

# Wealth Accounting Macroeconomic Indicators

## Application in Mauritania

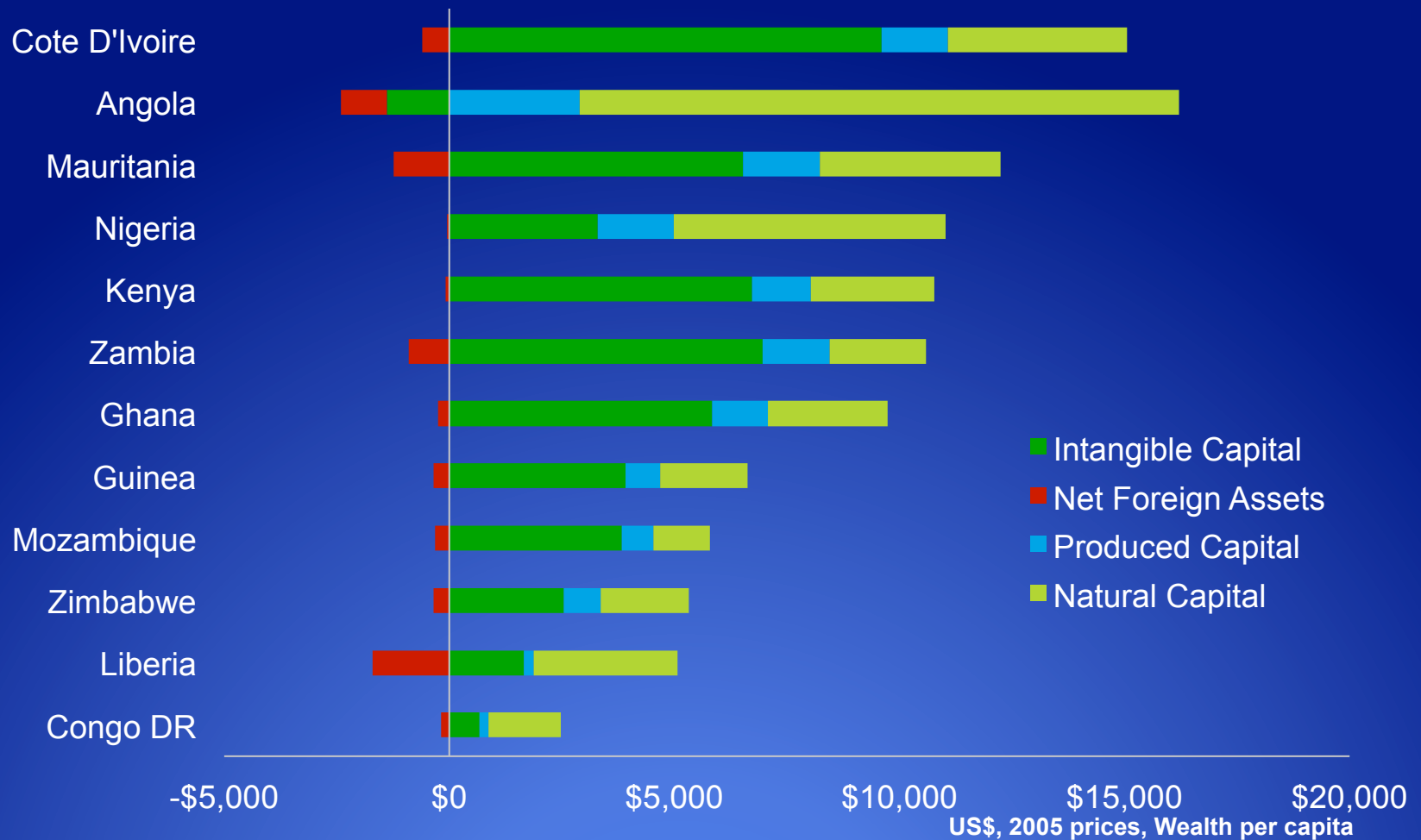


WORLD BANK GROUP

Gianluca Mele & Keith Jefferis

April 2015

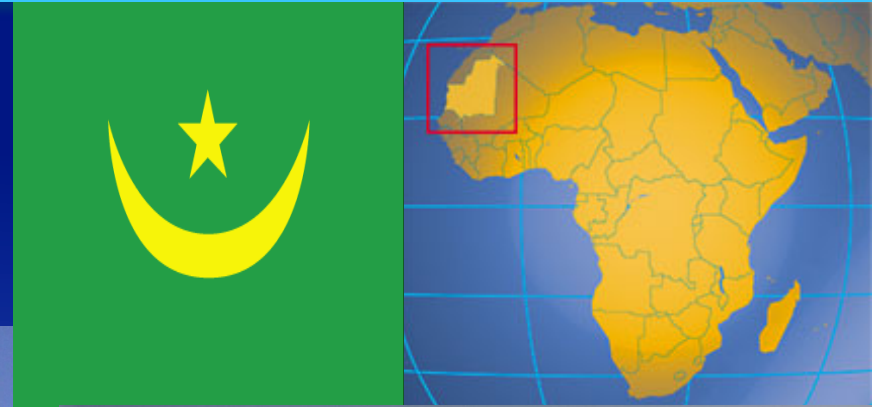
# How important this is for natural resource rich countries in Africa (net wealth composition, 2005)





# Mauritania

- Large, sparsely populated desert country in North Africa
- More than 50% of natural capital is represented by renewable resources.
- Potential to significantly improve the fishery and livestock sectors
- Generous endowment of iron, gold and gas.
- GDP per capita approx \$1200



# The analysis

## Six sectors taken into account:

*Iron ore*

*Gold*

*Fishery*

*Natural Gas*

*Crude Petroleum*

*Pasture Land*

Energy,  
Minerals,  
Oil and Gas

Non  
Renewable

Pasture  
Land

Renewable

Eco-  
Systems

Fisheries

Renewable

Non-Timber  
Forest  
Resources

Timber  
resources

Crop Land

Protected  
areas

Renewable

# Fisheries

Fisheries are renewable resource. Depletion is therefore balanced to some extent by natural growth / renewal. Extraction has to therefore be divided into the “sustainable” portion and the “depletion” portion.

- Sustainable exploitation of fish stocks - renewable
- Depletion: This part of wealth has been used. It’s “gone”. That’s what needs to be BALANCED on other items (infrastructures, education, etc.)

Net present value for the considered period: USD 11 billion, which equals roughly 2,800 USD per capita.

Basing on the current structure of exploitation and on the other current assumptions, the depletion in the sector of Fishery in 2013 equals approximately USD 450 mln.

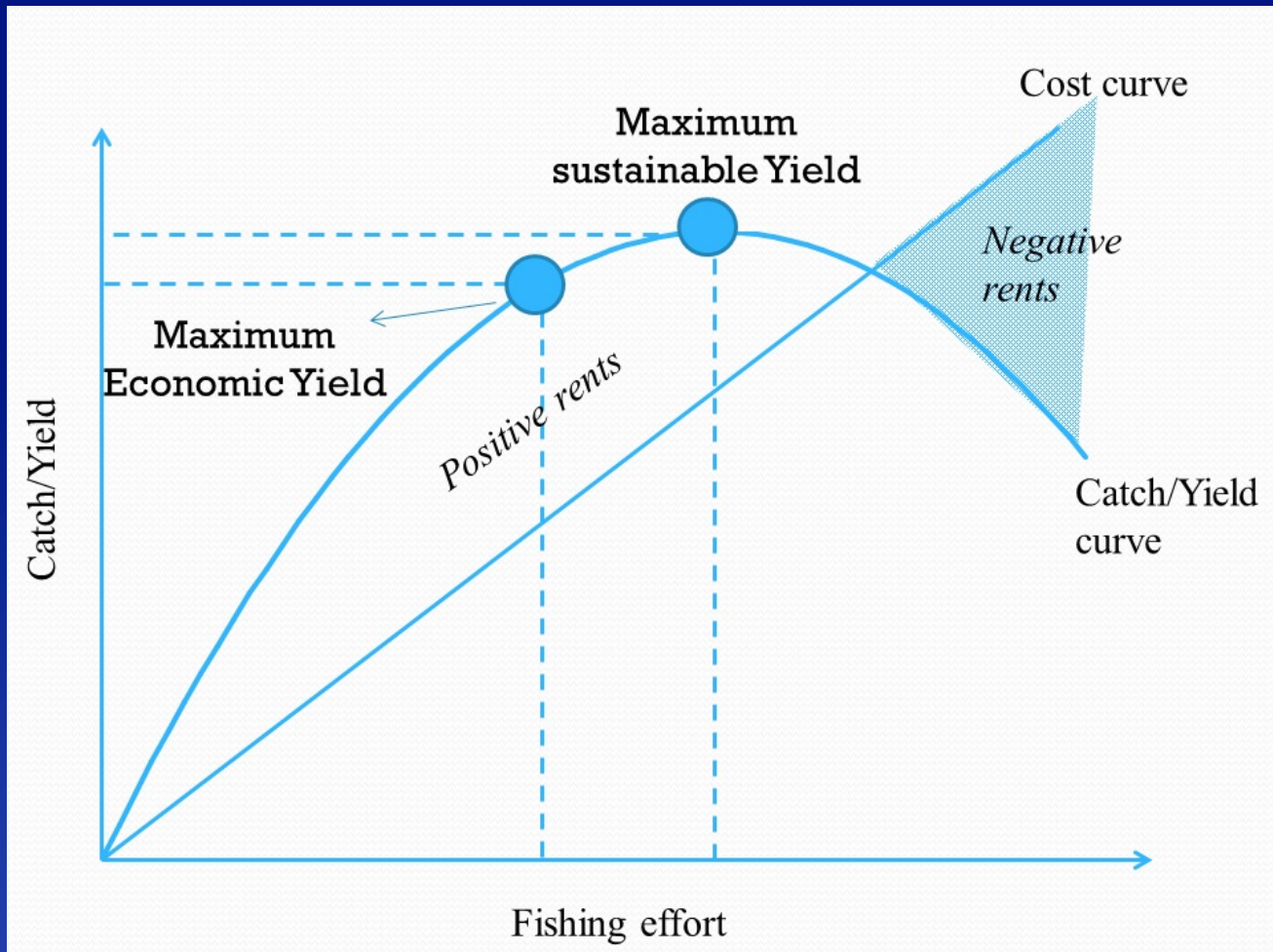
**Fishery**  
**USD 11 bln**





# Maximum sustainable and economic yields

Fisheries  
USD 11 bln



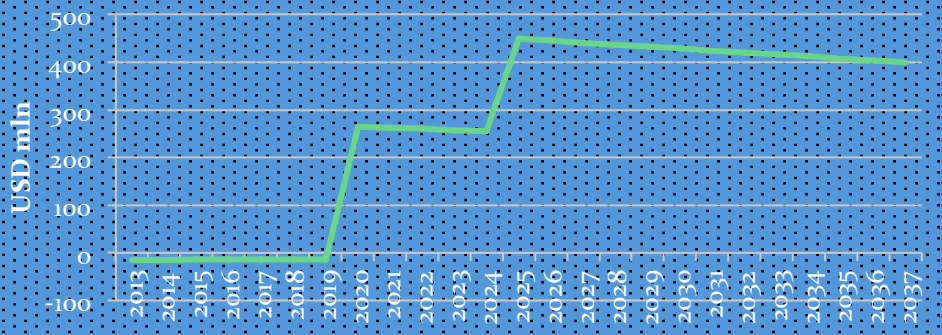
# Iron Ore

Production is estimated to grow from 11 million tons (present) to 25 million tons (2020) and to 35 million tons (2025). Rent calculations take into account rising future production

Net present value for the considered period: USD 6.5 billion - which equals roughly 1,800 USD per capita

Depletion in 2014 – approx USD 250 million

Annual Rent Iron - trend



Fishery

Iron  
6.5 bln

# Gold

World spot Price (average) is assumed equal to 1500 \$/ounce (real) in the short term, and then equal to 1200 \$/ounce (real) in the longer term, starting from 2020

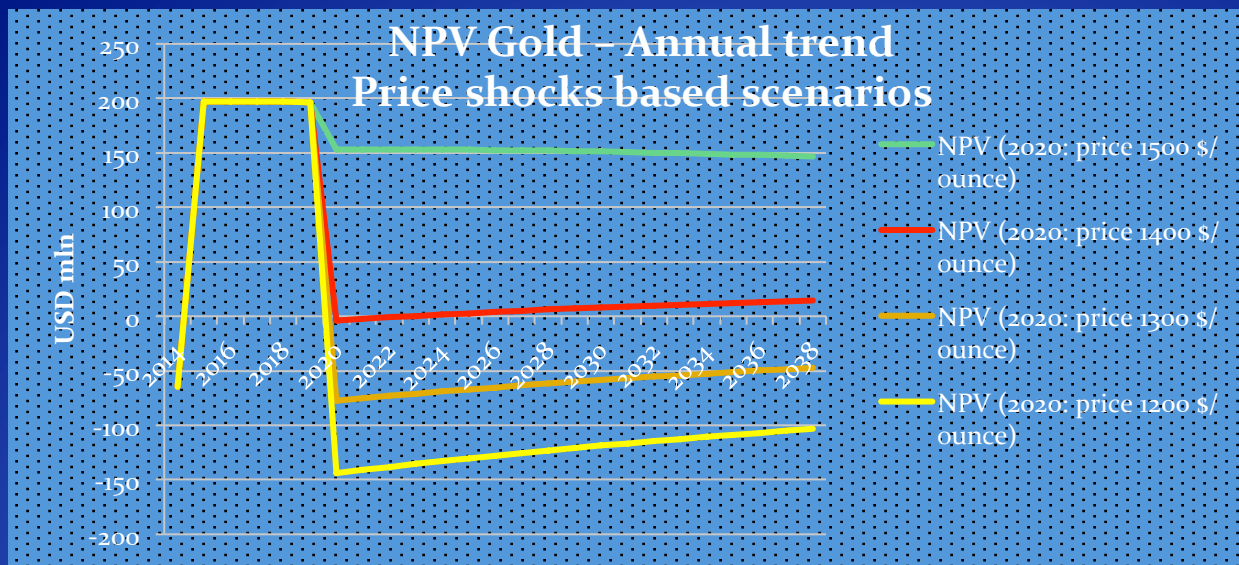
Net present value for the considered period: USD 1.1 billion, which equals roughly 300 USD per capita

Depletion in 2013 = USD 41 million

Fishery

Iron

Gold  
1.1 bln





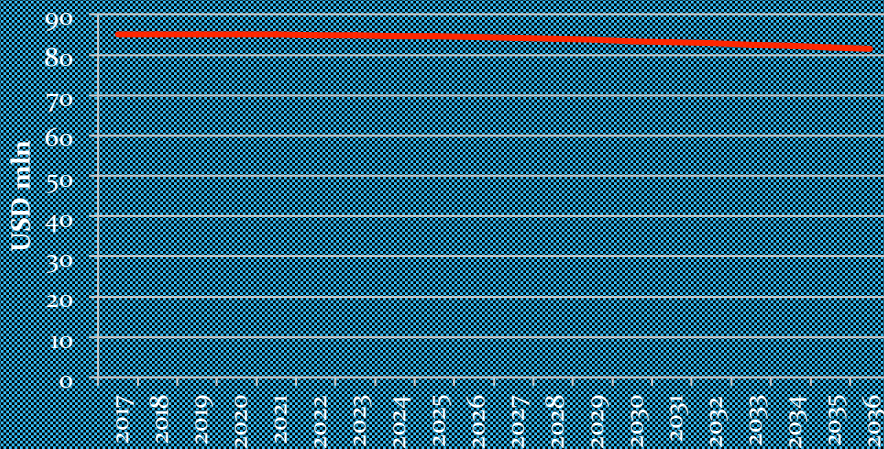
# Gas

Net present value for the considered period: USD 1.6 billion, which equals roughly 496 USD per capita

Production is assumed to start in 2017 and last for 20 years

Depletion during the first year of operations = USD 67 mln

NPV Gas- Annual trend



Fishery

Iron

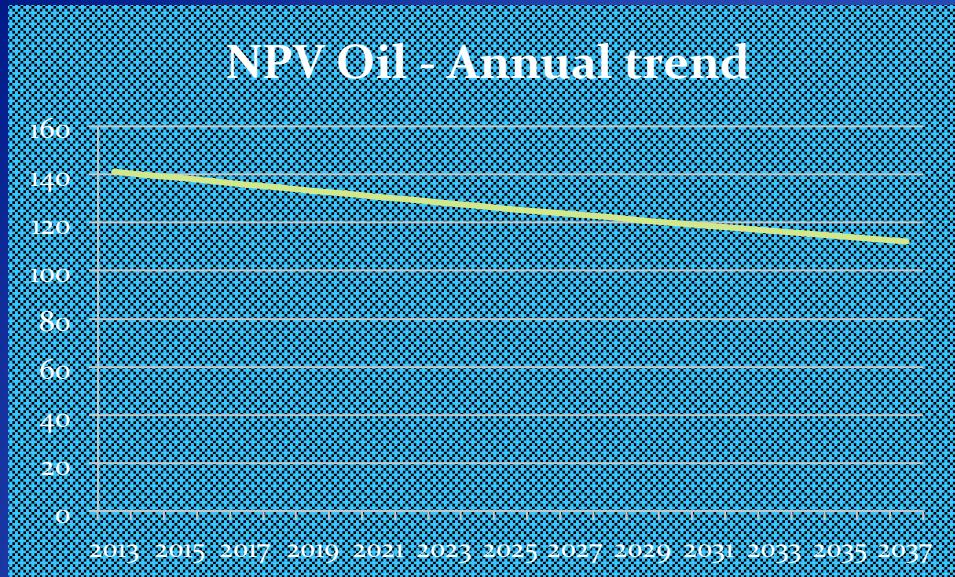
Gold

Gas  
1.6 bln

# Oil

Net present value for the considered period: USD 3.1 billion,  
which equals roughly 933 USD per capita

Depletion in 2013 = USD120 million



Fishery

Iron

Gold

Gas

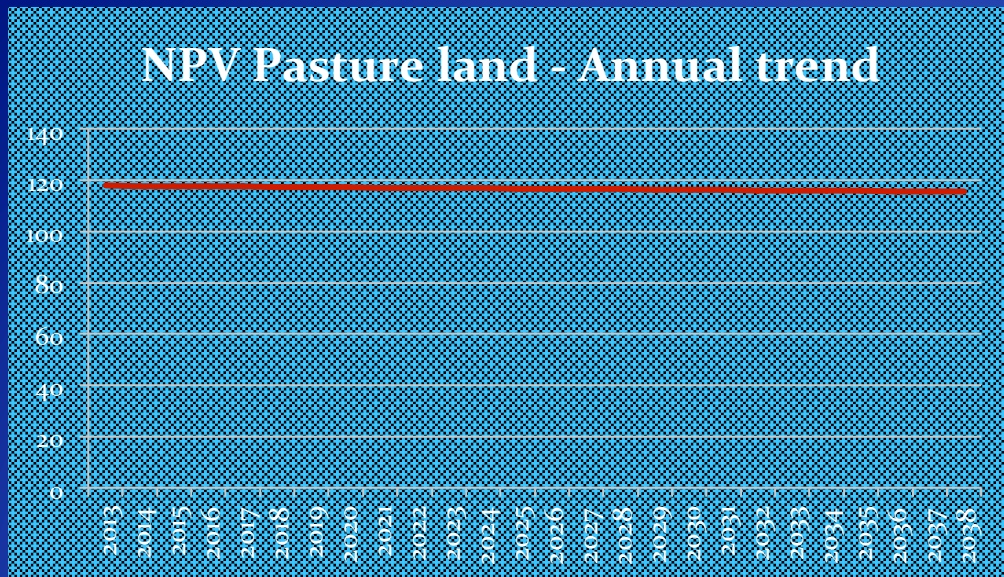
Petroleum

3.1

# Pasture Land

Net present value for the considered period: USD 3 billion, which equals roughly 900 USD per capita

Depletion in 2013 = USD 130 million



Fishery

Iron

Gold

Gas

Petroleum

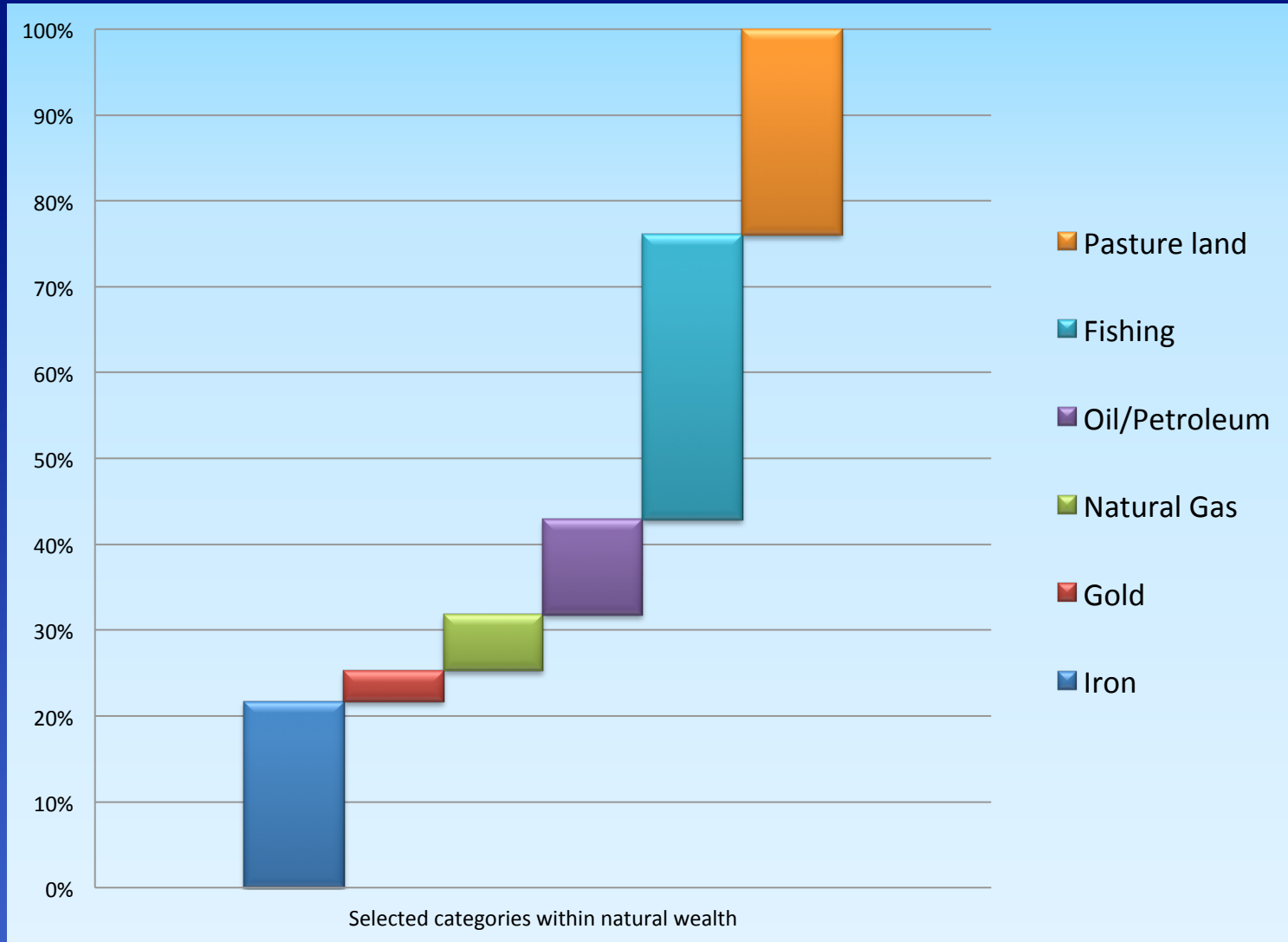
Pasture  
3.3 bln





# Natural wealth decomposition by selected sectors, Mauritania (2013)

Total natural capital wealth is estimated between 25 and 30 billion US\$, which is equivalent to roughly 8,000 US\$ per capita)

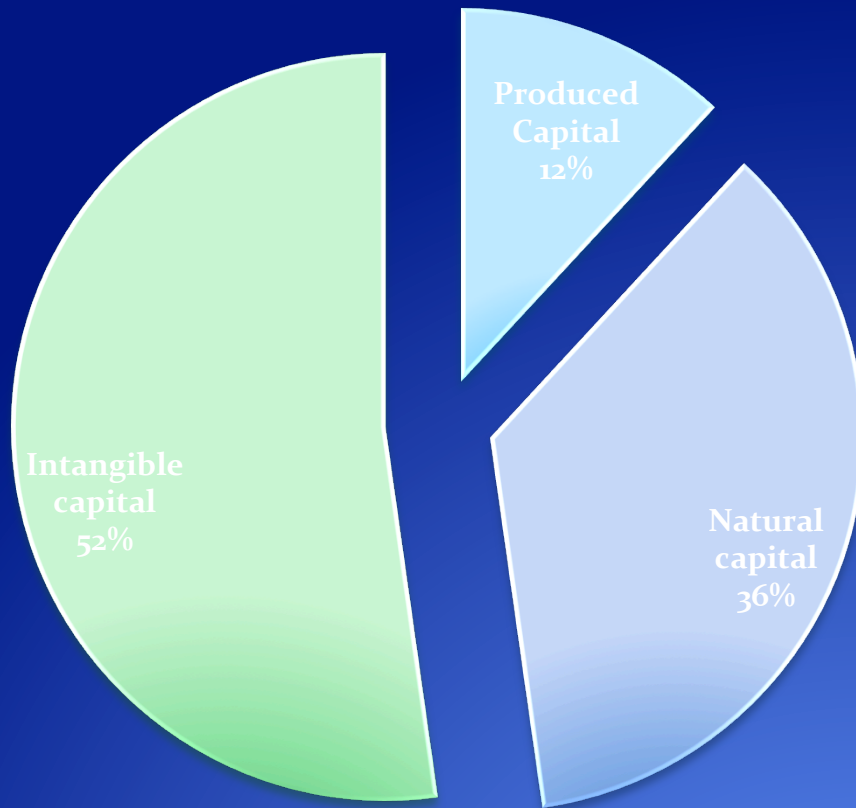




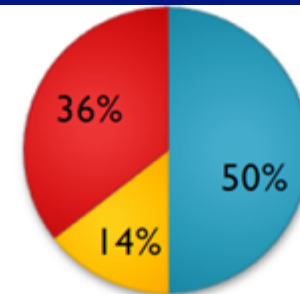
# Composition of total wealth: Mauritania

STOCK

New Calculations (per capita wealth, 2013 US\$)



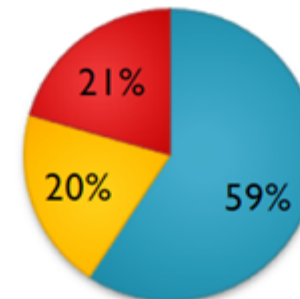
Low Income Countries



Capital Immatériel

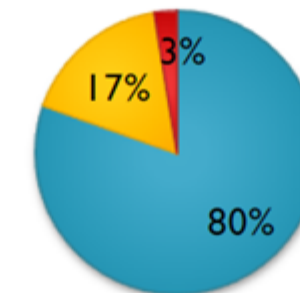
Capital Produit

Middle Income Countries

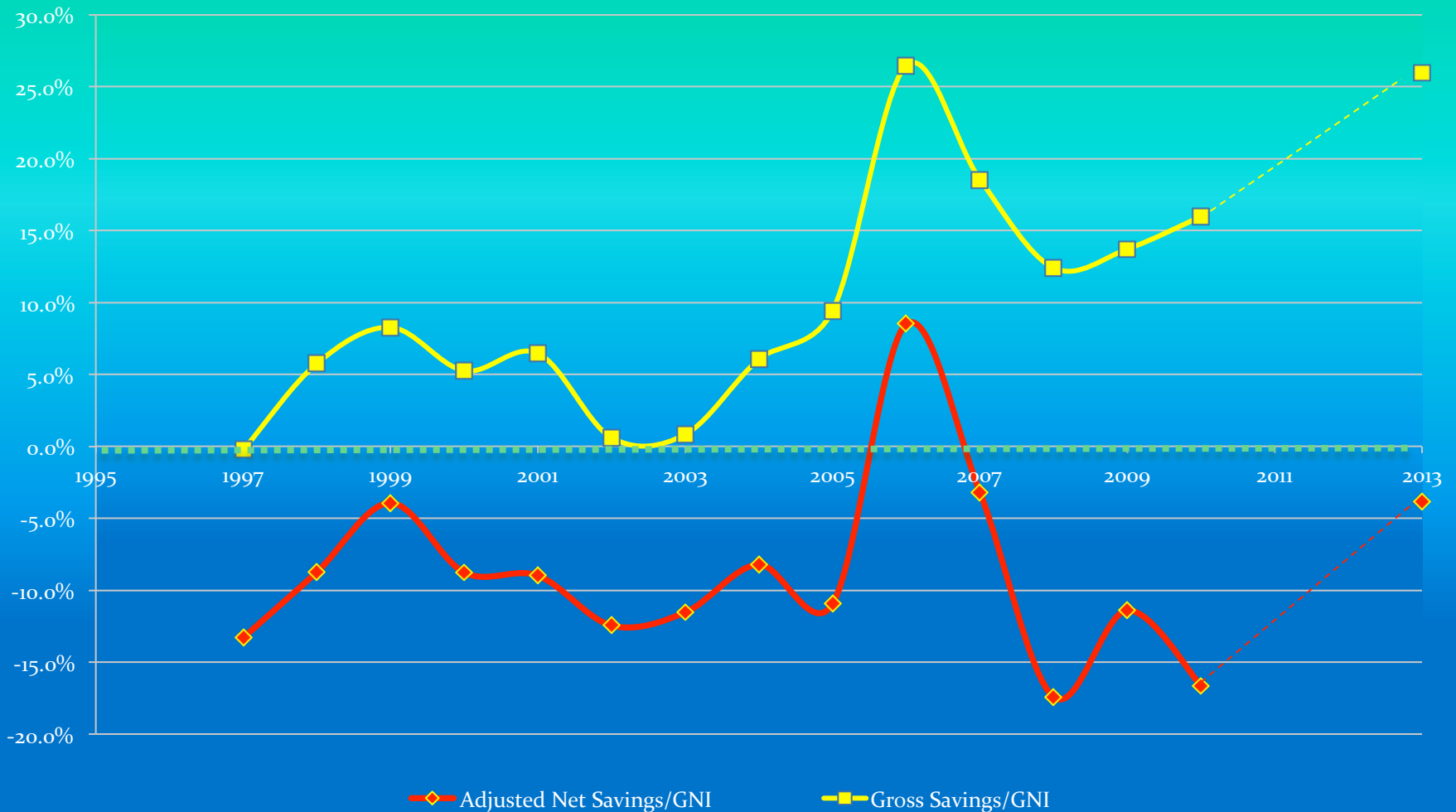


Capital Naturel

High Income Countries



# The analysis - Depletion





# Thank you for your attention

For more information:

[www.wavespartnership.org](http://www.wavespartnership.org)

[www.worldbank.org/africa](http://www.worldbank.org/africa)



**IBRD** The International Bank for  
Reconstruction and Development



**IDA** The International  
Development Association

[keith@econsult.co.bw](mailto:keith@econsult.co.bw)  
[gmele@worldbank.org](mailto:gmele@worldbank.org)