



Water in Africa: Hydro-Pessimism or Hydro-Optimism?

Água em África: Hidro-pessimismo ou Hidro-optimismo

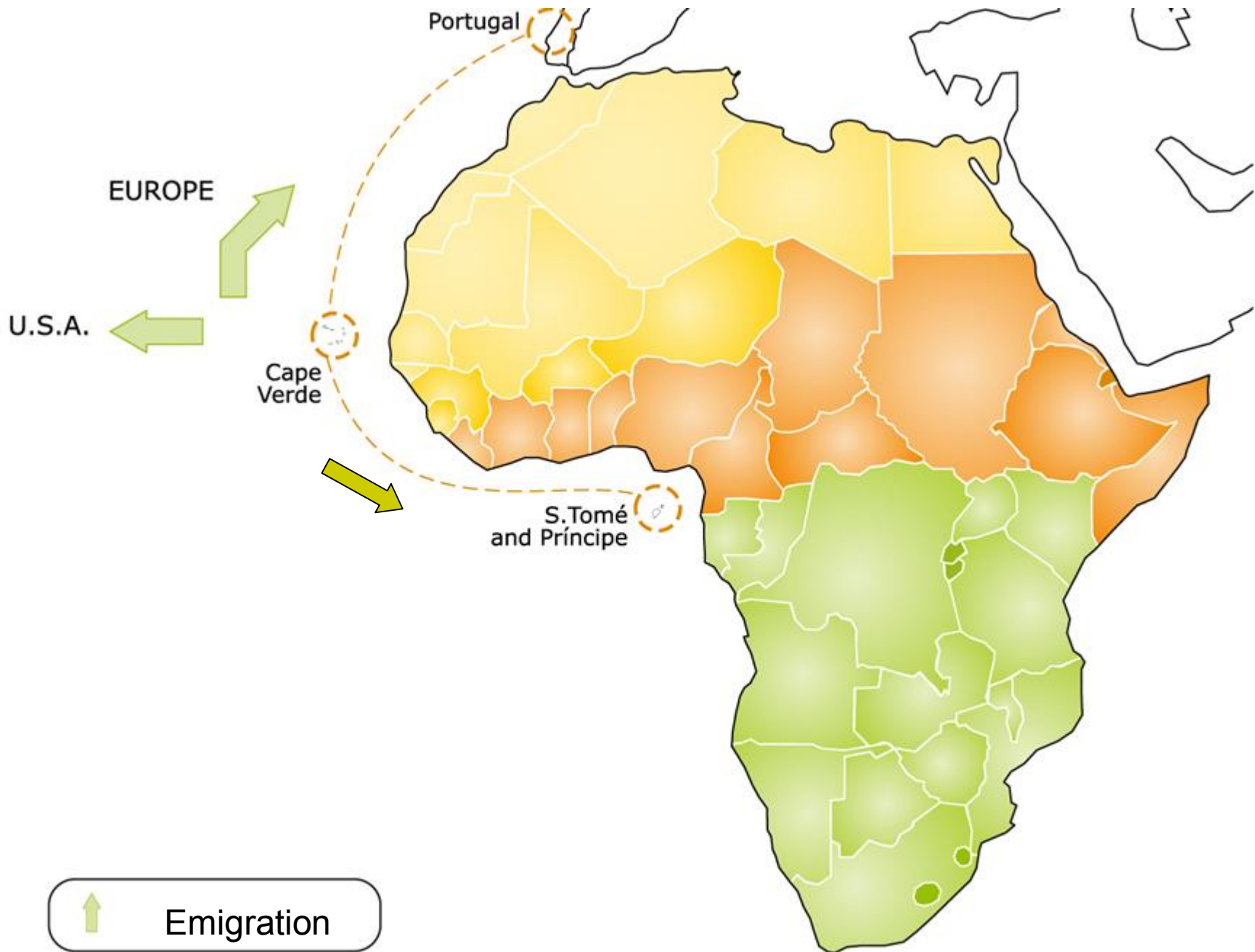
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The Water issue in Cape Verde: desalination and reuse of ETARs/RWTS's water

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Water Laws and Manager institutions

Water Code /Law n° 41/11/84	1984	Directed instrument
The Water National Council/ CNAG	1984	Sector management
National Institute of Hydrous Resources Management / INGRH	1982	Technical assistance

Managing entities of water and sewage sectors

Entities	Islands/ Regions		Population with Access to Drinking water
ELECTRA	Localities with desalination factories)	Praia Mindelo Sal Boavista	16%
Municipalities	Populations without connection with the net of drinking water - /public fountains	Santiago S. Vicente Santo Antão S. Nicolau	20,7%
ADA (Agency of Water Distribution in Praia City)	Supplementary with autank	Praia Town	19,2%
SAAS (Independent Services of Water and Sanitation)	Other islands or towns with some type of net drinking water	Some towns of Santiago Maio Brava Fogo	41,8%
Private companies	Supplementary with private auto tank	Santiago S. Vicente	Without importance
INGRH	Holes of the agricultural zones	Boavista S. Nicolau, Santiago	2,3%

Desalination stations

ELECTRA

- Sal Island
- Boavista Island
- S. Vicente Island/Mindelo
- Santiago Island/ Praia city



 Desalination stations

Water Production by ELECTRA desalinated water

(thousands of m3)

	1992	1996	2000	2001	2002	2004	2005	2006	2007
S.Vicente	676	1.016	1.048	1.103	1.144	1.088	1.285	1.379	1.289
Santiago/ Praia	n.d.	1.136	1.444	1.337	1.908	2.345	2.246	2.124	2.202
Salt	200	269	461	503	519	594	668	744	668
Boavista	Nd	25	44	62	67	59	64	63	54
TOTAL	876	2.446	2.997	3.005	3.638	4.086	4.263	4.310	4.213

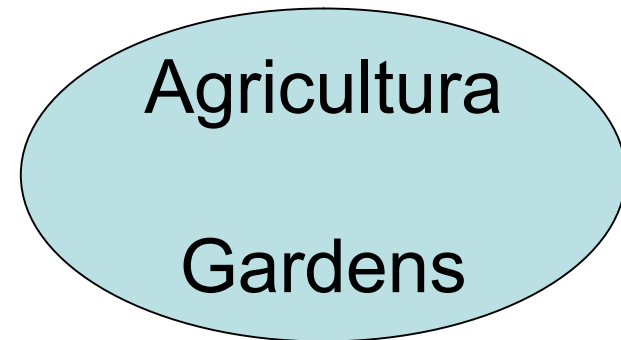
Coverage drinking water rate 2000-2006

- Country 77,9%(2000) → 84,9 (2006)
- Urban zones 75,9 (2000) → 93,0 (2006)
- Rural zones 60,9% → 77,0 (2006)

SANITATION

- Praia's RWTS/ETAR – Does not reuse

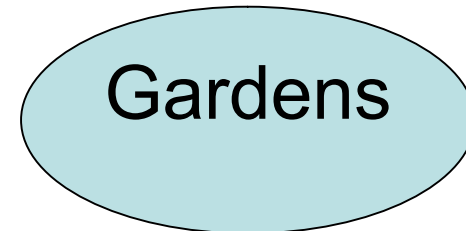
- Mindelo's RWTS/ETAR
Reuses



1994-95 – Project *Mise en value des eaux usées recyclées de Mindelo à fins agricoles*

2003 - Project PARI (Project to reuse the wastewater for Irrigation)

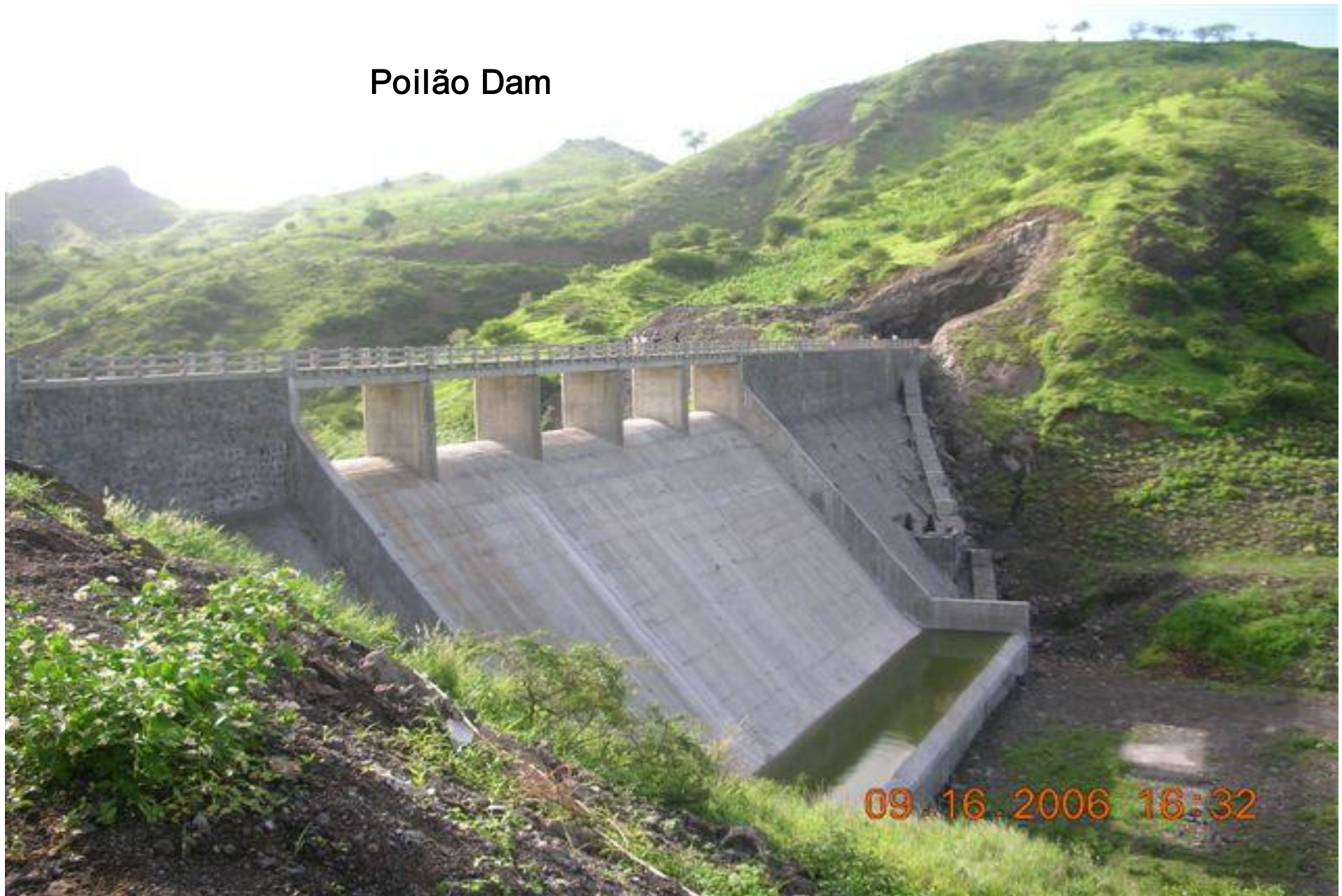
- SAL RWTS/ETAR – Reuses



Sanitation

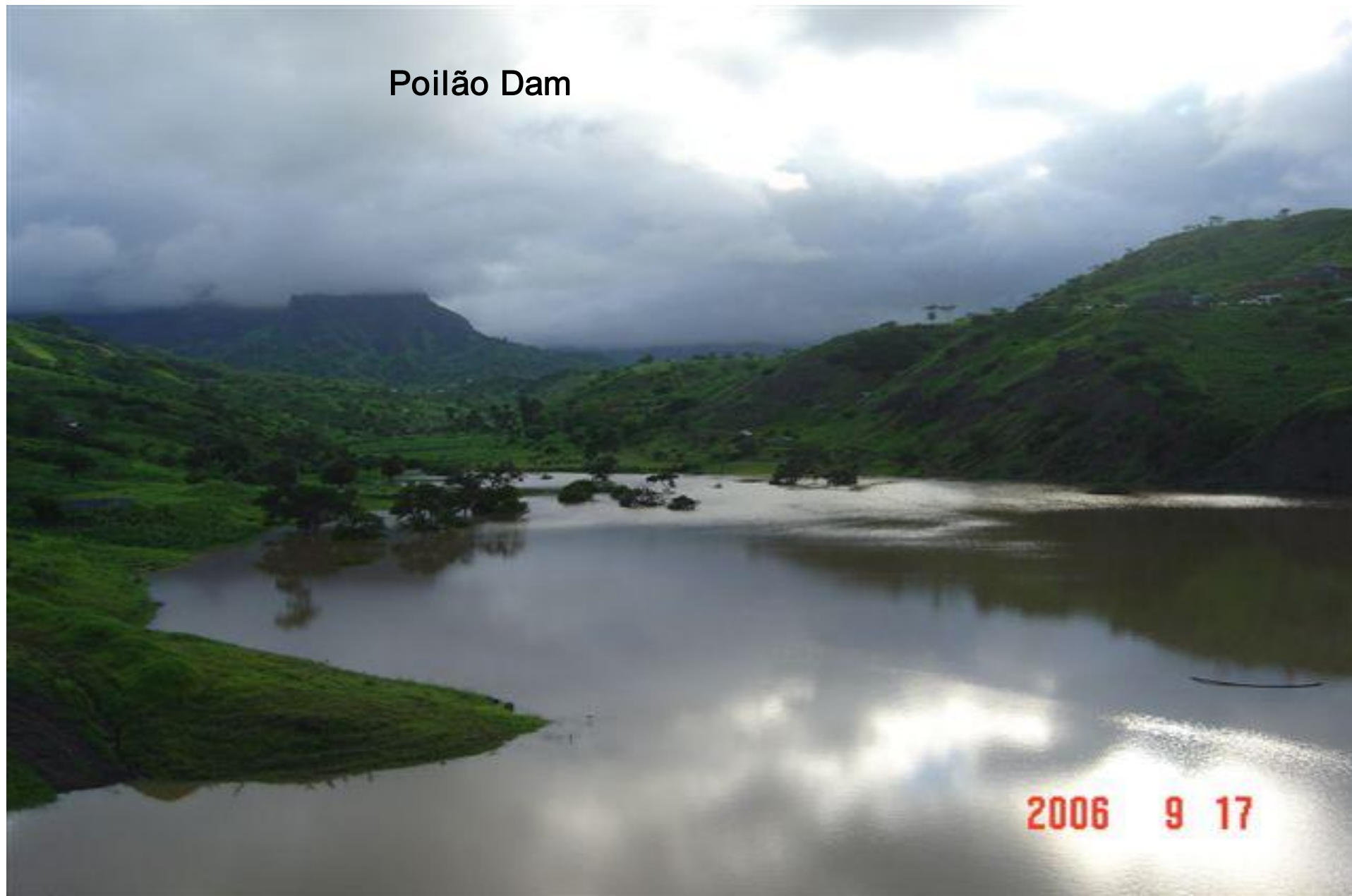
- Causes of Insufficient reuse of treated wastewater
 - Not secondary and tertiary treatment at Praia's RWTS (Residual Water Treatment Stations)/ETARs
 - Many malfunctions in the functioning of Mindelo's RWTS/ETARs
 - Reduced sewage network at Praia and Mindelo

Poilão Dam



Fonte: Júlio César Morais
<http://caboindex.com/blog/barragem>

Poilão Dam



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Water Origin Cape Verde

- **Desalination stations** – very important to drinking water
- **RWTSs/ETARs** – Important to reused water (agriculture and gardens)
- **Poilão Dam** – very important to agriculture
- **Underground waters** - Important to drinking water in rural zones