THE ADB CIRCULAR ECONOMY WORKING GROUP WEBINAR SERIES 2022

Cleaner Technology/ Pollution Prevention/ **Life Cycle Assessment**/ Eco-Design in Process Industry/ **Greenhouse Gas/ Carbon and Water Footprint**/ Energy Efficiency/Environmental Footprint

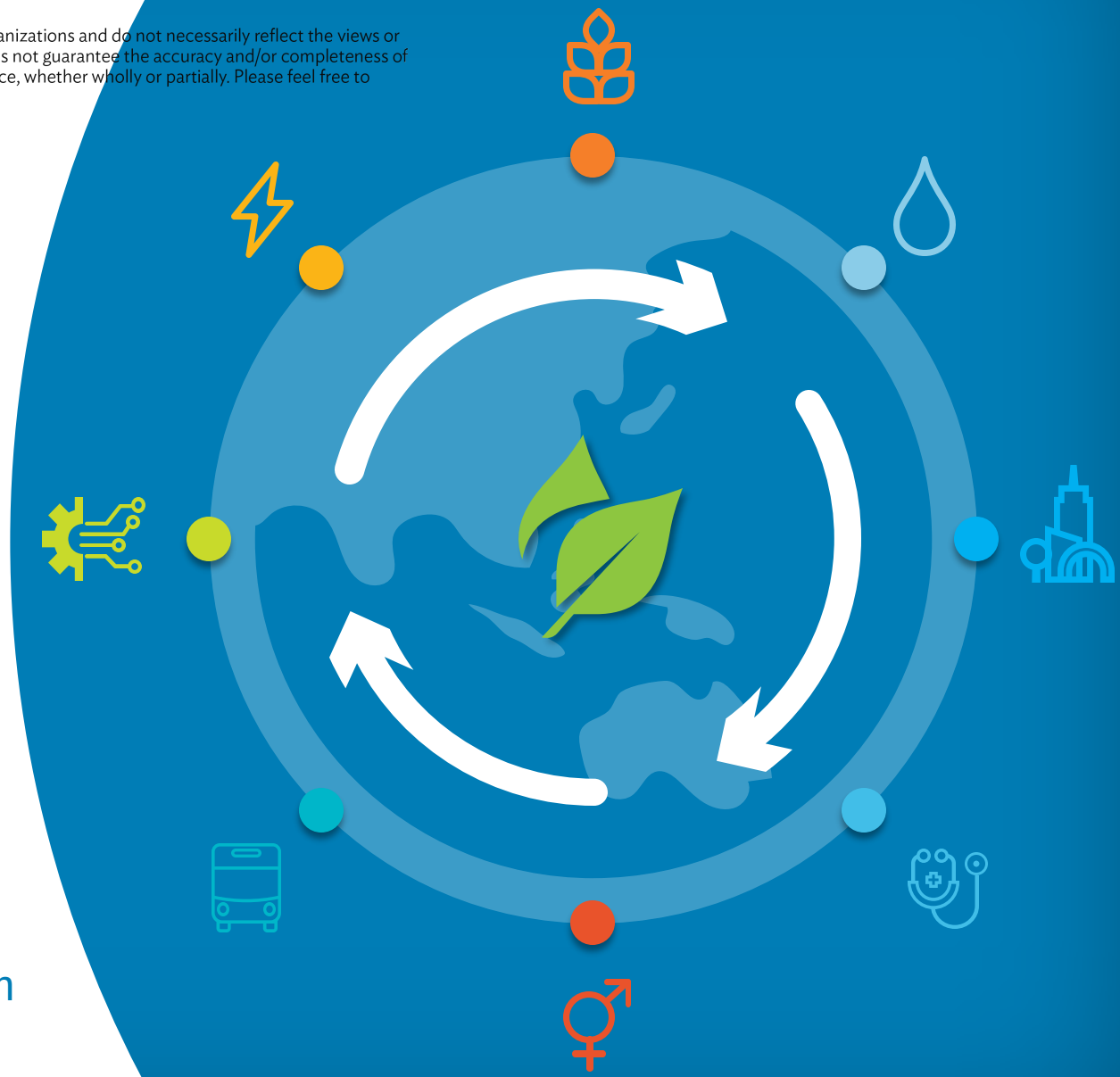
Asst.Prof.Dr. Viganda Varabuntoonvit

Chemical Engineering Department,
Kasetsart University
KU-Sustainable Engineering Research Unit

fengvgv@ku.th

INTRODUCTION OF CIRCULAR PLASTICS ECONOMY FOR POLICY MAKERS:

Module 3: Plastic Life Cycle, Value & Supply Chain, and Impact



25th August, Thursday 1300 – 1400H GMT +8 via Zoom

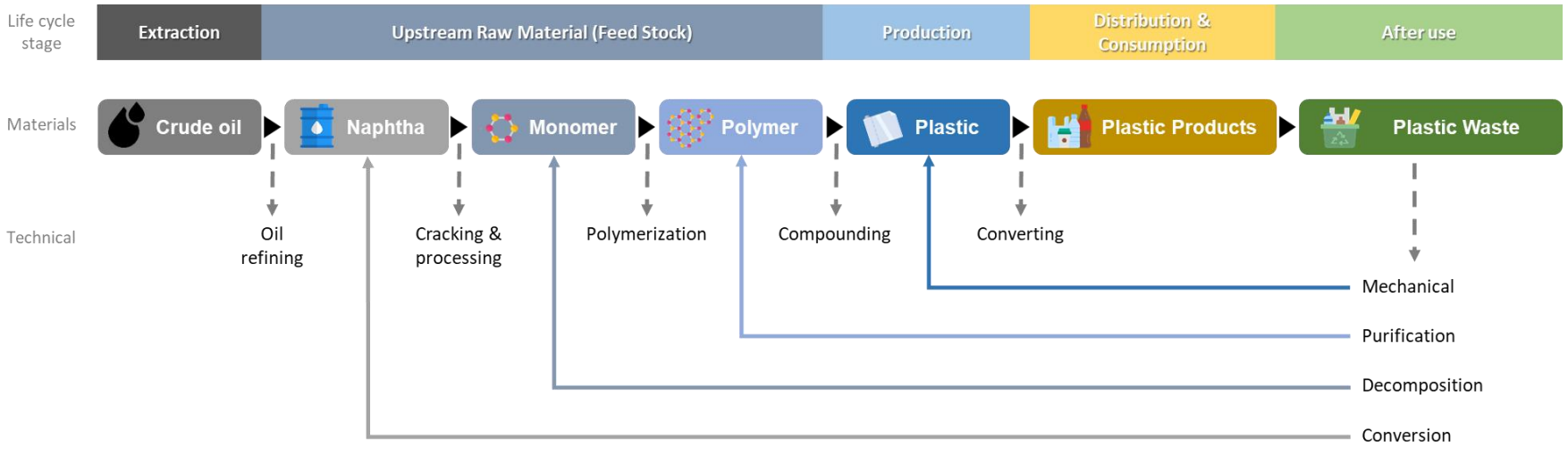
Asst.Prof.Dr. Viganda Varabuntoonvit
Chemical Engineering Department, Kasetsart University

Life Cycle Concept and Plastic Life Cycle (& Bio-Plastic)

Example of Supply Chain Management for Plastic CE

Recycling Plastic (Mechanical and Chemical)

The Environmental Impact of Recycle Plastic Resin



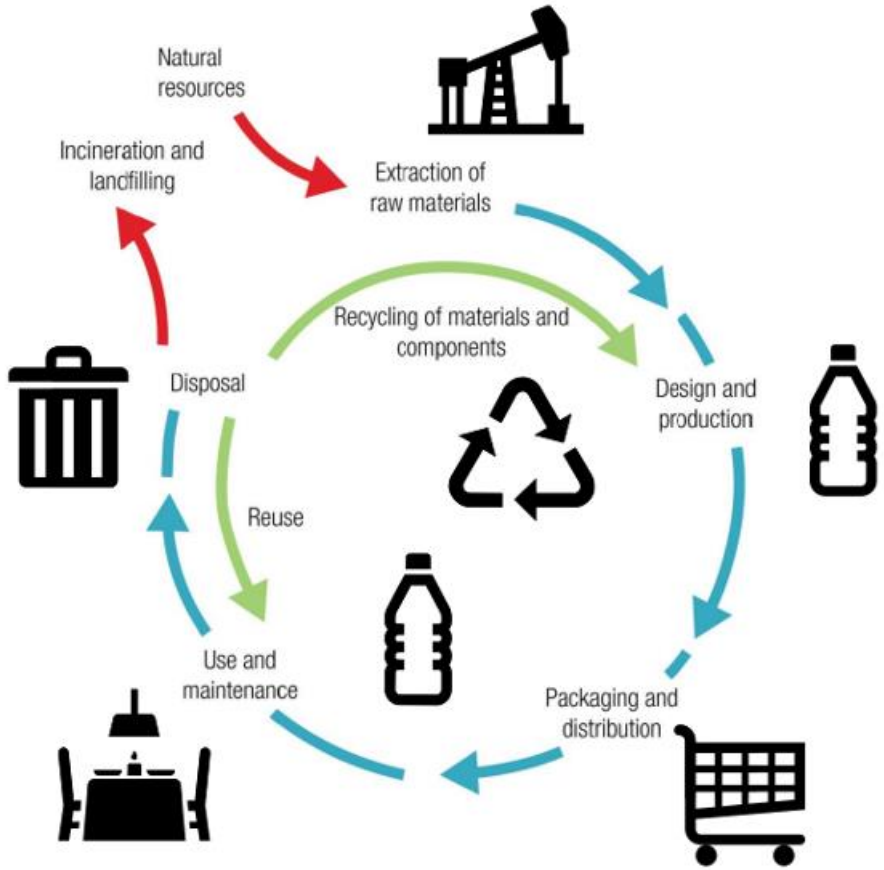
- **How to produce plastic for both Conventional and Bio-Plastic**

Life Cycle Concept and Plastic Life Cycle (& Bio-Plastic)

Example of Supply Chain Management for Plastic CE

Recycling Plastic (Mechanical and Chemical)

The Environmental Impact of Recycle Plastic Resin



- **The Example of management through any life cycle stage of plastic**
- **The understanding of Plastic recycling technology and the stage of life cycle it going back**

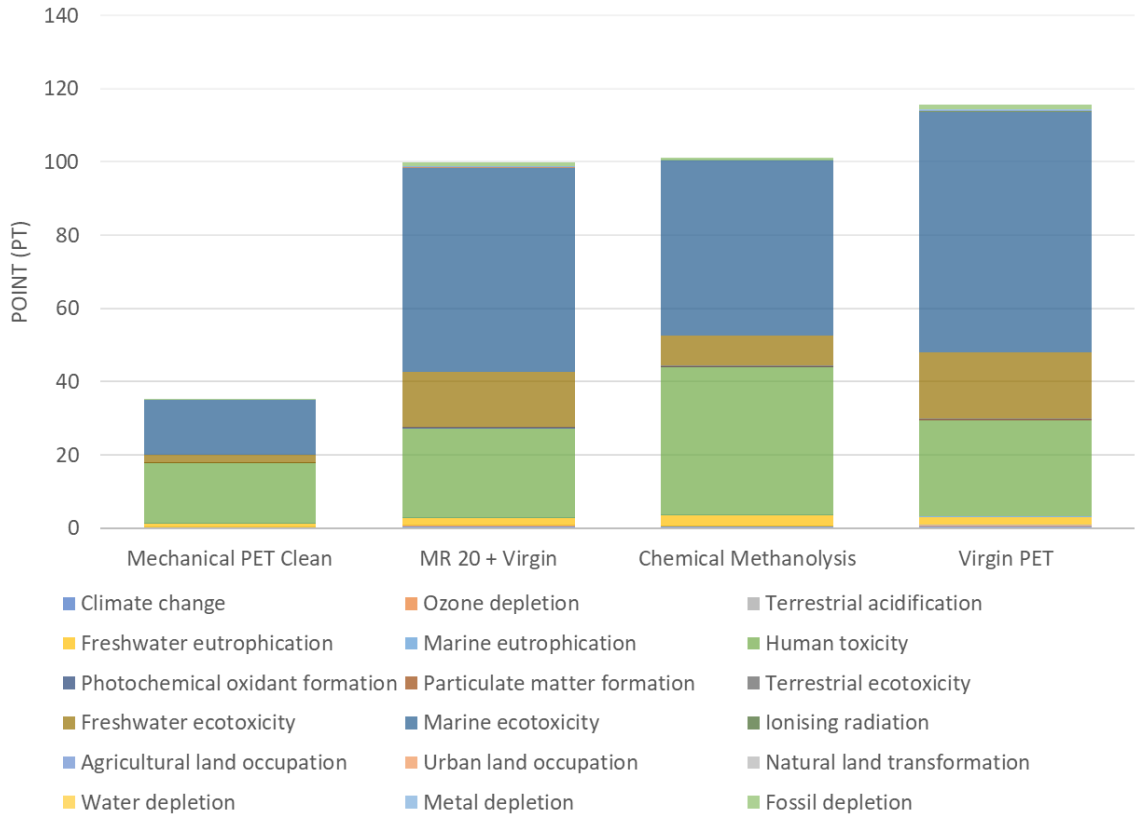
- Eco-design, Circular design
- Increase recycled content
- Reusable product
- Extend lifetime
- Choose Eco-products
- Disposal responsibly
- Recycling technology
- Upcycling product

Life Cycle Concept and Plastic Life Cycle (& Bio-Plastic)

Example of Supply Chain Management for Plastic CE

Recycling Plastic (Mechanical and Chemical)

The Environmental Impact of Recycle Plastic Resin



- **The Life Cycle Impact Assessment Results to compare the virgin plastic resin to mechanical and chemical recycling plastic resin**
- **The conclusion for policy recommendation from life cycle aspect**

ADB

THE ADB CIRCULAR ECONOMY WORKING GROUP WEBINAR SERIES 2022

Thank you!