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FOOD FOR THOUGHT: MAKING GREENER CHOICES WITH ANIMAL FEED IN ZOOS

By

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ABSTRACT

Zoological institutions have been increasing their commitment towards sustainable best practices and reducing their environmental impact. Besides the 3 R's of waste reduction (reduce, reuse and recycle), reducing institutional carbon footprint (CF) has been getting much attention due to the increasing pressures of climate change and global warming.

Here, we investigate the use of an environmental indicator, Global Warming Potential (GWP) as an additional criterion when choosing different food items used as animal feed in zoological institutions. GWP is a unit of measuring and calculating the potential greenhouse gas (GHG) emissions of any given item. Due to the large amount and variation of animal feed used to sustain the living collection, small incremental changes were made by substituting food items with high GWP values with food items with lower GWP values while maintaining nutritional and welfare needs of the animals. By doing so, the CF of animal feed was reduced by 10.6% even though consumption increased by 11.5% within a three-year period, leading to reductions close to 560,000 Kg CO₂-eq.

Most food items with high CF also had higher costs leading to multiple benefits by choosing food items with lower CF. We promote the use of GWP values as a way in reducing the carbon footprint of zoological institutions and other sustainable best practices in regard to animal feed used in zoological institutions

BIOGRAPHY

Salam Marikan is an Animal Care Officer at Mandai Wildlife Group. As part of the Animal Care Innovations team at Mandai Wildlife Group, his works covers areas of Sustainability, Behaviour and Population Management and oversees Innovation Development Projects.
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