

Capability and suitability of soil in Laos

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In addition to improving our knowledge of how soil can sustain sustainable crop production for farmers in northern Lao PDR there is also an opportunity to generate soil data that could be used to identify opportunities for crop diversification which may result in the incorporation of cash crops. This paper presents the development of soil property maps predicted on a 100m grid covering the most northern provinces of Lao PDR. The properties predicted can be used to answer the question “what can this soil do?”, which describes the soil’s capability. Soil maps described physical and chemical properties have been generated along with maps of the prediction intervals, which are used to determine how reliable the prediction is at each point. This paper also highlights that soil properties that change over longer time scales (more than 100 years) are useful in these mapping exercises, while properties that change rapidly (within a growing season) should be monitored locally. Using this combined with properties that describe the soil’s condition the opportunity to infer soil suitability maps using criteria for a food crop and cash crop are also presented. .