CH₄ capture and sequestration for feed, food and farm facilities—the Southeast Asian experience

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Agriculture and food production is the biggest contributor of anthropogenic greenhouse gas. While this has not caught the limelight as car emissions in the cities have done in the recent past, its effect on climate change is certainly significant. Because countries in Southeast Asia are developing, there is tremendous pressure on both sides. On one side there is the pressure to produce more energy to power industry. But as the demand for energy increases, the price per kilowatt-hour also gets higher. In the Philippines for example, the high price of electricity (highest electricity rate in Southeast Asia) has also affected growth of the economy. While the region is busy on increasing development, the population in these developing countries is also increasing. On the other side of growth there is also a corresponding pressure to manage waste—the constant co-product of development. There is no way of going around this cycle, more development means more production. More production means more people. More people produce even more waste. And the more waste that is produced, the bigger the carbon footprint globally. This paper examines the strategies, pitfalls and success stories of how the Southeast Asian region in general has tried to mitigate carbon dioxide emission by sequestering methane, a more powerful greenhouse gas and constant co-product of food production. This experiential narrative will give listeners a comprehensive background of what solutions has worked in the region and also those technologies that had failed miserably. It can serve as a model for other tropical regions to follow.

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