

# Applying Circular Economy on Pollution Remediation and Integrated Management in Donggang River Basin, Taiwan

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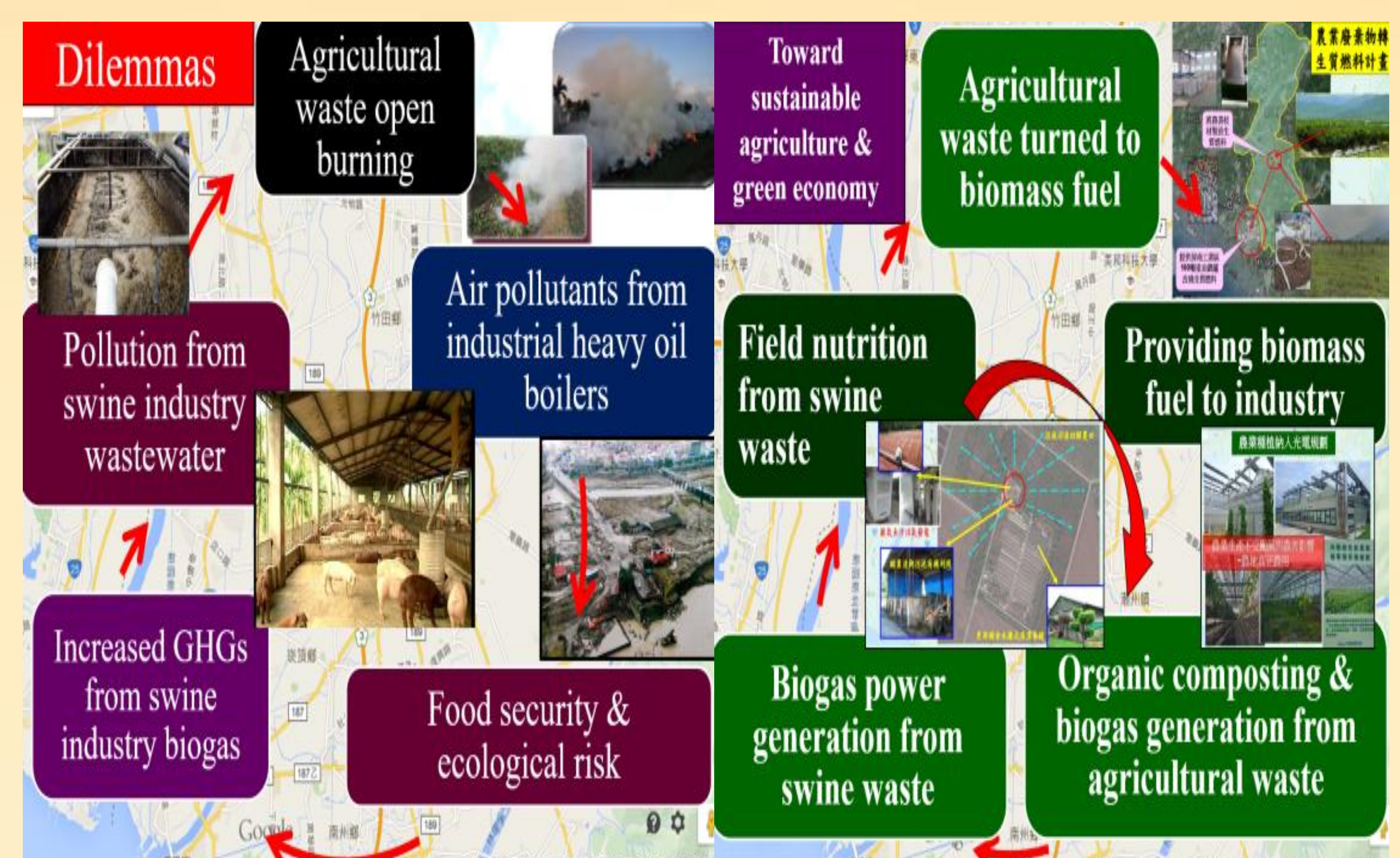
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**Donggang River** has a total length of 44 kilometers at Pingtung Plain, Taiwan. It is a typical water-flowing river with an average daily flow of 2.06 million m<sup>3</sup>. It provides water for daily supply of 300,000 to 350,000 m<sup>3</sup> of Kaohsiung City. In the past ten years, nearly 74% of the animal husbandry effluent pollution in the basin has caused serious water quality problems. Over the years, there has been no departmental integration mechanism and effective governance policies.

**This** study is concerned about Kaoshiung- Pintung water resources from the role of civil NGO and started to make progress over the governance with further analysis of Donggang River through several public and private meetings and discussions. After the discussion, a so called Circular economy model– an innovative multi-dimensional solution was formulated that converts pollution sources into resources for energy. In addition, lots of efforts were made to enter the six-year Forward-looking infrastructure construction, starting in mid-2017. The project has been upgraded to the key management level of the Executive Yuan, and the case is expected to solve the problem of sustainable development of water resources through technical, policy and social interventions.

**From** the perspective of policy framework, this forum will demonstrate the Circular Economy Model has solutions that have been proposed for many years of technological innovation, meanwhile to develop the governance of the integration of various departments. A model case for Taiwan's river pollution remediation was eventually established that simultaneously solves river pollution, creates renewable energy and resources.

**Keywords** :watershed integration management; circular economy; river pollution remediation; renewable energy.



**Figure 1.** Schematic diagram of the strategy of transforming water pollution into sustainable agriculture resources.



**Figure 2.** 100KW biomass gas power generation equipment

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