation:** Santeri Rantala; biomass as a solution for rural area electrification. Opportunities and challenges; Webinar on Biodiesel 2020; September 20, 2020