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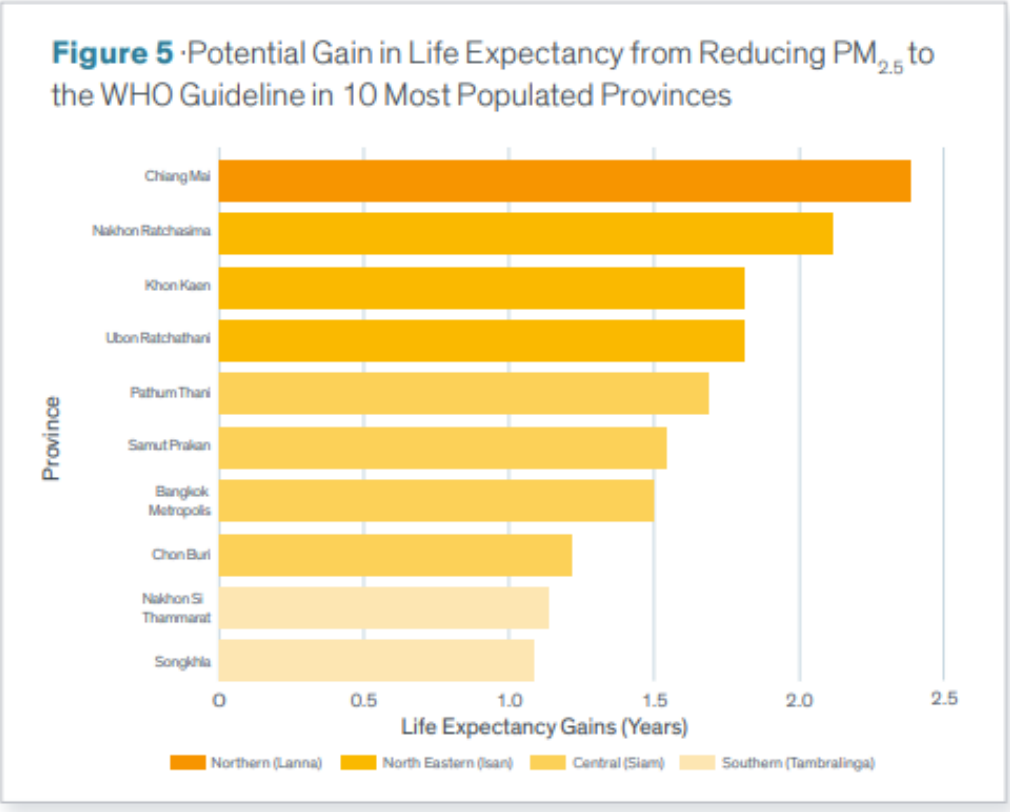
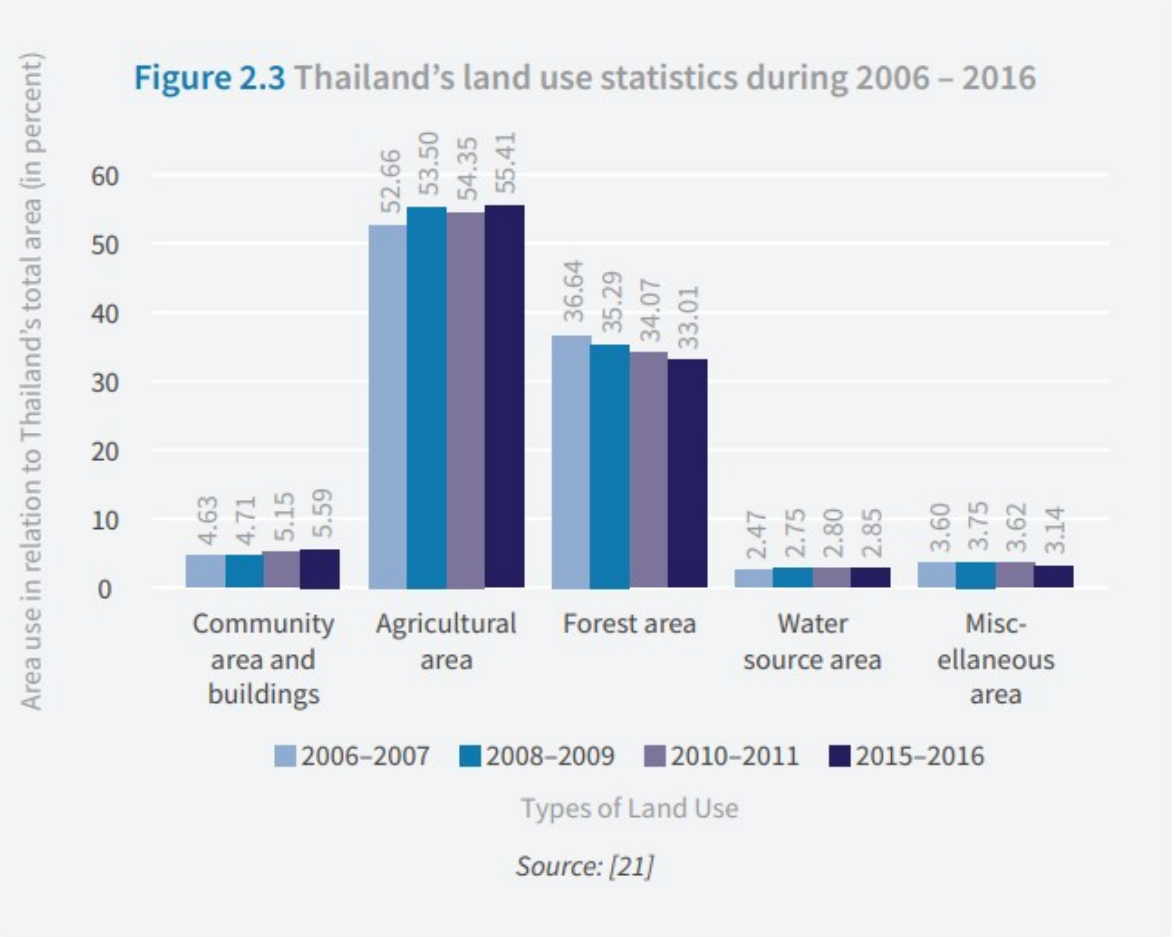
Piloting Sustainable Uses of Rice Straw

Experiences from project implementation in Northern Thailand

Better Air Quality Conference, Manila, 15.11.2023

By Tobias Breunig, GIZ

Background



Source: Air Quality of Life Index (AQLI) 2019

Introduction - *rice burning in ASEAN*

Commodities : The region rice paddy areas comprise of 44 million HA producing 189 million tons of rice or 25% of the global rice production in 2020. (FAOSTAT)

ASEAN region is responsible for burning a total of 24 million tonnes of biomass from paddy rice in 2019 accounting for 27% of the global share. (FAOSTAT)

ASEAN Transboundary Haze Agreement (2002) aims to develop cooperation method to prevent haze pollution from land and forest fires – ASEAN Co-Cordination Centre for Transboundary Haze Pollution Control has not yet been formed.



SFF ASEAN: Piloting Sustainable Uses of Rice Straw



Country: ASEAN, with pilot activities in Thailand

Project partners:

- ASEAN Sectoral Working Group on Crops (ASWGC), ASEAN Secretariat
- Urmatt Ltd.

Overall Term: 01/2023 – 05/2025

<https://www.asean-agrifood.org/>



Objective

Contribute to a regional shift away from burning agricultural residue in the rice sector through piloting and demonstrating methods for rice straw valorisation, with pilot activities focusing on Northern Thailand.

Background

A significant amount of rice straw and stubble in the ASEAN region is still burned by farmers after harvest. This contributes to global warming and regional pollution. There are insufficient business models and valorization options for farmers available, and local markets for rice straw are often not developed or operating at low capacity.

Approach

- Output 1: Assess innovative uses of rice straw circular uses and recycling
- Output 2: Facilitate business models and demonstrate viability on a pilot scale
- Output 3: Regional knowledge exchange and scaling in ASEAN

Pilots in Northern Thailand – The Chiang Rai “Zero Burn” Model

- Open field burning of rice straw and stubble is one of the major sources of air pollution in Northern Thailand – thus, becoming a policy priority.
- GIZ has supported the implementation of the Chiang Rai “Zero Burn” initiative through farmer engagement, training, and capacity building in cooperation with local partners.
- Main channels of straw management training with farmers include mushroom cultivation, composting and incorporation into soils.
- On an industrial level, GIZ is piloting a rice straw – to food-packaging facility with a private partner (Urmatt Ltd) and local universities.



Training on Mushroom Cultivation



Training on the production of compost



All-female farmer training on straw management in cooperation with PepsiCo and Agricultural Extension Department

Upcoming Highlights

- Publication of ASEAN feasibility report in Q2/2024 and input into ongoing ASEAN policy process
- Industrial-scale pilot plant for rice straw pulpiung in cooperation with local university expected to be operational in Q1/2024
- Ongoing training and extension activities at local level in northern Thailand
- Potential upscaling of approach as ASEAN regional initiative post-2024



Dialogue Workshop in Chiang Rai (June 2023)



Food packaging and biofertilizer (illustration)

Thank you