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Estimation of embedded energy of vegetables from the farm to the Dambulla Economic Center

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Energy is accumulated in vegetables at all stages of the value chain from farm to plate. Investigation of embedded energy in the value chains of vegetables is important for the energy security of the country. Thus six vegetable types were purposely selected based on the highest annual production in Sri Lanka and its embedded energy was estimated tracing the value chain of vegetables from the farm to the Dambulla Economic Center (DEC) through a pretested questionnaire administered to the farmers and collectors at DEC. For the selected vegetables 655 MJ/acre of fossil fuel had been used for land preparation, 2605 MJ/acre for water pumping and 122 MJ/acre for pesticide application in the farm and 3383 MJ of fossil fuel had been used for the transportation of vegetables to the DEC. Highest amount of energy was embedded in beetroot followed by beans. The least amount of energy was embedded in brinjal and okra. According to the results it can be concluded that for the selected vegetables the highest amount of energy was embedded in water pumping and for transportation of vegetables to the DEC.

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