

# Can money grow on trees?

## Enhancing community-based commercial forestry in Indonesia

*There is much more to smallholder forestry than simply waiting for trees to grow. In Indonesia's diverse, tropical setting this is even more apparent. Community-based commercial forestry (CBCF) is a multifaceted enterprise which requires targeted planning and plasticity in order to be successful. Dr Digby Race, from the University of the Sunshine Coast, Australia, and his project team use real-world information to give a holistic perspective for improving CBCF in Indonesia, and to provide better opportunities for smallholders.*

Smallholders are small-scale farmers who often grow a mixture of crops for both cash and self-sufficiency. They are commonplace in the Global South because the land has low associated cost, can provide food and resources for families, and is adaptable to varying market demands. Unlike large-scale industrial farming, smallholdings are not reliant on industrial inputs, making them much more self-sufficient. They are of increasing focus for governments as we shift towards a more sustainable future and aim to meet the Sustainable Development Goals (SDGs).

Forestry is one practise that can be easily incorporated into a smallholding. This can either be through a monoculture of a single tree species, a mixture of species, or agroforestry. Often forestry is seen as a passive money-maker for smallholders, with little investment and maintenance required. However, silviculture practises on smallholdings could be improved, and understanding the economic, institutional, market, policy, and social components of this enterprise will greatly benefit farmers undertaking this endeavour. By sampling a variety of smallholders across Indonesia, Dr Digby Race from the University of the Sunshine Coast, Australia, and his project team explored important data that can guide both government initiatives and local practise to better outcomes.

### **A DIVERSE AND CHANGING NATION**

Indonesia is a geographically and culturally diverse country with over 6000 inhabited islands. It is also home to a very large population, with over 60% of people based in urban centres, believed

to be increasing to 70% in the next 10 years. With this shift, the government of Indonesia launched a Grand Strategy of Agriculture Development (GSAD) designed to develop the rural economy, moving it further from primary production towards higher-value products. It is unclear how smallholders will fare with this shift, especially those of low wealth.

In terms of forestry, the government also launched a social forestry programme to lease 12.7 million hectares of land to smallholders to establish commercial forests. However, only 15% of this area has been successfully transferred. It seems the government's complicated and lengthy bureaucratic process is off-putting for smallholders who would prefer to trade privately with local industries.

There are also barriers for the international trade of timber products. Despite an increasing demand for these products, there are many regulations and it's a slow regulatory process with bottlenecks that slow exports. An increasing emphasis on sustainability also puts pressure on timber to be from legal and sustainable sources. Despite being a well-intentioned system, the cost of sustainability certification and timber verification for smallholders is often too high. This, in turn, encourages them to grow trees to be sold to local markets and processors which don't face the same level of scrutiny as exporters.

Since Indonesia is such a diverse landscape with people spread across a breadth of contexts and environments, it will always be difficult for national policies like those above to work successfully for everyone. Understanding



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Smallholders commonly practise agroforestry – the integration of trees with crops and/or pastures.



Dr Race is discussing silvicultural techniques with smallholders in Central Java.



Rural communities benefit from natural and planted forests for products for home use and commercial sale, to complement farming of commodity crops.

After MTG training, smallholders understood how to measure and value their forests, which in turn helped them negotiate prices when selling timber.



the on-ground reality of smallholders will be vital to making sure these policies can be adapted and implemented effectively across the whole nation.

### STUDYING SMALLHOLDERS

In order to properly understand how smallholders manage their land, and how this is changing with time, Dr Race and his team conducted an Economic and Social Dimensions (ESD) household survey at three different districts across Indonesia. The households sampled were split across three 'wealth' bands (low, medium, high). A simple structured questionnaire was used to find out more about their financial situation and farming characteristics. This survey was started in 2013, then repeated in 2017 and 2020.

The results from this were eye opening, with 56% of household income coming from off-farm sources. People were farming and taking off-farm jobs such as general labour, or they were running

separate small enterprises. Despite classifying themselves as 'farmers', these smallholders in fact only gain an average of 14% of their income from commodity crops. It is important to bear in mind that in most cases some commodities will be consumed by the family. This suggests that smallholders are opting towards more flexible and diversified livelihoods, rather than intensified farming.

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### THE BENEFITS OF AGROFORESTRY

Agroforestry is the practise of growing trees around or with areas of crop or pasture. It has been shown to be beneficial in the tropics due to enhanced nutrient cycling, soil structure, biodiversity (especially pollinators), shade and shelter for understorey crops, and diversification of farm produce. It also requires a lighter workload than intensive farming, and the trees can be treated as a 'living savings

account' for many smallholders. There are also many side-products of forestry that can also be harvested such as bark, herbs, fruits, and seeds – sold in local markets or used at home by families.

The ESD survey revealed that agroforestry appeared to make up a sizeable proportion of income across all wealth bands, averaging at 29%. Furthermore, agroforestry naturally allows flexibility; it is up to the farmer whether to incorporate commodity crops around the trees, or livestock, as well as which trees to plant and when to harvest.

Due to the long-term and low-input nature of forestry, it gives the farmer further options as to whether to pursue a side venture for off-farm income.

### INVEST LOCALLY AND INDIVIDUALLY

If the government wants to encourage more farmers to invest in the silviculture of forest trees, then the smallholders need to feel competent and be properly



A market broker demonstrating his approach to measuring and valuing trees.



Hands-on training provided during MTG courses is effective.



Sharing personal experiences builds confidence and knowledge among neighbours.

skilled in order to fully reap the benefits. The project team have implemented 21 Master Tree Grower (MTG) courses since 2014, farmer-centred and hands-on training to improve the knowledge of smallholders in Indonesia.

With regards to growing techniques, these courses advise what species are suitable for each region, including proper maintenance and care. Although these techniques are simple, they are regularly overlooked and can significantly improve yield. Previously, smallholders would sell their standing trees to local brokers, who oversee harvesting, transport, and preliminary processing (without the smallholder present). The MTG courses take farmers to the marketplace, which helps them better understand market dynamics and all aspects of the value chain.

Attending the MTG courses also enables networking, and more specifically, the formation of social networks among neighbouring farmers. This improvement of communication between local smallholders makes notifying buyers more efficient, and encourages discussion surrounding fair pricing. Mentoring schemes have also been created which is leading to self-circulating education within

the communities. Over half of the smallholders who took part in the MTG courses have consequently changed the way they manage their trees.

By investing in education for farmers and the value chains used when selling their forest products, smallholders can be much better prepared and adaptable for

urbanisation. Furthermore, our climate is becoming less predictable, and all levels of society need to be prepared for disaster events. The people hit hardest by these events are almost always the poorest. By supporting these smallholders through courses which not only develop farming and silviculture techniques, but also

## ***The MTG training courses take farmers to the marketplace, which helps them better understand market dynamics and the value chain – what adds and reduces value along the process.***

the future. They will be more confident to take part in aspects of forestry which would in turn improve the success of government policies and achievement of the SDGs. A bottom-up approach also allows for specific needs to be fulfilled depending on the region of Indonesia – for example rural or urban, dry or wet, flat or mountainous, or on Java or an isolated island.

### **LOOKING FORWARD**

Indonesia is a rapidly changing country, with an increasing population and

personal skills (analysis of markets, negotiation of prices, business management), it gives them the knowledge they need to be able to adapt to a changing world and optimise both on- and off-farm ventures.

With these developments, and the streamlining of bureaucracy through improvement of government agencies, Indonesian timber value-chains can flow smoothly and add value for everyone involved, making CBFC a flourishing and profitable enterprise.



# Behind the Research

## Dr Digby Race

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### Research Objectives

Dr Digby Race researches and advises community-based commercial forestry smallholders in Indonesia.

### Detail

#### Bio

Dr Digby Race is Project Leader and Principal Research Fellow at the Tropical Forests and People Research Centre – the University of the Sunshine Coast. He has been researching socio-economic aspects of community-based forestry for more than 20 years, with a focus on Indonesia during the past 15 years.

#### Funding

Australian Centre for International Agricultural Research (ACIAR), [www.aciar.gov.au](http://www.aciar.gov.au)

#### Collaborators

• Indonesia's Ministry of Environment and Forestry's FOERDIA, [www.puspijak.org/cbcfindonesia](http://www.puspijak.org/cbcfindonesia)

- University of the Sunshine Coast's Tropical Forests and People Research Centre, [www.usc.edu.au/tfap](http://www.usc.edu.au/tfap)
- University of Gadjah Mada, [ugm.ac.id](http://ugm.ac.id)
- University of Mataram, [www.uinmataram.ac.id](http://www.uinmataram.ac.id)
- Trees4Trees, [www.trees4trees.org](http://www.trees4trees.org)
- Australian Agroforestry Foundation, [www.agroforestry.org.au](http://www.agroforestry.org.au)

### References

Race, D.; Suka, A.P.; Irawanti, S.; Surati; Oktalina, S.N.; Bisjoe, A.R.H.; Muin, N.; Purwanti, R.; Sumirat, B. (2019). Smallholder Forestry: the role of commercial forestry in rural livelihoods in Indonesia. *International Forestry Review*, 21 (2): 225-237. Available at: <https://doi.org/10.1505/146554819826606568>

### Personal Response

#### **Do you feel optimistic about the future of the CBCF enterprise in Indonesia?**

/// Absolutely, CBCF offers enormous potential in Indonesia and in many other countries. We just need to get all the pieces in the right place to complete the 'jigsaw'. //

