

An international Exchange of Experience

**Economic Analysis according to the WFD:
Status of Implementation**

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Ministry of the Environment

**„The Pilot Jucar River Basin
Economical analysis of water
uses and cost recovery“**



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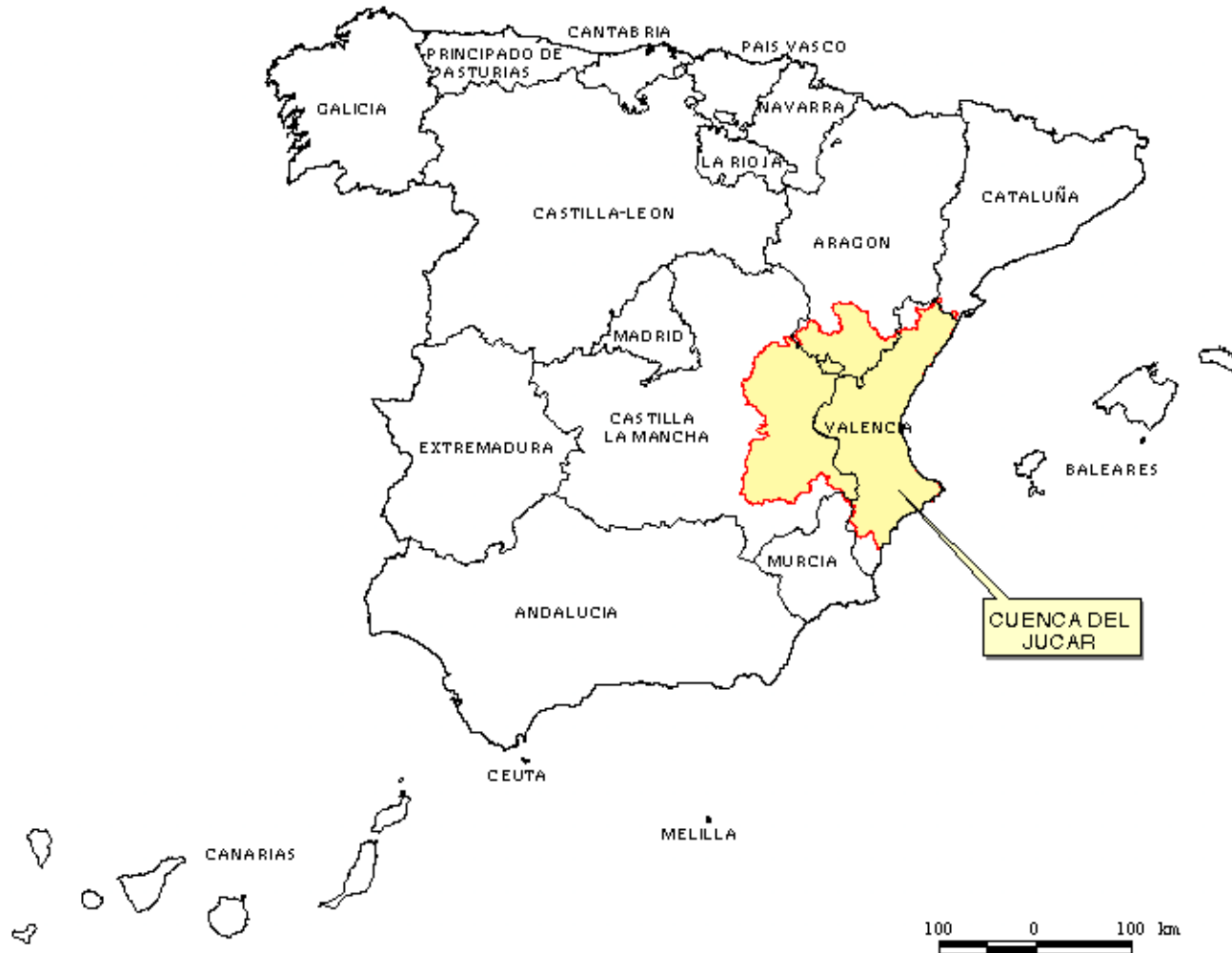
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THE PILOT JUCAR RIVER BASIN

Economical analysis of water uses and cost recovery

Location of Júcar River Basin



Spanish financial and economical regime for water use

COST	RESPONSABILITY	TARIFFS
Water availability (dams and main channels)	River Basin Authority	<i>Canon de regulación</i> (dams) and <i>Tarifa de utilización</i> (channels)
Water Distribution	Municipalities and Regional government	<i>Tarifa de abastecimiento</i> (Urban) <i>Cuota de distribución</i> (Irrigation)
Wastewater collection and treatment	Municipalities and Regional government	<i>Canon de Saneamiento</i> (only urban and industrial uses)
Control discharges	River Basin Authority	<i>Canon de Control de Vertidos</i> (only urban and industrial uses)

Main hydraulic infrastructures subject to tariffs in Júcar River Basin



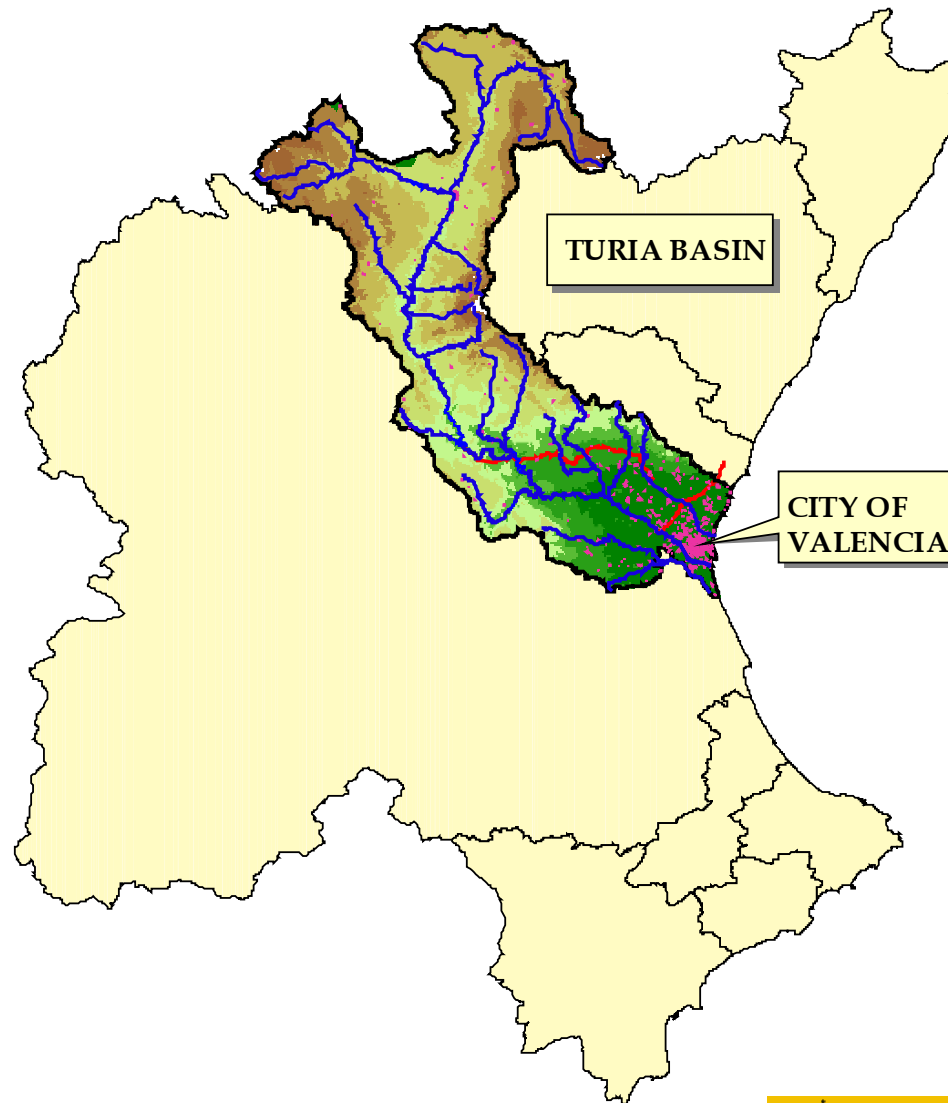
Collection of data for the 19 main hydraulic infrastructures (creation of databases)

Infraestructuras. Cánones y costes

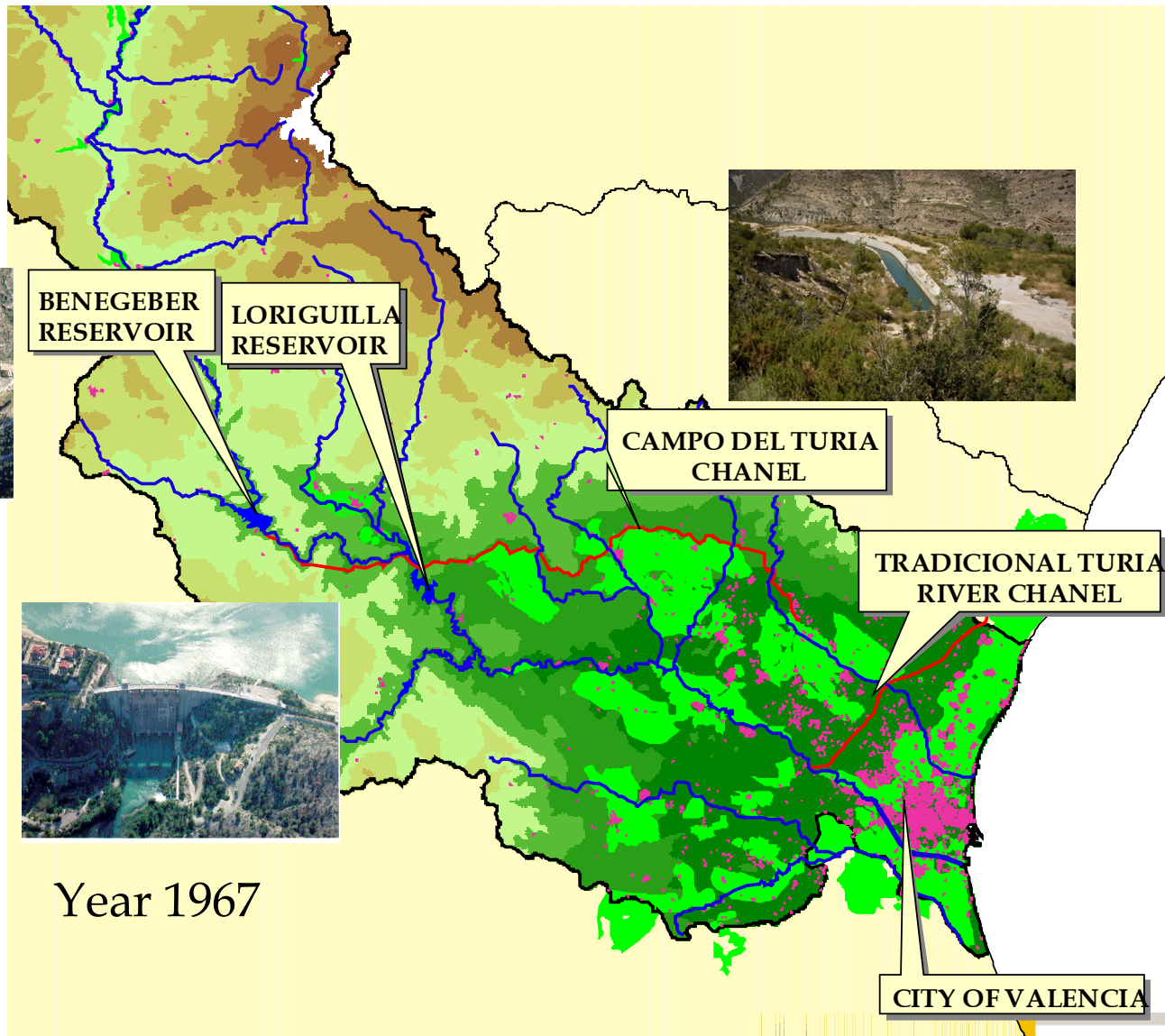
Número	Nombre	Descuento Lam.	Nombre Sist. Explotación
1	ULLDECONA	20% Ulldecona	CENIA-MAESTRAZGO
2	ALCORA	30% Alcora	MIJARES-PLANA DE CASTELLON
3	ARENÓS-SICHAR	20% Arenos y 20% Sichar	MIJARES-PLANA DE CASTELLON
4	CANAL COTA 100		MIJARES-PLANA DE CASTELLON
5	CANAL COTA 220		MIJARES-PLANA DE CASTELLON
6	CANAL TRAMO COMÚN		MIJARES-PLANA DE CASTELLON
7	MARIA CRISTINA	70% Maria Cristina	MIJARES-PLANA DE CASTELLON
8	REGAJO	25% Regajo	PALANCIA Y LOS VALLES
9	ARQUILLO DE SAN BLAS	80% Arquillo de San Blas	TURIA
10	BENAGEBER-LORIGUILLA	15% Benageber 50% Loriguilla	TURIA
11	CANAL PRINCIPAL CAMPO DEL TURIA		TURIA
12	ALARCÓN y TOUS	15% Alarcón 71,64% Tous	JUCAR
13	CANAL MARGEN IZQUIERDA DEL RÍO MAGRO		JUCAR
14	CANAL TRAMO COMÚN Y MARGEN IZQUIERDA		JUCAR
15	CONTRERAS CANAL JÚCAR-TURIA	15% Contreras	JUCAR
▶ 16	FORATA	15% Forata	JUCAR
17	BENIARRÉS	20% Beniarrés	SERPIS
18	ALGAR-GUADALEST	15% Guadalest	MARINA BAJA
19	AMADORIO	15% Amadorio	MARINA BAJA



Case study: Benageber-Loriguilla system



Main hydraulic infrastructure at Benageber-Loriguilla System



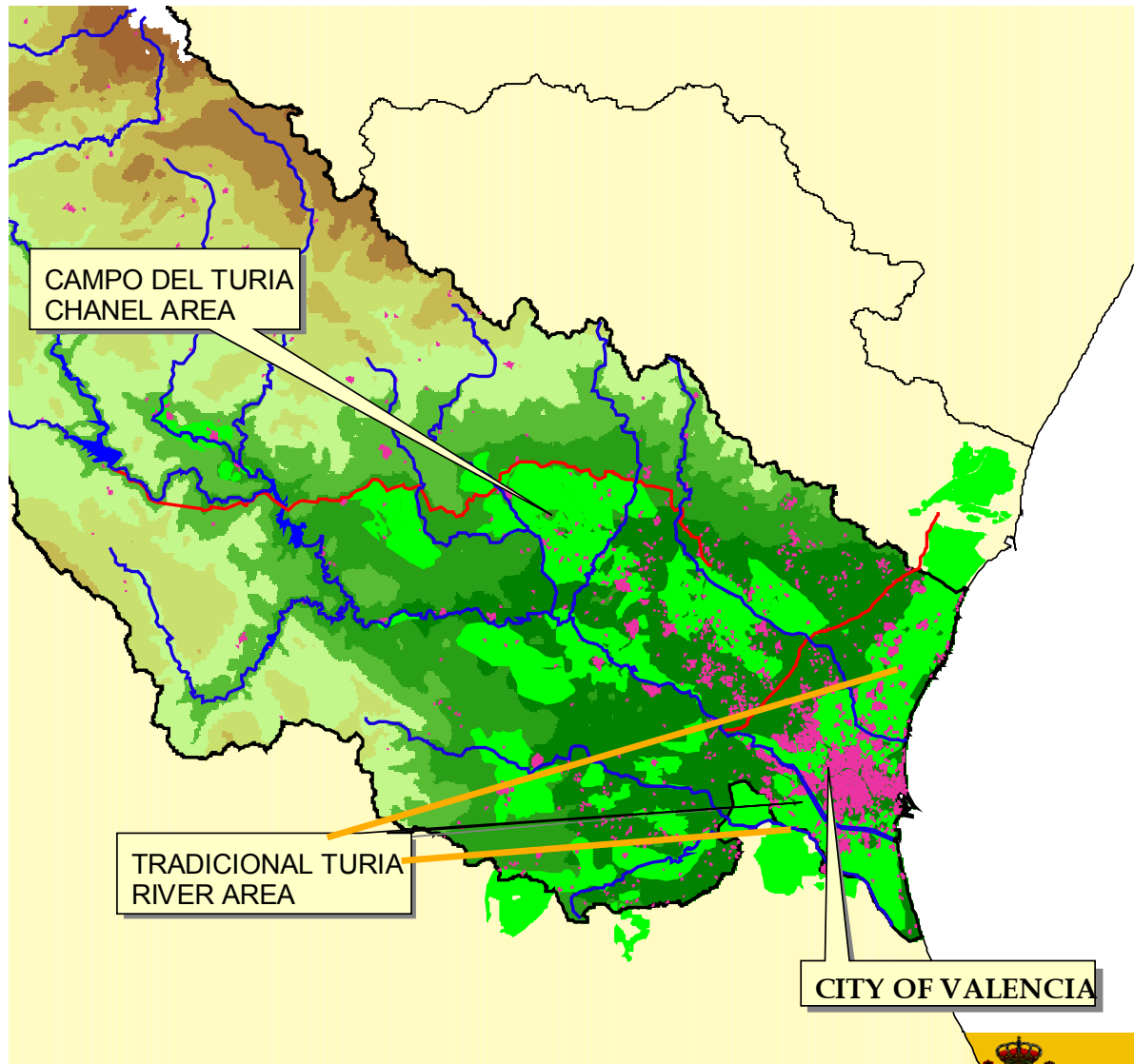
Year 1955



Year 1967



Main users at Benageber-Loriguilla System



Urban:

- City of Valencia

Irrigation:

- *Traditional Turia river area*
- *Campo del Turia channel area*



Example of data to calculate the tax for cost recovery of costs of dams: data for Benageber and Loriguilla reservoirs

Infraestructuras. Cánones y costes

Infraestructura: 10 BENAGEBER-LORIGUILLA Buscar

Descripción Costes de la Infraestructura Histórico de cánones devengados Usuarios afectados Cánones aplicados

Sistema Explotación: 4 TURIA

Descuento por lami. de avenidas: 15% Benageber 50% Loriguilla

Código Embalse 1: 08014 BENAGEBER

Código Embalse 2: 08016 LORIGUILLA

Código Canal 1:

Código Canal 2:

Decreto: Resolución de Secretaría de Est.

Infraestructuras. Cánones y costes

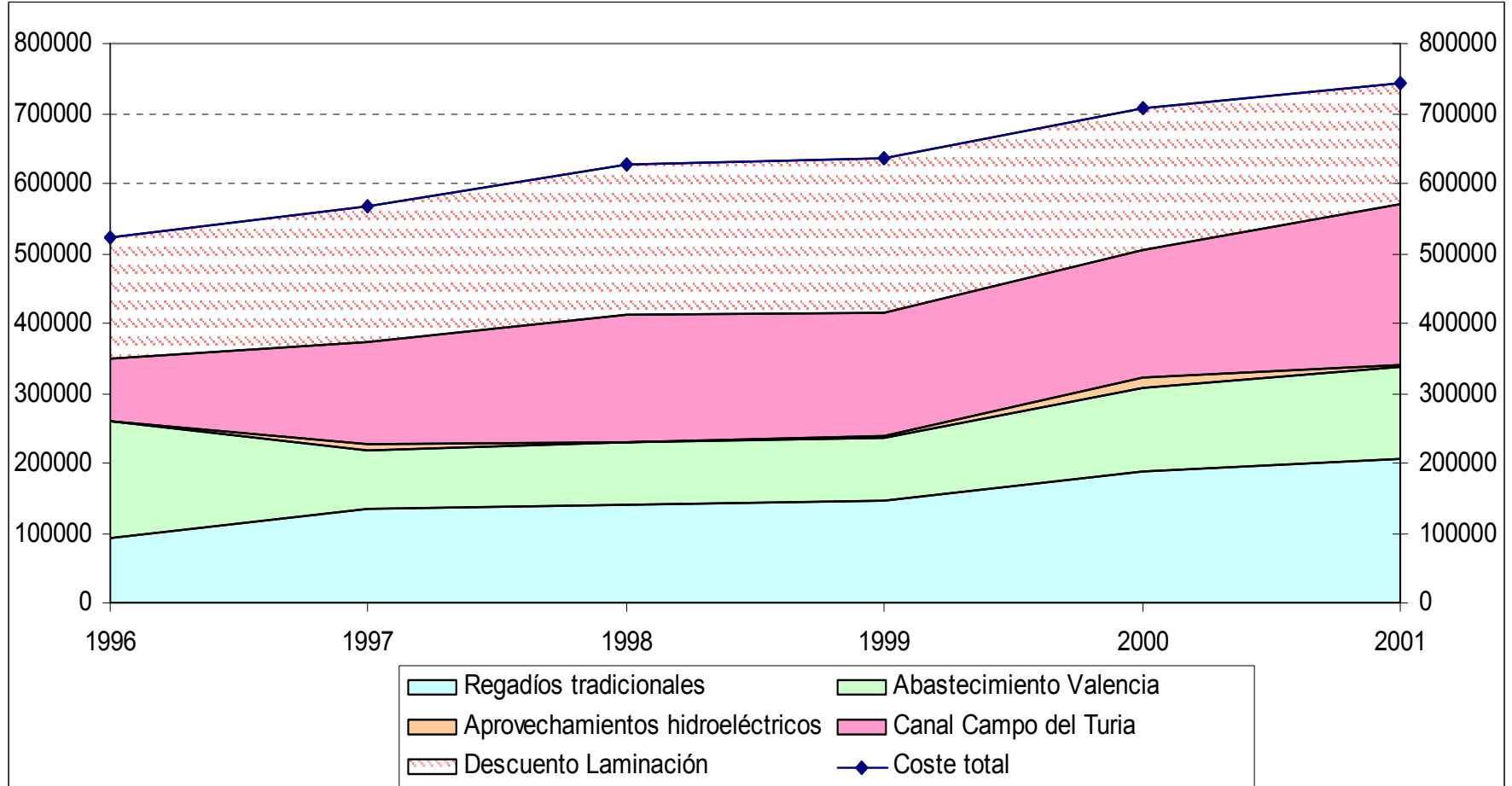
Infraestructura: 10 BENAGEBER-LORIGUILLA Buscar

Descripción Costes de la Infraestructura Histórico de cánones devengados Usuarios afectados Cánones aplicados

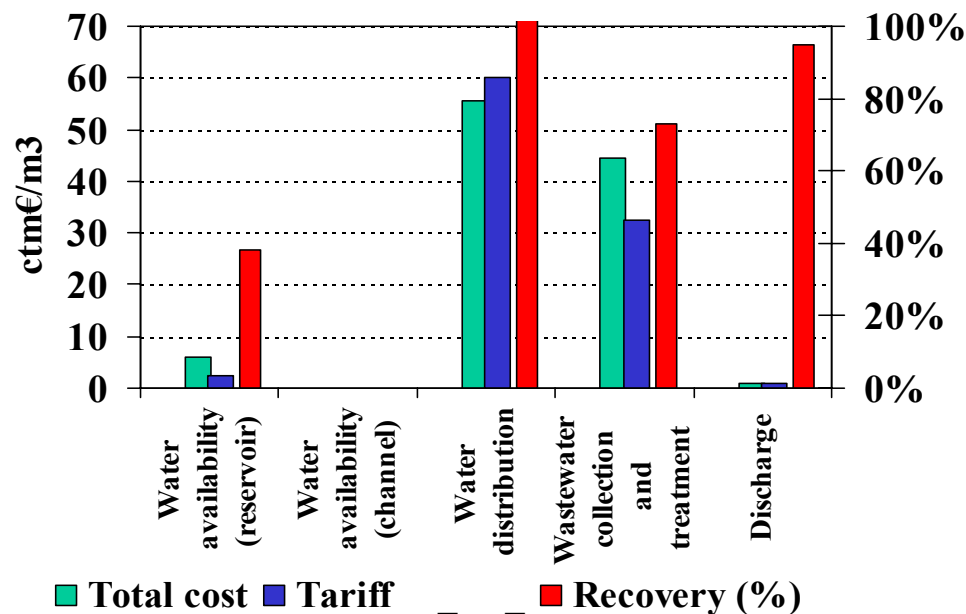
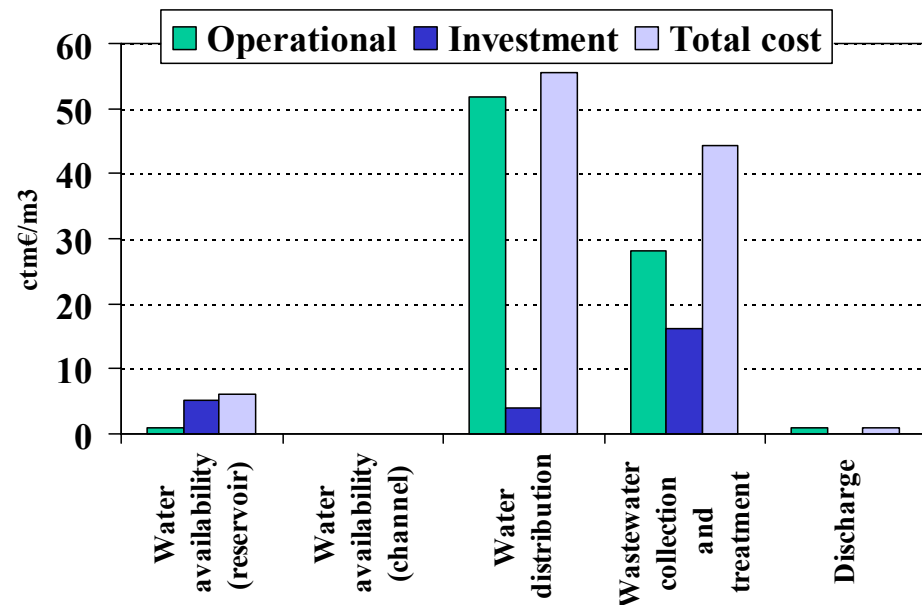
Anu.Cos	Coste Directo €	Coste Indirecto €	An	Amortización €	Suma
▶ 1996	168,912.19	314,993.04	00	37,897.18	521,802.41
1997	157,318.42	324,468.87	00	86,058.42	567,845.71
1998	168,900.90	367,553.14	00	91,370.75	627,824.79
1999	196,764.17	349,326.62	00	89,392.11	635,482.90
2000	230,763.96	387,912.02	00	88,361.92	707,037.90
2001	252,058.47	401,674.71	00	89,154.45	742,887.63
*					

Registro: 1 de 6

Evolution of income from tax on dams for Benageber and Loriguilla reservoirs from different types of users

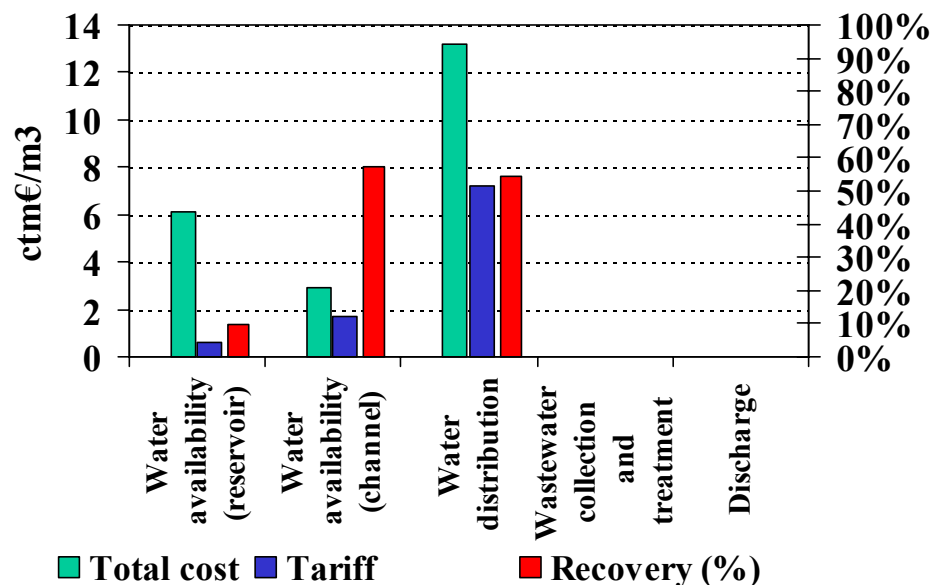
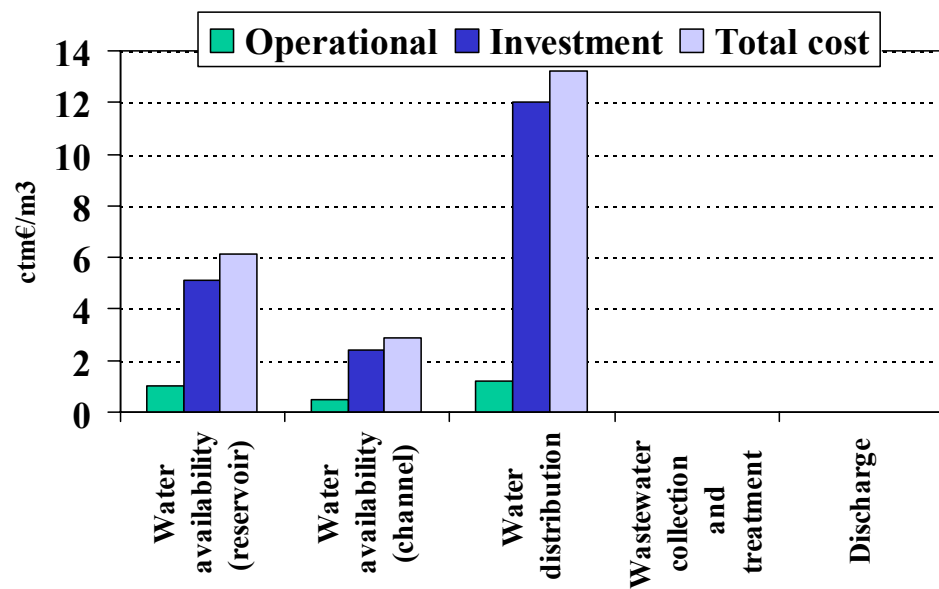


Structure of costs and total income from tariffs for urban users of Valencia city for the different “water services”



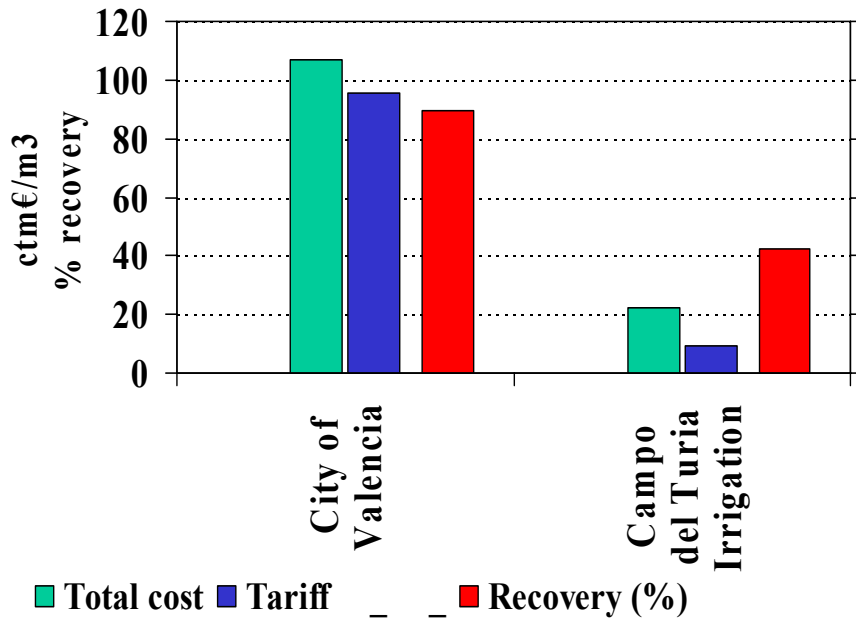
Replace cost for dams have been assumed

Costs and income from tariffs for irrigation users of *Campo del Turia* channel for the different “water services”

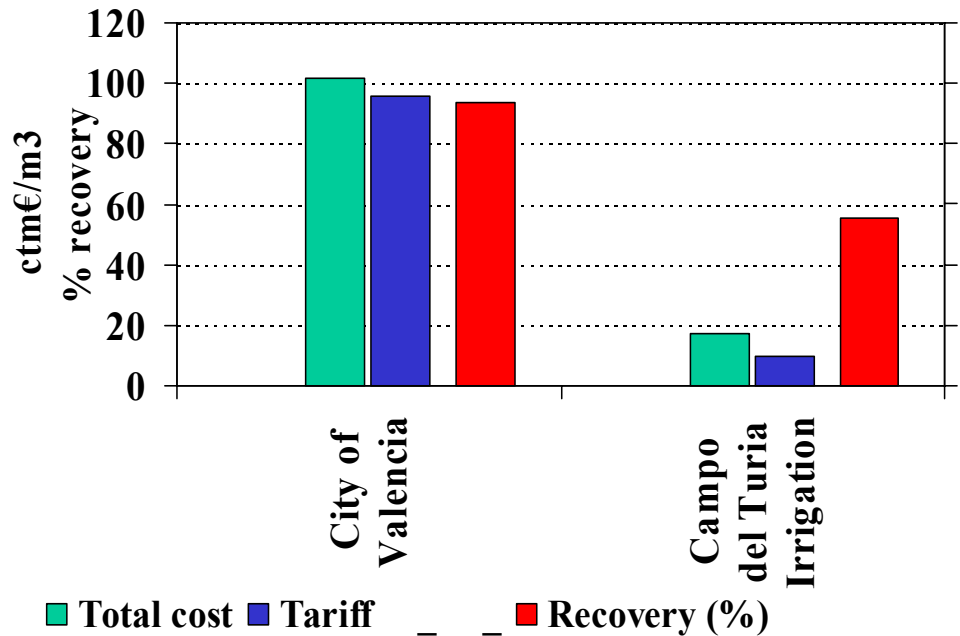


Replacement cost for dams have been assumed

Summary of Total costs and total income from tariffs for main users for all services



Cost considering new dams



Cost considering amortization completed