International Workshop for Scope3 standard and LCA for Organization

GHG & Water assessment of Shiseido

Tsunehiko Iwai Kenji Ohashi SHISEIDO Co., Ltd.



About SHISEIDO

至哉坤元 万物資生

Praise the virtues of the great Earth, which nurtures new life and brings forth new values.

derived from one passage in "I Ching (易教)", a Chinese classic literature.



Environmental practices of Shiseido

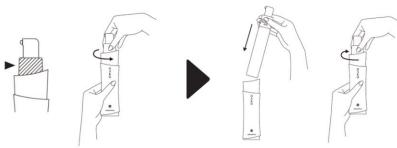
Shiseido Earth Care Project It's the Ecology for Beauty



Japanese) https://www.shiseidogroup.jp/csr/env/ English) https://www.shiseidogroup.com/csr/env/

Re-fill products ~HAKU Meranofocus~





A new refill product of HAKU Meranofocus was launched in 2011. It can reduce by 60% of plastic usage of its packaging. It is expected to be about 20 tons per year.

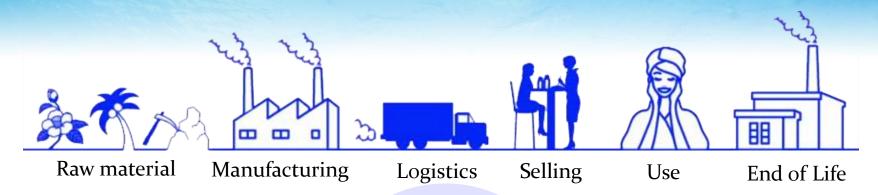
This packaging was designed with stability of the contents, ease of use and replacement. In addition, inner container was changed to the transparent appearance to respond to customer request.



Green polyethylene for packaging



Utilization of LCA information



Climate change

Water Social issues

Materiality & Priority

Natural resource

Biodiversity, Eco-system



Main issues of this presentation

1) Is "corporate value-chain environmental analysis" useful to comparative study between organizations?

2) What is important to make LCA-work sustainable?



The world with Environmental Footprint

Communication LCA (ISO14040,44) Recipient of information Evaluator Communication Carbon Footprint **Environmental Footprint** Scope3 standard

Evaluator

Recipient of information

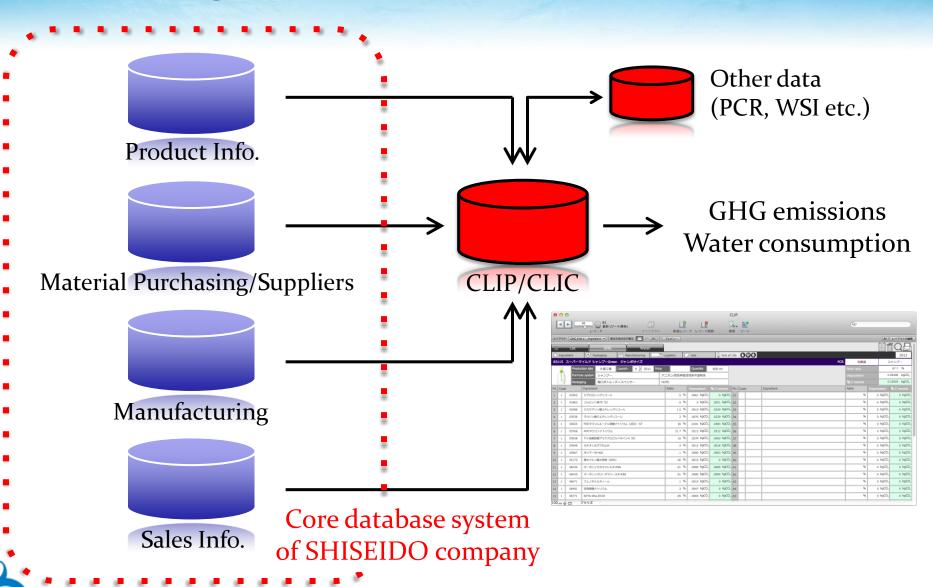
CLIC & CLIP

Environmental data management system

*Calculator of Life cycle Inventory for Products / Corporation



Design of CLIC/CLIP system



CLIC/CLIP can...

- 1) Calculate and tally up LCI data with 1 click
- 2) LC/VC GHG emissions
- 3) LC/VC water consumption / availability with locality (country level) and water source (Green water / Blue water)



The number of inventory data

GHG: 1

Water: >120000?

 $100 \times > 200 \times > 3 \times 2$

Raw materials Fuels Processes Region

- Country
- Watershed

Water source

- •Surface water
- Ground water
- •Rain water
- •Fossil water ...

How to use?

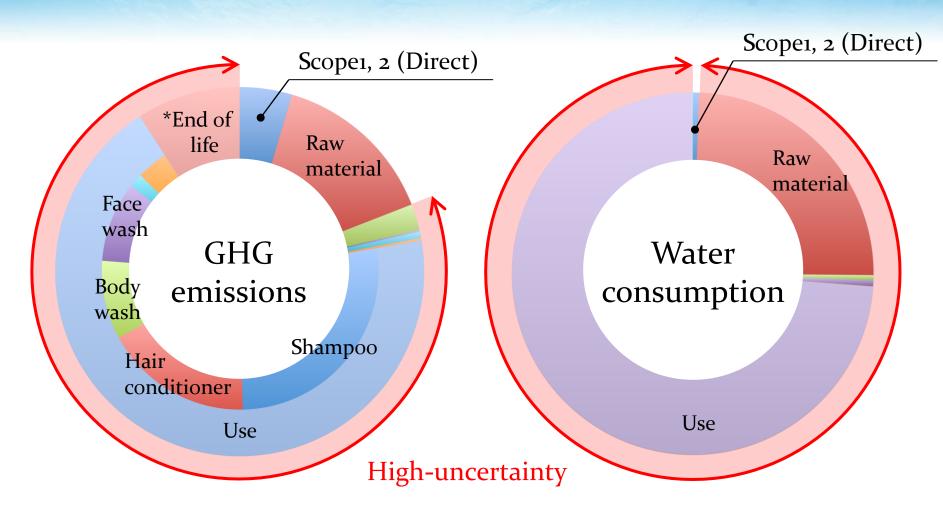
- •Water withdrawal
- Return flow



GHG emissions & Water consumption of Shiseido



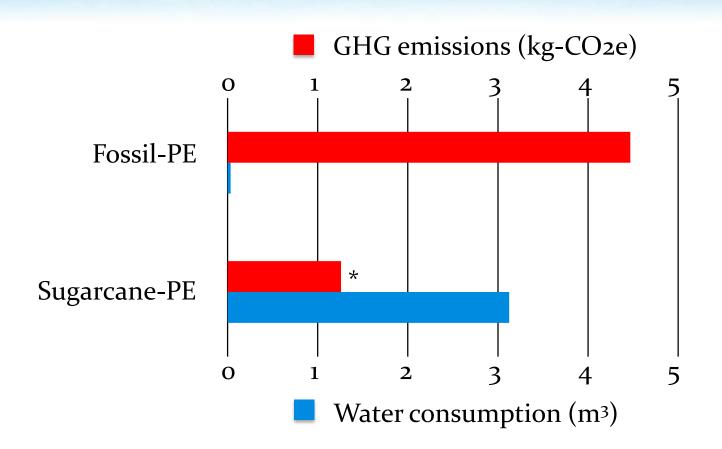
Value chain GHG/water analysis



^{*}Not including GHG emissions from degradation of contents.



Trade-off problem



* Yasunori Kikuchi *et al.* (2013) Environmental Performance of Biomass-Derived Chemical Production: A Case Study on Sugarcane-Derived Polyethylene: *JOURNAL OF CHEMICAL ENGINEERING OF JAPAN*, 46(4), 319-325



- Corporate value chain environmental analysis is useful to ascertain the efficacy of our practices and for decision making, but not useful to compare between organizations because of its high-uncertainty.
- 2. It is necessary to choose and assess the environmental impacts related to our economic activity, as well as climate change issue, based on its materiality.
- In addition, we should aim balanced and optimized environmental performance.
- 4. To reach for this goal, it would be extremely important to have an efficient and laborsaving solution for environmental data management.



This moment. This life. Beautifully

