*WATER FOOTPRINT*

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**Water footprint** of **an individual** = **_Direct_** water use (Real water) + **_Indirect_** water use (Virtual water)

**_Direct_ water use**

(Real water)

Drinking

Cooking

Bathing

**180 litre/day**

**_Indirect_ water use**

(Virtual water)

Food

Clothes

Paper

**? litre/day**

# **Virtual Water**

Water used up in production processes is _invisible_ to us

WF: Reveals this "_hidden_" water

WF: Helps us visualise the connections between our _consumption_ habits and the world's _freshwater_ resources

# **Water Footprint** of **a product**

Let's guess the ***virtual water*** content of some items:

A sheet of A4 ***paper***



**10 litres**

A cup of ***coffee***



**130 litres**

A cotton ***T-shirt***



**2,000 litres**

# **Components** of **Water Footprint**



- **Green** Water Footprint
  - *Rainwater*



- **Blue** Water Footprint
  - *Surface water* + *groundwater*



- **Grey** Water Footprint
  - *Dilute pollution*

# *Tomatoes* imported into **Hong Kong**

## *Israel*

## *China*

85 $l$/kg

284 $l$/kg

**Grey** **38%**
**Blue** **36%**
**Green** **26%**

**Green** **64%**
**Grey** **35%**
**Blue** **1%**

# **Water Footprint** of **animal products**

- *Direct* water use (drinking water)
- Composition of *feed*
- Origin of *feed ingredients*



- **Beef** (**15,415 litre/kg**)
- **98% = feed**

# **What** is **Water Footprint?**

🦶 An innovative concept
  - Our *consumption* impacts on world's *freshwater*

🦶 An indicator of our water use
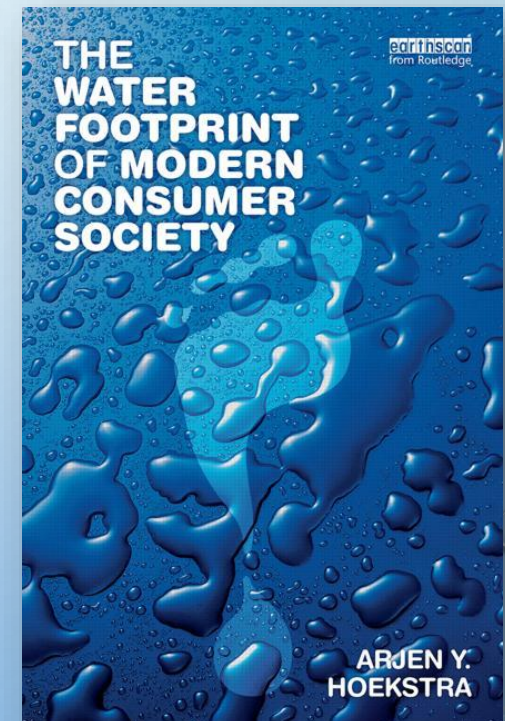  - *Direct* + *Indirect*

🦶 A multidimensional indicator
  - *Where*
  - *When*
  - *Which*

# How to reduce your Water Footprint?

Do not waste food



> 50% of a person's WF = _Food_

Find alternative sources of protein



(Legume)

# How should we respond to water scarcity in a globalised world?

Know your Water Footprint

- Hong Kong: relies heavily on imports

JC-WISE Water Footprint Calculator

- First-of-its-kind
- Popular local dishes

# JC-WISE Water Footprint Calculator

- **Web-based Calculator**: [www.jcwise.com/wfc](www.jcwise.com/wfc)

- **Mobile App**: Download at App Store (iOS) or Play Store (Android)

**Water Footprint** of **our meals**

*Let's find out the **virtual water** content of **meal (A)**:*

**Total: 1,320 litres**

Satay beef burger
**1,254 litres**

Lemon tea
**66 litres**

# Let's find out the *virtual water* content of *meal (B)*:

## Total: _____ litres



Steamed pork dumplings

_____ litres



Turnip cake

_____ litres



Steamed shrimp dumplings

_____ litres

# WATER FOOTPRINT