



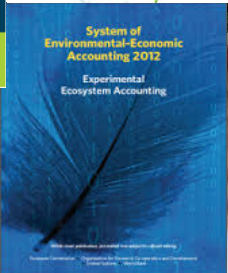
**BADAN PUSAT STATISTIK**



**SENSUS  
EKONOMI**

Pelopor  
Data Statistik  
Terpercaya  
Untuk Semua

# Indonesia PEFA and Air Emission Account: Summary of Findings





# outline

- ☐ Process of Compilation
- ☐ Physical Energy Flow Account (PEFA)
- ☐ Air Emission Accounts
- ☐ Technical issues faced and resolutions



## Background

### Part of UNSD Project

1

Consultant

2

Missions

3

Accounts



Statistics Division



System of  
Environmental  
Economic  
Accounting



## Consultancy on SEEA Accounts

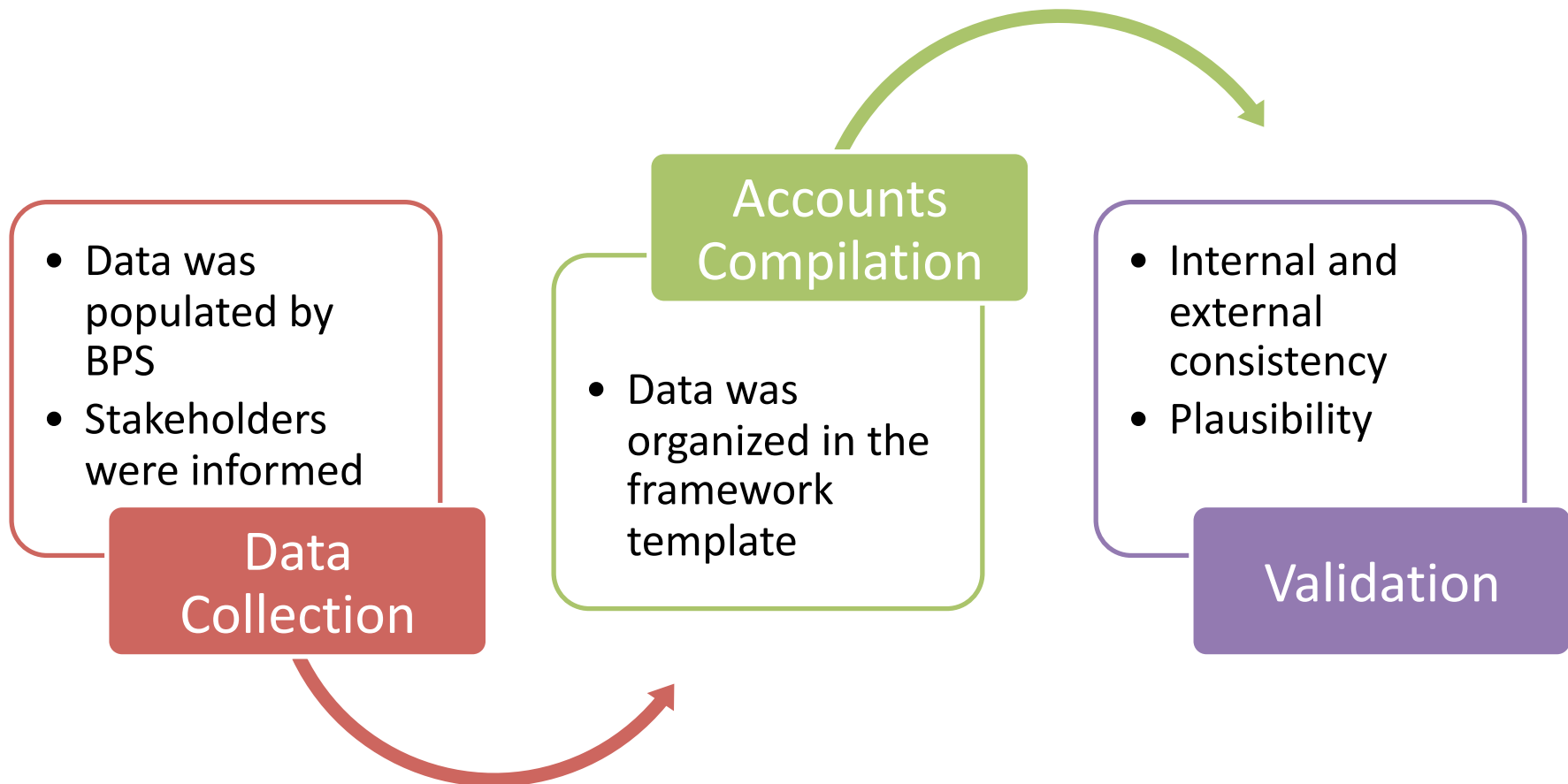
Introduction to accounts

Discussion on framework template

Compilation and validation



# Compilation Strategy





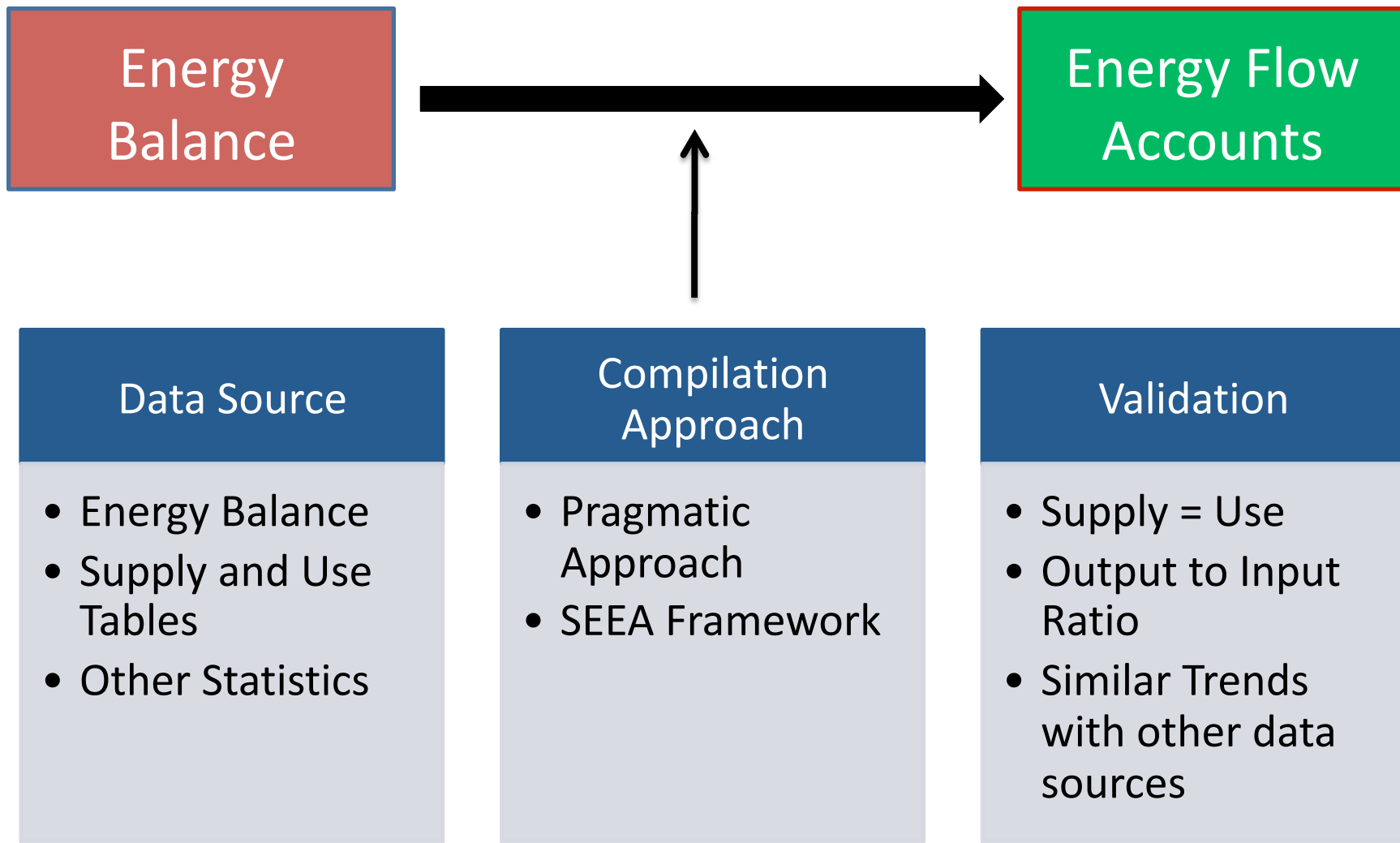


# PEFA

- ☐ Energy mix
- ☐ Energy intensity
- ☐ Energy productivity
- ☐ SDGs
  - Renewable Energy Share
  - End Use Energy compared to GVA



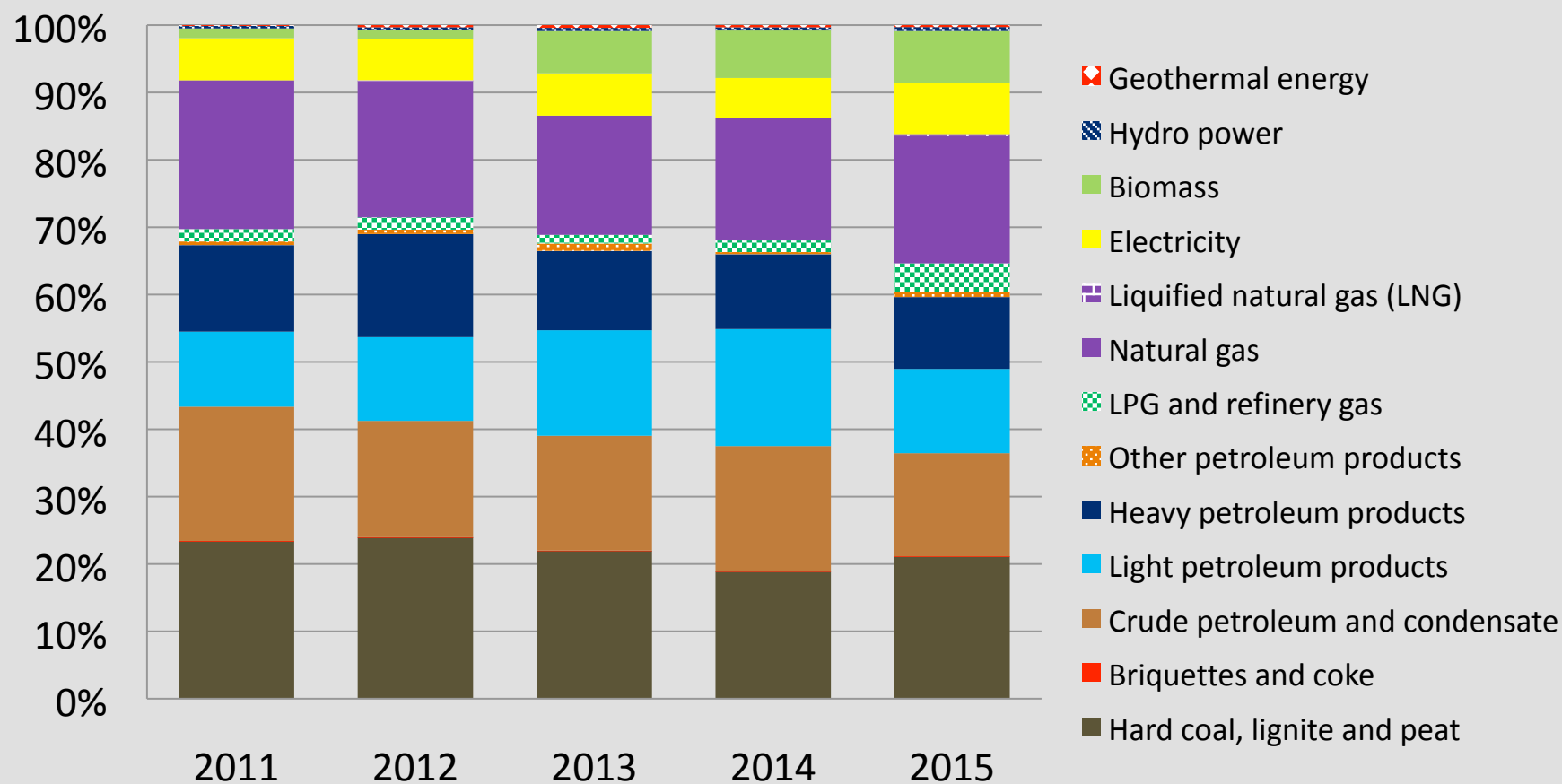
# Introduction





# Energy Mix, 2011-2015

## Energy Mix Households and Industries, 2011-2015

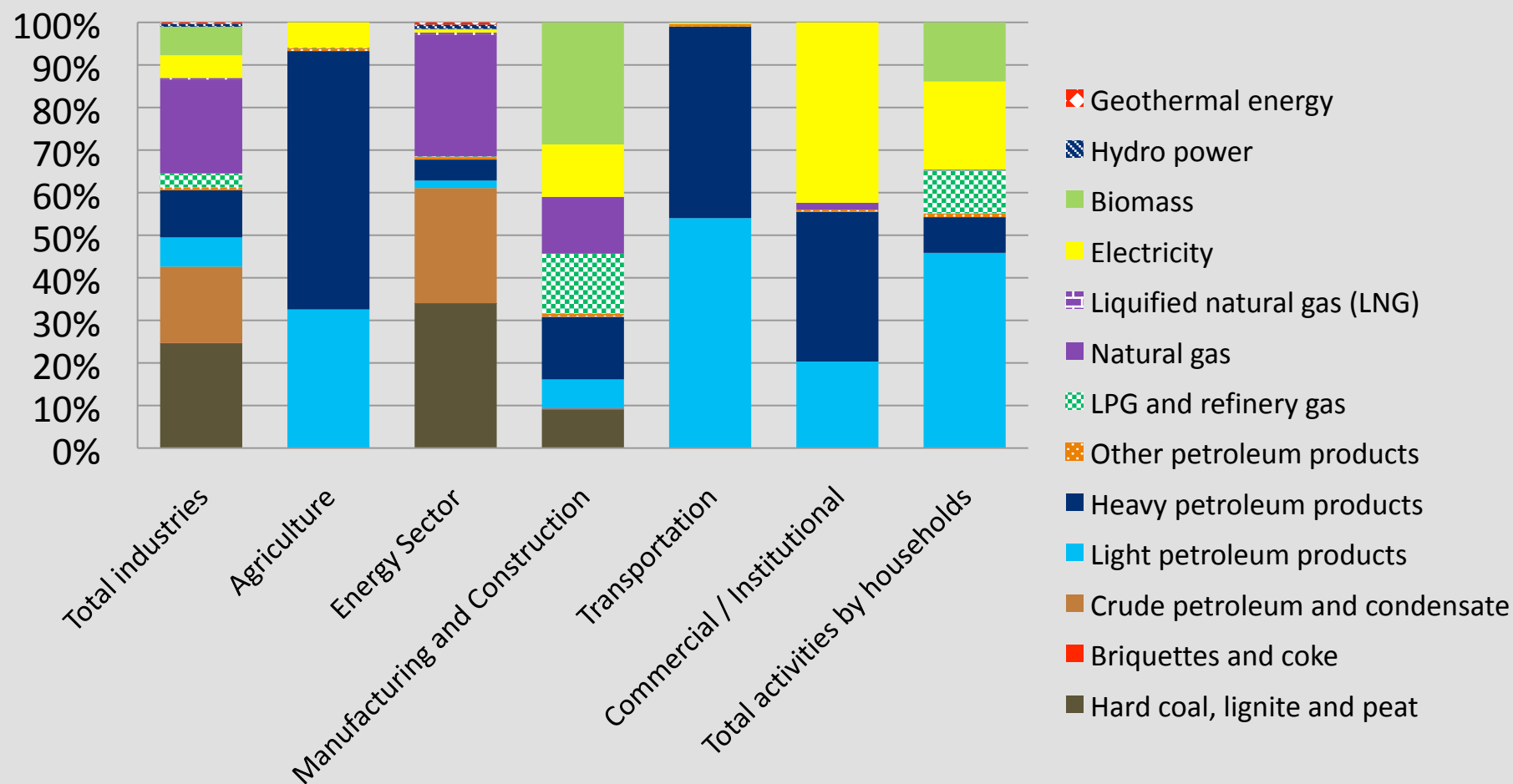






# Energy mix by selected industries and households, 2015

## Energy Mix by Industries and Households, 2015





## Energy Use by Industry and Households, 2011-2015

Total Use of Energy (PJ)	2011	2012	2013	2014	2015
Total industries	8873	9465	10594	9610	9171
Agriculture	23	35	45	52	31
Energy Sector	5622	5587	6550	6655	6077
Manufacturing and Construction	2410	2714	2818	1654	2118
Transportation	392	584	704	733	521
Commercial / Institutional	425	546	478	517	423
Households	1242	1301	1316	1544	1552



# Renewable Energy Share in the Total Final Energy Consumption

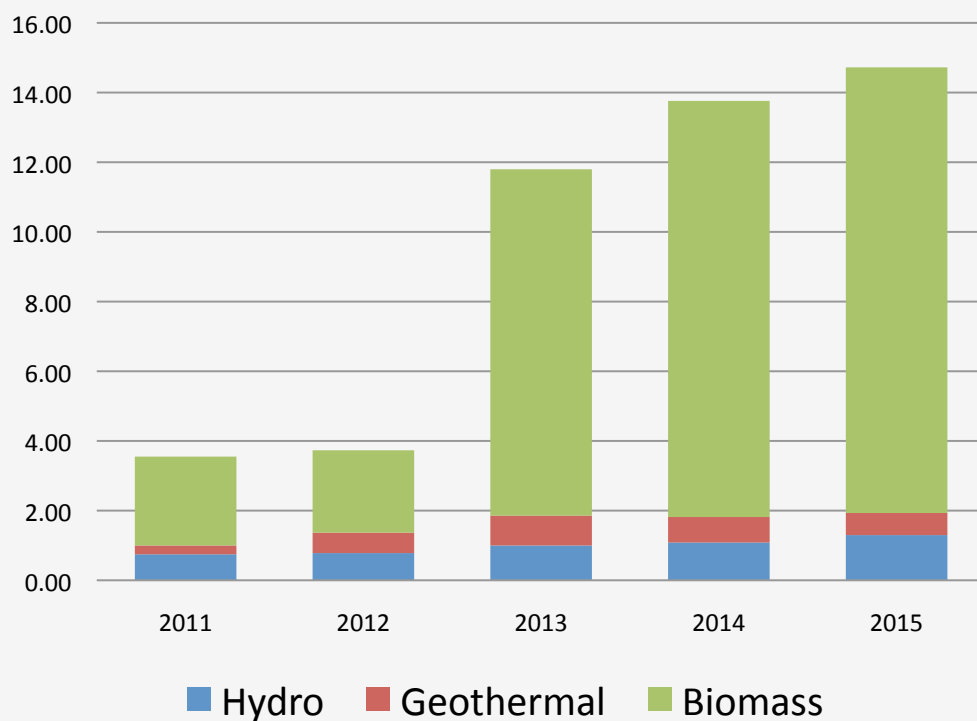
7 AFFORDABLE AND  
CLEAN ENERGY



## Target 7.2

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

Renewable Energy Share in the Total  
Final Energy Consumption (%)



## 2015



Hydro  
1,30 %



Geothermal  
0,63 %



Biomass  
12,79 %



Total Renewable Energy  
14,72 %



# Energy Intensity

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CLEAN ENERGY



## Target 7.3

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

Energy Intensity (GJ per million IDR)	2011	2012	2013	2014	2015
Total industries	1.22	1.22	1.30	1.12	1.02
Agriculture	0.02	0.03	0.04	0.05	0.03
Energy Sector	5.31	5.16	5.95	6.02	5.65
Manufacturing and Construction	1.17	1.23	1.21	0.67	0.81
Transportation	1.47	2.05	2.31	2.24	1.49
Commercial / Institutional	0.15	0.18	0.15	0.16	0.12
Households	0.31	0.31	0.30	0.33	0.32



# Energy Intensity Index

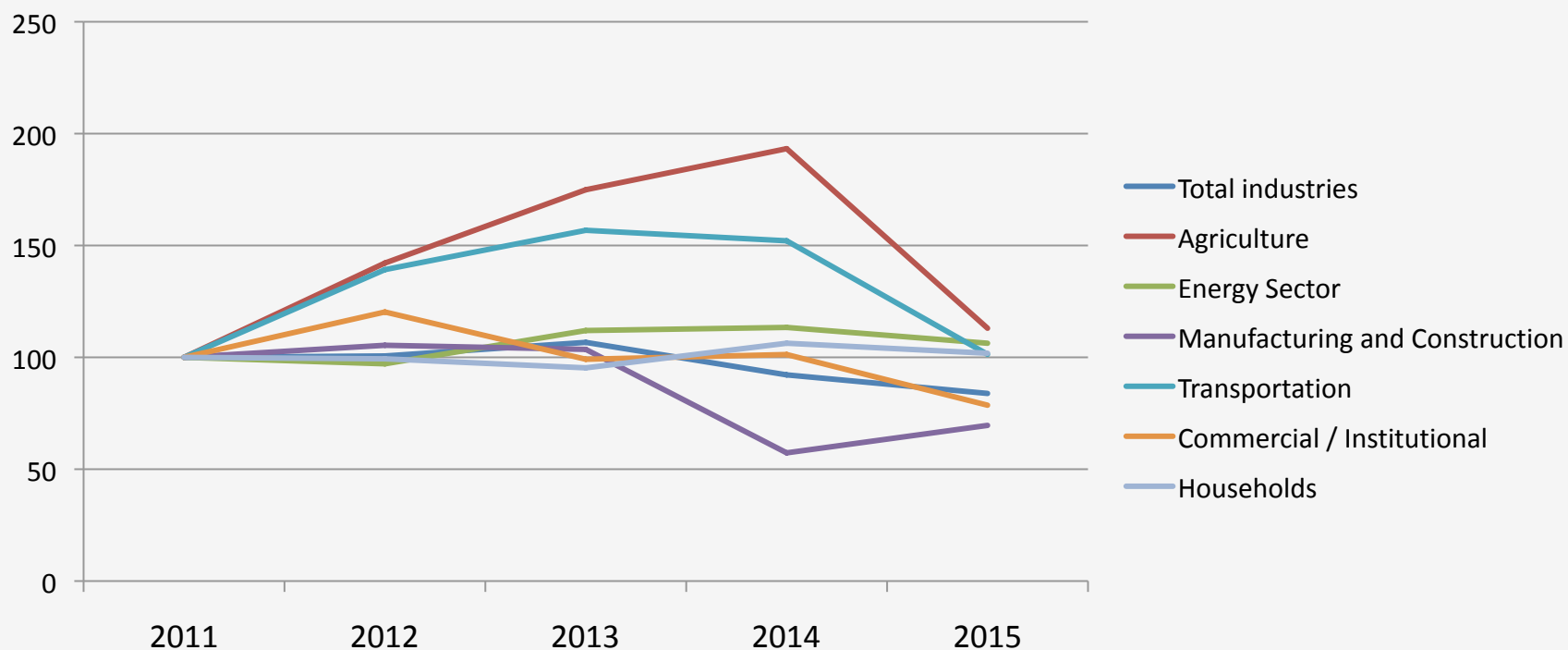
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## Target 7.3

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

**Energy Intensity Index by Industries and Households (2011=100),  
2011-2015**





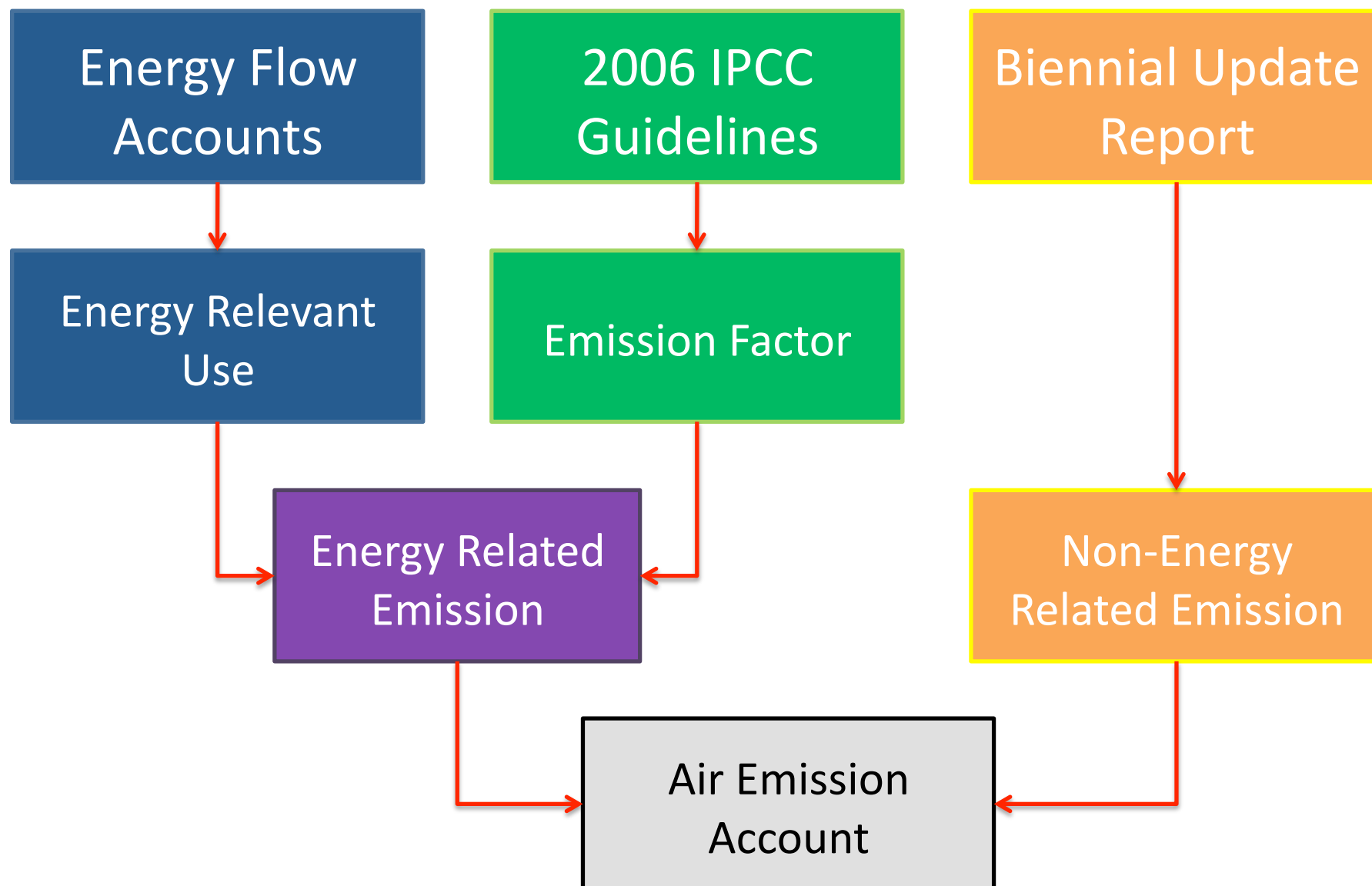


# Air Emission Account

- ☐ CO2 Emission
- ☐ CH4 Emission
- ☐ N2O Emission



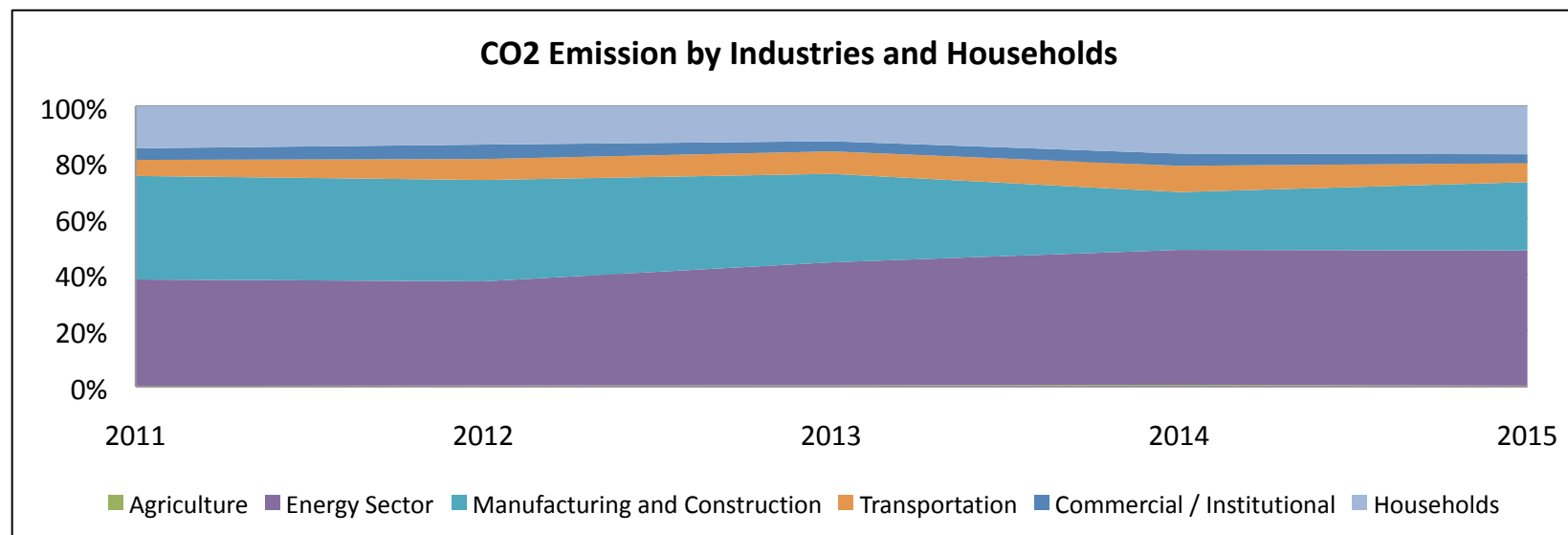
# Introduction





# CO2 Emission emitted by industry and households (in Gg)

CO2 Emission (Gg)	2011	2012	2013	2014	2015
Total industries	414 684	484 232	545 108	463 173	460 649
Agriculture	1 579	2 425	3 088	3 582	2 150
Energy Sector	184 882	208 286	273 148	268 269	267 710
Manufacturing and Construction	180 071	202 683	196 453	114 892	135 496
Transportation	27 956	41 888	49 951	52 045	37 619
Commercial / Institutional	20 196	28 950	22 467	24 386	17 674
Households	73 192	76 784	77 830	94 160	95 222





# CO2 Emission Intensity (Mg per billion IDR GDP)

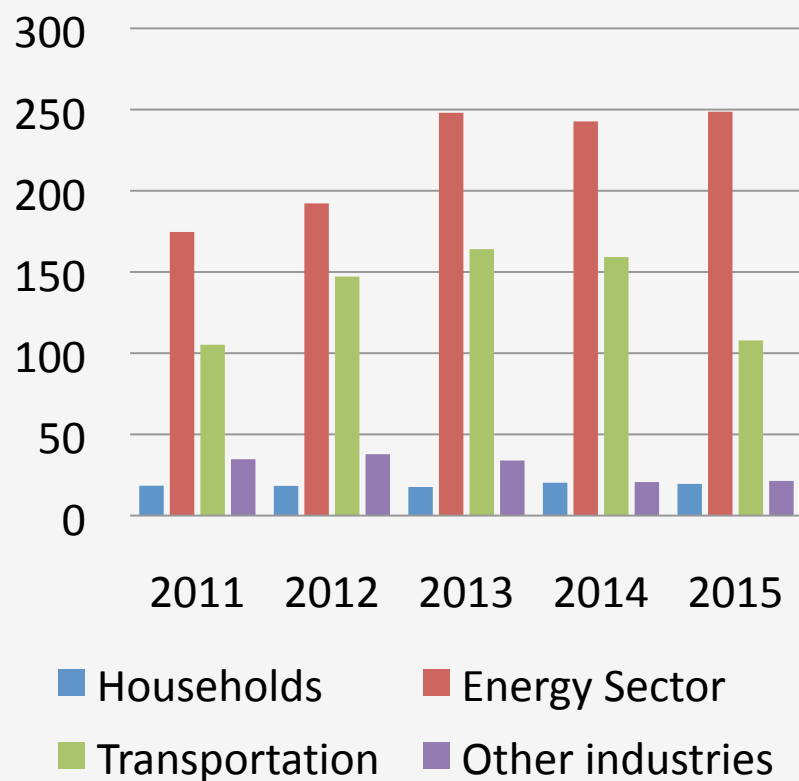
9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



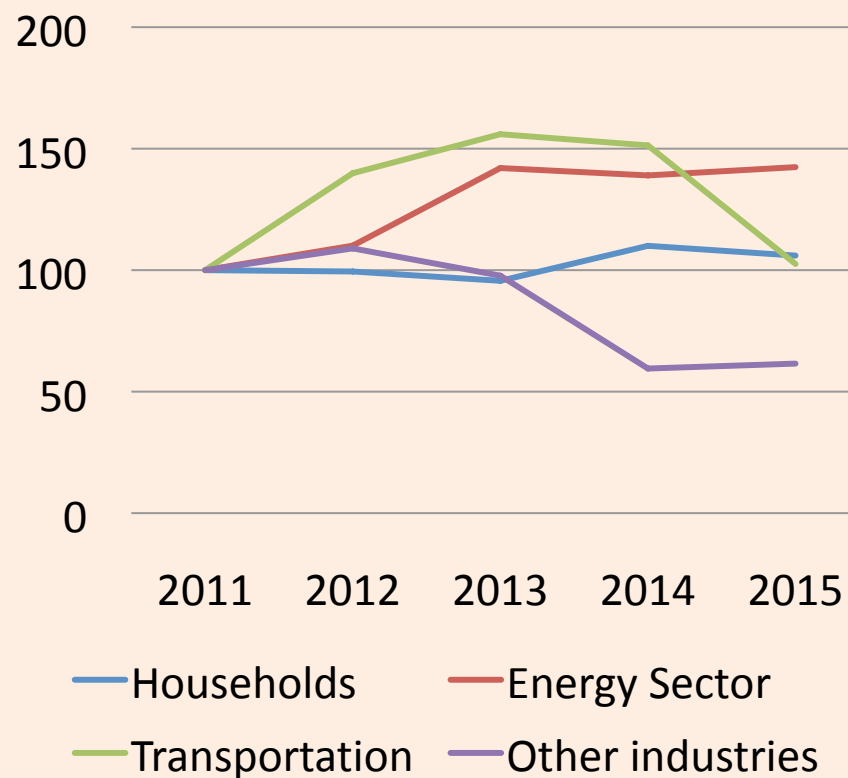
## Target 9.4

*By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities*

CO2 Emission Intensity  
(in Mg per billion IDR GDP)



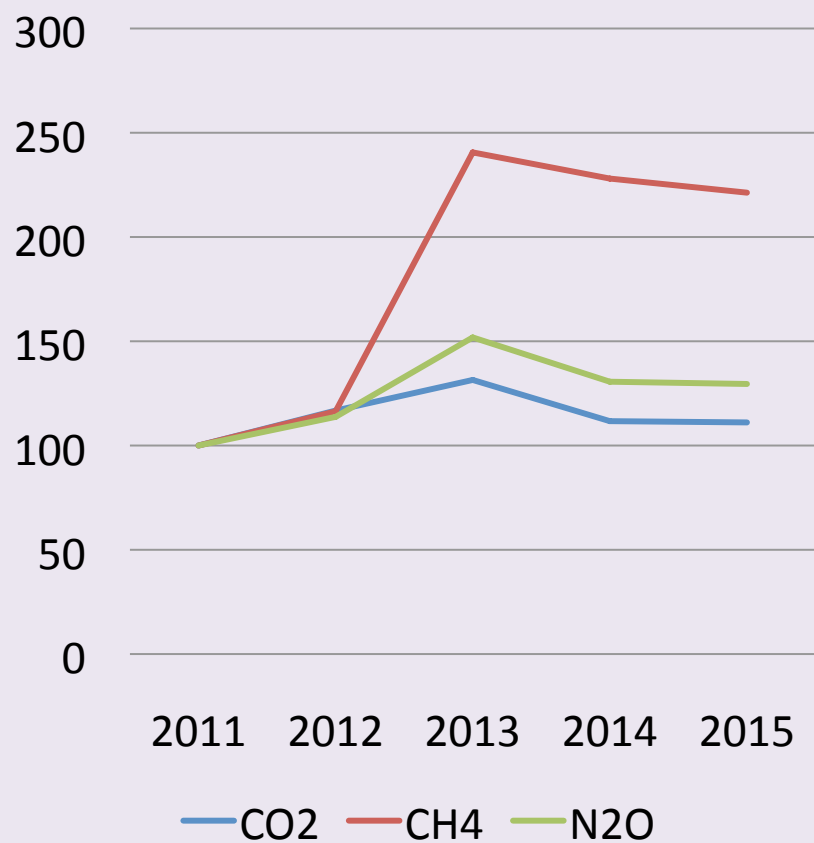
CO2 Emission Intensity Index  
(2011=100)



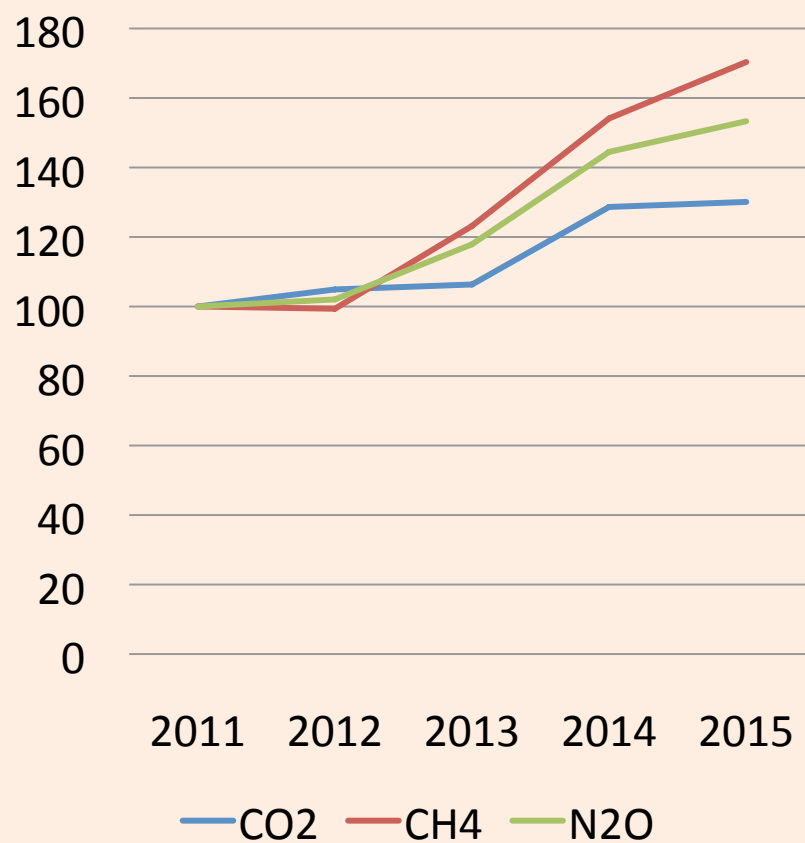


# Air Emission by Industry and Households

## Industries Air Emission Index (2011=100)



## Households Air Emission Index (2011=100)







# Technical issues faced and resolutions



# Challenges faced

## **CHALLENGES**

- 1. Having 2 different Energy Balance**
- 2. Breakdown by industries from SUT 2010**
- 3. Breakdown of road transport use of energy to all other industries and households**
- 4. Coordination and communication to other stakeholders making them engage more in the process of work**
- 5. Build demand based on the work that relevant to policy application**
- 6. Send a message to improve future work based on the findings**



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# THANK YOU

*Sukseskan*



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