JC-WISE
Water Initiative on Sustainability and Engagement
賽馬會惜水・識河計劃

WE ARE USING A LOT MORE WATER THAN WE THINK!

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同心同步同進 RIDING HIGH TOGETHER

Outline

1. Water Footprint of an individual
2. How to calculate the Water Footprint of food?
3. Factors that account for differences in Water Footprint of food
4. Why should we care about the Water Footprint of food?
5. How to reduce our Water Footprint?

PART 1:
the Water Footprint of an individual

An individual's Water Footprint

=

Direct water use

(real water)

Drinking

Cooking

Bathing

219 litres/day

+

Indirect water use

(virtual water)

Food

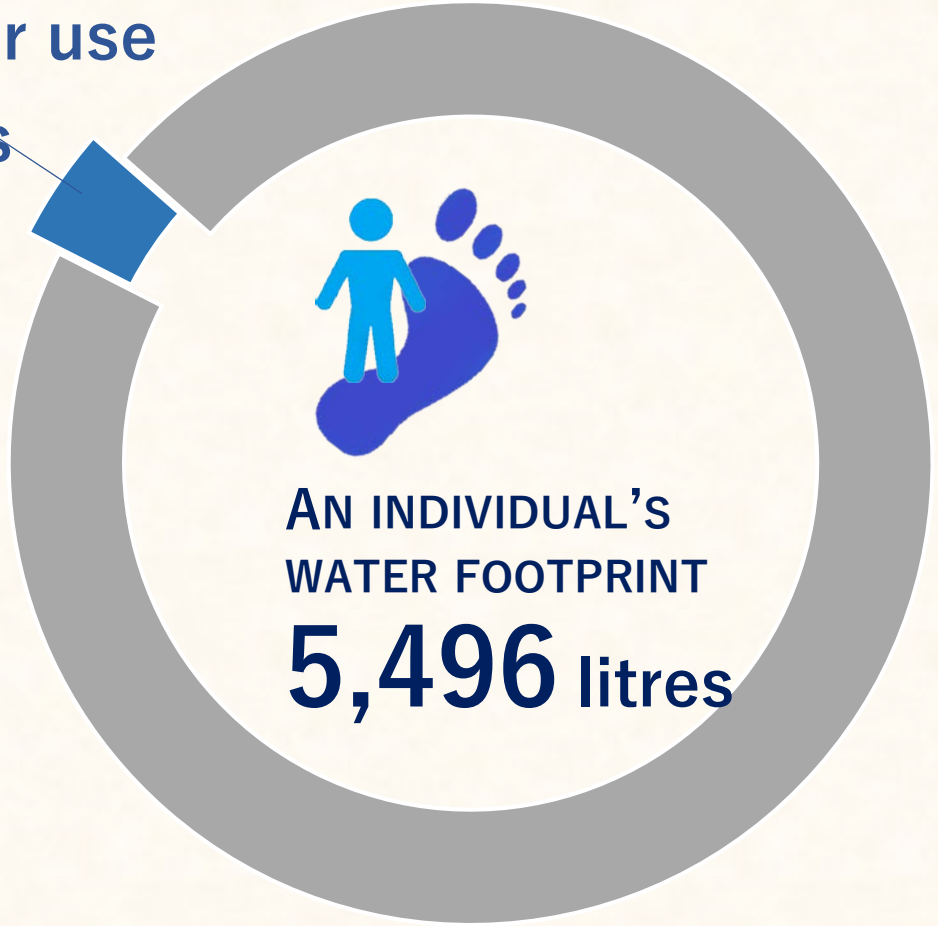
Clothes

Paper

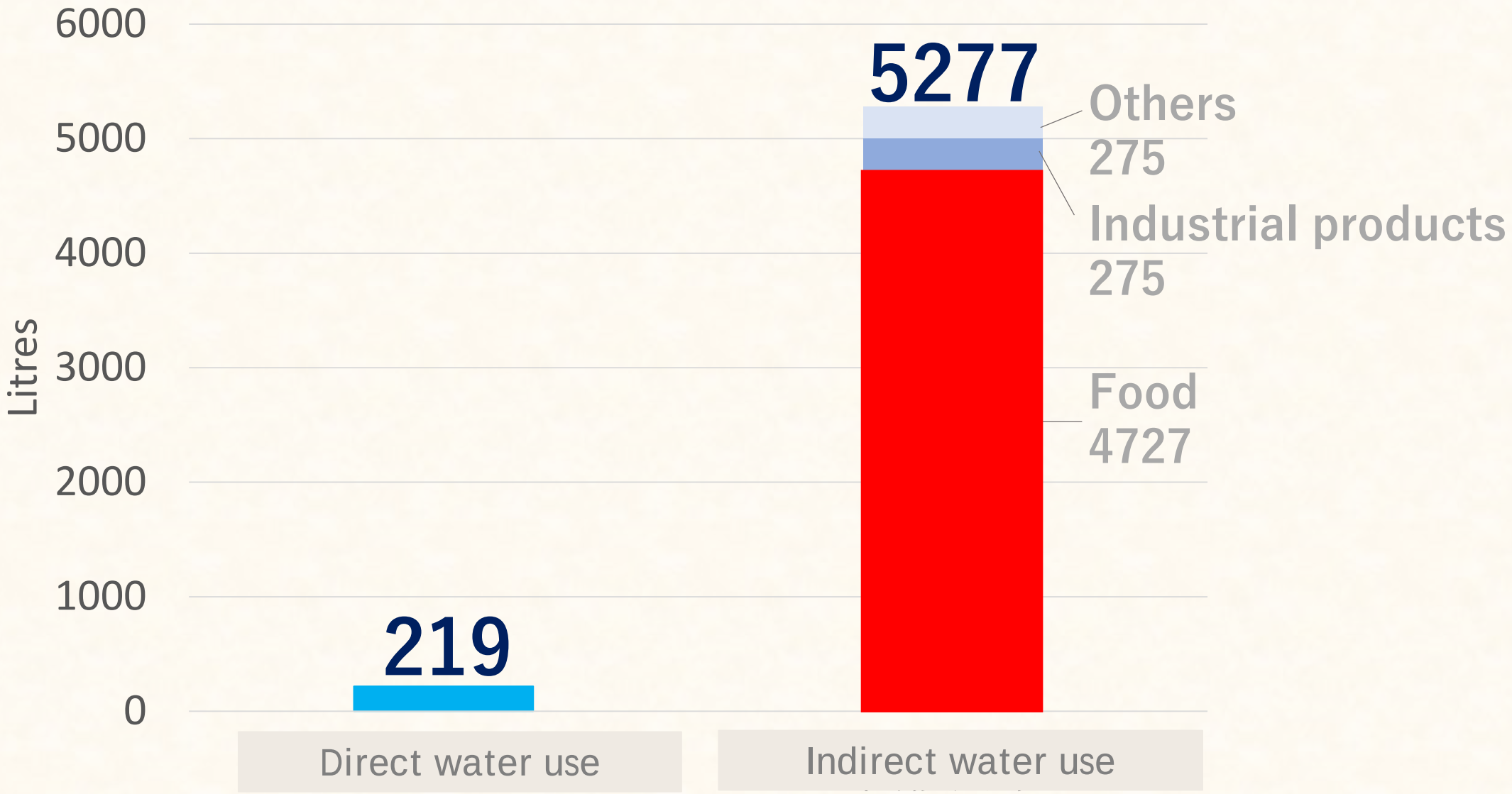
? litres/day

Only 4% of an individual's Water Footprint is related to **direct** water use

Direct water use
219 litres



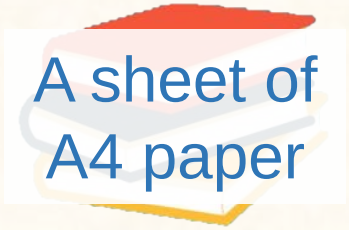
Indirect water use is 24 times direct water use



Indirect water use

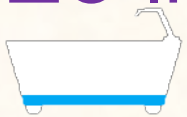
An apple

205 litres (*virtual water*)



A sheet of A4 paper

10 litres (*virtual water*)

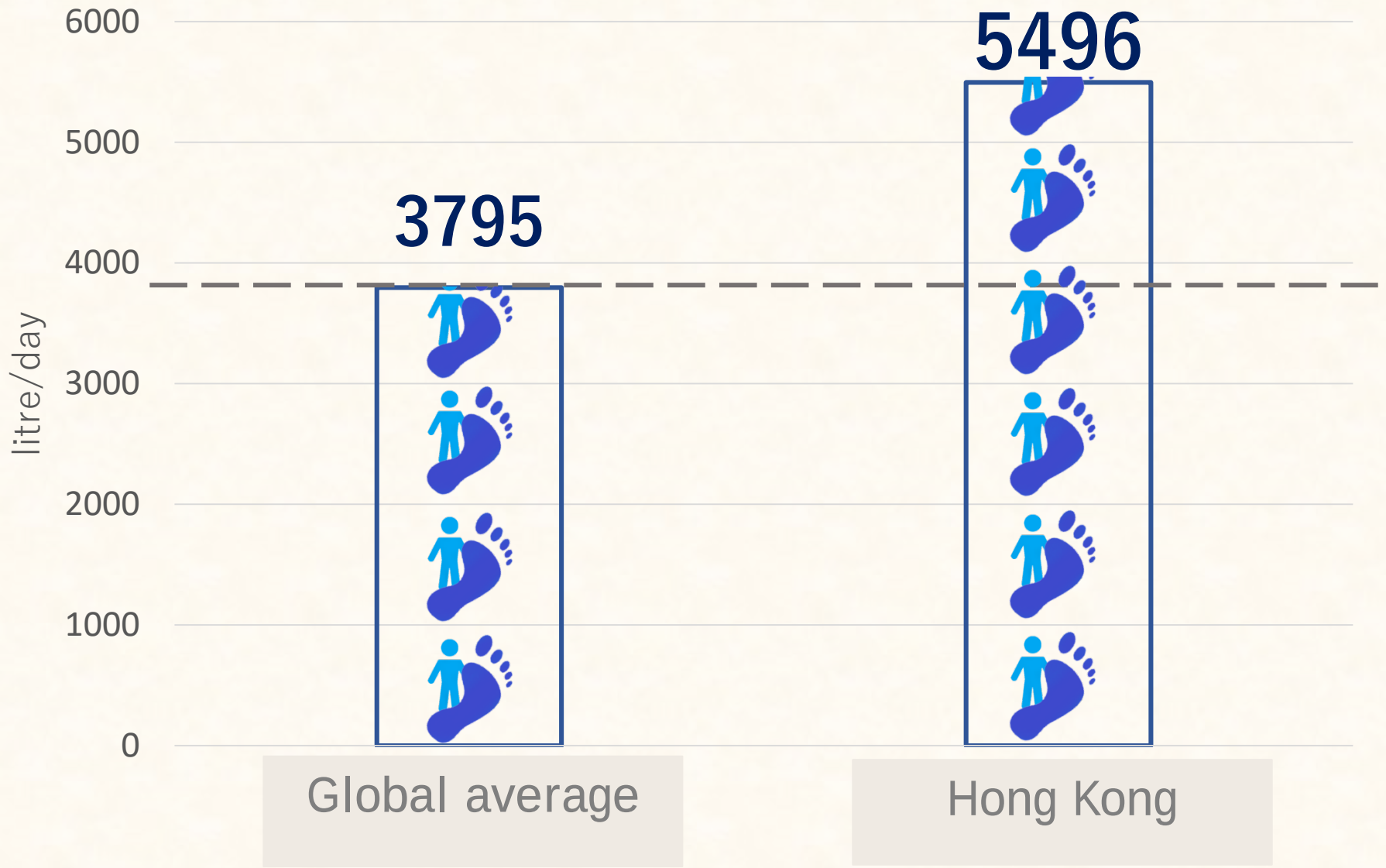


A cotton T-shirt

2000 litres (*virtual water*)

Each bathtub represents 150 litres of water

The Water Footprint of an average person in Hong Kong is 1.4 times that of the global average



Three Components of Water Footprint

Green Water Footprint

- *Rainwater*

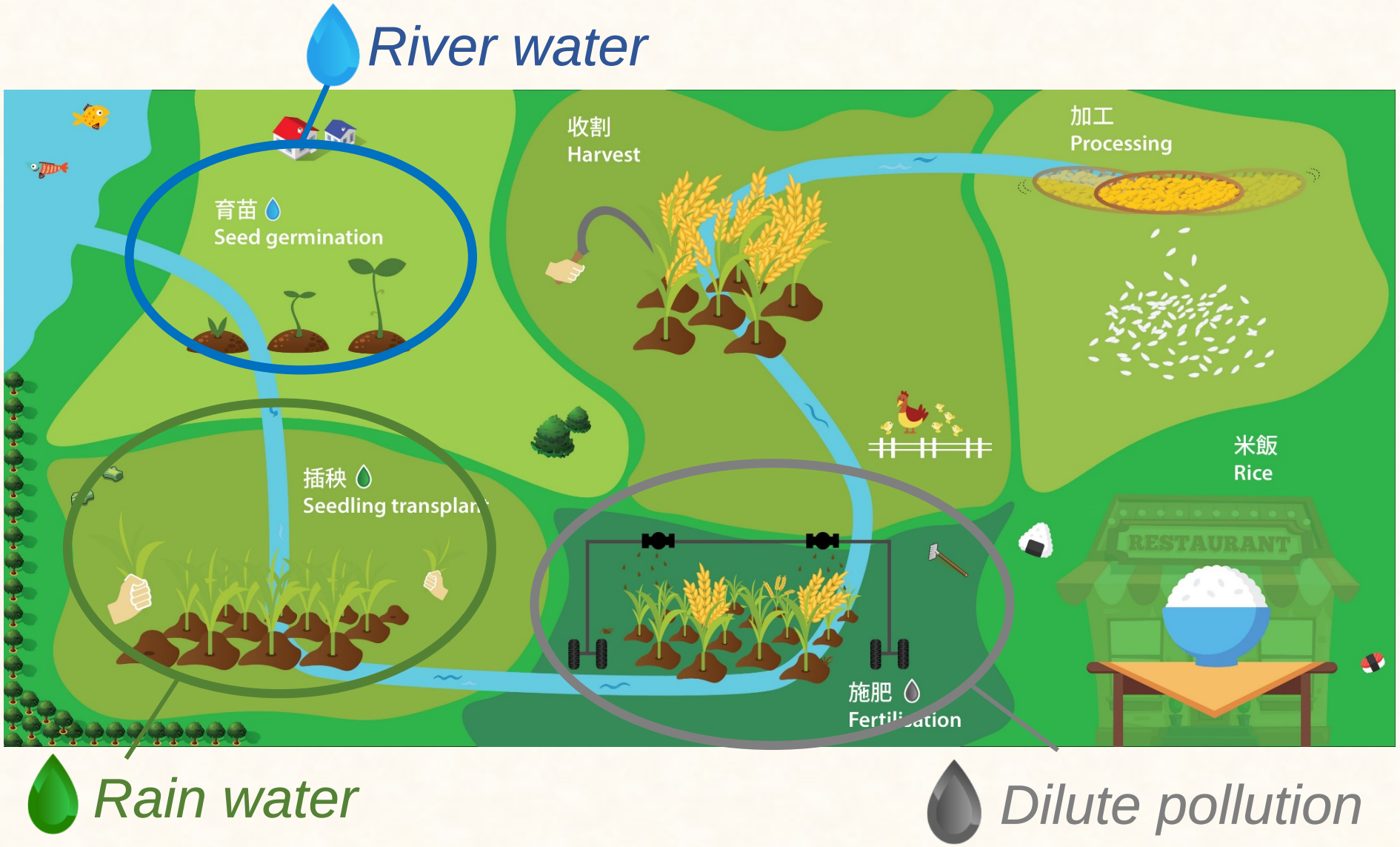
Blue Water Footprint

- *River water*

Grey Water Footprint

- *Dilute pollution*

Water resources are used up in each stage of food production process



PART 2：

The Water Footprint of food products

How do we **calculate** the Water Footprint of food products?

Farm produce

Water use for pollution dilution

Crop water use

Poultry & livestock

Water use for pollution dilution

Service water, e.g. cleaning

Animals' drinking water

Water use for feed production

PART 3 :

Factors that account for differences in the Water Footprint of food

Factors that account for differences in the Water Footprint of poultry, livestock and farmed fish

- Growth period
- Feed intake
- Composition of feed
- Process water requirements

Can you guess which food product has a larger Water Footprint?

Chicken, chilled

4,325 litre/kg

Beef, chilled

15,415 litre/kg

Why does beef have such a large Water Footprint?

A cow consumes much more feed than a chicken in its lifetime, and hence the larger Water Footprint

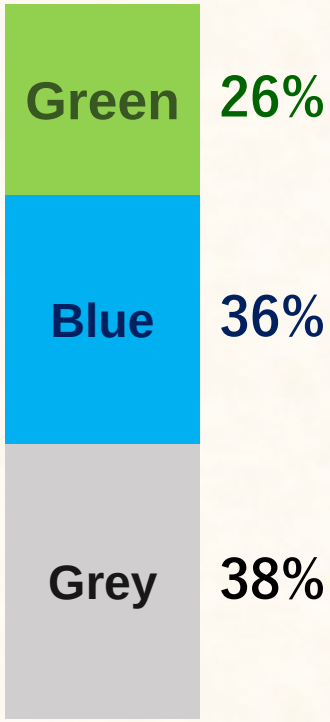
	Chicken	Cow
Growth period	6 to 8 weeks	2 to 3 years
Daily feed intake	¼ pound	27 pounds

Factors that account for differences in the Water Footprint of farm produce

- Growth period (annual/perennial)
- Soil water availability
- Climate (tropical/ temperate)
- Farming practices

The size and composition of the Water Footprint of food vary according to **agricultural practices** and **irrigation methods**

Israel



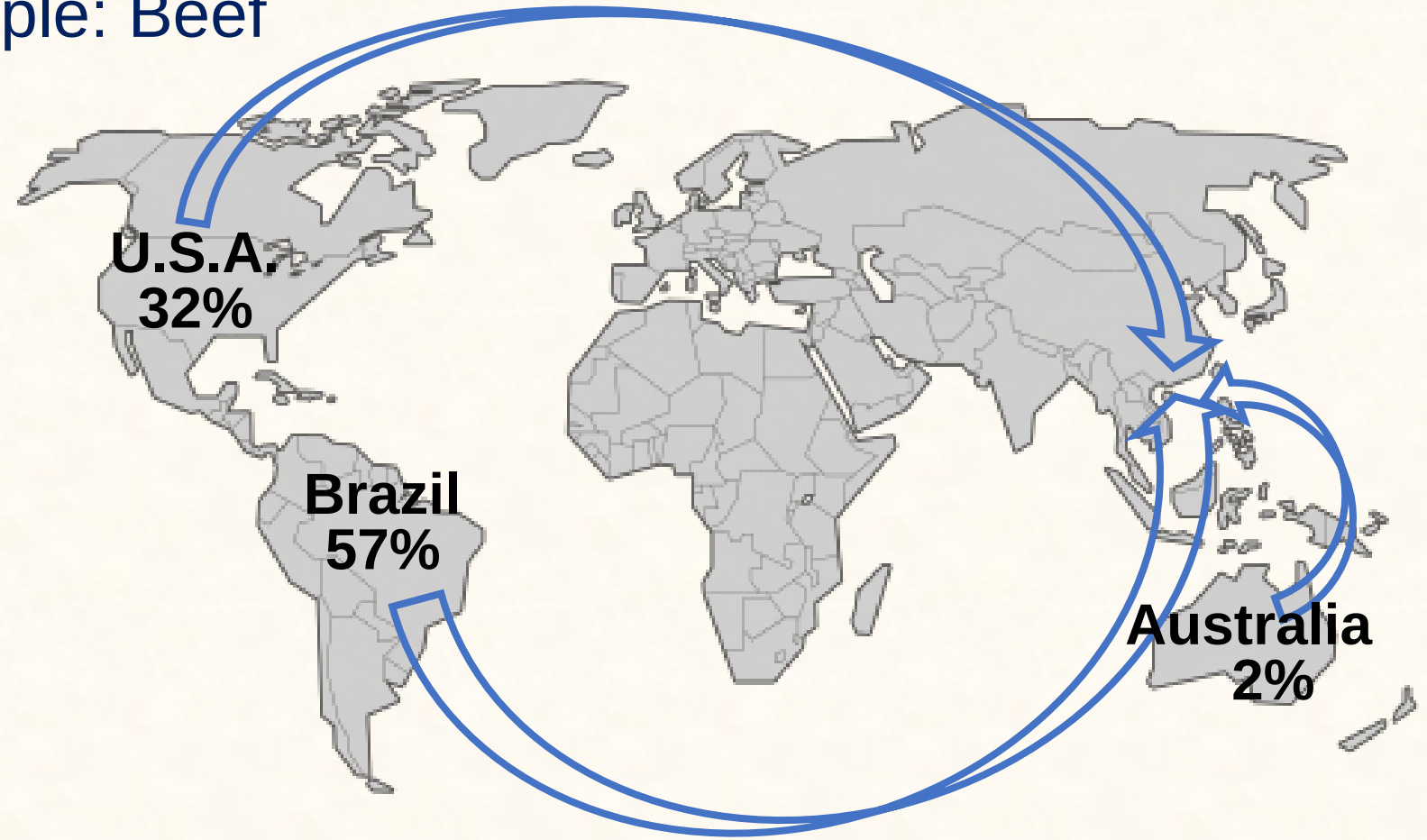
China

Part 4:

Why should we care about the Water Footprint of food?

While importing foods, we are consuming water resources in other parts of the world

- More than **90%** of Hong Kong's food supply is imported
- Example: Beef



PART 5:

How to reduce our Water Footprint?

Eat less meat and eat more veggie;
and we will help conserve water

Reduce food wastage;
and we will help reduce our Water Footprint

- **3,662 tons** of food waste went to landfills in Hong Kong everyday
- Equivalent to wasting **7.6 billion litres** of virtual water

Conclusion

- We use far more water than we think
- Virtual water (embedded in goods) is often neglected
- Food makes up 90% of our Water Footprint:
  A healthy diet & zero food waste help conserve water

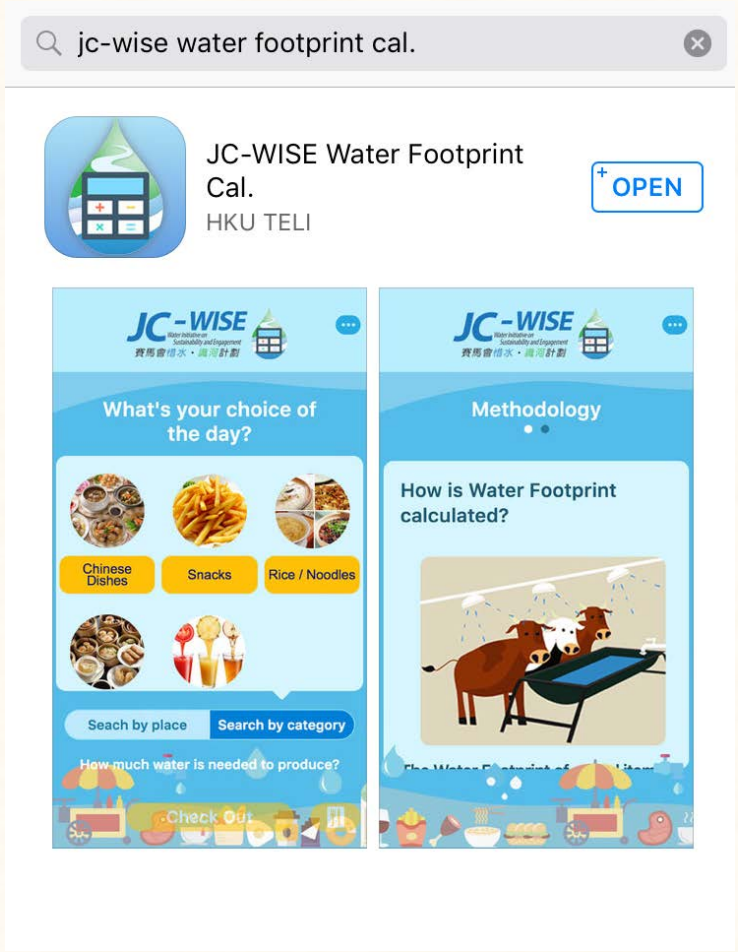
JC-WISE Water Footprint Calculator

- HK's first evidence-based Water Footprint Calculator (www.jcwise.hk/wfc)

- Mobile app:
  For both iOS & Android

Download on the App Store

ANDROID APP ON Google play



Water Footprint of **our meals**

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

Total: 1,322 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

Steamed shrimp dumplings

_____ litres

Oolong tea

____ litres

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