

# 5<sup>TH</sup> WORLD WATER FORUM

## FMB SIDE EVENT

WATER FOOTPRINT AND VIRTUAL WATER TRADE: DO THESE CONCEPTS  
PROMOTE SUSTAINABLE USE OF WATER GLOBALLY?

# Water footprint: policy implications for arid and semi-arid countries (Spain)

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# Water footprint: policy implications for arid and semi-arid countries (Spain)

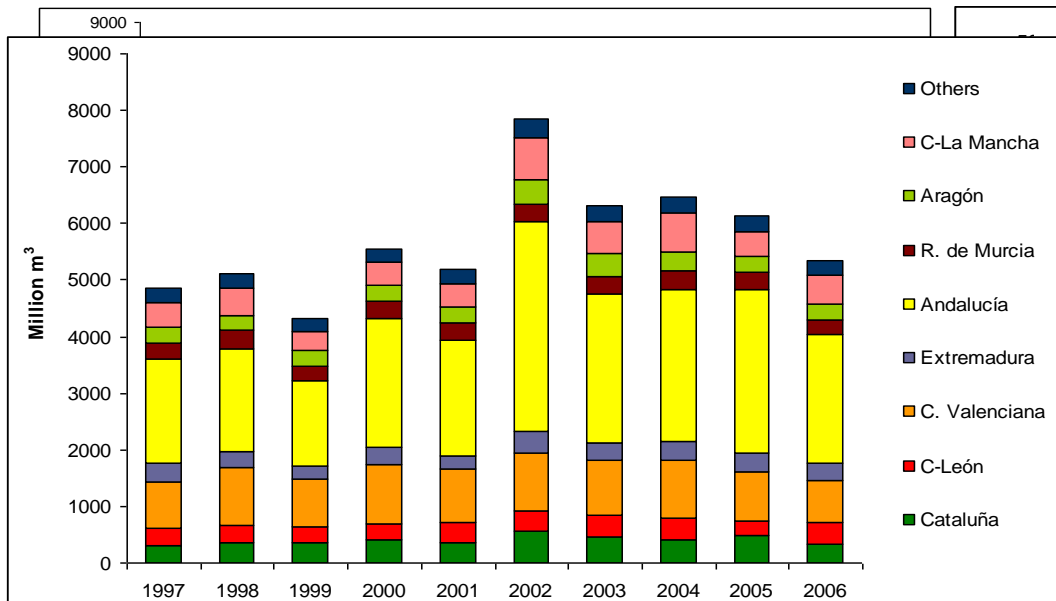
## Implication 1:

Footprint is larger and (perhaps more) harmful in the most arid and water-scarce regions

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By Autonomous Community

Scarcity value of blue virtual water 'exports'



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Implication 1: Footprint is larger and more harmful in the most arid and water-scarce regions

## Solutions:

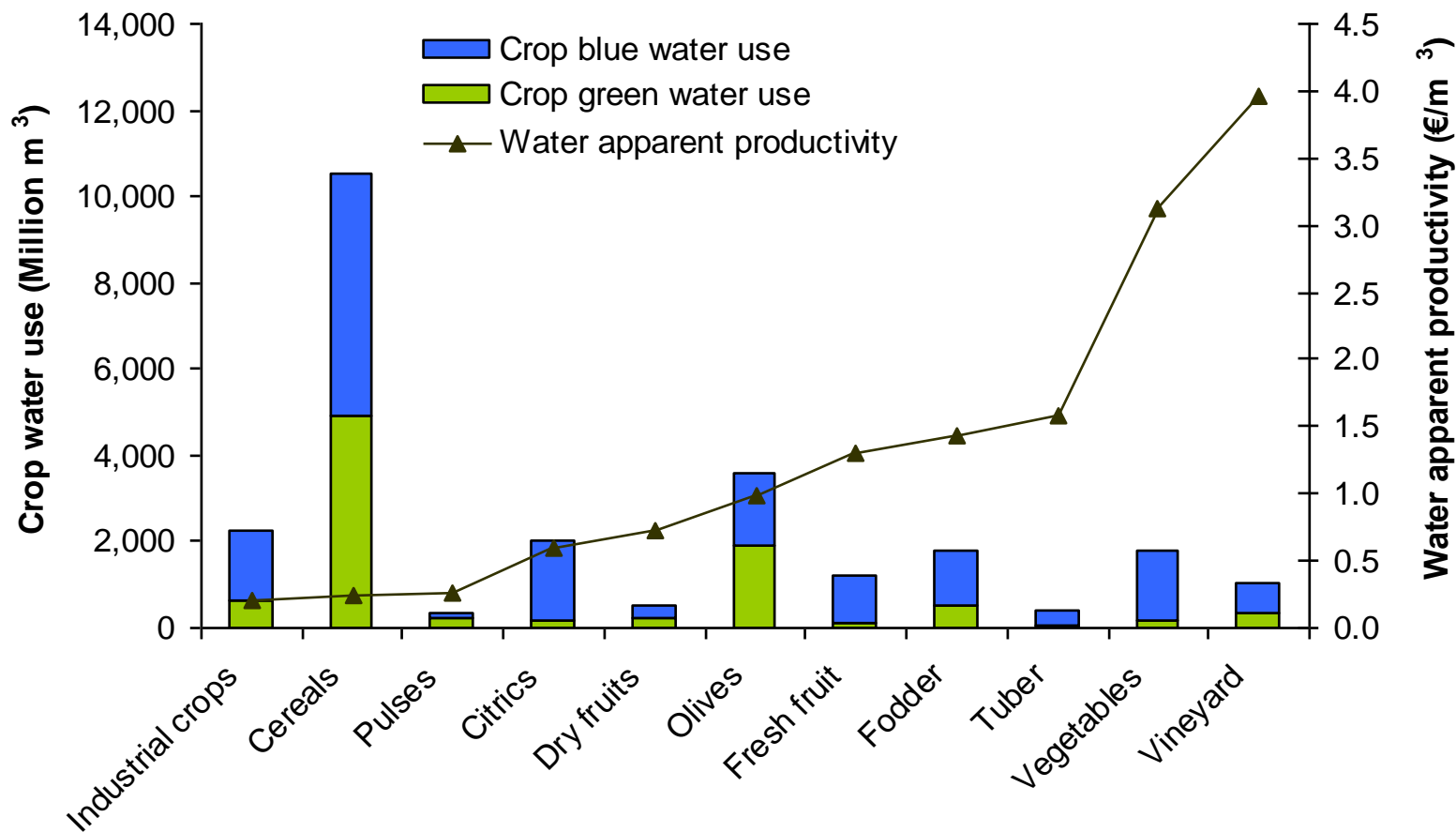
- Focus on groundwater resources
- Search for technological solutions
- Enforce environmental constraints
- Search win-win solutions

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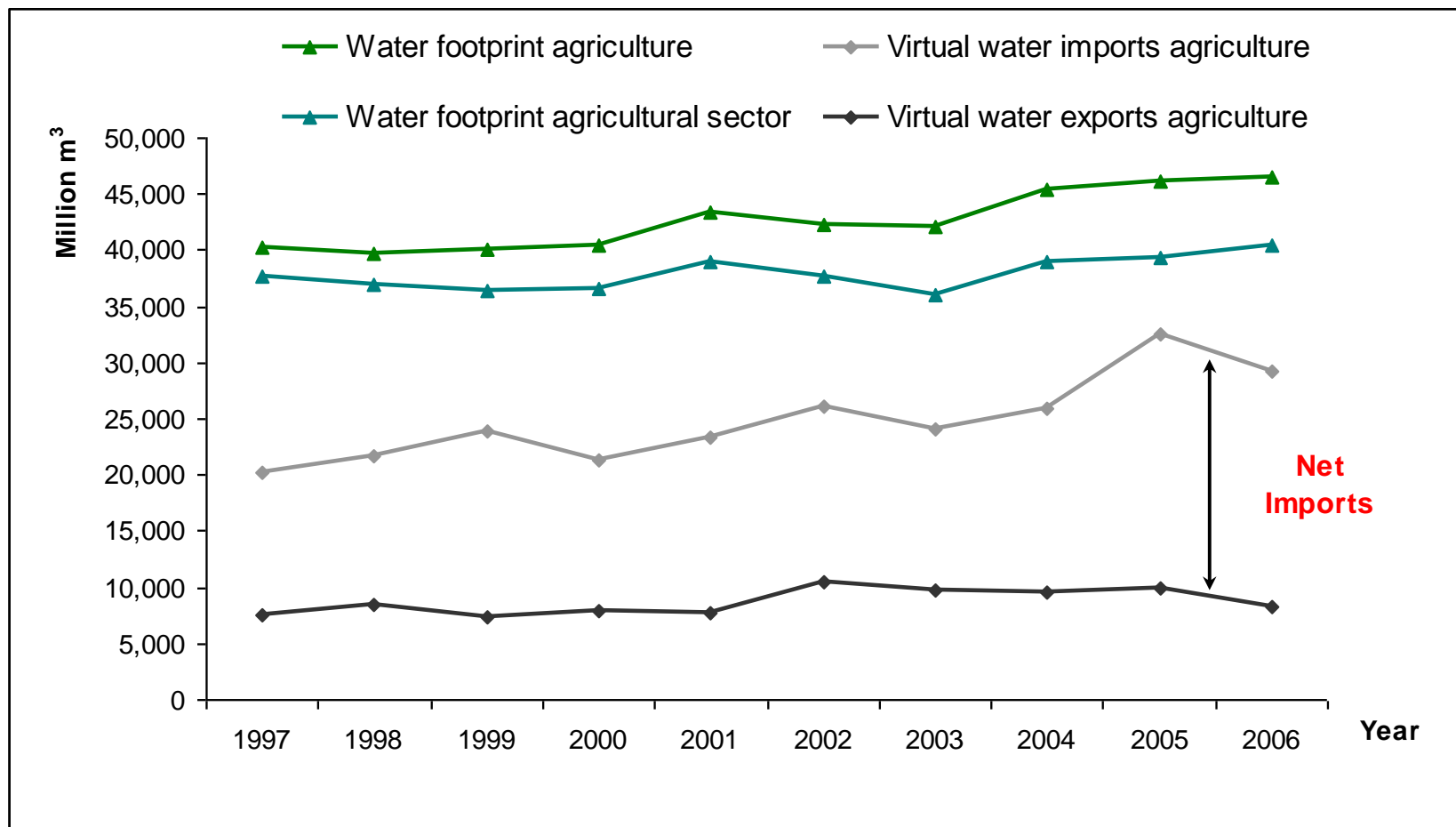
## Implication 2:

A large water footprint can be reduced with virtual water trade (may or may not be globally beneficial)

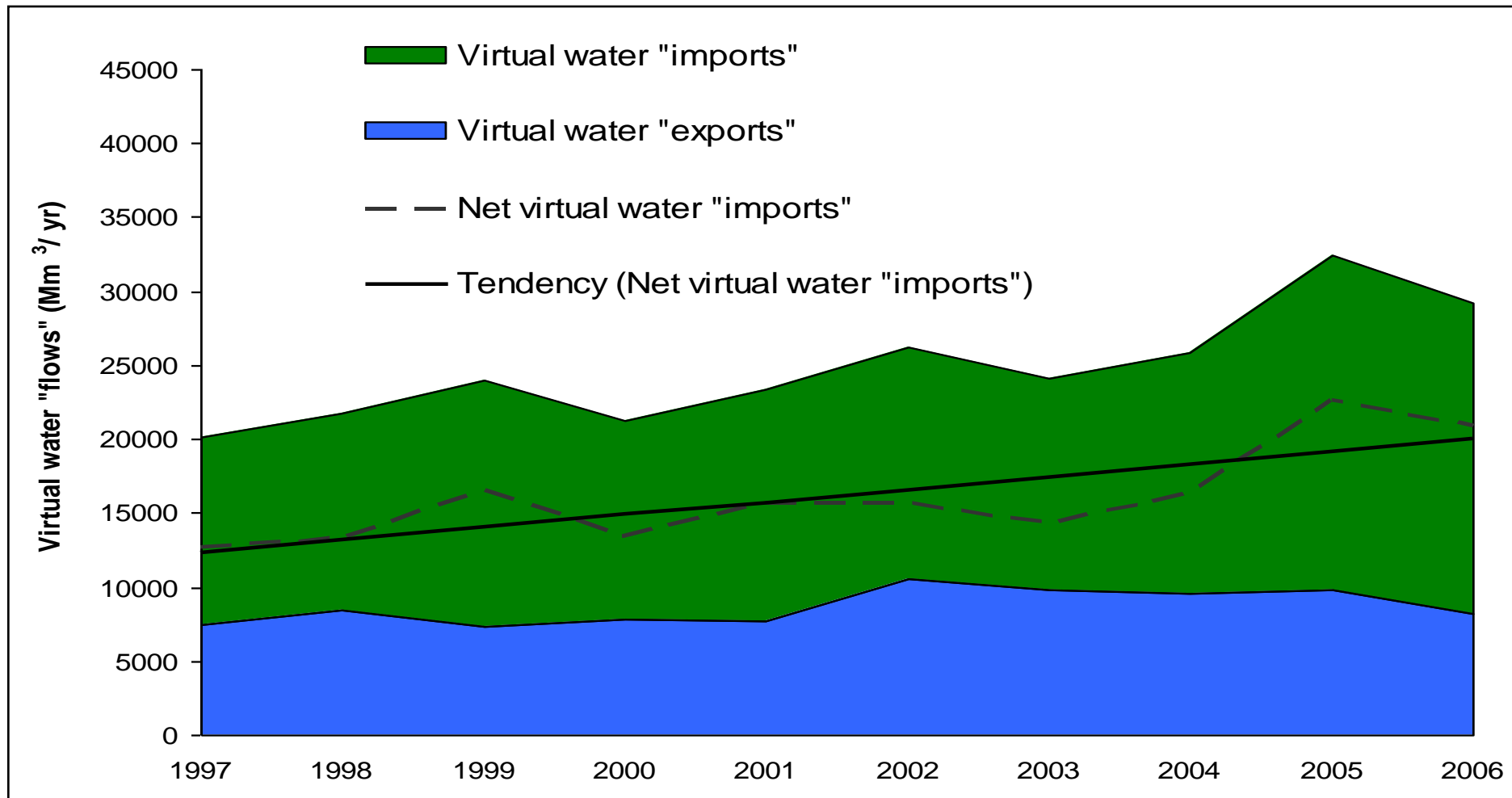
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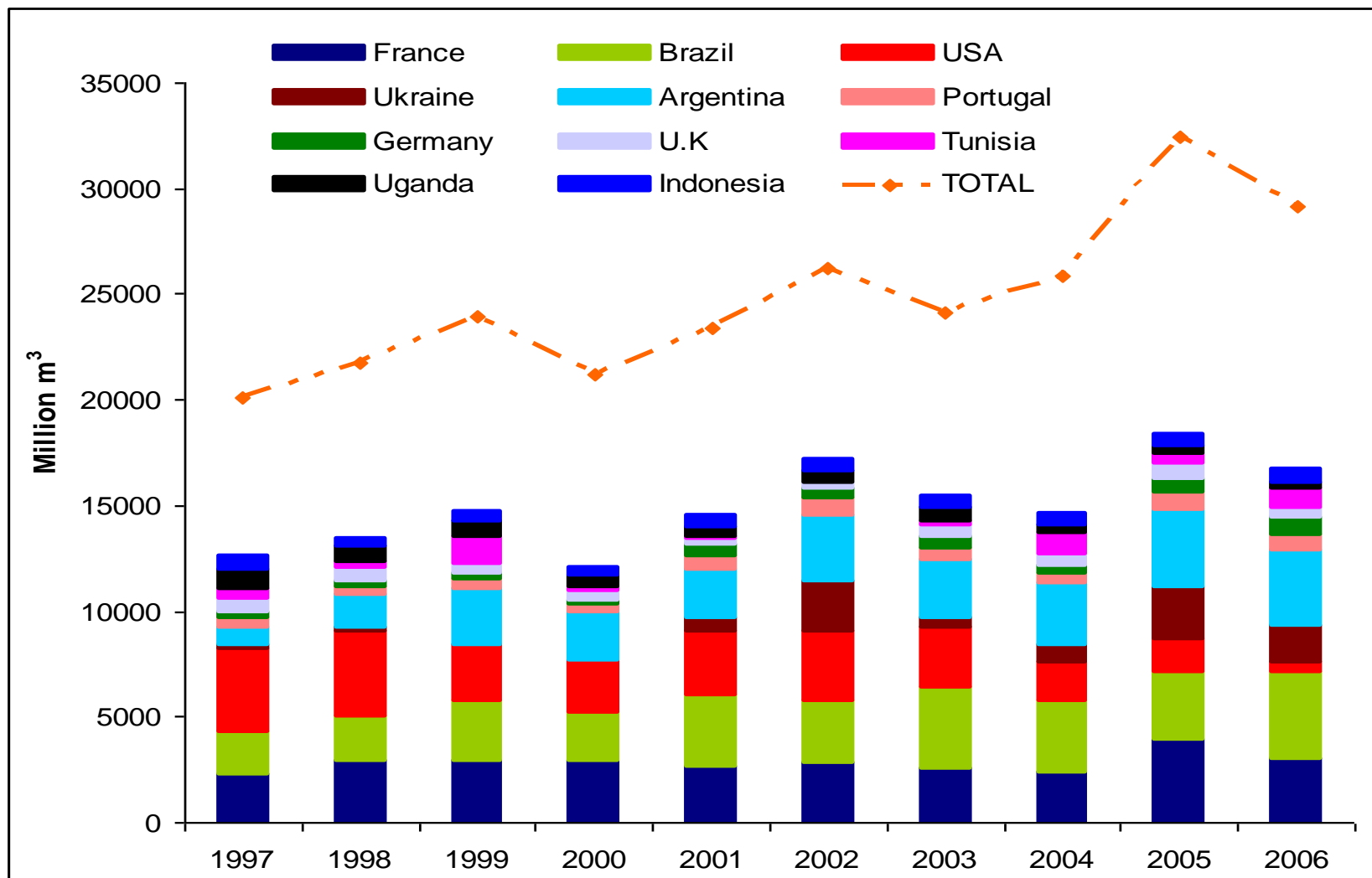


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Implication 2: A large water footprint can be reduced with virtual water trade (may or may not be globally beneficial)

## Caveats:

- Virtual water trade works if water is charged in all trading partners at its true scarcity value
- In agriculture, green vs blue water is an essential differentiation
- Beware of strict applications of footprints in less-developed exporting countries.

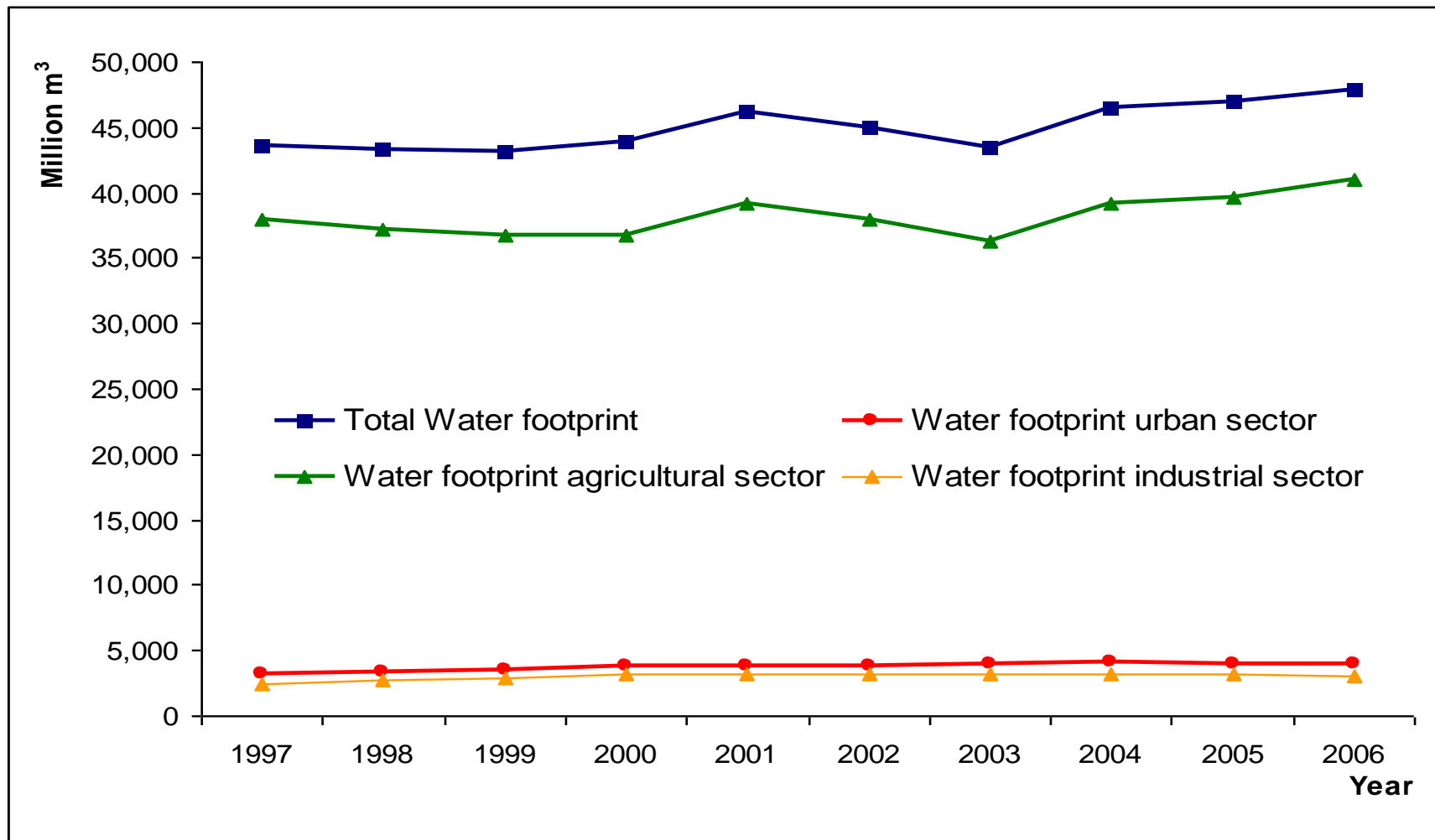
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## Implications 3:

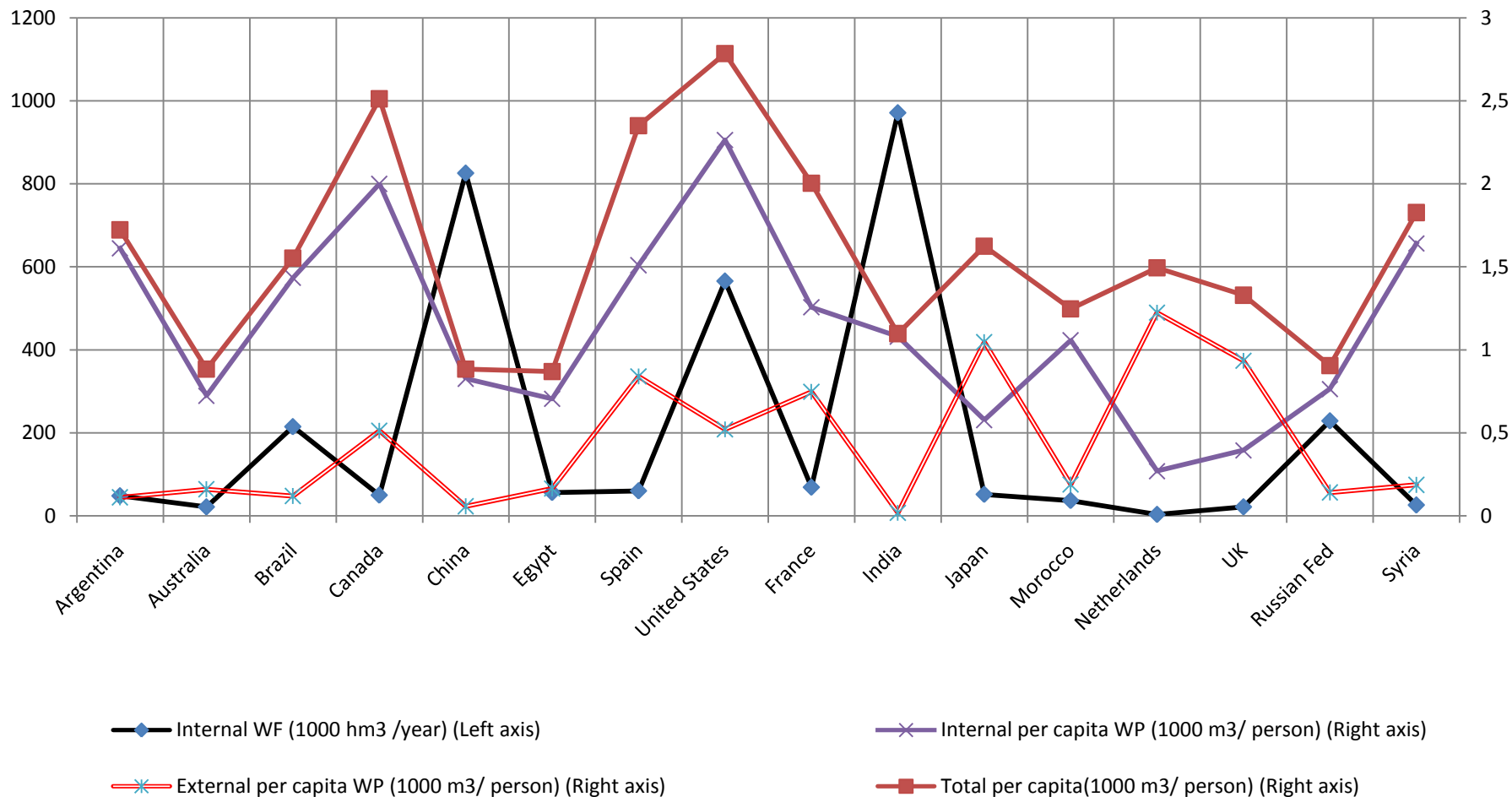
In semi-arid countries the most crucial and unstable internal footprint is the agricultural one

In non semi-arid countries the largest footprint is the external one

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Source: Hoekstra & Chapagain (2008)

# Water footprint: policy implications for arid and semi-arid countries (Spain)

Implication 3a: In semi-arid countries the most crucial and unstable internal footprint is the agricultural one

## Focus:

- Agricultural and trade policy fundamentally affects agricultural water footprint
- Markets/allocation instruments are essential for efficient water use

# Water footprint: policy implications for arid and semi-arid countries (Spain)

Implication 3b: In non semi-arid countries the largest footprint is the external one

## Focus:

- Consumption and commercial issues
- Global sustainability (“new cosmopolitanism” U. Beck)