

Complying with the Voluntary Sustainability Standard: How Ready are Thai Sugarcane Farmers?

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Introduction

- In recent years, voluntary sustainability standards (VSS), such as Bonsucro, have gained increased recognition among stakeholders in the global sugarcane supply chain.
- This is because responsible sugarcane production is increasingly being called for by the market.
- However, the adoption of the Bonsucro standard in Thailand, the third-largest producer of sugarcane, has been rather slow, with only a small fraction of sugarcane farms in Thailand being certified.
- For this reason, it is necessary to understand the challenges that Thai sugarcane farmers face when it comes to adopting sustainable practices.
- The main aim of this study, therefore, is to investigate the qualifications of sugarcane farmers and to examine whether complying with Bonsucro standard makes economic sense in Thailand.

Research area and methods

- A survey was conducted in Kanchanaburi province, the third largest producer of sugarcane in Thailand (Figure 1). The four studied districts produce approximately 50% of the total production of Kanchanaburi (Office of the Cane and Sugar Board, 2023).
- Farmers of four different farm sizes were interviewed, including very large (>80 ha), large (32-80 ha), mid (10-32 ha), and small-scale (<10 ha) farmers.
- To investigate the qualification of cane farmers for Bonsucro certification, their production practices were interviewed, especially their use of inputs like land, water, labor, machineries, fertilizers, pesticides as well as their outputs, such as yield and income.
- To answer whether complying with the Bonsucro standard makes economic sense for sugarcane producers, the benefit-cost analysis was conducted. Benefits from cultivating cane were compared with the increased cost from complying with Bonsucro.

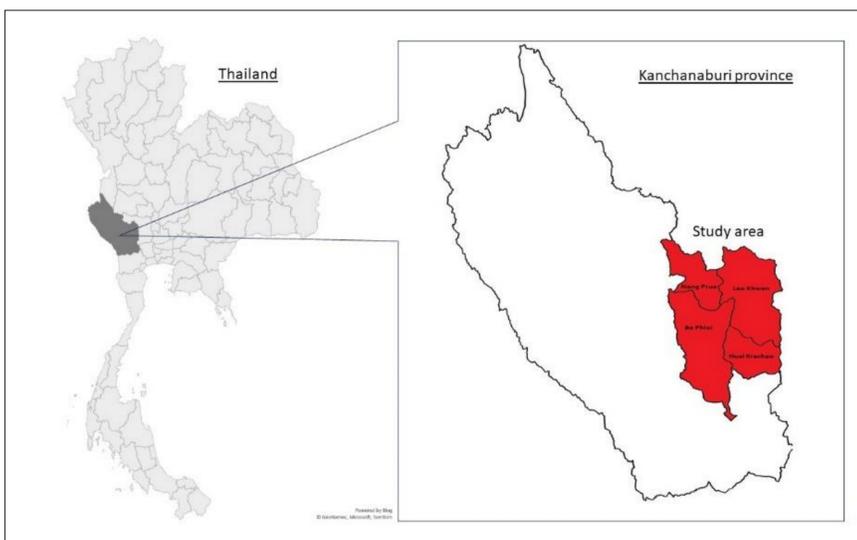


Figure 1: Study area

Results

- Most respondents are male (72.63%), in their fifties with approximately 7 years of education, and have around 4 household members (Table 1).
- Farmers with bigger farms tend to have a higher level of education and experience than those with smaller farms.

Table 1: Socio-economic characteristics of respondents

Characteristics	Mean	Small- scale (<10 ha) (n = 201)	Mid (10-32 ha) (n = 83)	Large (32-80 ha) (n = 51)	Very large (>80 ha) (n = 23)
Gender (Male)	72.63%	61.36%	74.69%	76.47%	78.26%
Age (Year)	53.07	54.02	52.95	52.88	52.13
Education (Year)	7.78	6.40	7.67	8.23	9.82
Household members	4.65	4.13	4.40	4.78	6.21
Experience (Year)	25.64	19.70	25.03	28.66	32.47
Farm size (ha)	30.55	5.63	17.37	45.16	93.35

Results (cont.)

- Most respondents, regardless of their farm sizes, have no land and water rights, still apply banned chemicals in their farms, and still burn their sugarcane before harvesting and therefore cannot obtain Bonsucro certification.

Table 2: Respondents ineligible for certification

Characteristics	Small- scale (<10 ha) (n = 44)	Mid (10-32 ha) (n = 83)	Large (32-80 ha) (n = 51)	Very large (>80 ha) (n = 23)
No land right	58.53%	43.24%	53.33%	39.13%
No water right	100.00%	91.57%	100%	100%
Use of banned chemicals	84.09%	95.18%	92.16%	82.60%
Burned harvesting	31.81%	49.40%	56.86%	43.47%
Inefficient water use	18.18%	18.07%	13.73%	21.74%

- In 2019, the price of sugarcane was 20.51 USD/ton (Office of the Cane and Sugar Board, 2023) while the cost of cane cultivation (per ton cane) was between 16-18 USD. This led to the benefit per ton of 1.8-4.2 USD.
- The compliance cost of Bonsucro was around 1.64 USD/ton cane (Bonsucro 2020).
- This means that small-scale producers cannot shoulder the compliance costs of Bonsucro due to the low margin they are obtaining from sugarcane cultivation (1.82 USD/ton).
- Even though farms of bigger size can cover such compliance costs, they lack incentive to do so. This is because certified sugarcane could not secure a premium price in Thailand.

Table 3: Cost and benefit of sugarcane cultivation

Characteristics	Small- scale (<10 ha) (n = 44)	Mid (10-32 ha) (n = 83)	Large (32-80 ha) (n = 51)	Very large (>80 ha) (n = 23)
Yield (ton/ha)	76.06	75.00	71.88	75.00
Cane price (USD/ton)	20.51	20.51	20.51	20.51
Total costs (USD/ha)	1,406.55	1,364.45	1,248.07	1,219.27
Costs per ton (USD/ton)	18.49	18.19	17.36	16.26
Total revenue (USD/ha)	1,544.75	1,537.92	1,459.71	1,537.92
Benefit (USD/ha)	138.20	173.47	211.63	318.66
Benefit per ton (USD)	1.82	2.31	2.94	4.25

Conclusions

- Results reveal that most farmers, regardless of their farm size, cannot comply with the Bonsucro standard.
- For Bonsucro to increase its uptake in Thailand, it is recommended that the focus should be put on those farmers with large farms, i.e. larger than 10 ha., at least in the short run since they can shoulder the compliance cost.
- In the long run, however, focus should be put on the marketing of the certified products such that their premium price can be guaranteed. This, in turn, will make the adoption of Bonsucro standard more attractive among farmers of all farm sizes.

References

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