

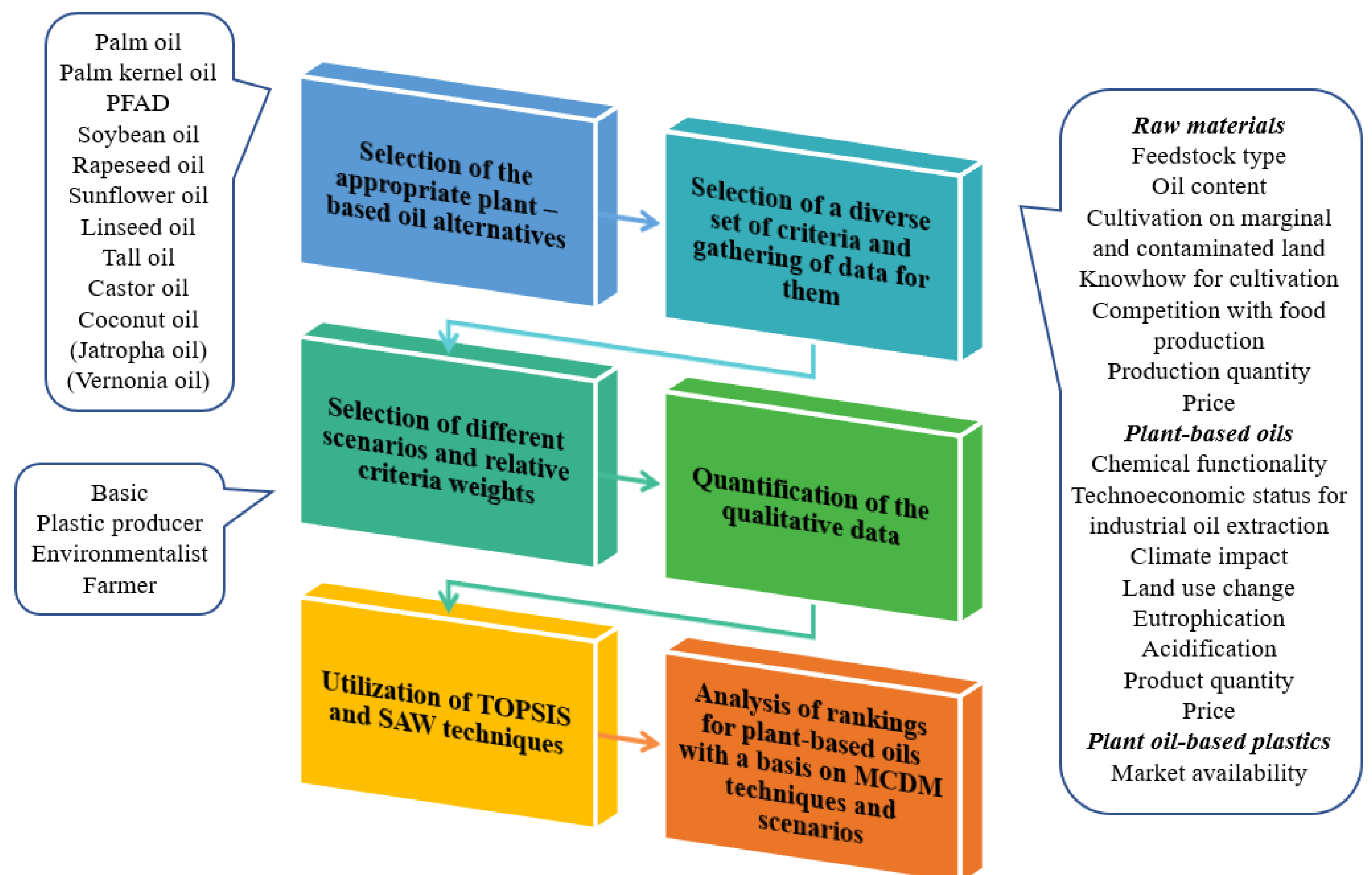
A Multi-Criteria Decision-Making Framework and Analysis of Plant-based Oils to Produce Bio-based Plastics

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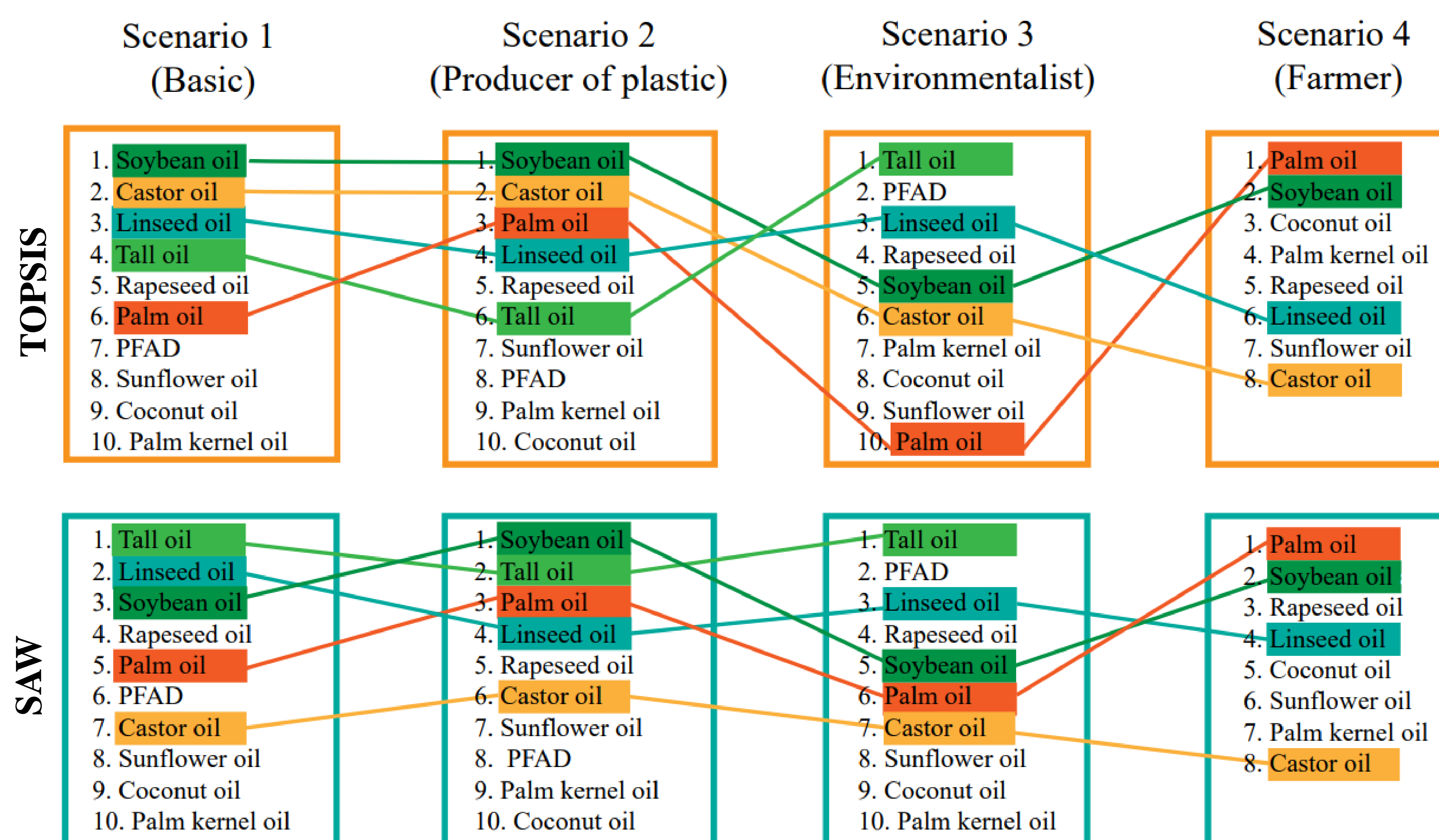
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OBJECTIVE AND METHODOLOGY

- The suitability of plant-based oils to produce bio-based plastics was evaluated
- Framework for Multi-Criteria Decision-Making (MCDM) analysis was constructed
- MCDM techniques of TOPSIS and SAW were utilized to rank the plant-based oils



RESULTS AND DISCUSSION



- Framework and the type of MCDM technique influenced on the results**

→ The ranking order of plant-based oils varied more in TOPSIS

- Tall, linseed, soybean, and palm oil showed the most suitable performance**

→ Nonetheless, all the plant-based oils possess advantages and disadvantages that require further consideration