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“Bridging the gap between increasing knowledge and decreasing resources”

## Enhancing the Farm-Level Cocoa Bean Quality through Sustainable Cocoa Production Program in West-Sulawesi

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### Abstract

The lack of farm-level value addition can lead to an inferior quality of the cocoa bean production in Indonesia. The Sustainable Cocoa Production Program (SCPP) in West Sulawesi province, in collaboration with the Nestlé Cocoa Plan, intends to increase the farm-level cocoa productivity and the quality of the beans.

The principle objective of this study was to identify the existing social conditions and extent of SCPP intervention influencing the quality of cocoa beans at West Sulawesi farmer-level. Secondly, the study conducted a Cost-Benefit Analysis (CBA) for producing premium quality beans by individual farmer and a sensitivity analysis of SCPP investments in the program. Stratified random sampled data from 126 cocoa farmers and data from 10 cocoa traders were used for the study. The data collected was analysed using descriptive statistics, weighted mean average, independent sample t-test, and the Fisher's test statistics using the SPSS software to identify the underlying causes for the different quality levels of the cocoa beans produced.

The results indicated that the factors which had a significant impact on premium quality cocoa production were SCPP support, wet bean cocoa production per hectare, selling market type, and source of financial capital to the farmers. The study revealed that some of the farmers were bound to an interlocked market situation, which is one of the problematic reasons for quality improvements, in spite of SCPP intervention. The cost benefit analysis indicated that the premium quality cocoa production is marginally profitable for the farmers with a nominal benefit cost ratio of 5.83, a net present value of IDR 100,371,964 (€ 6431), and an internal rate of return of 4.97%. While the conventional quality cocoa production has a lower nominal benefit cost ratio, net present value, internal rate of return of 4.47, IDR 92,473,766 (€ 5928) and 4.48% respectively.

The recommendations from this study are to pass a legislative act of mandatory fermentation of the cocoa beans used for domestic grinding and export, integrating village cocoa collectors into BT Cocoa supply chain and to increase the number of BT Cocoa buying units or mobile collection centers.

**Keywords:** Quality cocoa bean, Sulawesi, sustainable cocoa production program