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Using a Hot Spot Analysis as the Basis for Target Group Specific Training Materials on Insect Rearing

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Abstract

In Europe, the consumption of insects as food and feed is still in its initial stages compared to many Asian, Latin American or African countries, where insects are a fundamental part of human nutrition. Nevertheless, insect rearing for feed is on the rise over the last few years, especially in Europe, with the focus on black soldier fly (*Hermetia illucens*) production. This development raised the question if insect production is and remains sustainable in future. For measuring the sustainability of the European insect value and supply chain, we used the Sustainability Hot Spot Analysis (SHSA), developed by the Wuppertal Institute for Climate, Environment and Energy GmbH (Germany). Based on literature research, we identified hot spots within the phases of insect rearing and insect processing especially for energy consumption.

Based on the knowledge of European insect supply chains, different Burmese experts were interviewed. The interviews aimed at the understanding of insect value chains in Myanmar with special consideration of the social and environmental aspects of the SHSA. The interviewed stakeholders were e.g. from zoology/agriculture department of universities, employees of the chamber of agriculture, farmers and Thai insect rearing experts. The broad expertise of the interview partners highlighted that hot spots in the insect value chain are especially present for the social aspects, like the lack of knowledge and trainings. Similar to the European insect market, the energy consumption during the phases of rearing and processing is a considerable hot spot as the energy supply is a major challenge in our project regions. Locally adapted strategies for insect rearing and processing must be developed. If insect rearing reaches a larger scale the amounts of insect excrements and inedible body parts could become another hot spot and need consideration. These findings are valuable for designing sustainable insect rearing trainings that are suitable for local mini-farmers. Based on the results of the SHSA, a first round of trainings have been realised in Myanmar and Madagascar. The next planned step is to run more interviews and combine the knowledge from European and Burmese insect business in the development of detailed and comprehensive training materials.

Keywords: Economy, farmer trainings, insect farming and processing, sustainability