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Science Beyond the Lab: Empowering Thai Social Enterprises for Sustainable Environmental Impact

Two Exemplary Social Enterprise Models from the Banpu Champions for Change Program

Driving Thailand Towards Sustainability with "Science + Heart"

Many might view "science" as a complex and distant subject, far removed from daily life. However, when scientific knowledge is thoughtfully integrated with the passion of social entrepreneurs, the outcome is a powerful catalyst for tangible societal change, particularly in environmental stewardship. From tackling urban waste crises to rejuvenating degraded forests, science isn't confined to the laboratory; it emerges as a potent "tool" for addressing the pressing social challenges we face every day.

The "Banpu Champions for Change" (BC4C) program, a collaborative initiative by Banpu Public Company Limited and ChangeFusion, has supported and developed the potential of social entrepreneurs for 14 years. It has empowered a new generation of Social Enterprises (Ses) who boldly leverage both "science" and "heart" to innovate solutions for environmental issues. Two standout SEs, JAIKLA and The Next Forest, serve as "tangible proof" that science is more than just theory; it's a powerful force that can truly build a sustainable future for all.

JAIKLA: Transforming Organic Waste into Novel Nutrition Through Food Science

Once dismissed as "waste," the tons of leftover fruits and vegetables from supermarkets have been reimagined by JAIKLA (BC4C#9). This enterprise has creatively turned these organic discards into a useful resource by employing "Black Soldier Fly" (BSF) larvae to convert them into high-quality protein for dog food.

The foundation of this success lies in food science and advanced technology, applied with precision. They utilize **Precision Nutrition** to meticulously analyze the essential amino acids, fats, vitamins, and minerals present in BSF protein. This rigorous approach guarantees that their dog food products deliver optimal nutritional value, are completely safe and hygienic, and are manufactured in certified facilities.

"We conduct intensive scientific testing to ensure our products are completely safe and meet the Environmental standards. Over the past three years, this small SE has successfully diverted over 60 tons of organic waste annually and significantly reduced greenhouse gas emissions contributing to global warming, equivalent to over 110 tons of carbon dioxide.





For JAIKLA, science is the fundamental principle that enables us to convert 'food waste' into 'opportunity' and generate measurable value for both pets and the environment. We strongly believe that everyone can play a part in this transformative journey," states Ittikorn Thepmani (Dhong), Co-founder of JAIKLA, a brand creating treats made from insect protein.

The Next Forest: Restoring Forests, Revitalizing Ecosystems with the "Art and Science of Management"

In another inspiring endeavor, science is being applied to safeguard Thailand's precious forests. The Next Forest (BC4C#11) is an SE that redefines forest planting, viewing it not merely as scattering seeds, but as a holistic restoration process in harmony with nature.

The Next Forest team masterfully integrates "forestry science" with the "art of land management." This encompasses everything from selecting the most suitable tree species to maximize seedling survival rates, to designing restoration sites, meticulously planning post-planting care, and systematically monitoring outcomes. They also conduct comprehensive ecological assessments, measuring factors like carbon sequestration in trees, biodiversity levels, and water retention capacity, all aimed genuinely at fostering sustainable ecosystems. Each tree planted on earth not only expands green spaces but also enhances our planet's ability to absorb greenhouse gases, offering one of the most tangible responses to the current climate crisis.

"Forest restoration transcends simply planting trees; it's about employing science to comprehend ecosystems and applying art to re-establish nature's delicate balance. We sincerely hope our story will inspire greater environmental consciousness in everyone," says Jutatip Jainuan (Pai), Co-founder of The Next Forest, The SE focused on holistic forest restoration.

Banpu: A Collaborative Force Empowering New-Gen SEs

Rattapon Sukhunthee, Head of Corporate Communications at Banpu Public Company Limited, states, "Banpu has strong faith in the potential of the new generation and believes that scientific knowledge can significantly advance social development across multiple dimensions. Many ventures within our program have successfully integrated scientific insights and technological methodologies to propel their businesses forward and simultaneously address societal and environmental challenges. For instance, this year's participating ventures include Sanboon Farm, which leverages agricultural technology to enhance product value, and DDEXP, which employs gamification techniques to support cognitive health in the elderly."





Every kilogram of organic waste transformed into valuable protein, and every tree establishing roots in the soil, stands as a powerful symbol of Thailand's ongoing transformation. These achievements collectively underscore the dynamic power of social entrepreneurs who courageously blend 'science' and 'heart' to drive their ventures.

Be a part of the change for a sustainable society!

We firmly believe that the collective power of individual actions can ignite monumental change. You can easily contribute to these impactful social enterprises:

- Support JAIKLA Products: Provide your beloved canine companion with nutritious treats
 while actively contributing to waste reduction and environmental preservation. Discover
 more at www.facebook.com/jaiklapet
- Join The Next Forest: Delve deeper into forest restoration efforts or participate in our treeplanting activities to expand green spaces for our planet. Find out how at www.facebook.com/Thenextforest

If you are an SE eager to contribute to societal advancement, you can stay informed about the "Banpu Champions for Change: BC4C" program by visiting www.facebook.com/banpuchampions or by contacting us at 087-075-4815 and via email at banpuchampions@gmail.com.

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About Banpu

Banpu Public Company Limited is a versatile energy company, operating across three core groups of businesses –energy resources, energy generation, and energy technology – with operations in Thailand, Indonesia, China, Australia, Lao PDR, Mongolia, Japan, the United States of America, and Vietnam. The Company leads a responsible and sustainable energy transition by balancing reliable, affordable and sustainable energy

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