



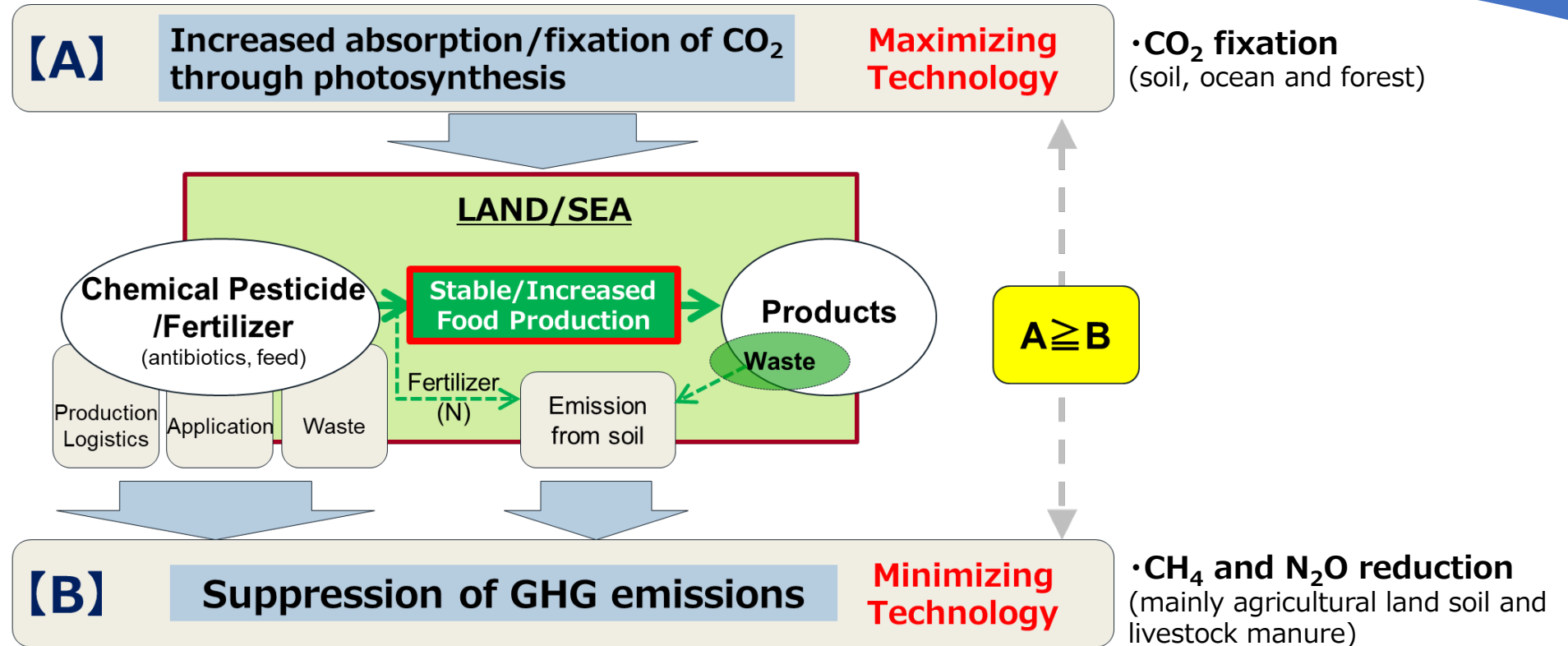
# Smart Cultivation Subcommittee

## Continuous Primary Production System

~maximizing the use of biotechnology~

- Leadership organization: Yanmar Holdings Co., Ltd.
- Subcommittee head: Osamu KAWATATE
- Leaders: Hideki TAKAHASHI, Atsumi KONISHI, Hideaki TSURU

# Target: Realize Smart Cultivation that sustainably balances Stable Food Production and Carbon Neutrality by making the most of biological functions

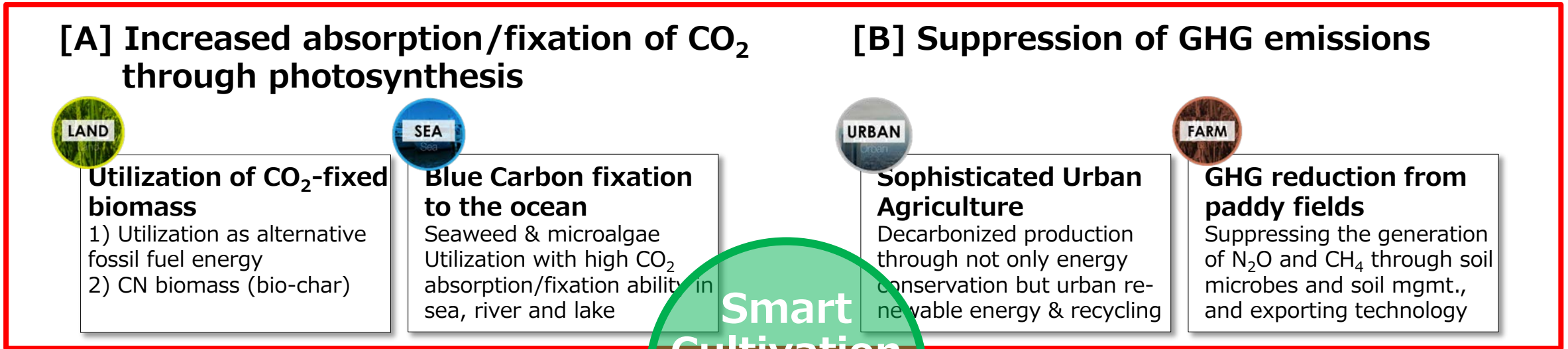


## GOAL

by maximizing bio-functions; ● Stable/increased food production in preparation for population growth and climate change  
 ● GHG suppression generated from food production







## Social issue: Realize sustainable primary industry



**By combining Yanmar's solutions (HW/SW) for primary-industry producers, the industry/academia/government members will continue to practice a sustainable primary industry**

# Proposed schedule



	Major item	Effort area	2021	2022	2023	2024	2025	2026
[A] Increased absorption/fixation of CO <sub>2</sub> through photosynthesis	 <b>Utilization of CO<sub>2</sub>-fixed biomass</b>	1) Utilization as alternative fossil fuel energy 2) CN biomass (bio-char)	Consortium building Partner interview ↔	F.S. partner selection ↔	Social implementation demonstration →			
	 <b>Blue Carbon fixation to the ocean</b>	Seaweed & microalgae Utilization with high CO <sub>2</sub> absorption/fixation ability in sea, river and lake		Consortium building Partner interview ↔ F.S. partner selection ↔	Social implementation demonstration →			
[B] Suppression of GHG emissions	 <b>Sophisticated Urban Agriculture</b>	Decarbonized production through not only energy conservation but urban renewable energy & recycling	Consortium building Partner interview ↔	F.S. partner selection ↔	Social implementation demonstration →			
	 <b>GHG reduction from paddy fields</b>	Suppressing the generation of N <sub>2</sub> O and CH <sub>4</sub> through soil microbes and soil mgmt., and exporting technology	Consortium building Partner interview ↔	F.S. partner selection ↔	Social implementation demonstration →			