

# FINANCING RIVER BASIN MANAGEMENT: THE FRENCH EXPERIENCE

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THE FRENCH WATER AGENCIES

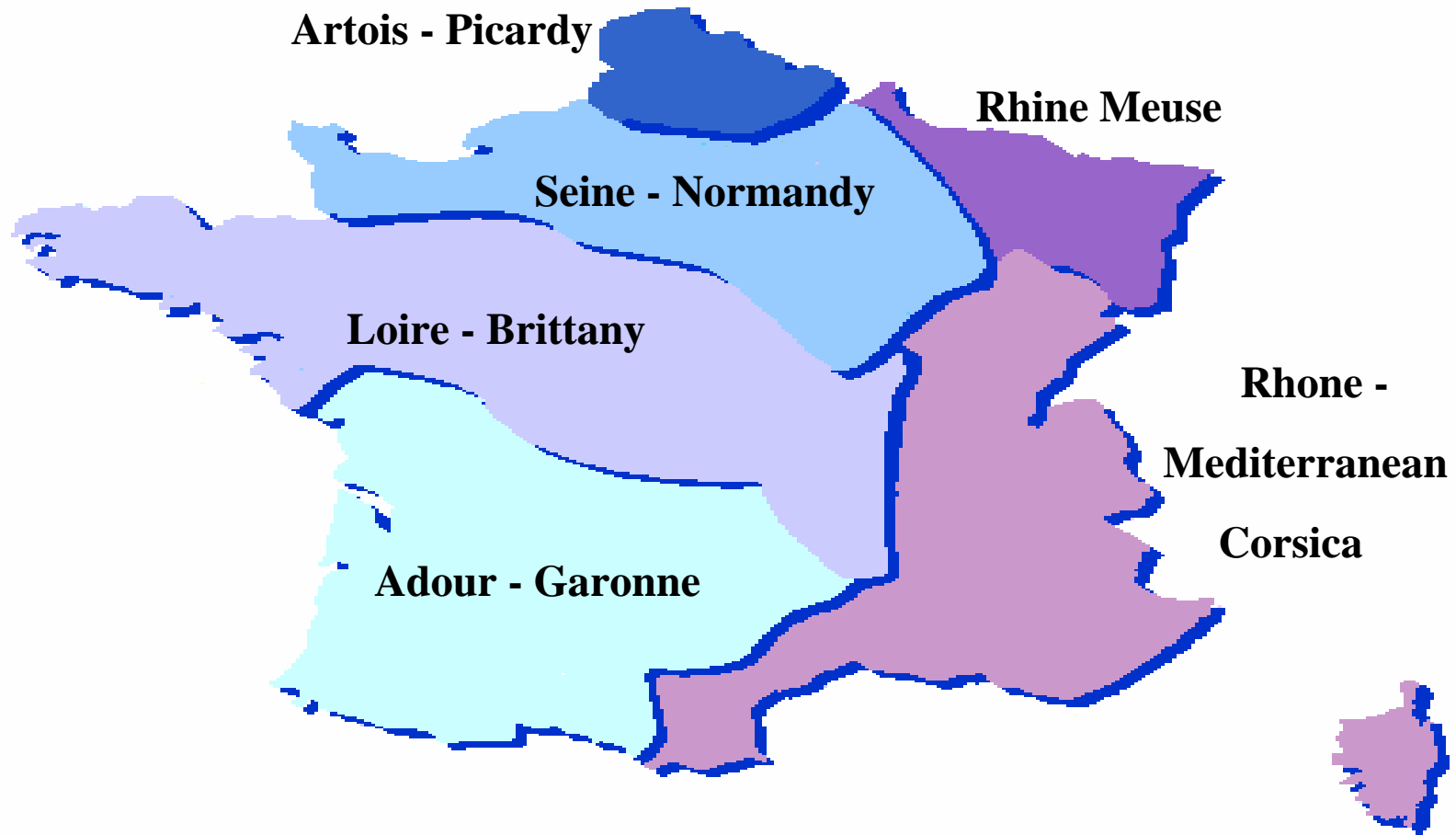
**A new concept issued from  
the Water Law of December 16, 1964 :**

**Water management through river basins :**

- » an adapted geographic unit
- » resource unity and global approach
- » participation of water users  
to the decision-making process  
and...
- » **solidarity principle = "User-Polluter-Pays"**



## THE RIVER BASINS



## THE WATER AGENCY **IS NOT**

- An administration,
- An organization in charge of water policy,
- A contracting authority,
- A development company.

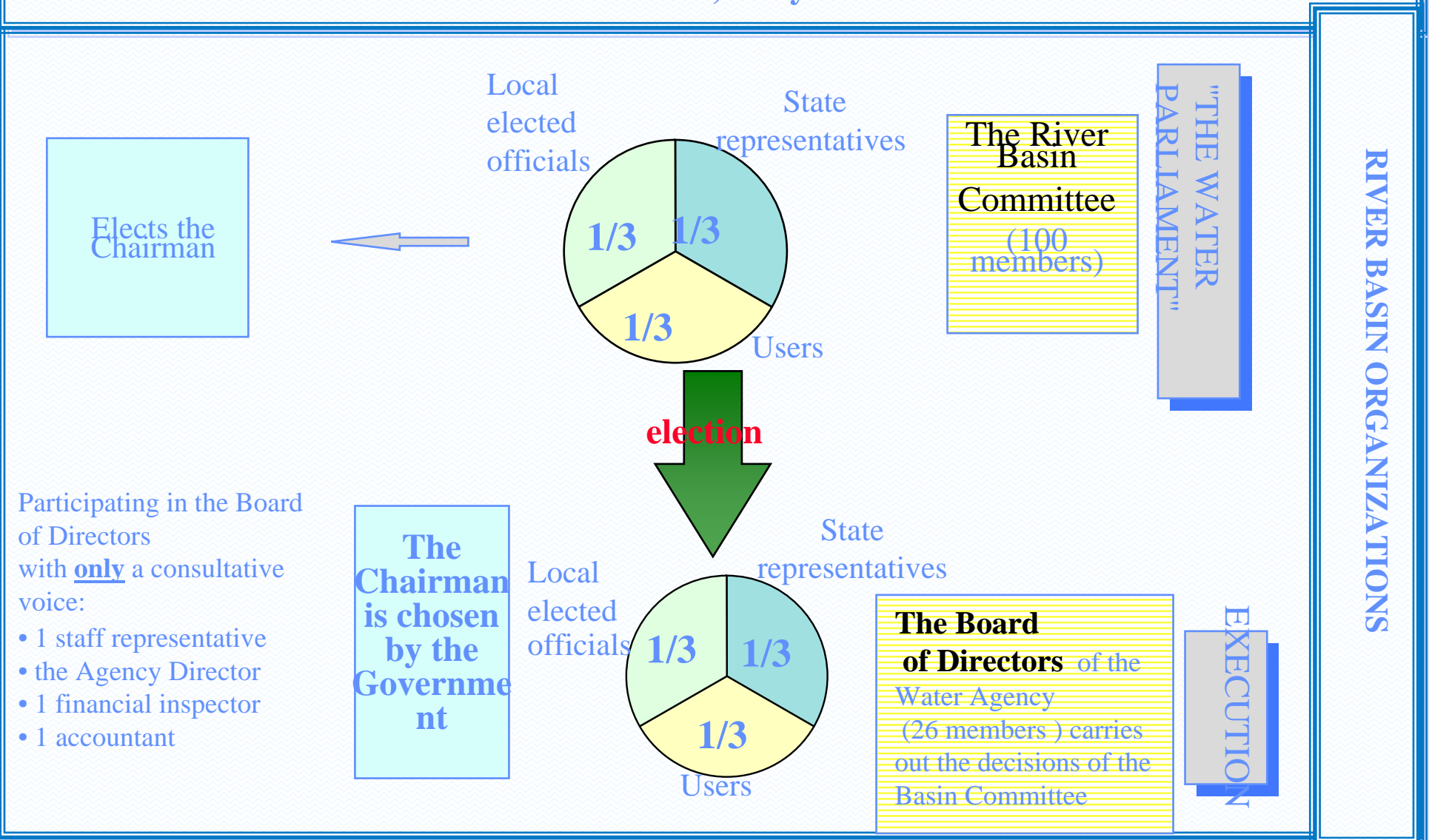


**THE WATER AGENCY IS  
A PUBLIC INSTITUTION OF AN  
ADMINISTRATIVE NATURE IN CHARGE OF:**

- **Levying water charges**  
(pollution and withdrawal)
- **Reallocating the collected funds**  
through technical and financial support
- **Collecting data on the environment**
- **Informing the public**



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## THE RIVER BASIN COMMITTEE

### GIVES ADVICE ON :

- The Agency's multi-annual action programs
- The rate of water charges levied by the Agency



## SELF-SUPPORTING AGENCIES

Water Agencies apply the "**POLLUTER-USER-PAYS**" principle.

Their financial resources come from water charges or fees levied from users, the amount of which is proportional to the withdrawn or consumed water volume, to the discharged pollution or to the impact on the environment.

Water charges are calculated by each Agency according to basin priorities after taking advice from the River Basin Committee.

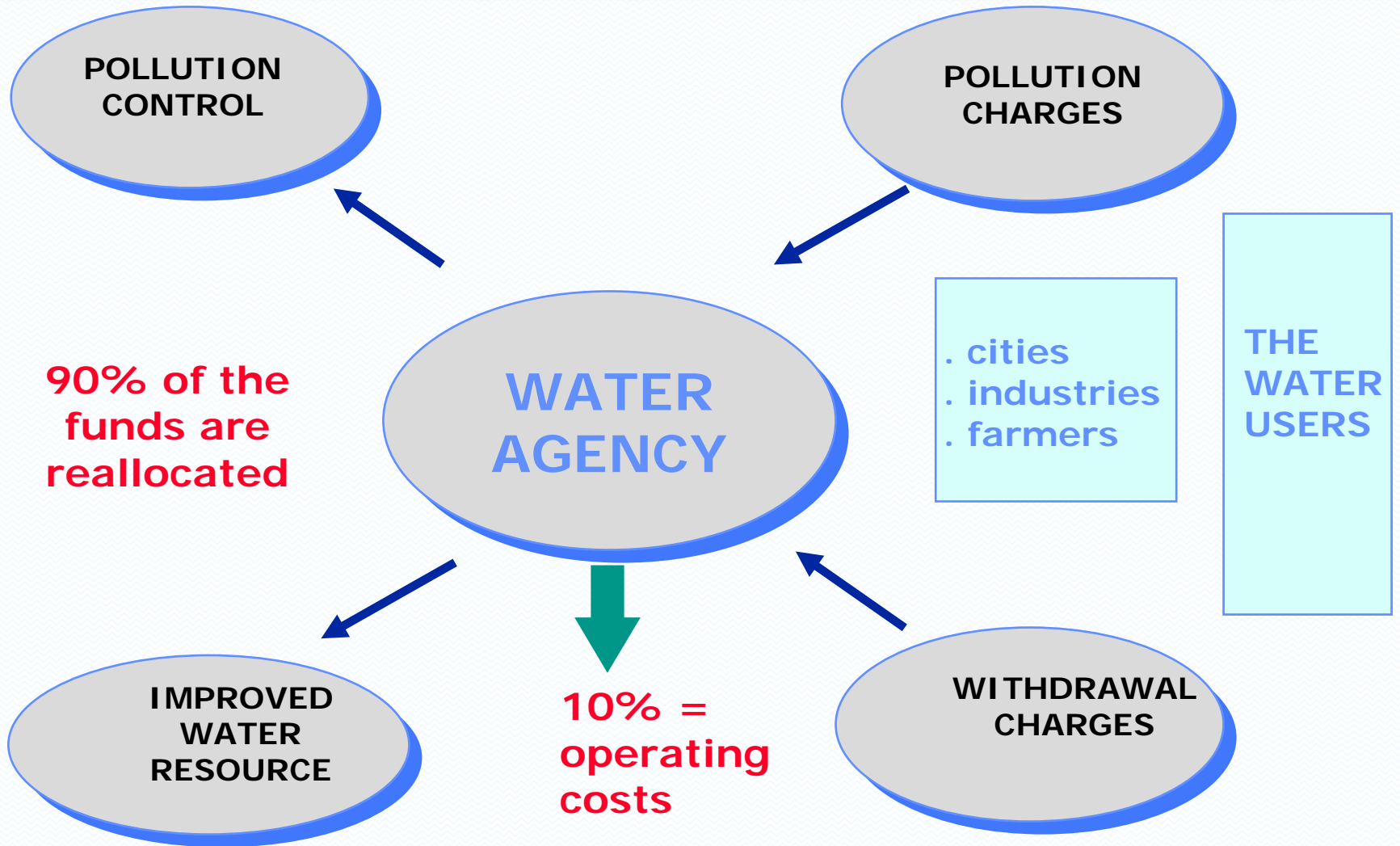


## SELF-SUPPORTING AGENCIES

Water charges are reallocated through **technical and financial support** to municipalities, industries, and farmers to undertake the works necessary for preserving water resources and protecting aquatic media, within the framework of the **five-year action program.**



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## WATER CHARGES

 **WHO WITHDRAWS  
WATER MUST PAY**

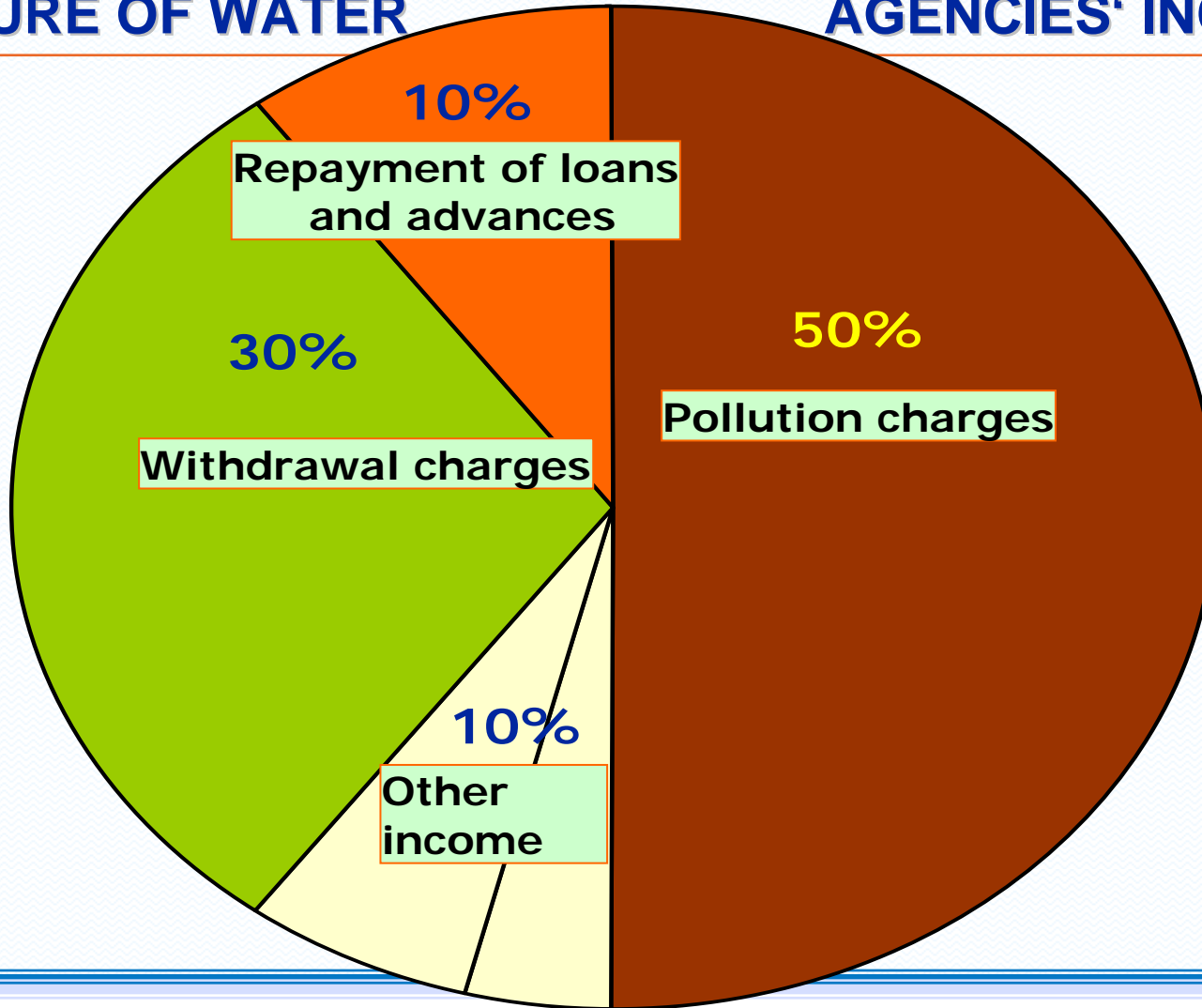
 **WHO POLLUTES WATER  
MUST PAY**



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**STRUCTURE OF WATER**

**AGENCIES' INCOME**



International Office  
For Water

Denis FOURMEAU  
Deputy General Manager

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## THE AGENCIES' WATER CHARGES FOR DISCHARGED POLLUTION

(Average : depending on areas sensitivity)

 MUNICIPALITIES > 400 inhabitants

Around 24.00 \$/inhab/year. That is 0.35 \$/m<sup>3</sup> consumed

 INDUSTRIES > 200 inhabitants-equivalents

Suspended solids	\$ 26 / kg / day
Oxidizable matters	\$ 60 / kg / day
Salts	\$ 555 / kg / day
Nitrogenous matters	\$ 57 / kg / day
Toxics	\$ 1,112 / kg / day
Metals	\$ 316 / kg / day
Adsorbable Organo-halogens	\$ 298 / kg / day
Phosphorus	\$ 45 / kg / day



## WATER CHARGES PER YEAR

**\$ 24 inhabitant / year in France, equivalent to :**

- 2 hours of an average salary
- 17 litres of petrol (today...)
- 3 bottles of good quality Bordeaux \*
- 6 packs of cigarettes

\* « Drink with moderation » ☺



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PARAMETERS TAKEN INTO ACCOUNT TO ESTABLISH  
THE LEVEL OF CHARGES

<u>PARAMETERS</u>	<u>APPLICATION DATE</u>
SS	1969
OM (1/3 COD + 2/3 BOD <sub>5</sub> )	1969
SALINITY	1973
PHOSPHOROUS MATTERS	1982
NITROGENOUS MATTERS	1982
COLLECTION COEFFICIENT	1983
METOX (Hg-Cd - As-Pb - Ni-Ca - Cr-Zn)	1992
ORGANO-HALOGENS	1992

FOCUS IS NOW ALSO PUT ON  
STORM WATER COLLECTION AND TREATMENT



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**POLLUTION RATE PER INHABITANT**

<b>90 g</b>	<b>SS</b>
<b>57 g</b>	<b>OM</b>
<b>15 g</b>	<b>N</b>
<b>4 g</b>	<b>P</b>
<b>0.05 g</b>	<b>OH</b>
<b>0.23 g</b>	<b>METOX</b>

**NB: 1 cow = 37 equivalent-inhabitants...**

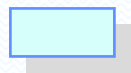


## Water charges paid by:

- **polluters**  
(cities, industries, stockbreeders)
- **water users**  
(cities, industries, irrigation users)

form a system of **economic incentive**





**WHO INCREASES THE  
AVAILABLE RESOURCE  
IS HELPED**



**WHO DECONTAMINATES  
IS HELPED**



## SUPPORT OF WATER AGENCIES <sup>(1)</sup>

\*

### SUPPORT AS

- subsidies
- loans without interest (LWI) over 10 years with repayment deferral

\*

### SUPPORT AT MODULATED RATES DEPENDING ON ZONE SENSITIVITY



#### MUNICIPALITIES OR SYNDICATES

- Surveys : 50 %
- Works : 30-50 %



#### INDUSTRIES OR FEEDLOTS

- Surveys : 50 %
- Works :
  - existing installations : 70-90 %
  - installations to be set up: 50 %

(1) Example : Loire-Brittany Water Agency



## WHAT IS BEING DONE FOR QUALITY ?

- Development plans and schemes for an efficient planning (Definition of investment priorities)
- Funding studies and works to develop/ rehabilitate/ improve:
  - Treatment plants
  - Sewerage networks and their collection efficiency
  - Storm water collection and treatment facilities
  - Drainage systems
  - Wastes disposal
  - Prevention of accidental pollution
  - Protection of intake areas
- Technical assistance for treatment plants



## WHAT IS BEING DONE FOR QUANTITY ?

- Development plans and schemes for an efficient planning  
(Definition of investment priorities)
  
- Funding studies and works:
  - Dams
  - Treatment plants
  - Networks
  - Extraction of groundwater
  - Potable water reservoirs



**THE TWO FUNDAMENTAL PRINCIPLES**  
**"USER -POLLUTER PAYS" and "WATER MUST PAY FOR WATER"**

To improve water resources management, and  
to control pollution, the Water Agency

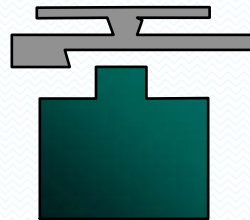
levies water charges:

Withdrawal and consumption  
charges:

- local communities
- industries
- agriculture

Pollution charges:

- local communities
- industries



that are reallocated to finance:

- River development
- Treatment plants of communities
- Sewerage networks
- Potable water supply
- Dam-reservoirs
- Protection of intake areas
- Industrial decontamination
- Monitoring networks
- Studies
- etc...



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**FINANCIAL AID OF THE SIX AGENCIES  
(US \$ million)**

	<b>82-86</b>	<b>87-91</b>	<b>92-96</b>	<b>97-2002</b>
<b>Funding</b>	<b>2,370</b>	<b>3,100</b>	<b>6,300</b>	<b>8,500</b>
<b>Work amount</b>	<b>6,000</b>	<b>7,700</b>	<b>15,000</b>	<b>18,000</b>

**WHY THIS HUGE JUMP AFTER 1991?**



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## The European Urban Waste Water Directive (91/271/EEC)

- 1/ Approach by agglomeration  
=> relevant area of pollution production
- 2/ appropriate treatment for collected waste water becomes compulsory for agglomerations of less than 2000 p.e
- 3/ collection and secondary biological treatment become compulsory for agglomeration of more than 2000 p.e

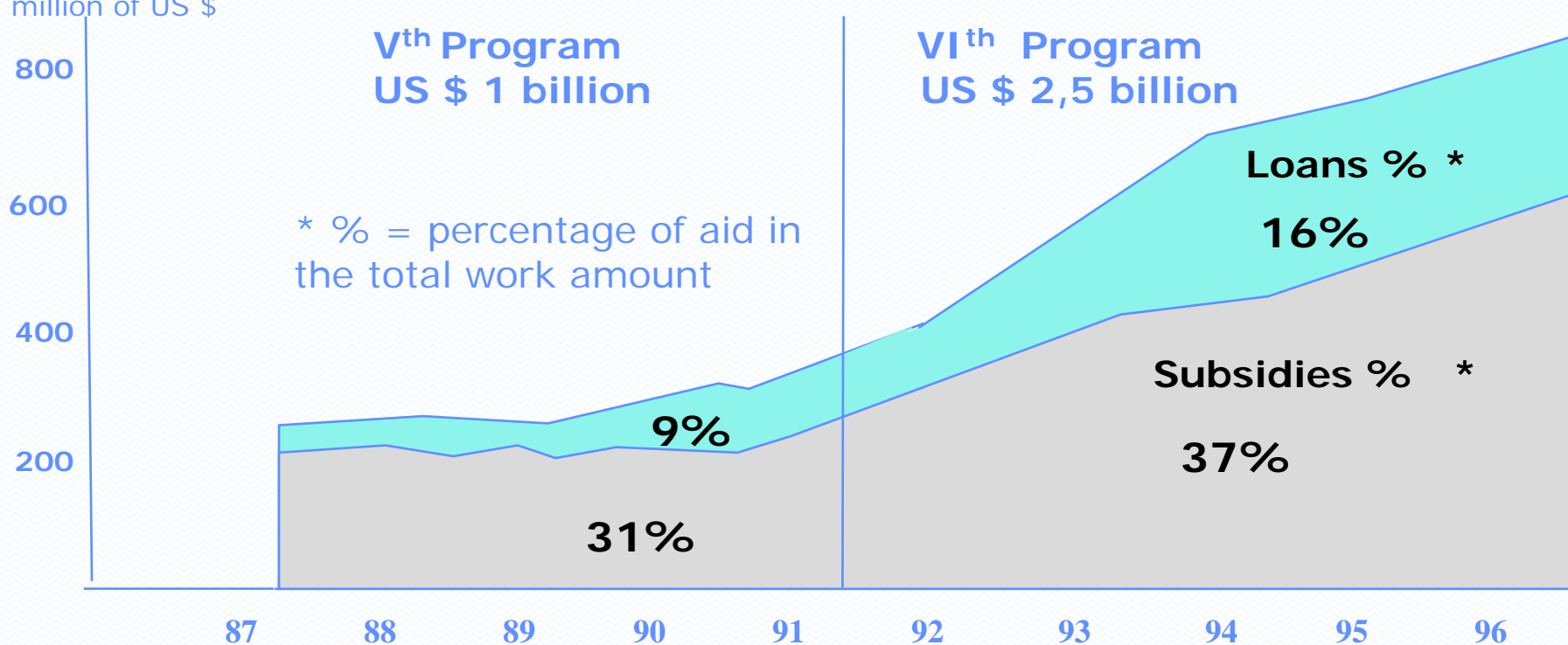


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## IMPACT ON FUNDING OF THE VI<sup>th</sup> PROGRAMME OF SEINE-NORMANDY AGENCY

An aid amounting to **US \$ 2,5 billion** and  
corresponding to an investment for **4,9 billion works**

AID  
in million of US \$



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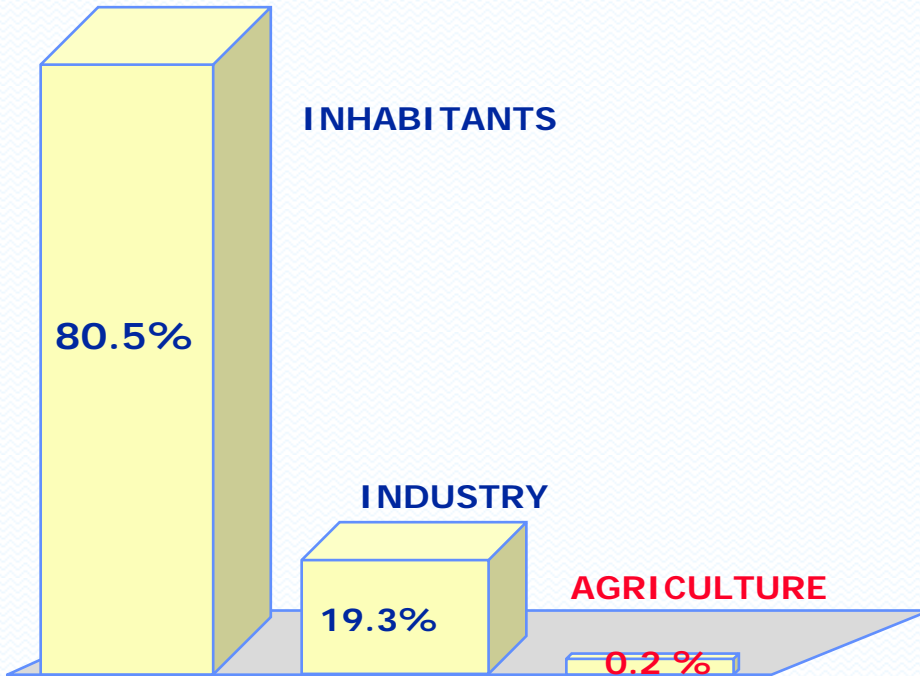
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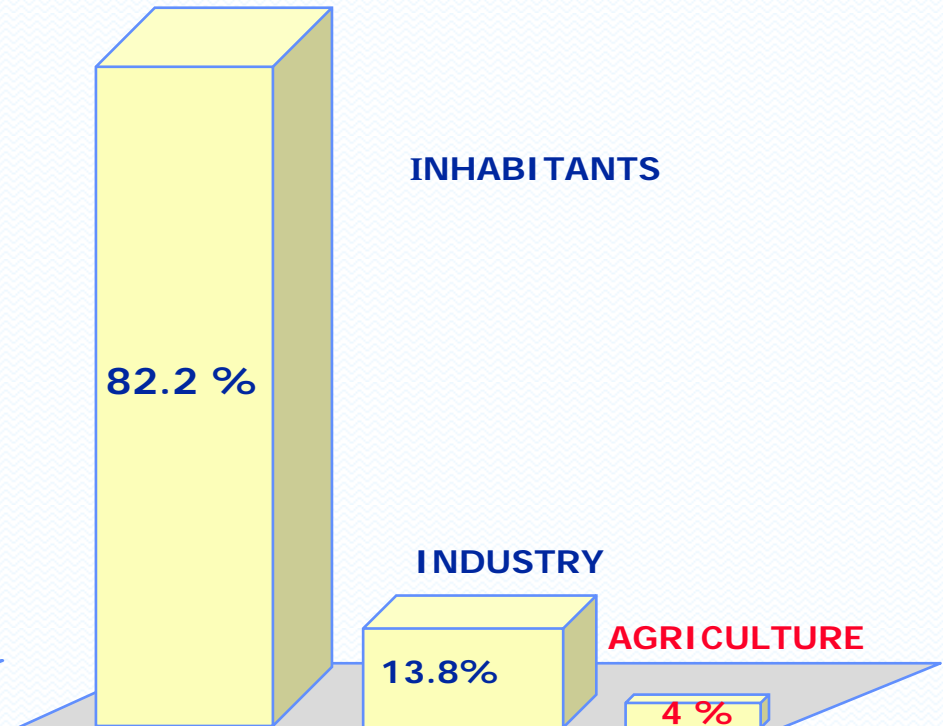


ORIGIN OF WATER CHARGES  
SEINE - NORMANDY WATER AGENCY

1987-1991  
(US \$ 1 billion)



1992-1996  
(US \$ 2,5 billion)



## FIRST LESSONS AFTER 40 YEARS

- DELIVER FIRST, TAX SECOND !  
⇒ Need « Seed money » at the beginning
- DON'T BE TOO GREEDY !  
⇒ Implement new taxes gradually
- BEGIN WHERE IT IS THE EASIEST !  
⇒ Urban and industrialized areas before rural areas
- TAX THE SILENT MAJORITY !  
⇒ « Unfair is efficient » (and vice-versa!)
- ONCE RICH, REMAIN MODEST !  
(otherwise Government will steal your money!)



## FINANCING OF RIVER BASIN ORGANIZATIONS :

### VARIOUS COMPLEMENTARY SYSTEMS FOR COST RECOVERY

#### ADMINISTRATIVE TAXES : paid to the national budget.

- General taxes or fines
- New ecological taxes.

#### WATER-RELATED TAXES

- National taxes - transiting by "Special Treasury Accounts"
- River basin taxes - levied by the Water Agency

#### PRICING OF COMMUNITY SERVICES

- Price of raw water - levied by large regional planners
- Price of drinking water and sanitation - levied by municipalities or water suppliers



## FINANCING OF RIVER BASIN ORGANIZATIONS : EQUALIZATION OF FINANCIAL EFFORTS

-  **Local equalization:**  
in a single geographic area or river basin
-  **Sectoral equalization:**  
between public utilities - drinking water supply  
- electricity - sanitation - wastes ...
-  **Equalization between users:**  
the rich, the poor, big consumers / polluters,  
small consumers / polluters... (farmers/ domestic users...?)
-  **Equalization of functions:**  
between upper and lower river basins,  
between commercial services and administrative functions



## FINANCING OF RIVER BASIN ORGANIZATIONS :

**ALL THE USERS MUST CONTRIBUTE**

- The taxpayer :
  - income taxes
- The offender :
  - fines
- The user:
  - Water-related taxes
- The polluter:
  - price of community services
- The individual user:
  - price of his/her own works (or time)

**There is always somebody who pays somewhere!**

**THERE IS NO SUCH THING AS "FREE" WATER !**



## FOR MORE INFO:

- International Office for Water
  - [www.iowater.org](http://www.iowater.org)
- International Network of Basin Organizations
  - [www.inbo-news.org](http://www.inbo-news.org)

**THANK YOU! / SALAMAT PO!**



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**INTERNATIONAL NETWORK  
OF  
BASIN ORGANIZATIONS**

**TOGETHER FOR  
INTEGRATED WATER RESOURCE MANAGEMENT  
OVER THE WORLD**



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