



Natural heritage accounts

**The gap between statistics and policy:  
accurate accounting for better  
management**

Some notes

# Natural heritage and wealth

- Wealth in Costa Rica and its growth depends on the proper management of the abundant natural resources in the country
- Having the 5% of the world's diversity means that the country's agriculture, electricity, tourism, and the overall productive system depend on this huge natural heritage, as well as the health, well-being and quality life of the Costa Rican society
- Nevertheless, all this wealth is not properly reflected in the national indicators

# Premises

1. Why is it relevant to have available data for decision-making?
2. What can be communicated to policy stakeholders so they can make statistic-based decisions?

# Evidently there is a gap between statistics and policy

- Researchers and policy-makers work with different perspective
- “Stereotypes” can be created that can “block” information flow between them
- Policy-making is not only a “political process”
- It is essential that every stakeholder know the relevance of service remuneration and the sustainable use of natural resources

# Language use to share evidence for decision-making

- Data and its interrelations are key to: :
  - Obtain indicators and create a program
  - Come up with a common language able to communicate hard evidence to political decision-making
- BUT:

# Therefore, demands for statistics should be created

- Policy stakeholders are not necessarily “busy” to read researches results: relevance of how information is presented
- Researchers must know that political decisions cannot be based only on statistics

# Moving closer statistics to policy (and viceversa)

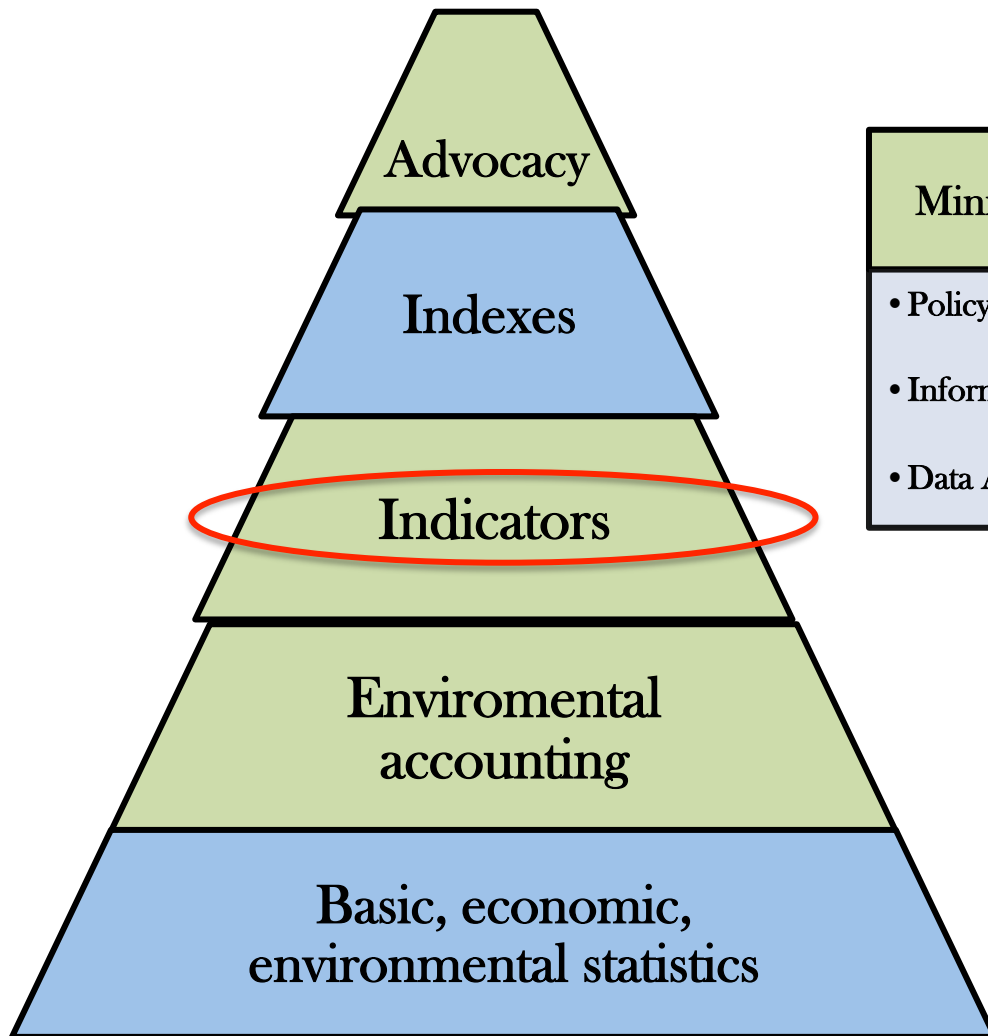
- Experiences exchange: communication channels
- National efforts regarding conservation and natural resources sustainable use should be presented to different stakeholders
- Two way communication: statistics to inform policy (offer) and policy requirements/necessities to produce relevant statistics (demand)
- Scope: “today´s” decisions determine significantly the “tomorrow”

# Statistics to support policy: accurate accounting for better management

- Environmental accounting means that natural resources can be better managed and better reflected in public policies
- Environmental accounting is an statistic framework that creates indicators that provide:
  - Aligned and classified definitions
  - Coherence among economic and environmental statistics
  - International comparability



# Piramide for decision-making



Ministry A
• Policy A
• Information A
• Data A

Ministry B
• Policy B
• Information B
• Data B

Ministry C
• Policy C
• Information C
• Data C

Problem?

Solution/intervention?

Winners/losers?

Cost?

## Example of indicators that can be produced from the environmental accounts for Costa Rica

- Relevance of the forest in the economy (2011-2013): 2.04% of GDP
- Increase of the forest cover (2011-2013): 96,140 ha  
(-48,036 ha de crops; -46,171 ha de pastures)
- Pérdidas físicas de agua de los operadores (2012): 57%
- Hydroelectricity: 72% of the total of electric generation
- Energy intensity (GJ/milión of colones): 7.3 (2011); 6.3 (2013)
- Emissions intensity (TMC<sub>CO2</sub>/milions of colones): 0.322 (2011); 0.308 (2013)

# Environmental accounts progress

## Forest account

- Work started in 2014
- Tables of offer and use in monetary terms 2011-2013
- Physical assets accounts 2008, 2011, 2013: land, forest, wood y carbon
- Change of land coverage matrix

## Water account

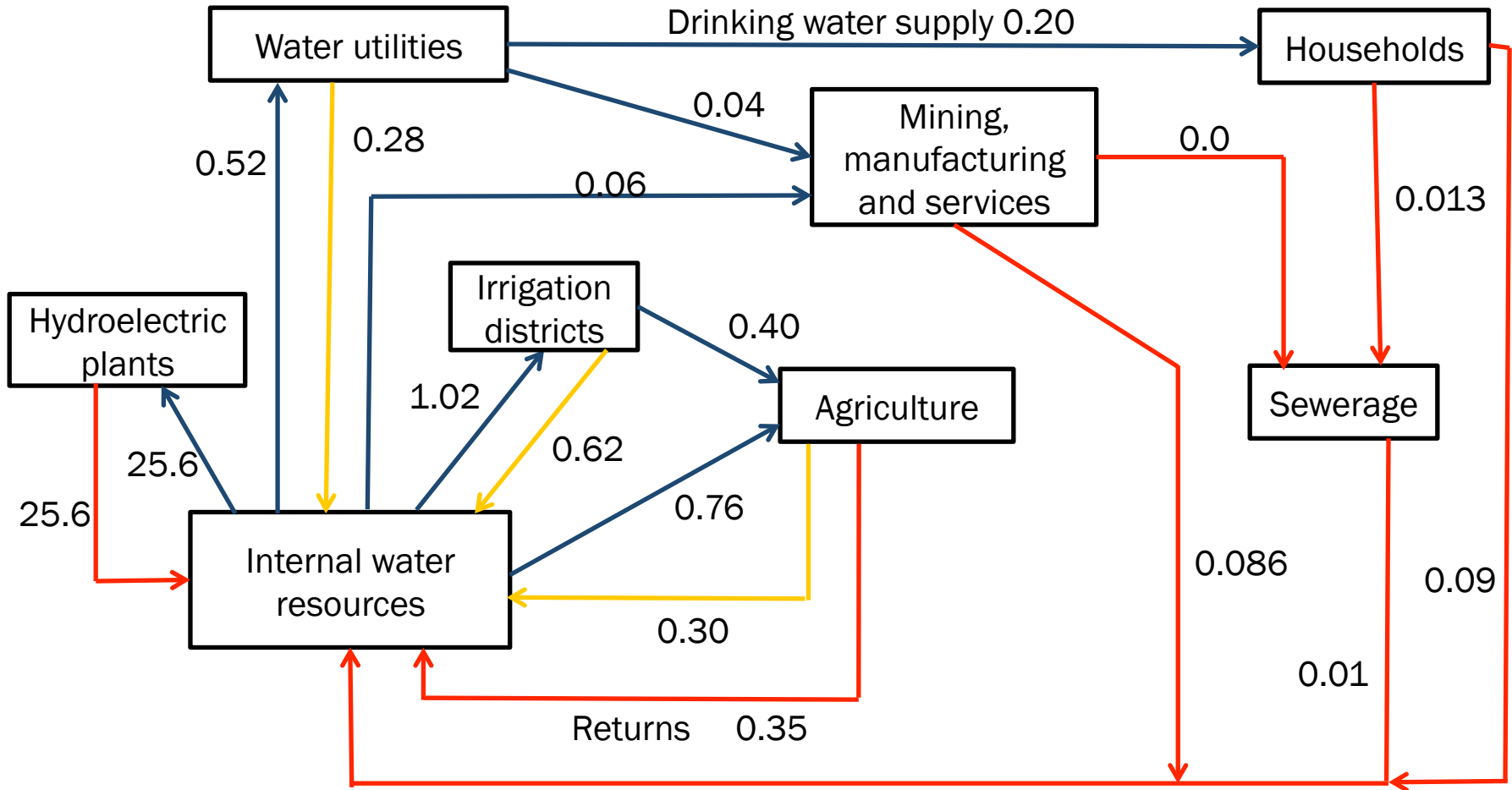
- Work started in January 2014
- Tables of offer and use: in physic and monetary terms 2012
- Physical assets accounts 2012
- Case stydies as the ESPH

## Energy account

- Work started in July 2015
- Table of physic use according to energy source and economic activity 2011-2013
- Carbon dioxide account 2011-2013

With WAVES support, a group of international experts acompanied and trained the technical staff for better performing on the accounts development as well as the information requests.

# Water flows in Costa Rica's economy, 2012 (km<sup>3</sup>/year)

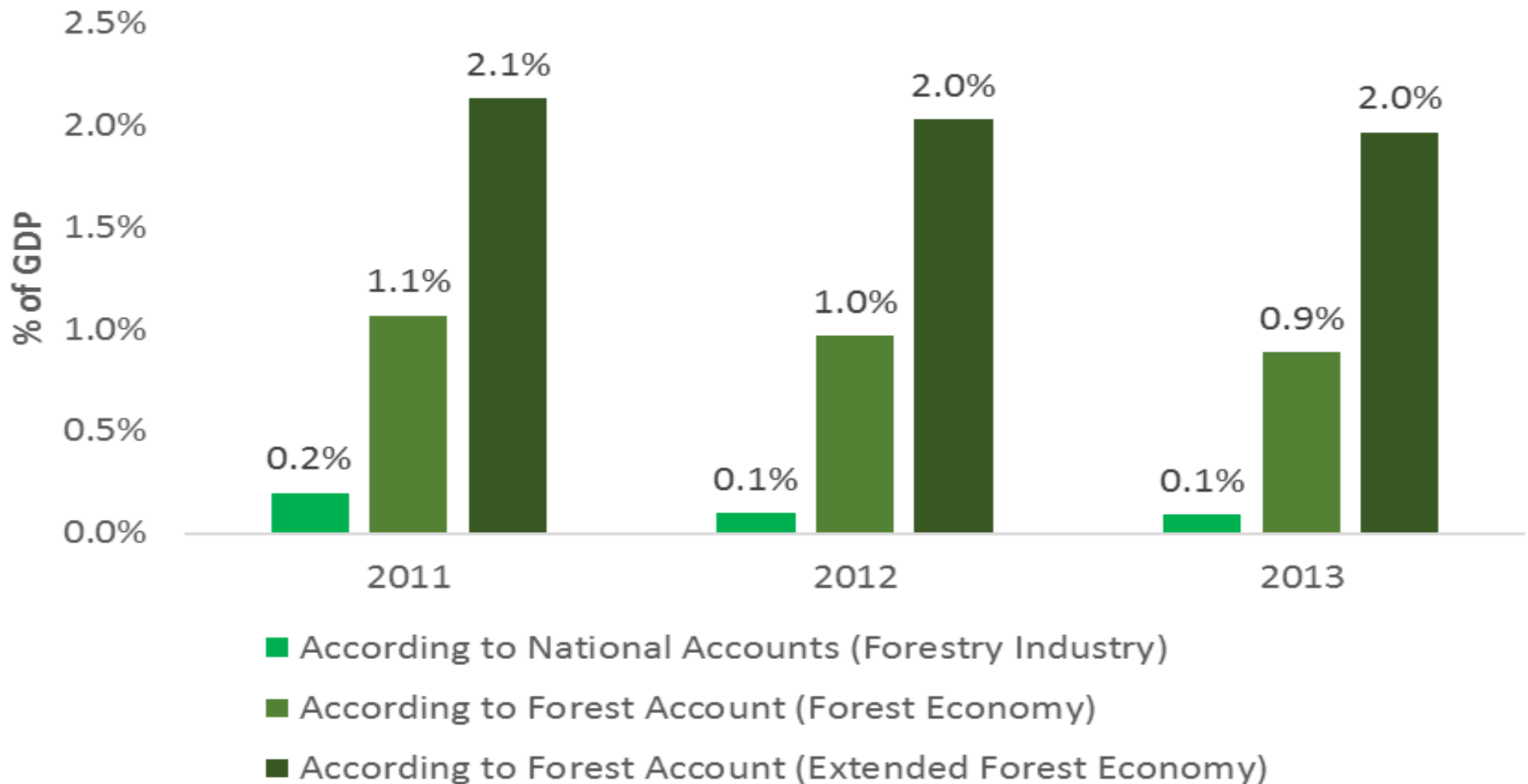


Fuente: Cuenta de agua, Banco Central de Costa Rica.

# What does the new evidence of water mean?

- Put in perspective water management for productivity and economic growth:
  - Water use and added value
  - Sources sustainability (PNGIRH)
  - Scope of the water policies (Waters law)
  - Interrelation with other issues: agriculture, renewable energy, climate change

# Forests contribution to the GDP (%)



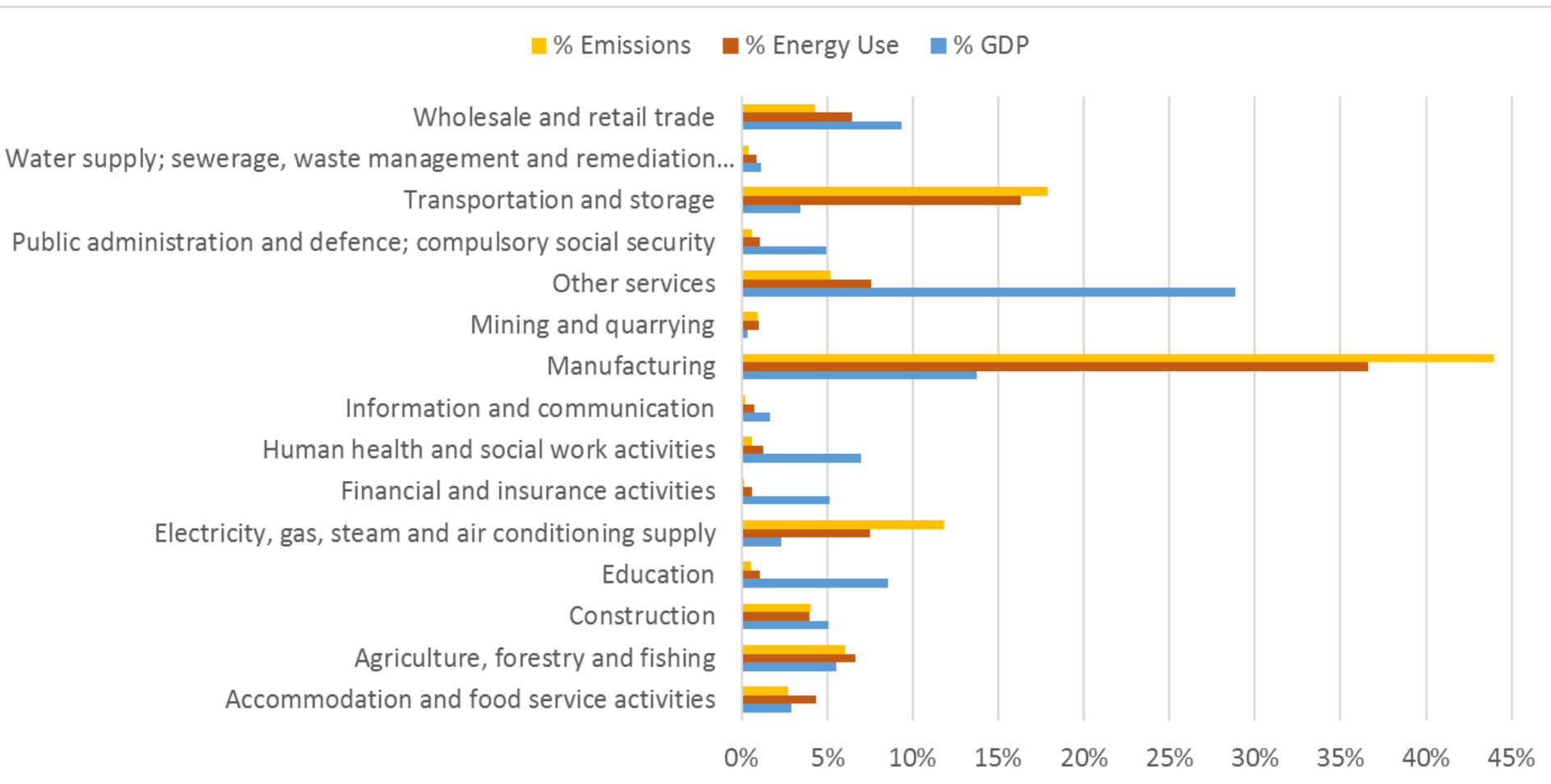
It is important to highlight that is: WITHOUT Forests ecosystem services

Source: Forest account, Banco Central de Costa Rica.

# What does the new evidence of forest mean?

- Understand the role of forest conservation to create development opportunities:
  - Forestal industry and employment
  - Sustainability and fiscal prioritization
  - New policies for forests scoping (PNDF, REDD+, biodiversity)
  - Interaction with other issues: climate change and its adaptation diagrams

# Added value, use of energy and emissions by industry 2013 (participation percentage)



Source: Energy account, Banco Central de Costa Rica.



# What does the new evidence of energy mean?

- Detailed interaction between energy and economy:
  - Productive sectors and energetic dependence
  - Sustainability (VII Energy National Plan)
  - What to expect from higher oil prices?
  - De-carbonization of the productive system

# Co-benefits of environmental accounting

- Measures the Environmental Statistics National System: situation and future
- Incorporation with other systems: SDGs, green growth, climate change, Aichi Goals, etc.
- Better questioning about policy making: won't give all the answers but certainly the questions will have better approach

# Future for the natural heritage accounts in Costa Rica

- Researchers and policy-makers must come closer
- Environmental accounts and environmental statistics must be top quality to better inform policy
- Ministry of Environment is working to strengthen the National System of Environmental Statistics (SINIA)
- MINAE moves forward a strategy to strengthen environmental accounts and its indicators demand among ministries and governmental agencies

# Immediate actions: June 2016

After:

1. The approval from the Government's Economic Council
2. Press conference to present experiences with water, forests, and energy accounts (May 30th)
3. Socialization meeting on the third week of June with government authorities and different types or accounts users



# ¡Thank you!

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