

The value of the “5 Principles” (5P) in environmental education and protection

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“Innovation can help Kingfisher conserve energy while maintaining a sense of tranquility, which is suitable for an increasingly advanced age with diminishing physical strength.”

–In “Innovation”; [The Kingfisher Story Collection](#) [1]

[WORLDVIEW]

Today, May 18, 2024, Vietnam celebrates Science and Technology Day (VST). This day brings attention to critical issues demanding the focus of our science and technology workforce. Among these, one of the most pressing topics is protecting and restoring the ecological environment. Given the significant adverse effects on biodiversity and the worsening climate change situation, tackling this issue becomes crucial in our agendas and actions aimed at fostering a sustainable future.

A recent article on ABC News introduced a research advancement proposing the replacement of traditional petroleum-based polyurethane bags and packaging materials with a biodegradable alternative made from algae-based polymer [1].



Figure: Manufacturing bioplastic from seaweed. (Source: BAZAAR Vietnam)

However, humanity is struggling to address some of the socio-economic constraints to this goal. The first issue is mobilizing social forces to participate in the supply chain of these materials. The second issue is also related to the first one. Consumers and distributors of these biodegradable bags remain skeptical about their real value and readiness to use. Despite clear and solid scientific evidence and data, these reservations stem from social, psychological, and value perception issues. This might, however, lead to economic inefficiencies, based on the understanding of humans as homo oeconomicus, and hence procrastination.

There is a missing link in the chain. This link needs to be sturdy, long-lasting, and comprehensive. Especially, there need to be principles to bring these values to the wider community until they are established as an “eco-surplus culture”.

The 5P, an acronym for the five principles, was proposed precisely to bridge the gap between scientific progress and societal acceptance, particularly in interdisciplinary scientific research on sustainability [2]. These principles are:

1. Efficient Science Communication: By improving communication strategies, we can

effectively convey scientific findings to a wider audience, ensuring everyone understands and engages with crucial environmental issues.

2. Broad Accessibility of Messages: Utilizing creative mediums like allegorical fables and satire makes environmental messages more relatable and engaging, overcoming barriers to acceptance and fostering broader public engagement.

3. Engagement of Younger Generations: Implement educational initiatives using storytelling and lovable characters to cultivate environmental stewardship values in children, fostering a sense of responsibility from a young age.

4. Addressing Failures and Consequences Creatively: Employing creative and symbolic approaches to highlight the failures and consequences of environmental apathy encourages proactive reflection and action, motivating society to address these challenges creatively and effectively.

5. Promotion of Human Proactiveness: By emphasizing the interconnectedness of actions and consequences, proactive solutions to environmental challenges are encouraged to foster a culture of responsibility and innovation in addressing sustainability issues.

By integrating these principles into our approach to sustainability development agendas and actions, we will be able to establish a strong link between scientific advancements and societal acceptance. This sets the stage for cultivating an “eco-surplus culture,” where sustainability is deeply embedded in our collective values and behaviors. In such a culture, interdisciplinary efforts are guided toward building a more resilient and environmentally conscious society.

References

[1] Vuong QH. (2022). *The Kingfisher Story Collection*. <https://www.amazon.com/dp/BOBG2NNHY6>

[2] Jacobo J, Miller D. (2024). Scientists have figured out way to make algae-based plastic that completely decomposes. <https://abcnews.go.com/US/scientists-figured-make-bio-based-%20plastic-completely-biodegrades/story?id=110032450>

[3] Nguyen MH. (2024). Five principles to leverage the humanistic values for biodiversity conservation and climate change mitigation. <https://mindsponge.info/posts/307>



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