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Water Management in Spain : An example of changing paradigms

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Summary

**Water Management in
Spain : An example of
changing paradigms**

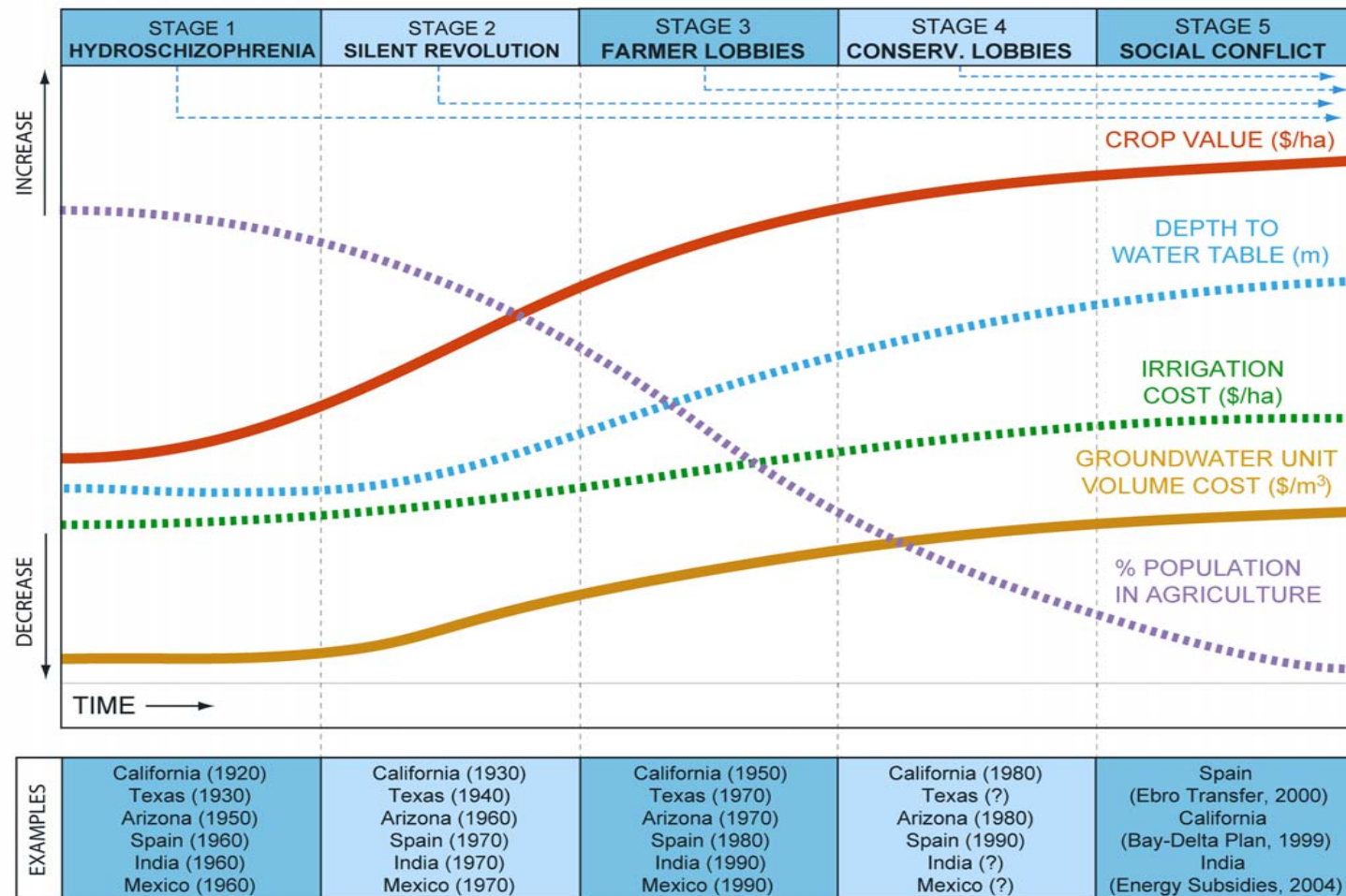
1. A history briefing
2. Drivers of change
3. Increasing awareness of water problems
4. Three illustrative problems and solutions
5. Concluding remarks

1. A History briefing

- Growth period 1879-1985
- Maturity 1985-2000
- 2000- the breakdown of consensus:
 - The demise of big projects
 - Regional issues
 - Sectorial competition

1. A History briefing

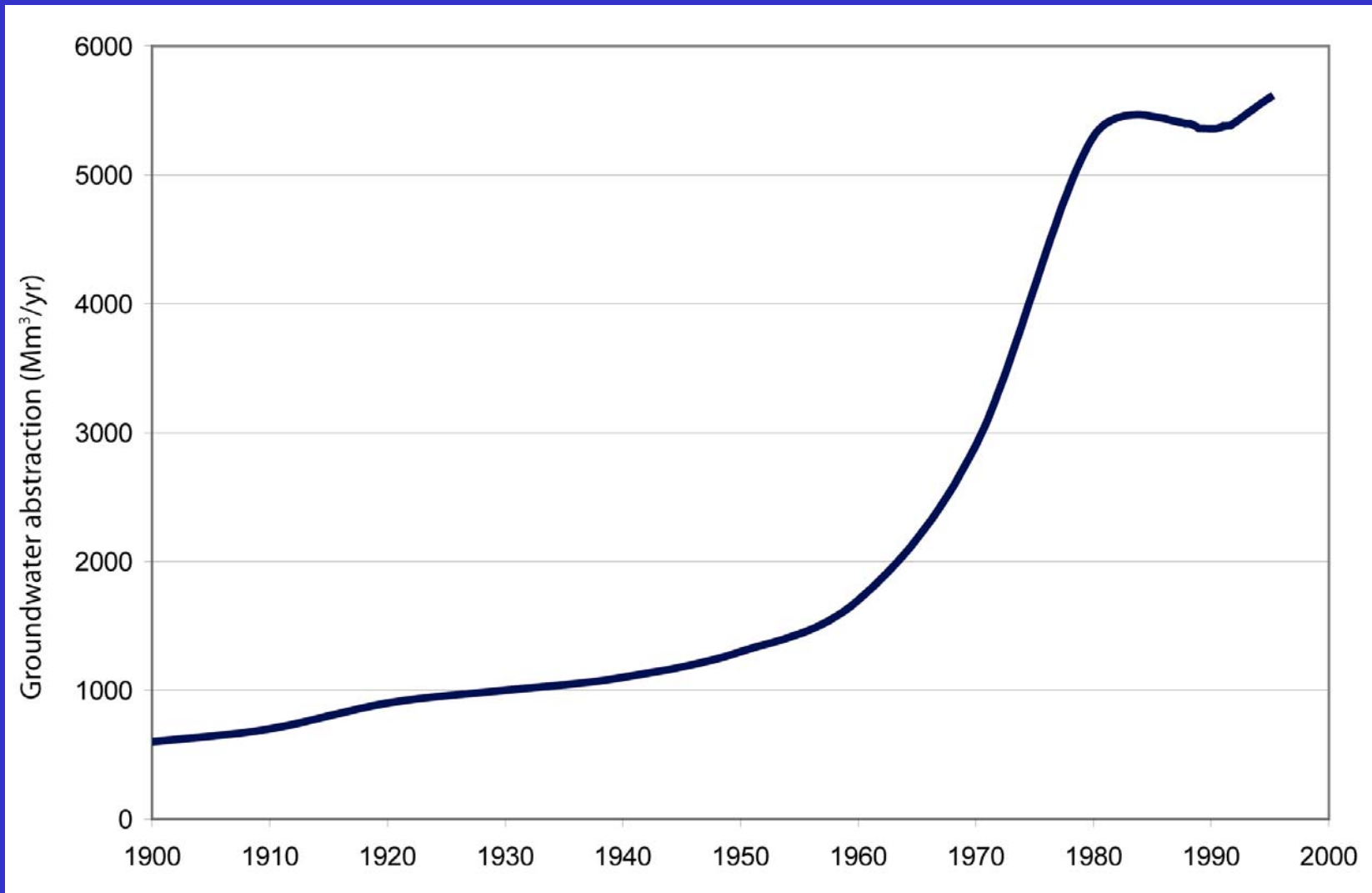
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Source: Llamas and Martinez-Santos (2005b).

1. A History briefing

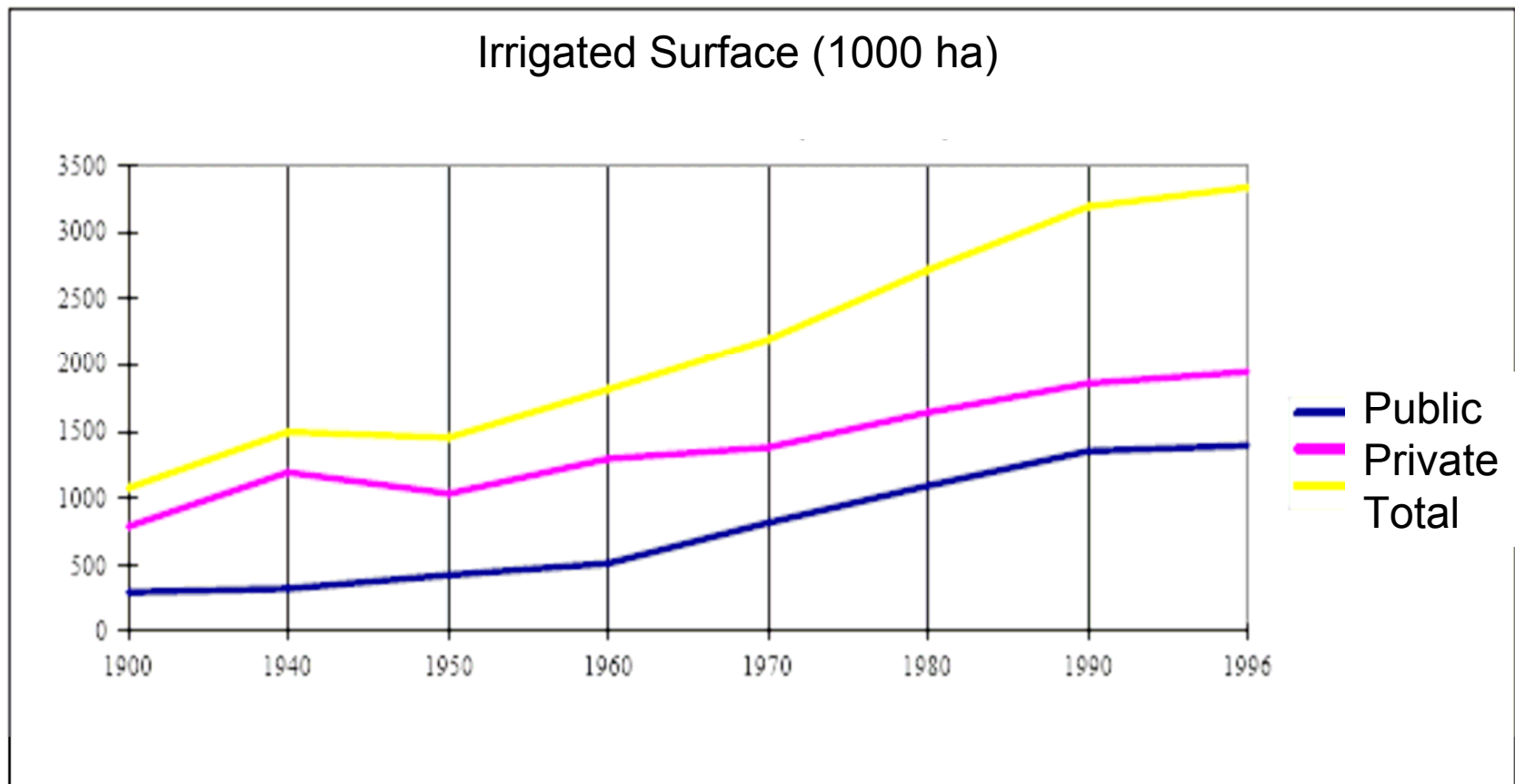
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Source: Llamas and Martinez-Santos (2005b).

1. A History briefing

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Source: MAPYA, 2002

1. A History briefing

- 2000- the breakdown of consensus:
 - The demise of big projects
 - Regional issues
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1. A History briefing

- The 1999 Law reform (water markets, sounder finance, desalination,...)
- EU Water Framework Directive (2000)
 - Good water quality status
 - Economics (pricing/CBA/Cost-effectiveness A)
 - Programmes of measures
 - Public participation
- The New PHN-2004

2. Drivers of change

- Intense Urbanisation (culture, economy...)
- Enlargement of the scientific community
- The 1993-95 Drought
- Economics and finance
- Revamping the EU Common Agricultural Policy
- Growing conflicts about groundwater

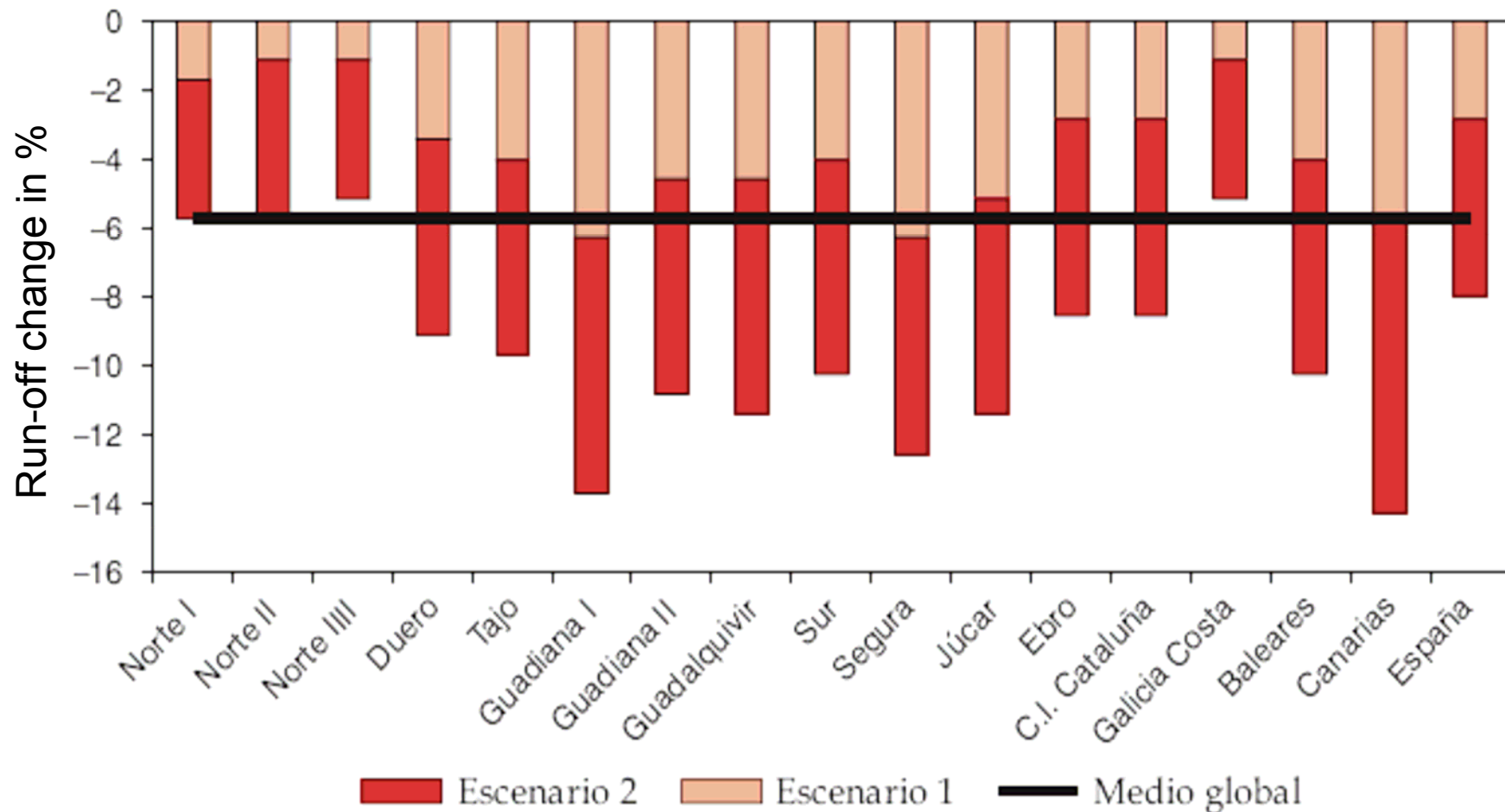
3. Increasing awareness

- Water conflicts land in the streets (of Barcelona, Madrid, Valencia and Brussels)
- Media coverage
- The scientific community multiplies efforts
- Climate change seriously affecting WR in Spain
- ...
- An undisputable conclusion “Water resources are used unsustainably”

3. Increasing awareness

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Reduction of Run-off of the principal river Basins (Horizon 2030)



4. Three illustrative problems and solutions

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1. The role of economic instruments
2. Tackling the most pressing problems of intensive groundwater use.
3. The revolution in the irrigation sector

4.1. Economic instruments

Water Tariffs & Markets

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- Full cost and block-rate tariffication for all urban users.

	Household's consumers (in % of served population)	Industrial and Commercial consumers (% of served population)
Fixed rate	Yes (91%)	Yes (90.5%)
Minimum consumption	No (86.5%)	No (88%)
Block-rate structures	Yes (91.5%) of which <ul style="list-style-type: none"> – 2 blocks: 12.3% – 3 blocks: 55% – 4 blocks: 18% – 5 or more blocks: 15% 	Yes (79%) of which <ul style="list-style-type: none"> – 2 blocks: 53.8% – 3 blocks: 21% – 4 blocks: 15% – 5 or more blocks: 9%
Increasing Block Rates	Yes 96(%)	Yes (84%)
With incentives for reduced consumption	72%	32%

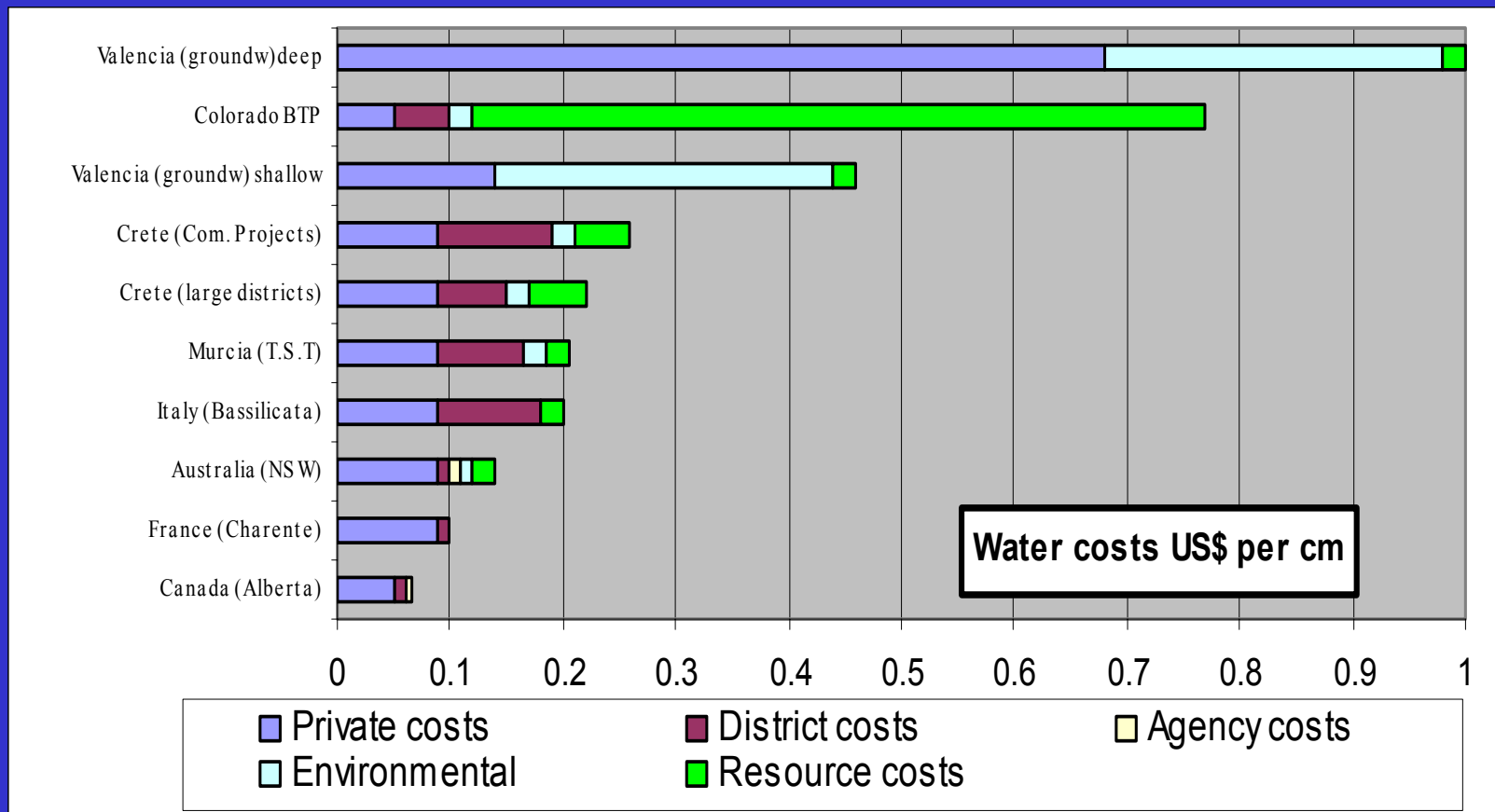
Source: AEAS (2004)

4.1. Economic instruments

Water Tariffs & Markets

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■ Increasing water tariffs in the Agricultural Sector



4.1. Economic instruments

Water Tariffs & Markets

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- Water markets
 - 1999 Reform (liberalisation)
 - 2005 water banks defined
- Experience so far:
 - Scattered exchanges (very significant !!)
 - Cautious expectations
 - Many voices against 'water trading'

4.2. Managing Intensive use Groundwater resources

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- 20-years of failed attempts to revert cases of unsustainable GW use
- Water transfers: the wrong approach
- Very few examples of success (Barcelona, La Mancha Oriental)

But...

- Realism + pragmatism + (a lot of €) may alleviate some of the most pressing problems

4.2. Managing Intensive use Groundwater resources

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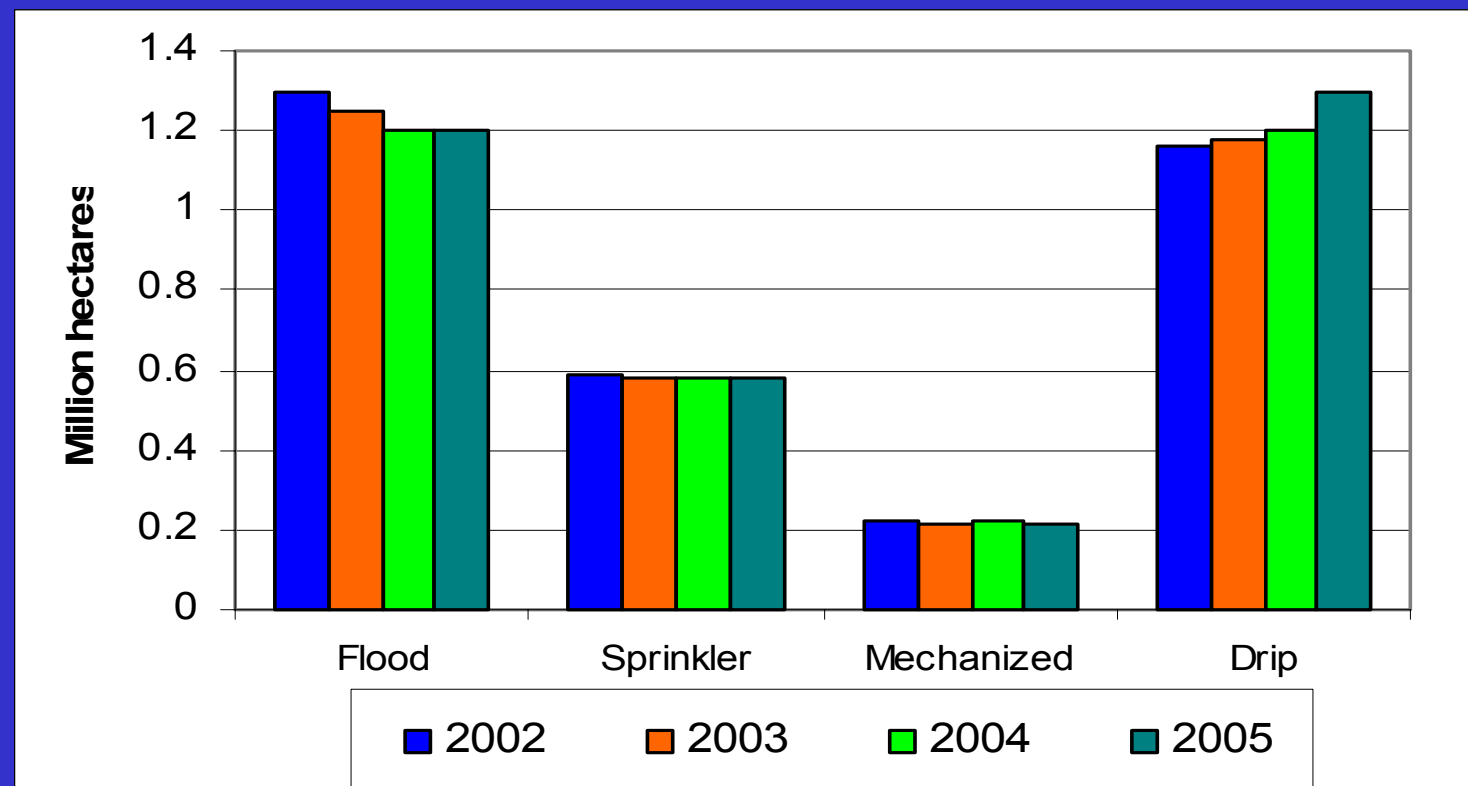
- The Special Plan of the High Guadiana
 - Managing plans
 - Education
 - Engineering

- Water markets
 - Permanent buy-outs of water use rights
 - Buy-out of irrigated acreage
- Pending issues: illegal users

4.3. The revolution in irrigated agriculture

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- More than 1.2 million hectares fully refurbished (€ 3 billion)
- Increasing use of efficient irrigation



4.3. The revolution in irrigated agriculture

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- ...coming up:
 - Fully decoupled CAP modes of support
 - Full-cost recovery prices for farmers
 - The Spanish 'hydrological footprint'
 - Virtual trade

5. Concluding remarks: drawing lessons from the Spanish case

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- Large water projects are not the solution to unsustainable water uses or enhance water supply reliability
- Flexible and adaptable solutions, that rely on technologies, infrastructure and demand management instruments are more complex and require multiple standpoints and longer maturation periods
- Actual costs of supplying water at subsidized prices multiply spilling over other users, the taxpayer and the environment, especially when scarcity becomes acute

5. Concluding remarks: drawing lessons from the Spanish case

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- Rigid, hierarchical and top-down planning models fails when water hegemonic thinking and political coalitions break down
- Accessible information, science-based decision making and public participation are key elements to breakthrough entrenched and adversarial positions;
- Innovative water policies require strong budgets, sound finance and equitable burden distribution