Policy applications of SEEA accounts in Costa Rica

Joint OECD/UNECE Seminar on Implementation of SEEA
21-22 February 2018

BANCO CENTRAL DE COSTA RICA

Outline

01 **Monitoring and evaluation**

2030 Agenda for Sustainable Development

6 CLEAN WATER AND SANITATION | 7 AFFORDABLE AND CLEAN ENERGY | 15 LIFE ON LAND

02 **Opportunities: policy response and decision making**

IEEM-CR | TIMES-CR | Prioritization model for CONIP

NCA in Costa Rica

First approach with WAVES/World Bank to start the **compilation of environmental accounts**

2012

2014

Forest and Water accounts

Energy accounts

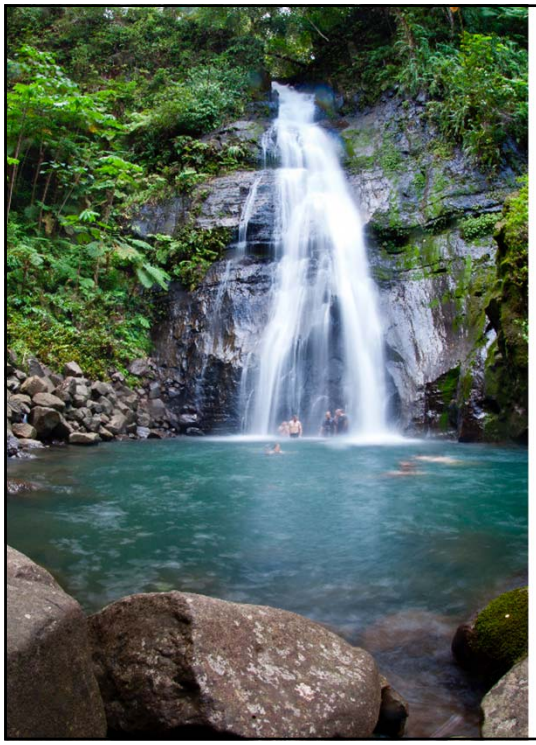
2015

2016

Publication of the **first environmental accounts for Costa Rica**

Update of environmental accounts

2017



Monitoring and evaluation: 2030 Agenda for Sustainable Development

6 CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all

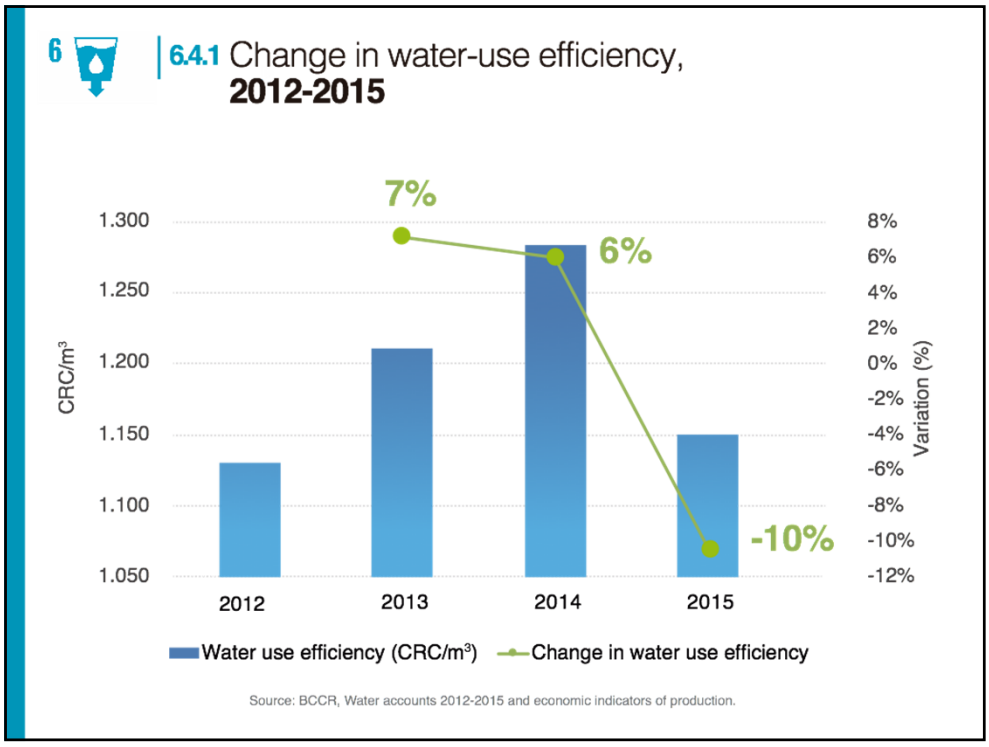
6

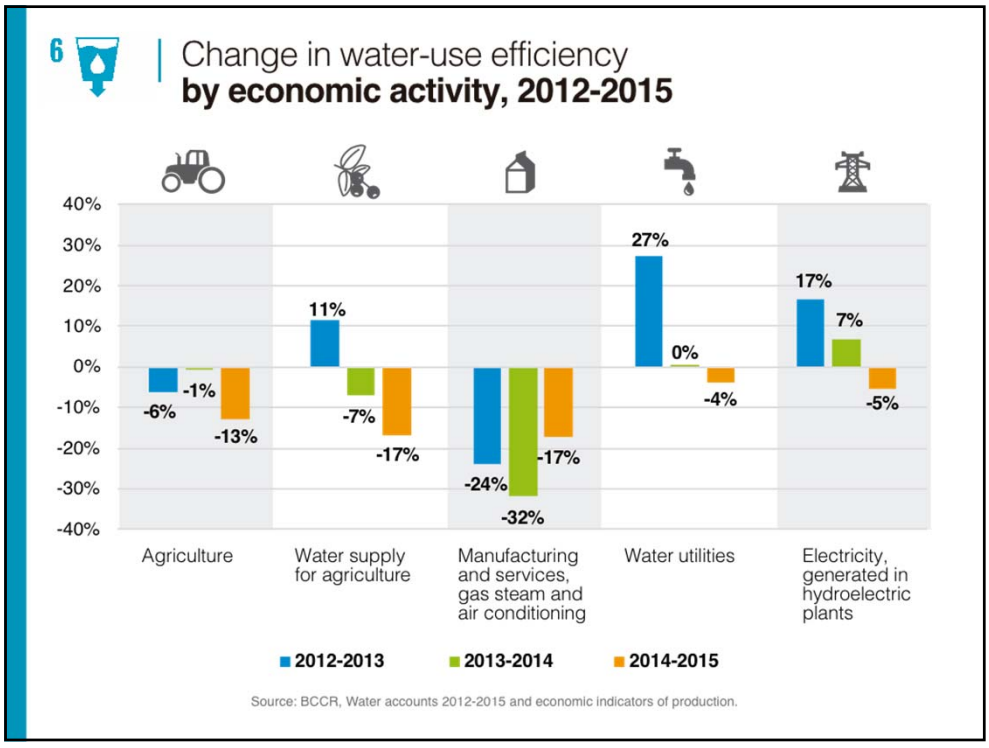
6.4

By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater.

6.4.1 Change in water-use efficiency over time.

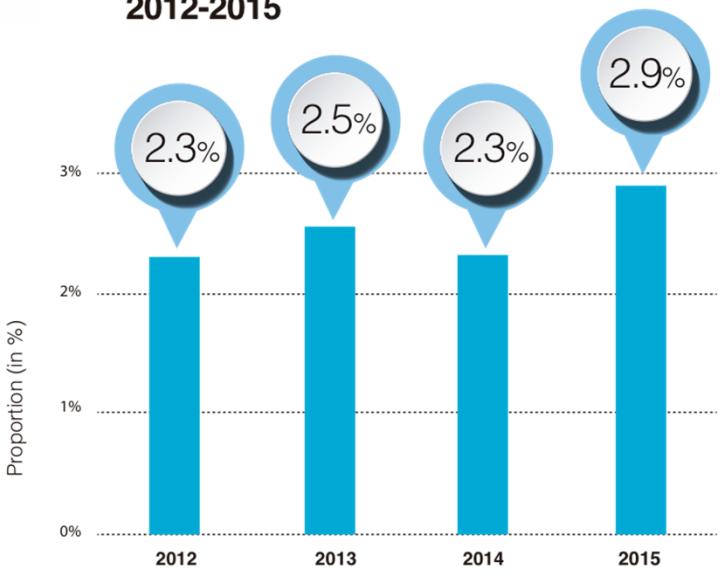
6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources.


6
6.4.1 Change in water-use efficiency, 2012-2015
7%
6%
-10%
1.300
1.250
1.200
1.150
1.100
1.050
CRC/m³
8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%
-10%
-12%
Variation (%)
2012
2013
2014
2015
Water use efficiency (CRC/m³)
Change in water use efficiency
Source: BCCR, Water accounts 2012-2015 and economic indicators of production.


6
Change in water-use efficiency by economic activity, 2012-2015
40%
30%
20%
10%
0%
-10%
-20%
-30%
-40%
-6%
-1%
-13%
11%
-7%
-17%
-24%
-32%
-17%
27%
0%
-4%
17%
7%
-5%
Agriculture
Water supply for agriculture
Manufacturing and services, gas steam and air conditioning
Water utilities
Electricity, generated in hydroelectric plants
2012-2013
2013-2014
2014-2015
Source: BCCR, Water accounts 2012-2015 and economic indicators of production.

6

6.4.2 Level of water stress 2012-2015



Source: BCCR, Water accounts 2012-2015 and economic indicators of production.

6

6.1

By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.1.1 Proportion of population using safely managed drinking water services.

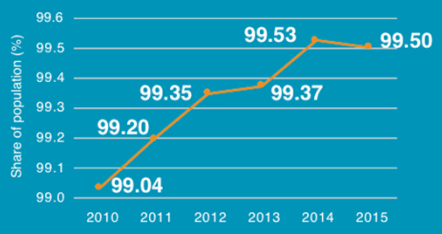
6.2

By 2030, achieve access to adequate and equitable sanitation and hygiene for all.

6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water.

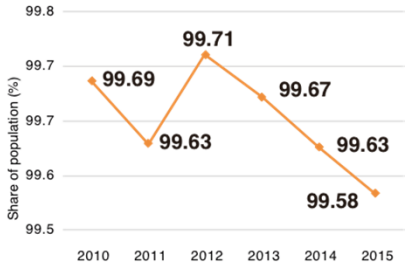
6

6.1.1 Proportion of population using improved water sources (S.1.), 2010-2015



Source: BCCR, Water accounts of Costa Rica.

6.2.1 Proportion of population using improved sanitation facilities (T.1.), 2011-2015



Source: BCCR, Water accounts of Costa Rica.

7 AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all

7

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.

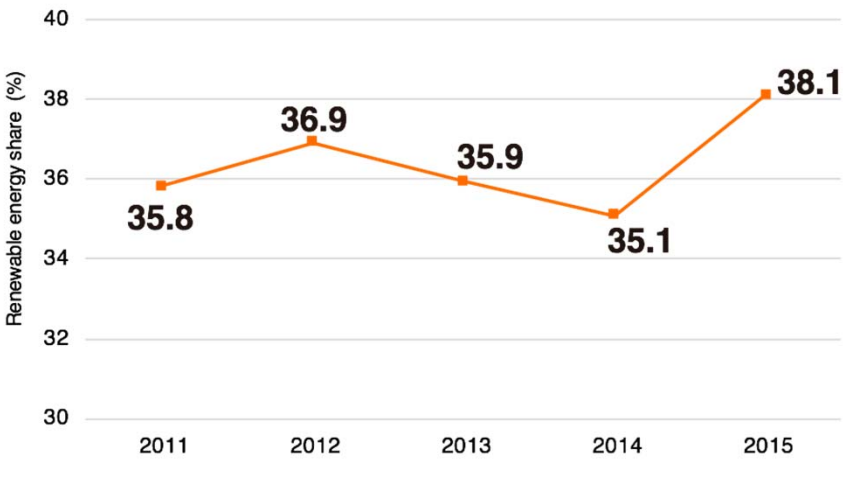
7.3 By 2030, double the global rate of improvement in energy efficiency.

7.2.1 Renewable energy share in the total final energy consumption.

7.3.1 Energy intensity measured in terms of primary energy and GDP.

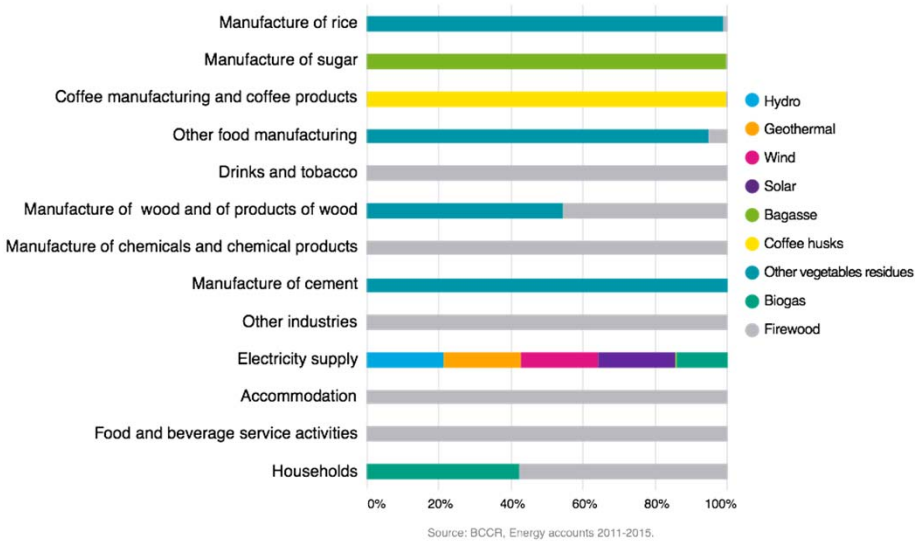
7

7.2.1 Renewable energy share in the total final energy consumption, **2011-2015**



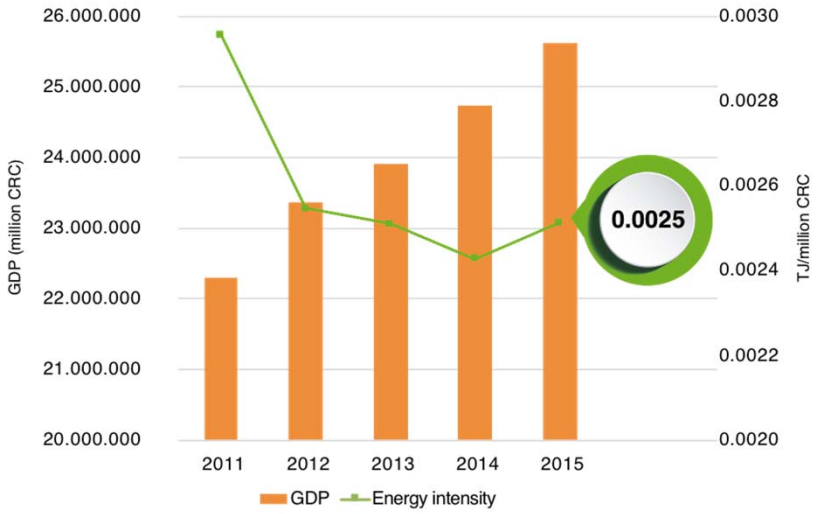
Source: BCCR, Energy accounts 2011-2015.

7 | Share of renewable energy type
by economic activity and households, 2015



Source: BCCR, Energy accounts 2011-2015.

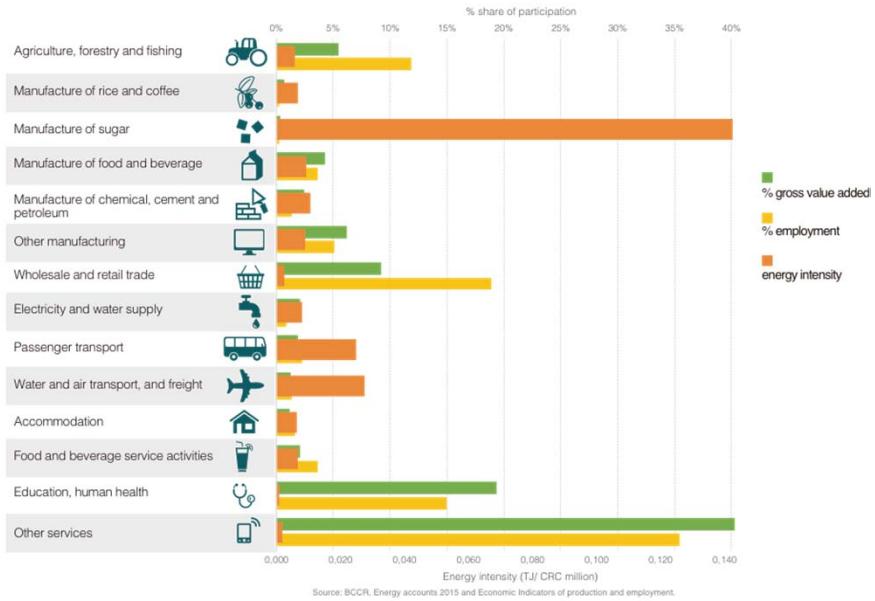
7 | 7.3.1 Energy intensity measured in terms
of primary energy and GDP, **2011-2015**



Source: BCCR, Energy accounts 2011-2015 and economic indicators of production.

7

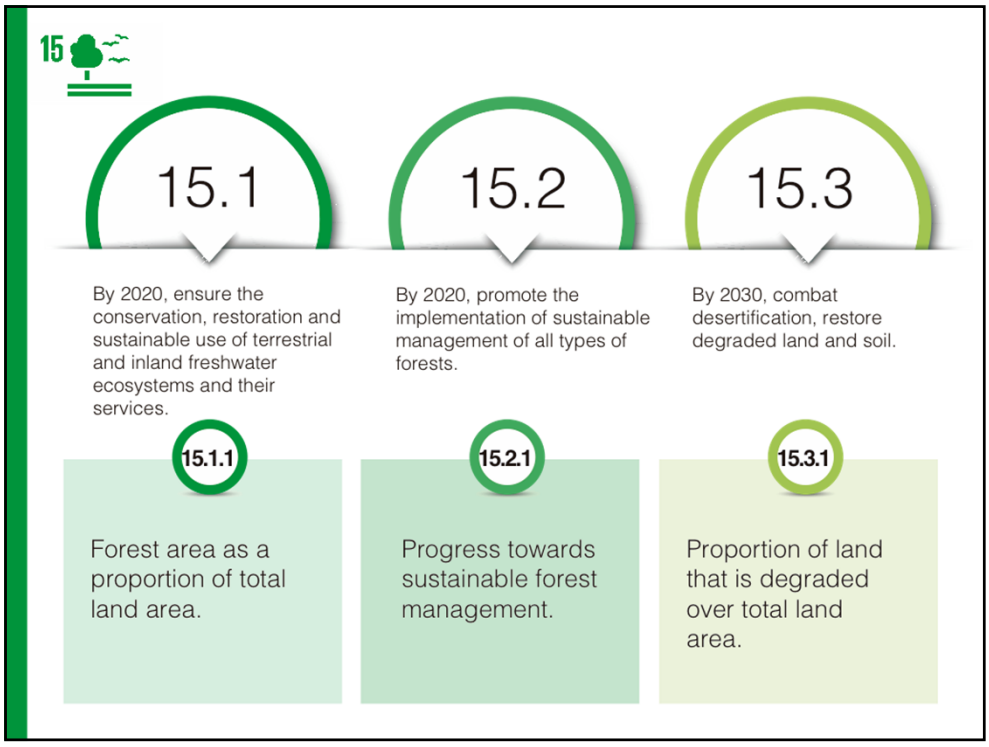
Energy intensity, share of gross value added and employment by economic activity, **2015**

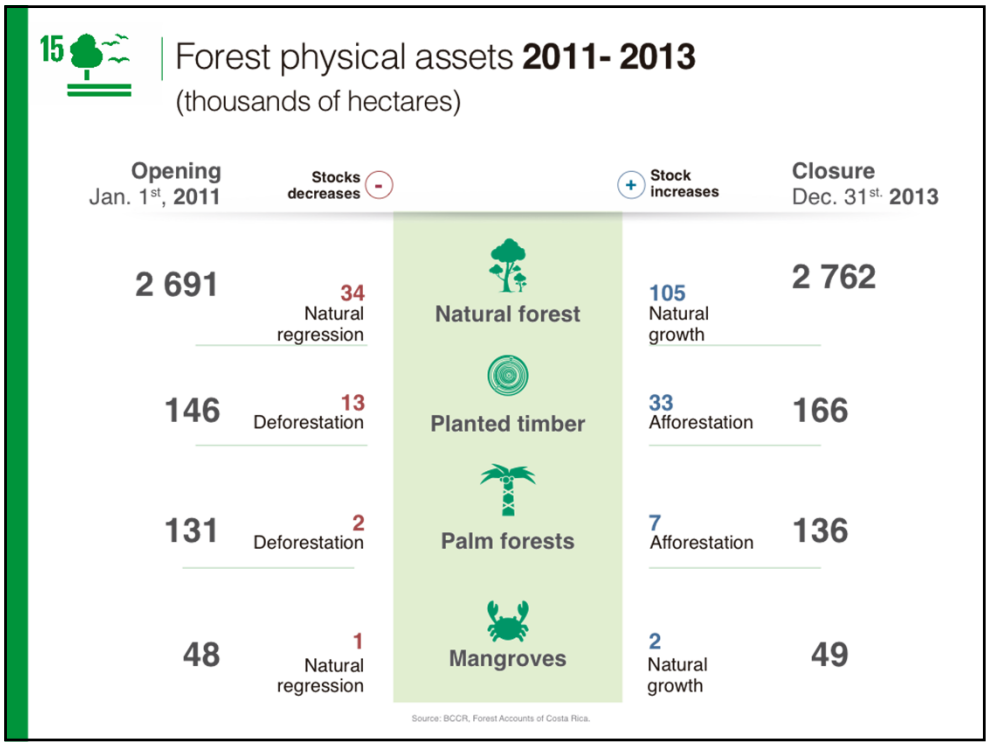


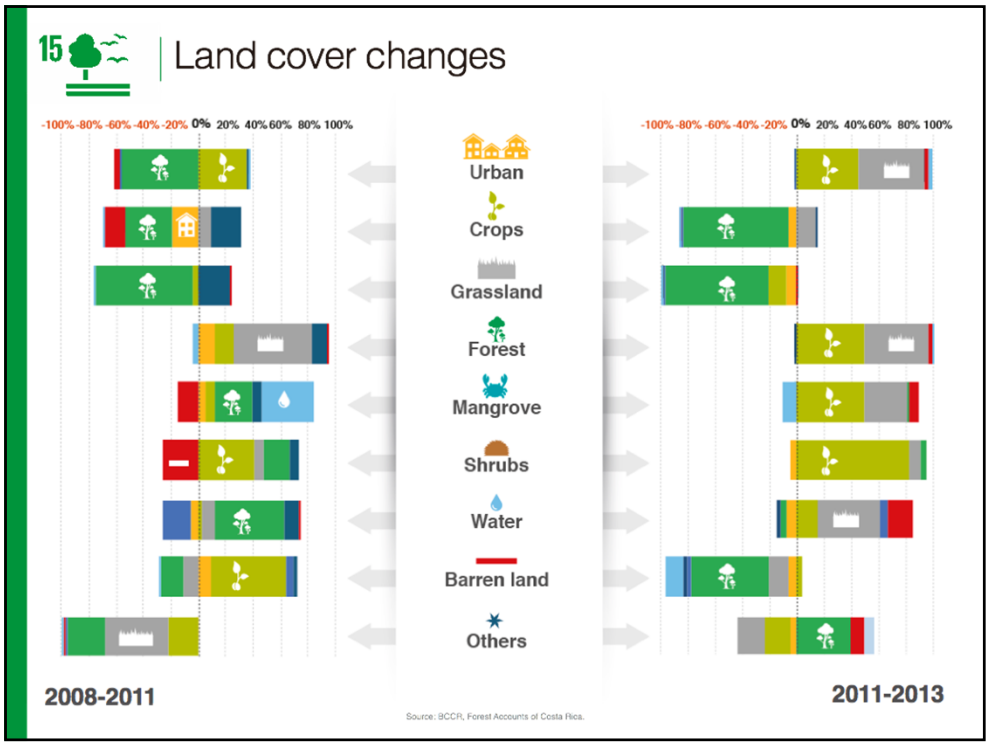
Source: BCCR, Energy accounts 2015 and Economic Indicators of production and employment.

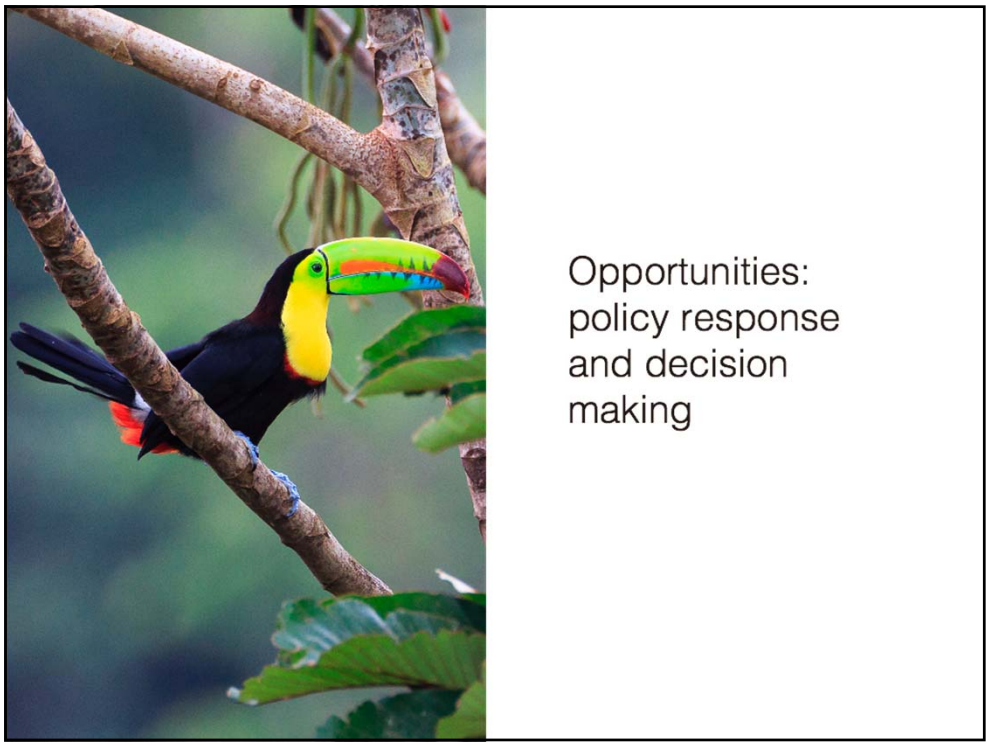
15 LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertifi-cation, and halt and reverse land degradation and halt biodiversity loss


15
15.1
15.2
15.3
By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services.
By 2020, promote the implementation of sustainable management of all types of forests.
By 2030, combat desertification, restore degraded land and soil.
15.1.1
Forest area as a proportion of total land area.
15.2.1
Progress towards sustainable forest management.
15.3.1
Proportion of land that is degraded over total land area.

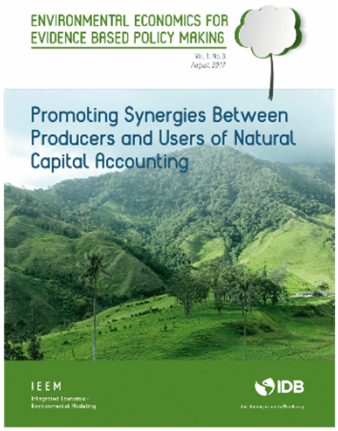

15
Forest physical assets 2011- 2013
(thousands of hectares)
Opening Jan. 1st, 2011
Stocks decreases
Stock increases
Closure Dec. 31st. 2013
2 691
34 Natural regression
Natural forest
105 Natural growth
2 762
146
13 Deforestation
Planted timber
33 Afforestation
166
131
2 Deforestation
Palm forests
7 Afforestation
136
48
1 Natural regression
Mangroves
2 Natural growth
49
Source: BCCR, Forest Accounts of Costa Rica.


15
Land cover changes
-100% -80% -60% -40% -20% 0% 20% 40% 60% 80% 100%
Urban
Crops
Grassland
Forest
Mangrove
Shrubs
Water
Barren land
Others
2008-2011
2011-2013
Source: BCCR, Forest Accounts of Costa Rica.


Opportunities: policy response and decision making

1

Integrated Environmental Economic Modeling for Costa Rica (IEEM-CR)



- Country's vulnerability to climate change.
- Forward-looking analyses of public policies.
- Risk scenarios that consider environmental factors for macroeconomic projections.

IEEM-CR exercise: impact of financial mechanisms to reduce CO_2 emissions

2

TIMES-CR model

pmr PARTNERSHIP FOR MARKET READINESS | WORLD BANK GROUP

Support program to develop projections for long-term planning to comply with INDCs.

Analysis of the decarbonization pathways available for Costa Rica.

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- Identify data and understand information.
- Validate underlying assumptions and parameters.

3

Prioritization model for the National Public Investment Committee (CONIP)

Impact of investment over economic growth by means of I-O analysis, including information of environmental accounts.

Gap index to measure lags by region regarding needs associated to the accomplishment of the SDGs.

Policy applications of SEEA accounts in Costa Rica

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