

*Linking wellbeing priorities at the local  
scale and ecosystem services  
management at regional scale:  
The case of the Orotoy river basin  
(Colombia)*

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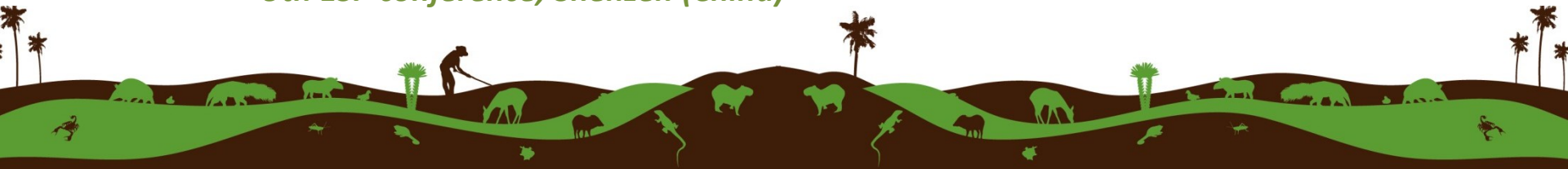


*T7 The role of social sciences in the ecosystem services valuation  
9th ESP conference, Shenzhen (China)*

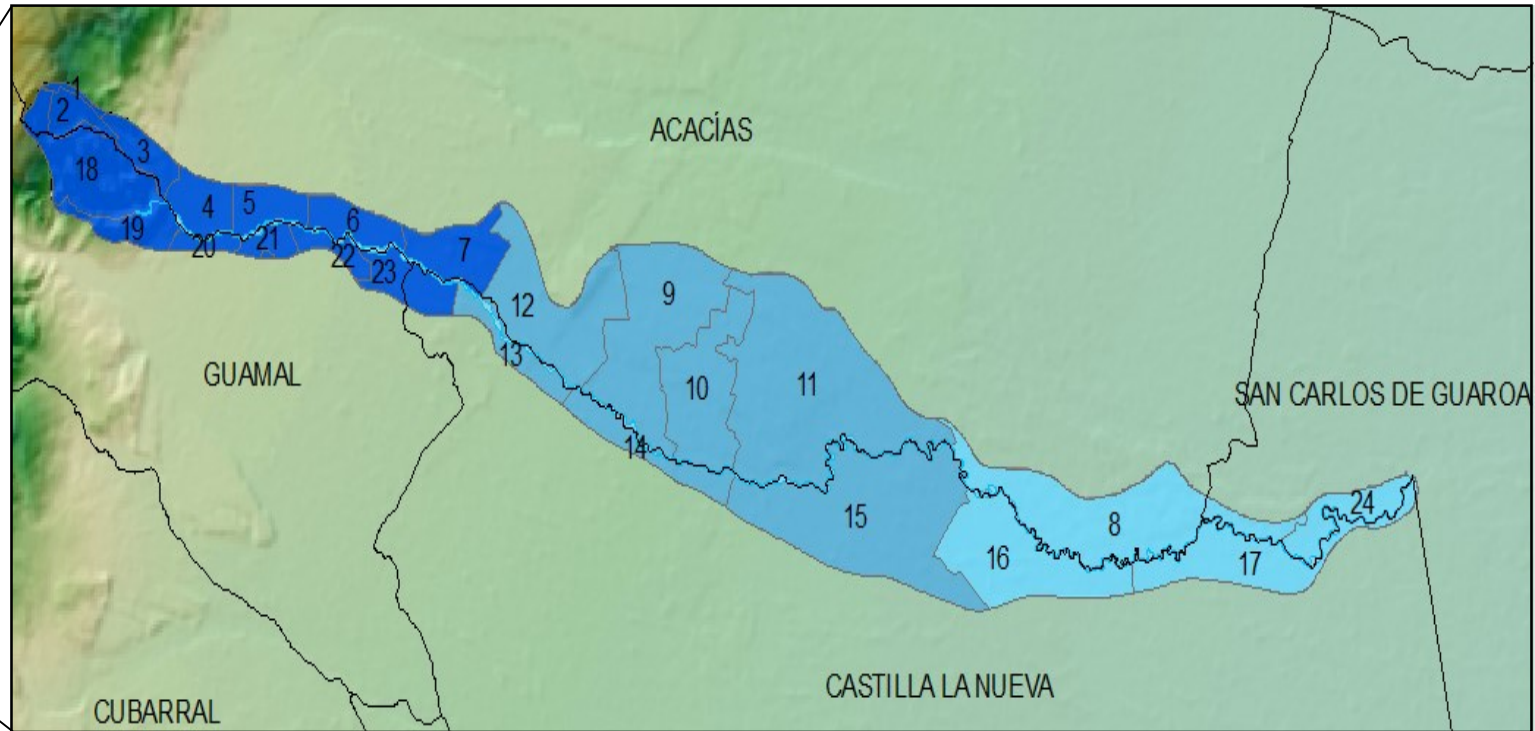


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## The Orotoy river basin

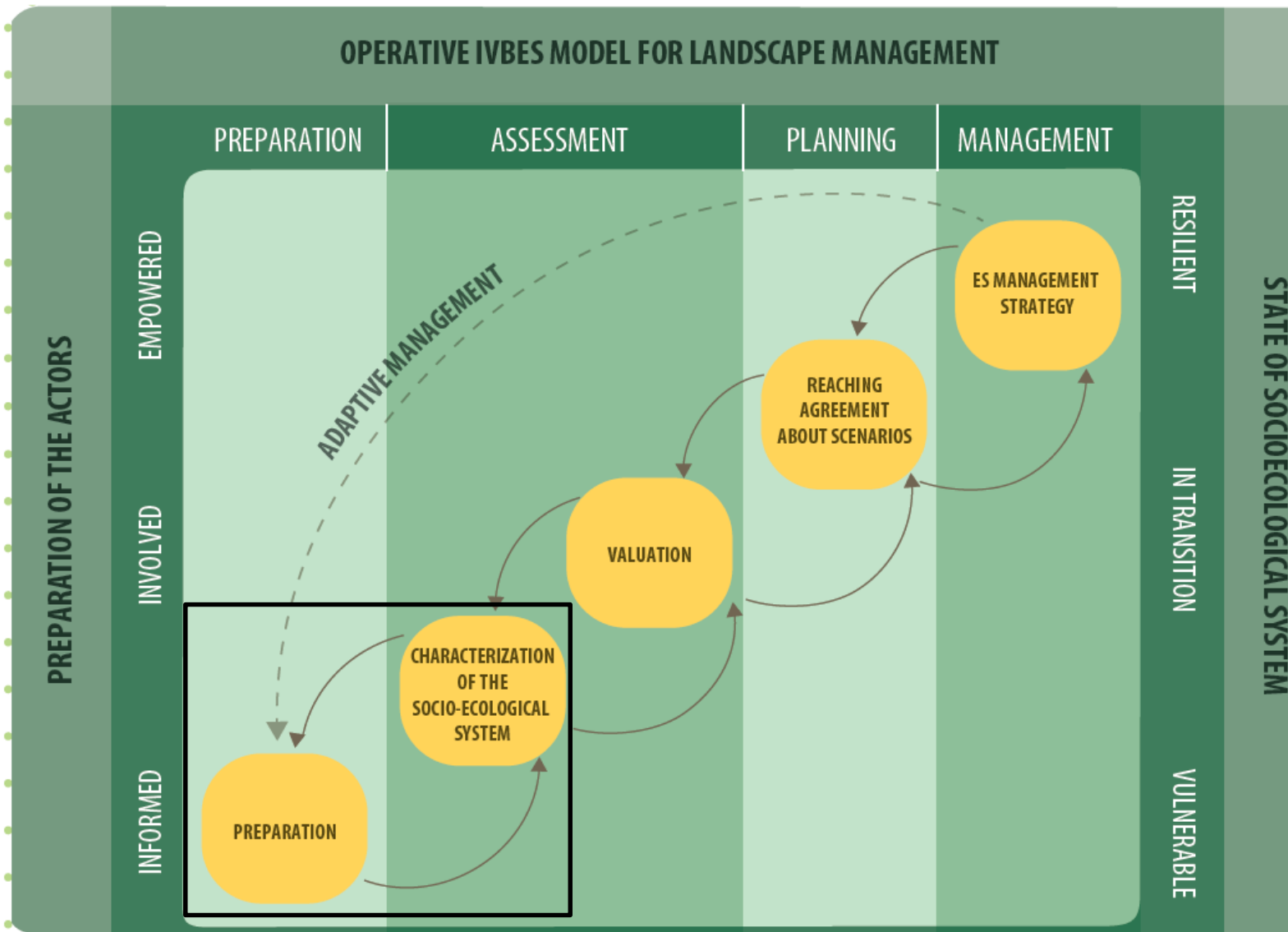


# VIVO OROTOY

HISTORIAS DE UN RÍO,  
MÁS ALLÁ DEL AGUA

## ¿What happens at the Orottoy river?

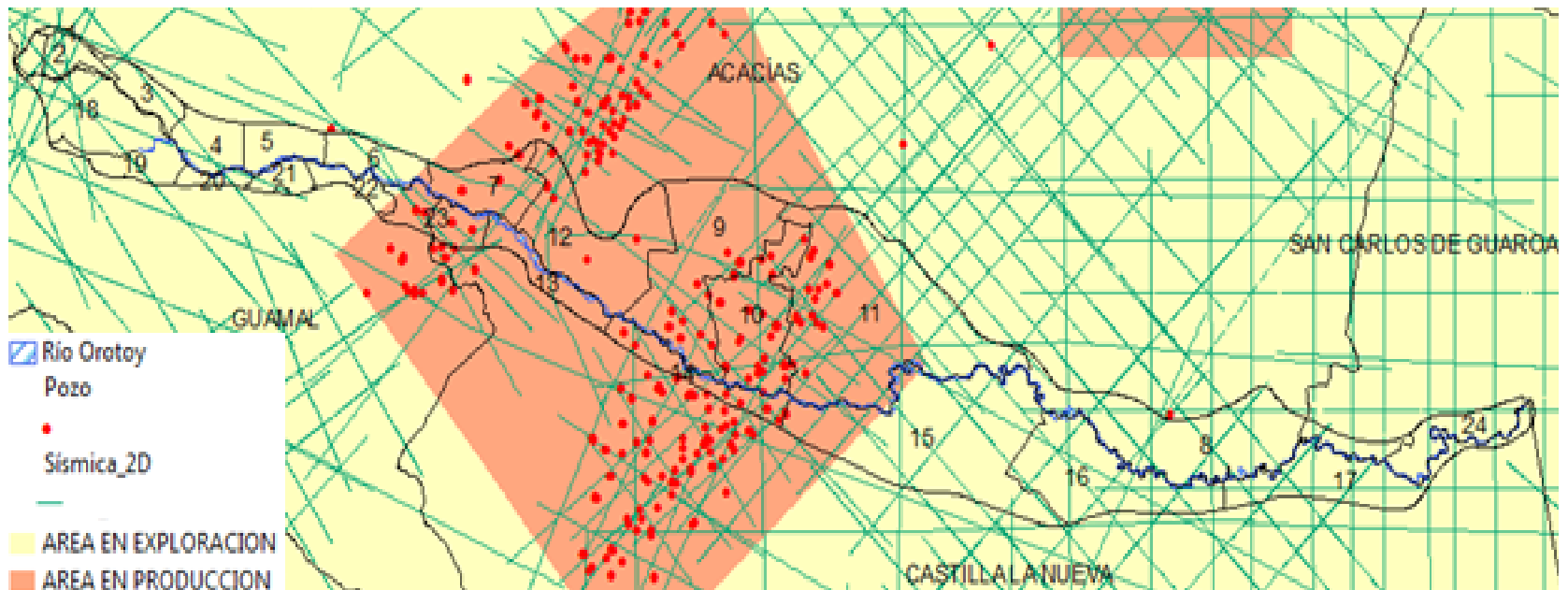




## The Orotoyo river basin in 3 decades



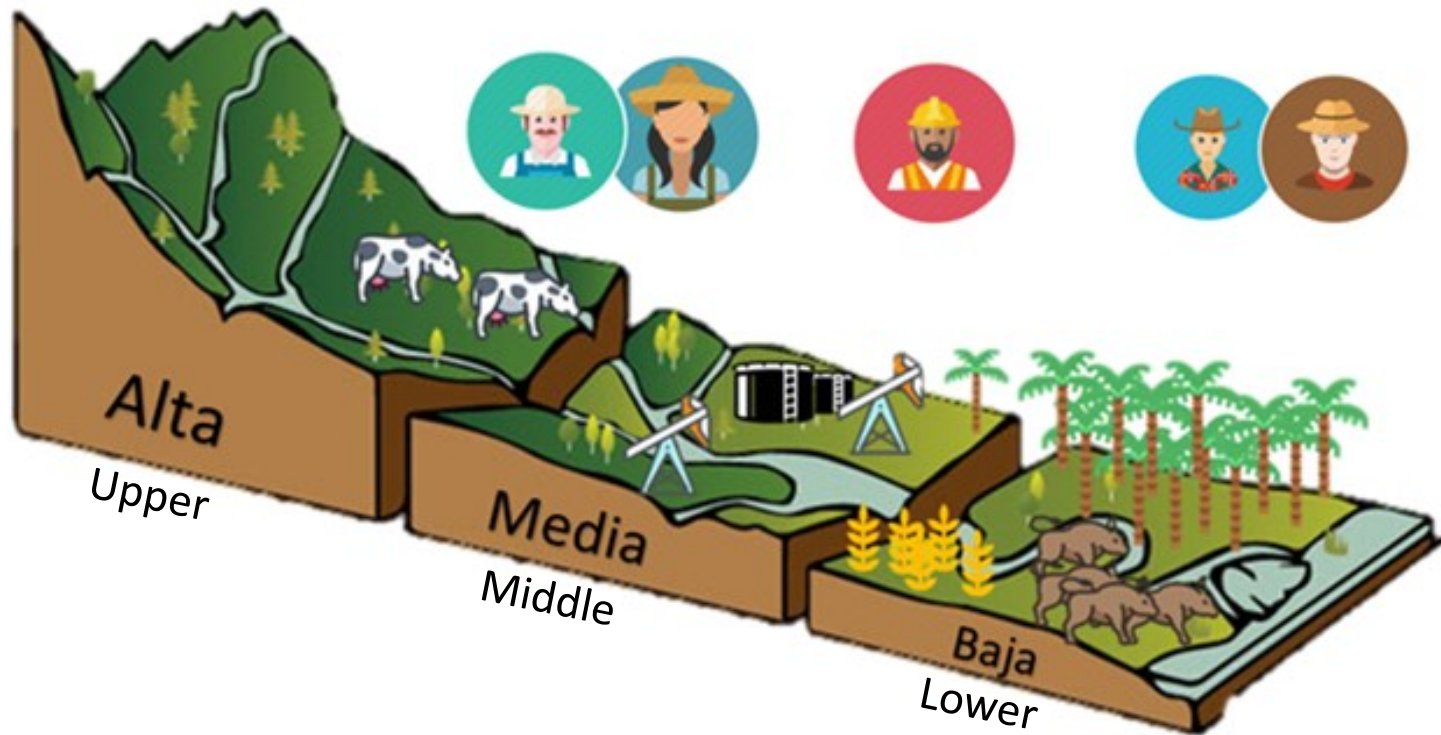
### Oil extraction



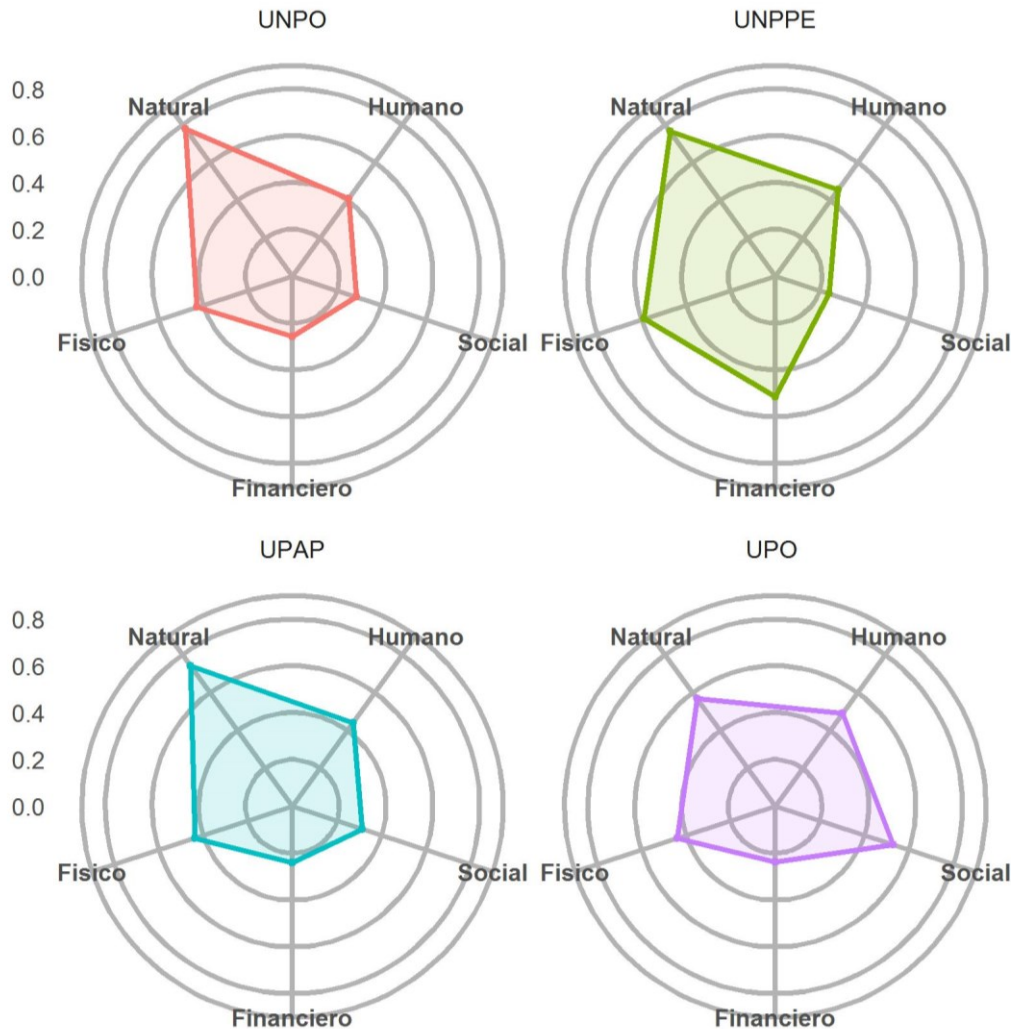
*Figura 10. Áreas de exploración y producción de hidrocarburos con relación a la cuenca del río Orotoyo. Fuente: ANH*

170 Oil wells

## Social ecological systems



### Livelihood conditions



#### Actores

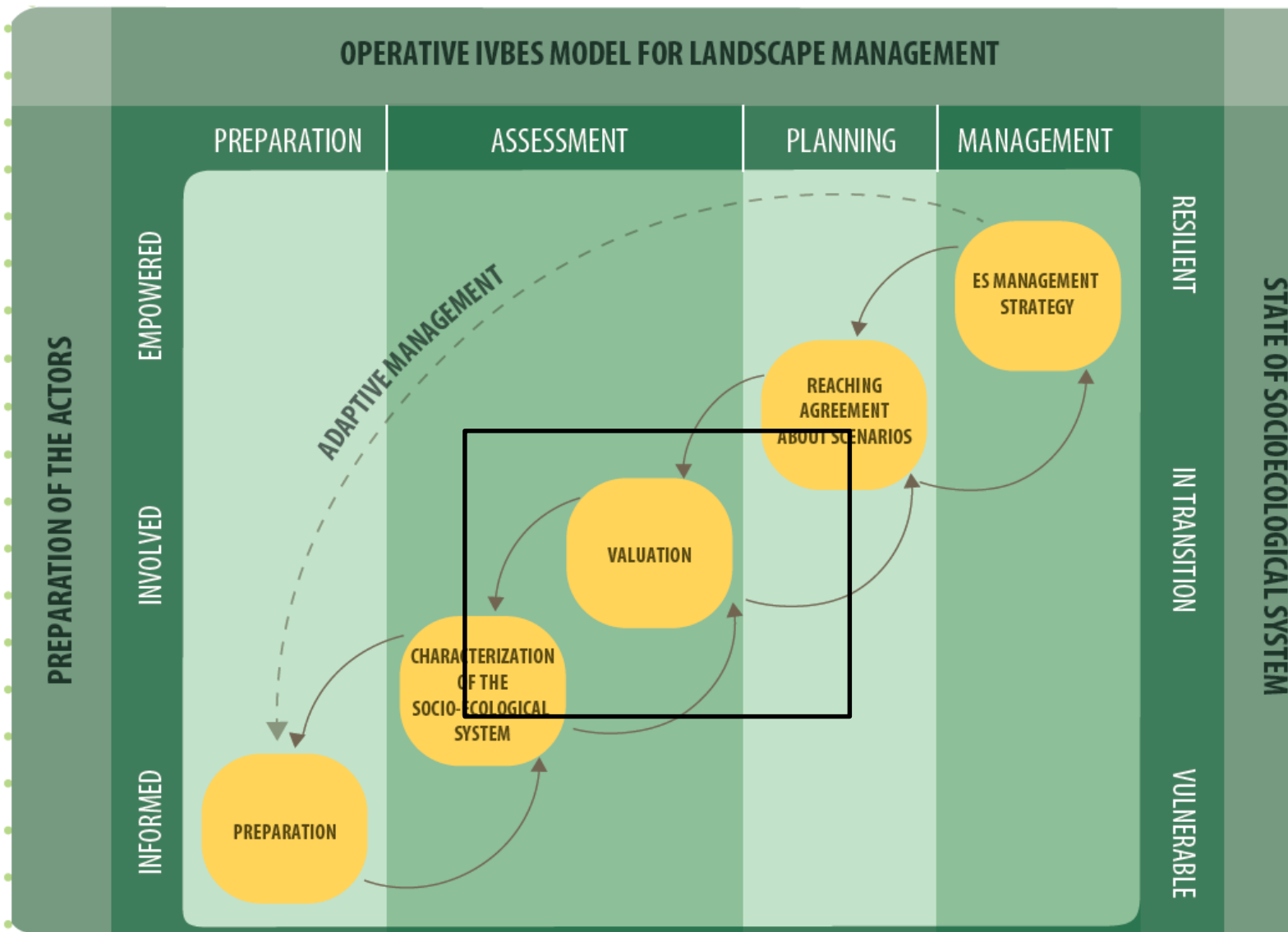
UNPO – **Others**

UNPPE – **Oil extraction workers**

UPAP – **Farmers**

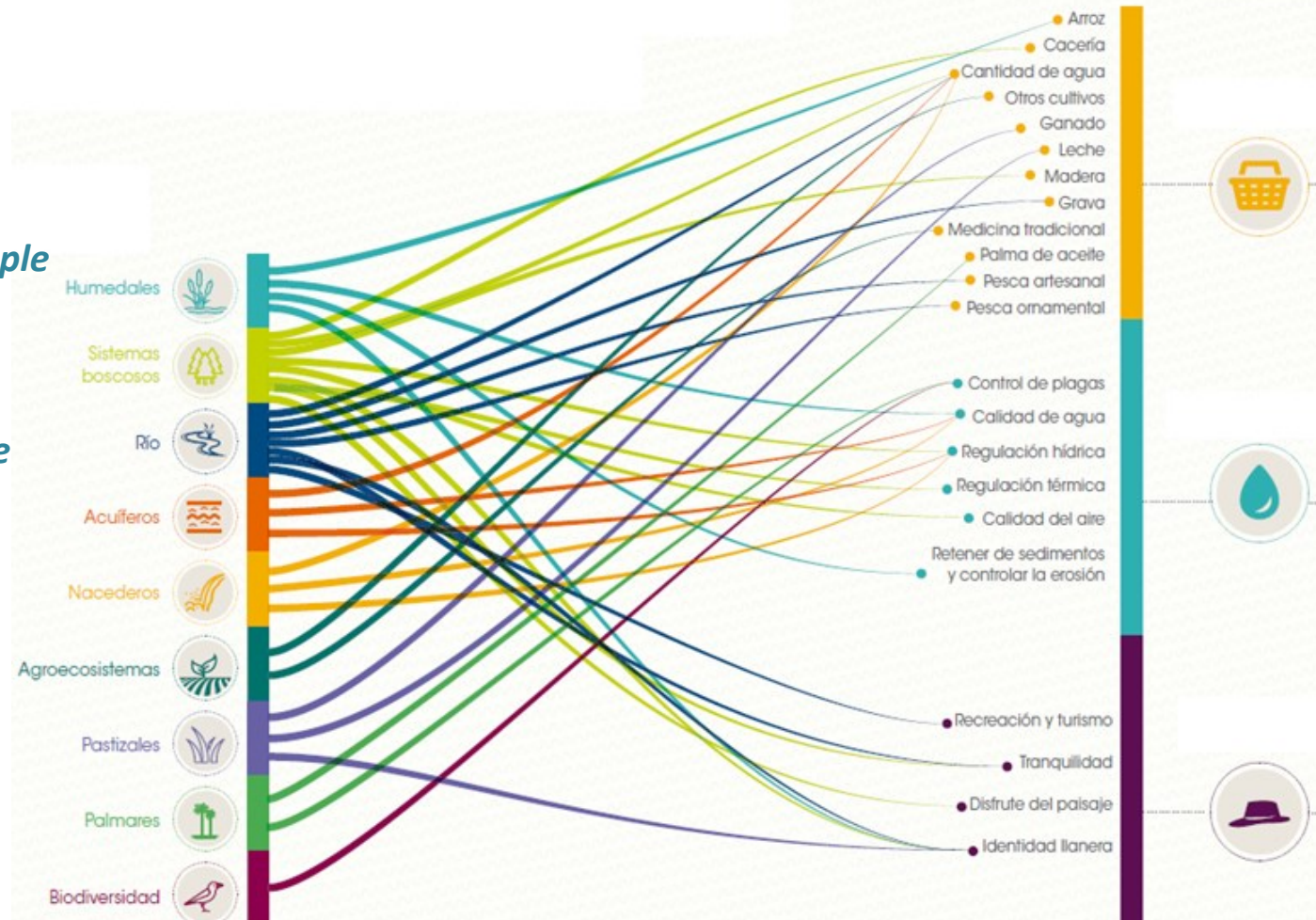
UPO – **Urban inhabitants**





### Social valuation – Local priorities

- *14 ecosystem services identified by local people*
- *Local priorities for the future:*
  - **Water supply**
  - **Food security**
  - **Cultural values**



### Economic valuation - Reality

Benefits received during a full year (2014).

Value of direct use of the water at the Orotoy river basin, by land cover use		
Products	Price (U\$S)	%
Palm oil	\$846.507	15,2%
Rice	\$268.370	4,8%
Cattle raising	\$50.786	0,9%
Milk production	\$58.509	1,0%
Citrics	\$70.260	1,3%
Fishing	\$99.688	1,8%
Mining	\$688	12,3%
Irrigation districts	\$1.672	0,0%
Aqueducts	\$33.972	0,6%
Oil industry	\$3.456.640	62,0%
<b>Total</b>	<b>\$ 5.574.126</b>	

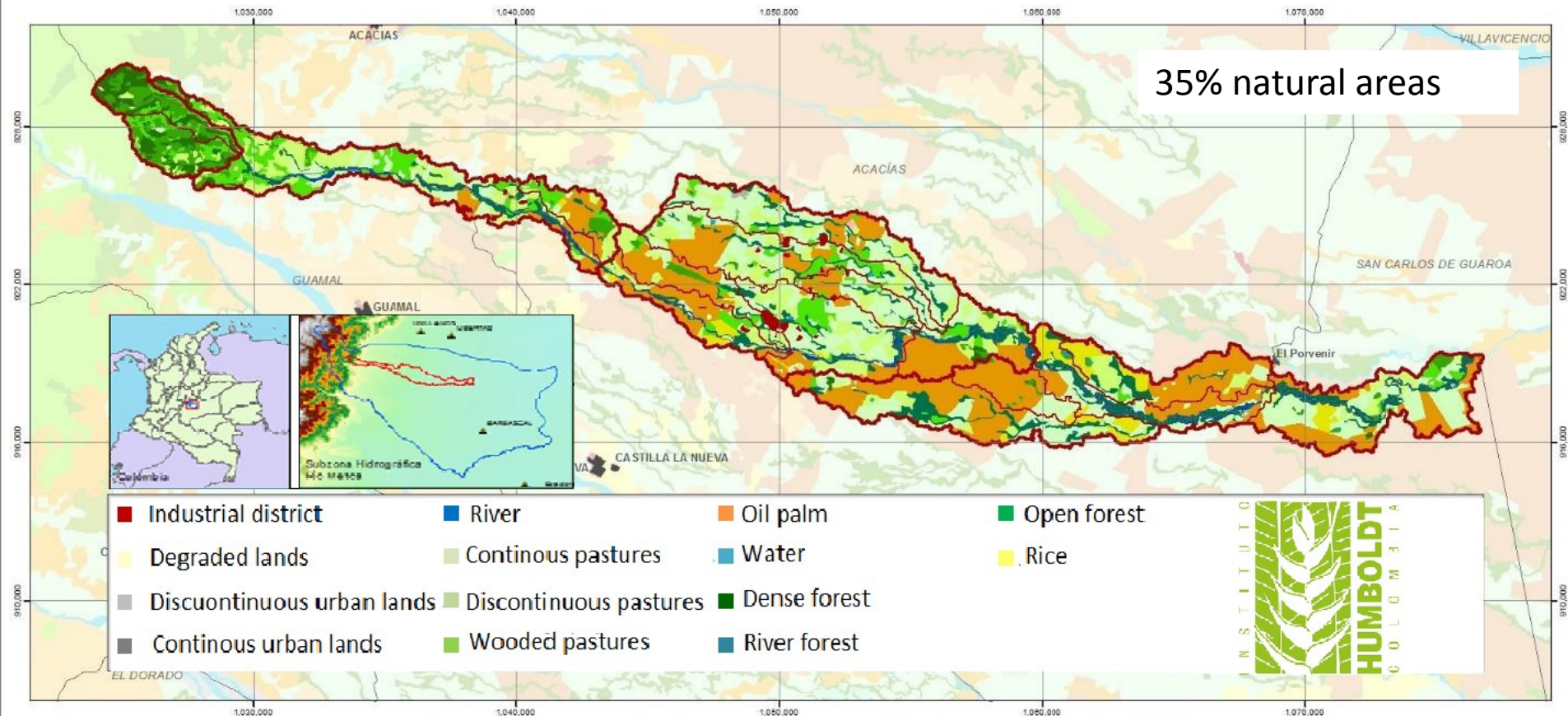
## Water footprint indicator - Externalities

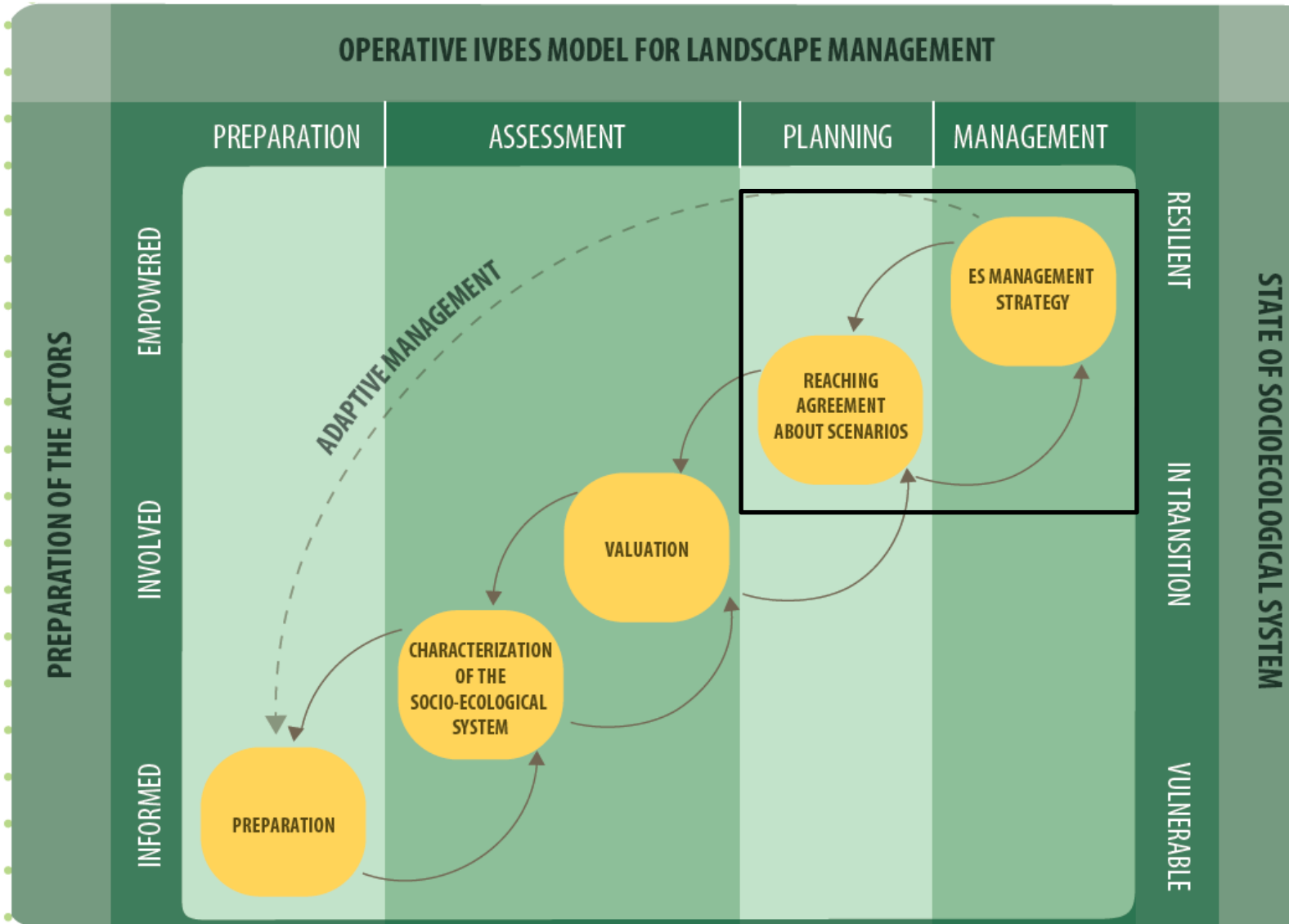
When comparing the direct use value with the water use valuation from the water footprint indicator, based on the average cost of water cubic meters...

*for every **\$1 perceived** by breeders in the Orotoy river basin, **\$ 0.26** corresponds to a direct contribution from the ecosystem services of water supply*



### Ecological valuation Regional landscape





## ¿What do we conclude?



- prioritize local wellbeing instead national development.
- Include water, food and culture as a basis for landscape planning.
- Planning with long-term vision
- ensure compliance of environmental norms.
- promote local monitoring systems
- improve the communication with environmental authority

# Thank you!



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