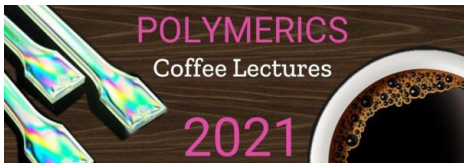


PLAWARE | PLASTIC AWARENESS

Pueng That

MSc ETH Environmental Engineering
Founder & Managing Director



06. Mai 2021



CONTENT

- I. PLASTIC TO OIL
- II. 4R APPROACH



ENVIRONMENTAL PROTECTION

Plastic as a Resource for New Products...
(Plastic to Oil)

...and a Source of New Income.
(4R Approach)



PLASTIC TO OIL

- I. AVAILABLE RESOURCES
- II. PROCESS OF PYROLYSIS
- III. REQUIRED PROCESSING ENERGY
- IV. OIL QUALITY AND REUSE OPTIONS

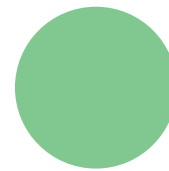
conscious
consumption



Plastic As A Resource For New Products

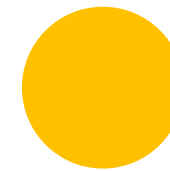
Chemical Recycling

Advantages of Downscaling
to a Community Level



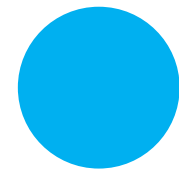
Community Driven

- Rising acceptance as a strategy on industrial level against plastic pollution
- PLAWARE approach is community oriented for < 1000 people



Swiss Prototyping

- Design & fabrication prototype in Switzerland incl. oil analysis
- Replication and test in Siem Reap, Cambodia before field application



Creating Local Value

- Equipment can be produced and maintained at local costs and level
- Creating local market for plastic oil-based products



SOURCE: UNDP Cambodia



Plastic As A Source For New Income

4R APPROACH

Community based Program

REDUCE OR REPLACE

SUBSTITUTION WITH **BIO-BASED** PRODUCTS

REUSE

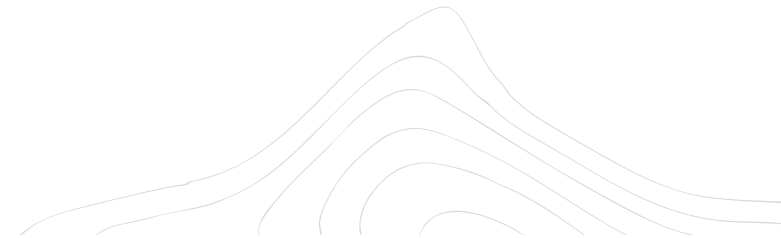
SAVING MONEY THROUGH **REUSING** PRODUCTS

RECYCLE

THE **ORIGINAL** CIRCULAR ECONOMY IDEA

REGENERATE

CHEMICAL RECYCLING OR PLASTIC TO FUEL (PTF)



REGENERATE

- I. CLOSING PLASTIC GAP AT LOCAL LEVEL
- II. CREATING A PLASTIC FREE ENVIRONMENT
- III. CREATING NEW INCOME OPPORTUNITIES
- IV. "SECONDHAND OIL" FROM PLASTIC



A KHMER WASTE STORY

PROTOTYPING & PROOF OF CONCEPT

UPSCALING MANUAL

TV DOCUMENTARY

www.plaware.org



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THANK YOU FOR THE ATTENTION!

