



## KOSOVO ECRAN modeling training

*22 April 2016*

### KEY ASSUMPTIONS

- GDP in Kosovo in 2013 was 3877
- GDP MER: growth 3.0% :
- Population: 1798645
- Growth: around 3%
- Percentage of population living in urban areas for 2011 was 38.3 %
- Percentage of population living in rural areas for 2011 was 61.7 %
- Total number of households in Kosovo for 2013 according to Labor Force Survey was 319,009
- Average household size in Kosovo for the year 2013 according to the Labor Survey Force was 5.68 people in an economy

Comparison of Energy Balances from LEAP and Energy Balances from Ministry of Economic Development								
Energy Balance for Area	2010LEAP	2010	2011LEAP	2011	2012LEAP	2012	2013LEAP	2013
"Kosovo 3.1"								
Production	-	1860.77	-	1792.63	-	1746.64	-	1790.140
Imports	2,601.1	574.77	2,332.8	702.28	2,341.1	668.82	2,348.1	637.730
Exports	-		-		-		-	
From Stock Change	-		-		-		-	
Total Primary Supply	2,601.1		2,332.8		2,341.1		2,348.1	
Electric Generation	-1,278.9		-1,005.2		-1,008.6		-1,010.8	
Own Use	-51.7		-59.3		-59.6		-59.8	
Distribution Losses	-81.0		-74.4		-74.7		-75.0	
Total Transformation	-1,411.5		-1,138.9		-1,142.9		-1,145.5	
Statistical Differences	-		-		-		-	
Residential	461.6	461.67	465.9	490.51	470.2	473.73	474.6	495.520
Agriculture and Fishing	18.5	18.44	18.5	19.95	18.5	19.85	18.5	
Services	112.1	113.39	112.1	119.57	112.1	117.09	112.1	118.790
Industry	272.3	254.89	272.3	315.64	272.3	272.98	272.3	266.630
Iron and Steel	52.5	59.36	52.5	69.03	52.5	85.31	52.5	77.660
Chemical and Petrochemical	1.4	1.83	1.4	1.89	1.4	1.56	1.4	1.460
Non Ferrous Metals	61.7	61.75	61.7	64.47	61.7	37.72	61.7	25.550
Non Metallic Minerals	28.8		28.8		28.8		28.8	
Machinery	2.1		2.1		2.1		2.1	
Food and Tobacco	79.3	78.88	79.3	83.80	79.3	58.21	79.3	55.980
Paper Pulp and Printing	0.2	0.24	0.2	0.26	0.2	0.24	0.2	0.250
Textile and leather	0.1	0.16	0.1	0.17	0.1	0.13	0.1	0.090
Construction	-		-		-		-	
Other Industry	46.3	21.72	46.3	32.62	46.3	32.02	46.3	36.060
Transport	316.7	318.91	316.7	338.58	316.7	342.65	316.7	328.520
Road	315.7	316.52	315.7	325.44	315.7	327.38	315.7	311.110
Rail	1.0	1.15	1.0	1.21	1.0	0.99	1.0	2.420
International Aviation	-		-		-		-	
Non Energy Use	7.4	0.37	7.4	50.41	7.4	39.62	7.4	42.370
Other Energy Use	1.0		1.0		1.0		1.0	
Total Demand	1,189.6		1,193.9		1,198.2		1,202.6	

Comparison of GHG from LEAP and GHG from IPCC (total)						
	2008	2009	2010	2011	2012	2013
LEAP	7,537,747	8,483,332	8,738,145	7,658,766	7,682,090	7,790,124
IPCC	7,441,100	8,401,200	8,451,604	8,619,833	8,064,392	8,257,598

## CONCLUSIONS

- The differences between GHG emissions calculated in LEAP and National Inventory are big
- The causes of these differences between GHG emissions calculated in LEAP and reported CRF for Kosovo are because CRF was prepared in different methodologies or software's.
- The differences between GHG emissions calculated in LEAP and IPCC for Kosovo are very small
- Kosovo has not systematically data for many sectors which makes difficult during the preparation of reports.

For social and economic data we used data from Kosovo Statistical Agency, Ministry of Economic Development and from Ministry of Environment and Spatial Planning.

(sources: [www.ask.rks-gov.net](http://www.ask.rks-gov.net); [www.mmph.rks-gov.net](http://www.mmph.rks-gov.net); [www.mzhe-rks.net](http://www.mzhe-rks.net))

## Kosovo-Module 3 Task Description

Within the activities in the climate change sector, Kosovo has prepared the register (inventory) of the greenhouse gases for 2008-2013.

GHG Emissions in Kosovo for 2013 Gg CO<sub>2</sub> eq.  
Total emissions 9568.4 Gg CO<sub>2</sub> eq.



Energy	8428.4
Industrial Processes	198
Product Usage	36
Agriculture	690
Forestry and Land Use	34
Waste	250

## ENERGY

The main sources of the greenhouse gas emissions in the energy sector

Sources of emissions	CO <sub>2</sub> Gg. eq.	%
- Energy Industries	6431.05	76.3
- Manufacturing and Construction Industries	549.33	6.5
- <b>Road Transport</b>	<b>965.94</b>	<b>11.5</b>
- Other burning fuel sectors	446.02	5.3
- Solid fuels	35.85	0.4

o GHG Broadcast per capita 2008-2013- 5,7 tones CO<sub>2</sub>

Table. 1. Motor and non-motor vehicles registered

Years	2011	2012	2013	2014	2015
<b>Vehicles</b>	170.321	176.398	222.537	236.145	281.847
Vehicle trans, 3.5 and over 3.5t	10.877	11.547	15.352	15.769	18.330
Vehicle trans, under 3.5t	17.901	18.225	24.659	26.949	30.846
Combination Buset	2.698	2.520	3.225	3.161	3.212
Buses	1.117	1.298	1.570	1.697	2.124
Motorcycles	546	809	1.488	1.540	1.849
Tractors	39	137	776	1.036	941
Trailer under 3.5t	101	117	217	250	286
Trailer 3.5 and over 3.5t	1.766	1.800	2.283	2.281	2.707
<b>In total</b>	<b>205.366</b>	<b>212.851</b>	<b>272.107</b>	<b>288.828</b>	<b>342.142</b>

<sup>2</sup> Source of data: Ministry of Internal Affairs

## Sector:

### - Transport - HAM

Year	2016	2030	2050
<b>ROAD</b>			
Diesel	76.87 %	35 %	20 %
Gasoline	19.81 %	2 %	1.5%
LPG and other gases	3.32	2.8 %	2.5 %
Hibrid	0.00	15 %	35 %
Natural gas	0.00	Reminder 100	Reminder 100
<b>RAIL</b>			
Diesel	100 %	40 %	20 %
electricity	0.00 %	60 %	80 %
<b>ENVIRONMENTAL INDICATOR</b>			
Tones CO <sub>2</sub> /per capita	5.7 mil. lit	2.85 mil. lit	0.14 mil. lit
GHG total emissions	9568.4 Gg CO <sub>2</sub> eq	4784 Gg CO <sub>2</sub> eq	956 Gg CO <sub>2</sub> eq



