



Revisiting river basin management in the Mediterranean

Multi-level governance of the Durance river system (France)

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IWRA, 2015

Revisiting river basin management

1. Overview, introduction and method
2. The Durance river socio-hydrosystem
3. Water governance and river basin management: an historical perspective
4. Towards integrated multilevel governance system bridging scales and crossing sectors



The Durance river system in a nutshell

- A highly contrasted territory
 - natural watershed (14280 km²)
 - areas served by water transfers outside the watershed
- Spatial and temporal mismatches between water resources and water demand
 - high human pressure
 - ancient and multiple water uses
 - water transfers, structuring hydraulic infrastructures
 - seasonality, climate change



Watershed vs water use-based territory?

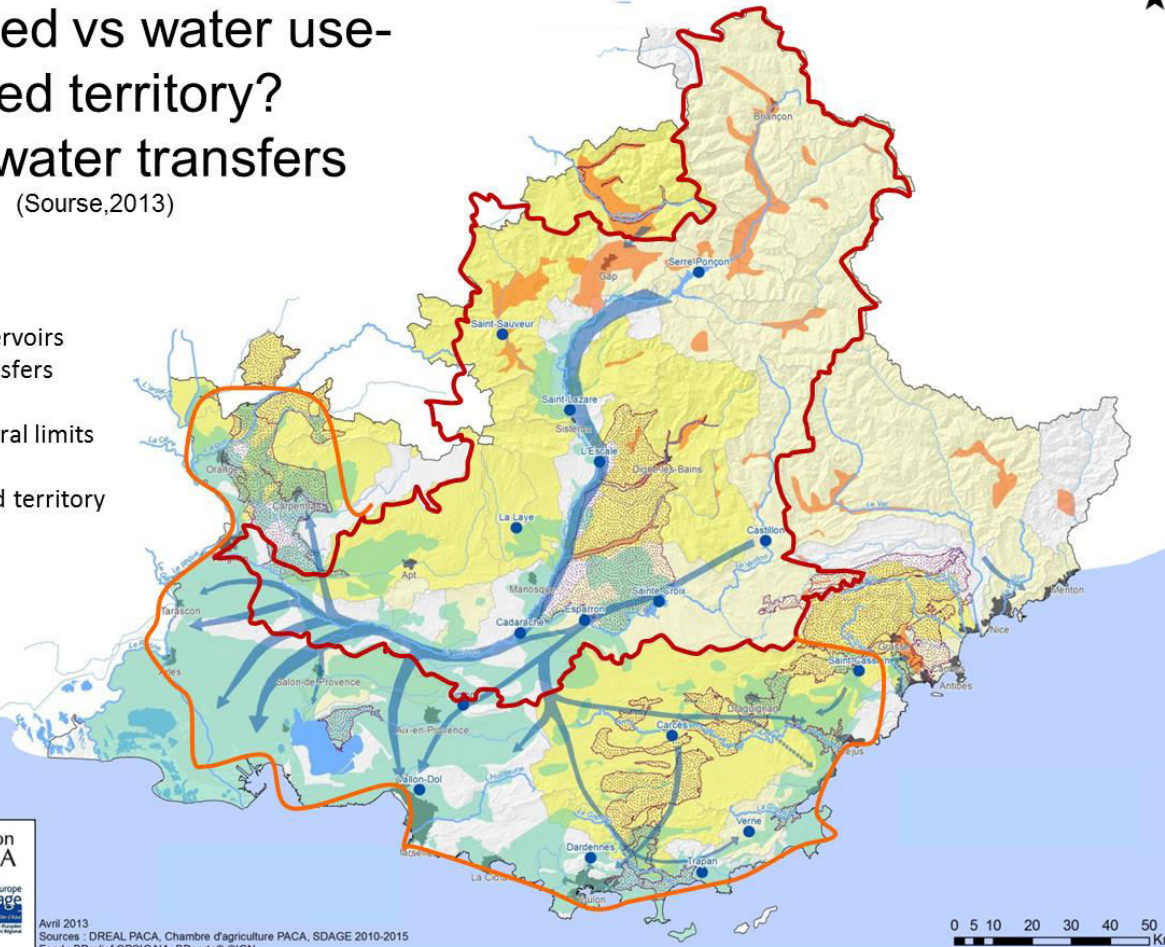
Main water transfers

(Source, 2013)

- Main water reservoirs
- ➔ Main water transfers
- Watershed natural limits
- Water use based territory



Avril 2013
Sources : DREAL PACA, Chambre d'agriculture PACA, SDAGE 2010-2015
Fond : BDrelief OPSIGIAIA, BDcarto ©IGN



From the Middle Ages to the end of the XIXth century

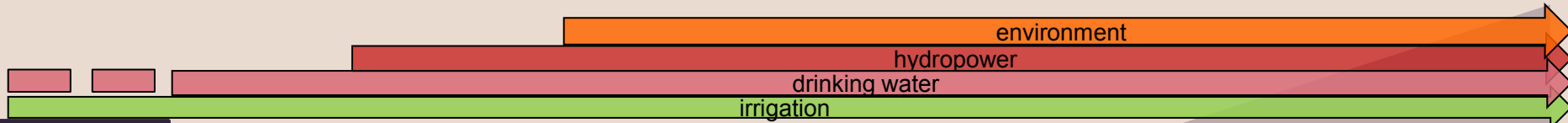
From the beginning of XXth century to the end of the 1960s

From the 1970s to date

water use- based territory

water use-based territory

river basin and water use-based territory



DURANCE socio- hydro- system scale

Strengthening of: River Basin Authorities; local authorities & water management public bodies; bilateral agreements

1554-1875: canals

Local conflicts

1949-75: dams and reservoirs

Greater integration of environment in public policies: quantitative and qualitative issues



FRANCE institutional framework

1964 water Act

1992 water Act

2000 WFD

2006 water Act

1982 decentralization Act

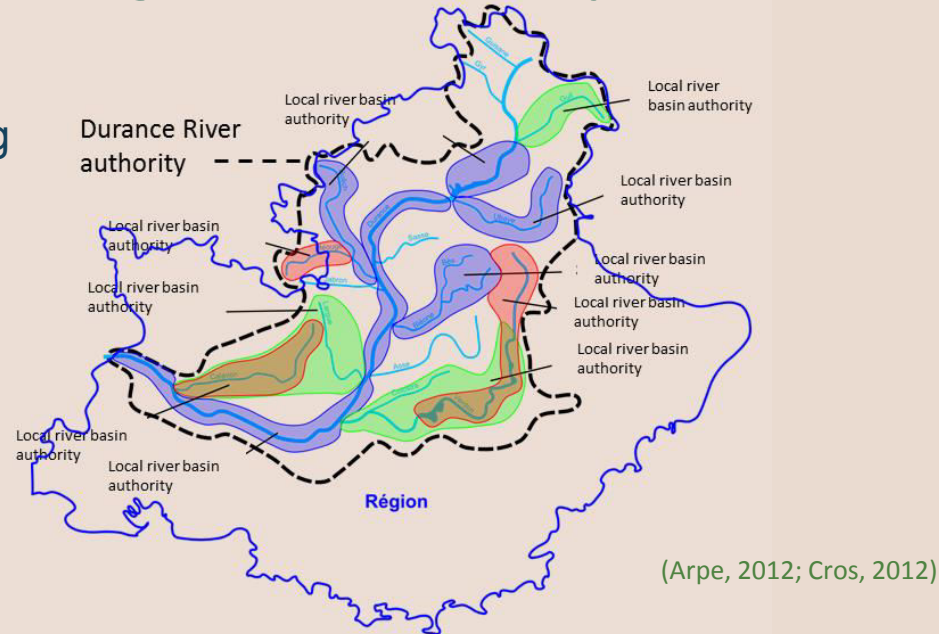
2003 decentralization Act

2014 decentralization Act

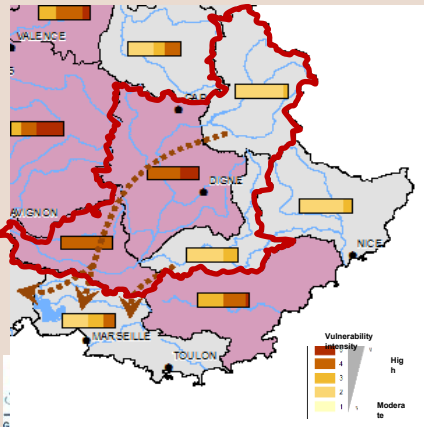
More decentralised governance framework: local authorities play an increasing role; river basin management might be challenged

A still fragmented governance system

A multi-level
governance involving
many cooks



Vulnerability to climate
change: water availability
issue (AERMC, 2014)



The Durance River governance system combines watershed and
problem-shed approaches (Daniell & Barreteau, 2014)

- A coherent hydro-geographical region with water transfers outside the watershed
- No conflicts today but crisis (droughts 2003-2007) highlighting the limits of the current water allocation rules and management

Towards an integrated multi-level governance system bridging scales



Principles for an effective and efficient multi-level governance system (OECD, 2015)

- Legal and institutional framework clearly allocating roles, responsibility and resources
- Manage water at the appropriate scale
- Policy coherence at all levels of government and through cross-sector coordination



A local solution: the regional governance body for the Durance river system (Source, 2013)

- Increased solidarities between territories
- Secured multiple uses in a context of climate change

Through an innovative system mixing social learning, shared water culture & coordination tools for action

- Shared governance combining regional scale and strengthened river basin local authorities
- An integrated approach of territorial water management and sector based policies

Expected outcome

- More effective cross-level governance through improved coordination
- Well suited to Mediterranean territories facing similar issues

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Thank you for your attention!



Sainte-Croix dam



Serre-Ponçon dam (Baudon, F.)



L'Escaie dam (Latreille, F.)



EDF