STRENGTHENING STATISTICAL CAPACITY OF ARAB COUNTRIES IN PRODUCING ENERGY STATISTICS ON CONSUMPTION IN TRANSPORT SECTOR

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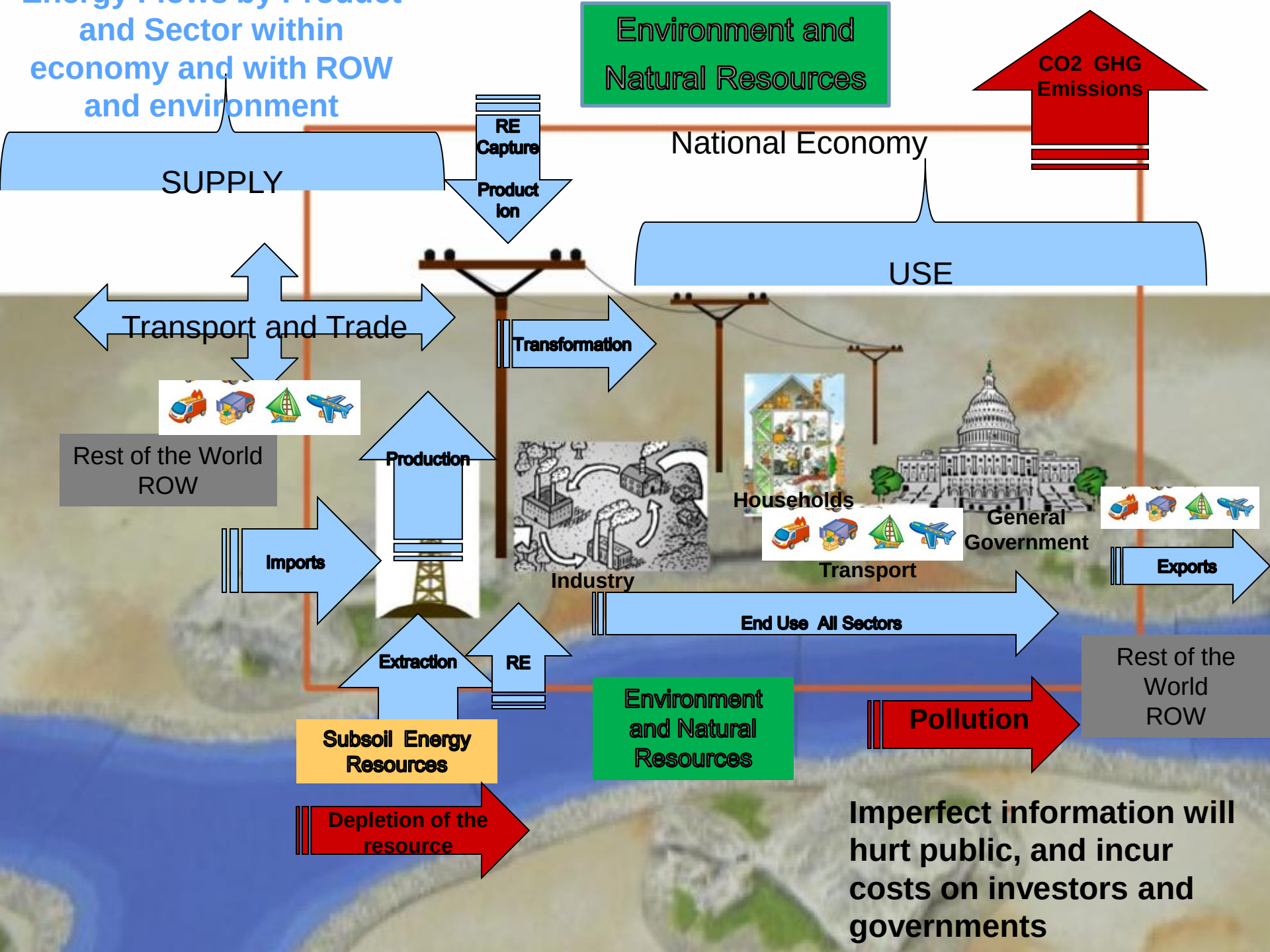
OUTLINE

- Energy Flows (Statistics and Balance) - ESCWA Project ESAB
- Difficulties In Compiling Energy Balance
  - End Use in different sectors –Transport
    - Transport and Economy (Value Added, Jobs, HH expenditures)
    - Transport Energy Use by Product by Mode (Models and Surveys)
    - Transport and Trade (Goods and services) and Globalization
    - Transport/Energy Use and Environment
- Energy Field Surveys Project
  - Technical assistance
  - Methodological Documents
  - Survey Methodology
  - Common core survey questionnaires
  - Survey results with energy balance
  - Countries Progress
- Comparison of results with energy balances of the 3 countries
- Way ahead

ESAB (Statistics and Balance) ESCWA Project

- ESCWA implemented a project funded by the UN Development account on energy statistics and balance from 2011 to 2014 in coordination with IEA and UNSD (ESAB)
- The compilation of an energy balance and energy accounts is an important tool for energy and economic planning
- The energy balances sheets enable important analyses on the structure and development of energy consumption. Environmental economic accounting breaks down energy consumption in production sectors and can be linked with the input-output tables


Energy Flows by Product and Sector within economy and with ROW and environment
Environment and Natural Resources
CO2 GHG Emissions
National Economy
SUPPLY
RE Capture
Production
USE
Transport and Trade
Transformation
Rest of the World ROW
Production
Households
General Government
Imports
Industry
Transport
Exports
End Use All Sectors
Extraction
RE
Environment and Natural Resources
Pollution
Rest of the World ROW
Subsoil Energy Resources
Depletion of the resource
Imperfect information will hurt public, and incur costs on investors and governments

ESAB

UN-ESCWA

ESAB Energy Statistics and Balances Project

Overview

Energy data represents a basic input to all sectoral and national development plans, particularly in ESCWA member countries where energy sector has a vital role in the economic and social development. However, the quality of energy statistics in most of ESCWA countries still needs capacity building to meet the appropriate statistical requirements for formulating national development plans and international reporting. ESCWA member countries face several problems concerning the availability and overall quality of data on energy. Therefore, there is an urgent necessity to upgrade the capacity of national officials on compiling statistics on supply and use by all sectors on all energy sources as well as for harmonizing the definitions and classification and to produced yearly energy balance.

Objectives

The project aims to strengthen national statistical capacity in developing energy information system and energy statistics and balances in ESCWA member countries. Through training activities and sharing knowledge, the project will support member countries in adopting of corrective policies and programs and promoting the production of statistics and indicators on the energy in line with United Nations methodologies.

Project Document

NEWS

Energy consumption in the transport sector questionnaires

In the context of the project on energy consumption in the transport sector surveys, three ESCWA member countries have prepared and conducted national surveys on the energy consumption in the transport sector. The questionnaires used to conduct the surveys are provided in the "Energy Survey Questionnaires" in English and Arabic.

Guidelines on Energy Consumption Surveys in the Transport Sector

The publication is a reference guideline on methodologies used for conducting surveys and collecting data on energy consumption in the transport sector, namely road, railway, maritime, and air transport. The first part describes the technical aspect of the different methods of statistical data collection. The second part focuses on the preferred design for energy consumption surveys. It also includes the experiences of Egypt, Jordan and Palestine in implementing the survey.

IRES التوصيات الدولية لإحصاءات الطاقة

قامت ادارة الاحصاء في اللجنة الاقتصادية والاجتماعية لغربي آسيا(الاسكوا) بترجمة أولية للوثيقة الاصلية بالنكليزية من خلال مشروع التنمية "تعزيز القدرات الاحصائية الوطنية في انتاج احصاءات وميزان الطاقة" لكي تكون مرجعا" هاما" لاطلاع ذوي الشأن من كافة البلاد العربية على هذا الاطار بلغتهم الأم وبالتوقيت المناسب مما يسهم في نشر أوسع للمفاهيم وتطبيق المنهجيات المتطورة وفق تلك الوثيقة وذلك للاستعجال باصدار النسخة العربية الرسمية من قبل قسم الترجمة العربية في إدارة الأمم المتحدة للشؤون الاقتصادية

Meeting on Energy Balance and End Use in the Transport Sector

A preliminary meeting will be held in Amman, Jordan on 22-23 December 2014 to start with the implementation of the Joint Project of the Statistics Division with the Islamic Bank and DFID on strengthening the statistical capacity of 3 Arab countries, Egypt, Jordan and Palestine, in producing energy statistics and energy consumption surveys in the transport sector.

Difficulties In Compiling Energy Balance

- Energy Supply is easier to compile than Energy consumption
- Energy consumption depends on climatic conditions, industrial structure and transportation needs, as well as on economic variables such as energy prices and average income levels.
- In our region, energy products supply and use are under informal sector
- Data on End Use in economic sectors needs to be improved: Industry ,Transport ,Agriculture, Households.
- Why select Transport sector for this survey funding?

Energy, Transport, Economy, Globalization, Environment

+Transport accounts for 6% of value added, 8% of jobs, 15% of household spending.*

+The transport sector is at the heart of globalisation supporting trade and economic growth[1]. (passengers and freight, goods and services are more numerous and travel further and more frequently)

-Transport accounts for 19% of global energy use and 25% of global energy-related CO2 emissions. Road Transport accounts for 75%(IEA, 2009).

Energy Demand in Transport is projected to rise by 40% from 2010 to 2040 mainly due to commercial transportation [2]

-Transportation energy and CO2 emissions grew world-wide at 2% and 2.5% per year from 1971 to 2006 (IEA, 2009).

= Invest where needed, increase value added, improve efficiency, reduce environmental harm and ensure safety*

1. **OECD 2009 Transport for a Global Economy** Challenges & Opportunities in the Downturn.
2. The outlook for Energy A View to 2040 Exxon Mobil

Transportation Energy Information

•Information on transport services and transport fuel use is very important for designing energy, environmental and transportation policies that encourage transport services with maximum fuel efficiency and significant CO2 emissions reduction

•A better understanding of how the demand for the freight and travel evolves with the level of development, income and prices, technology (efficiency) and consumption patterns (consumers behaviour)

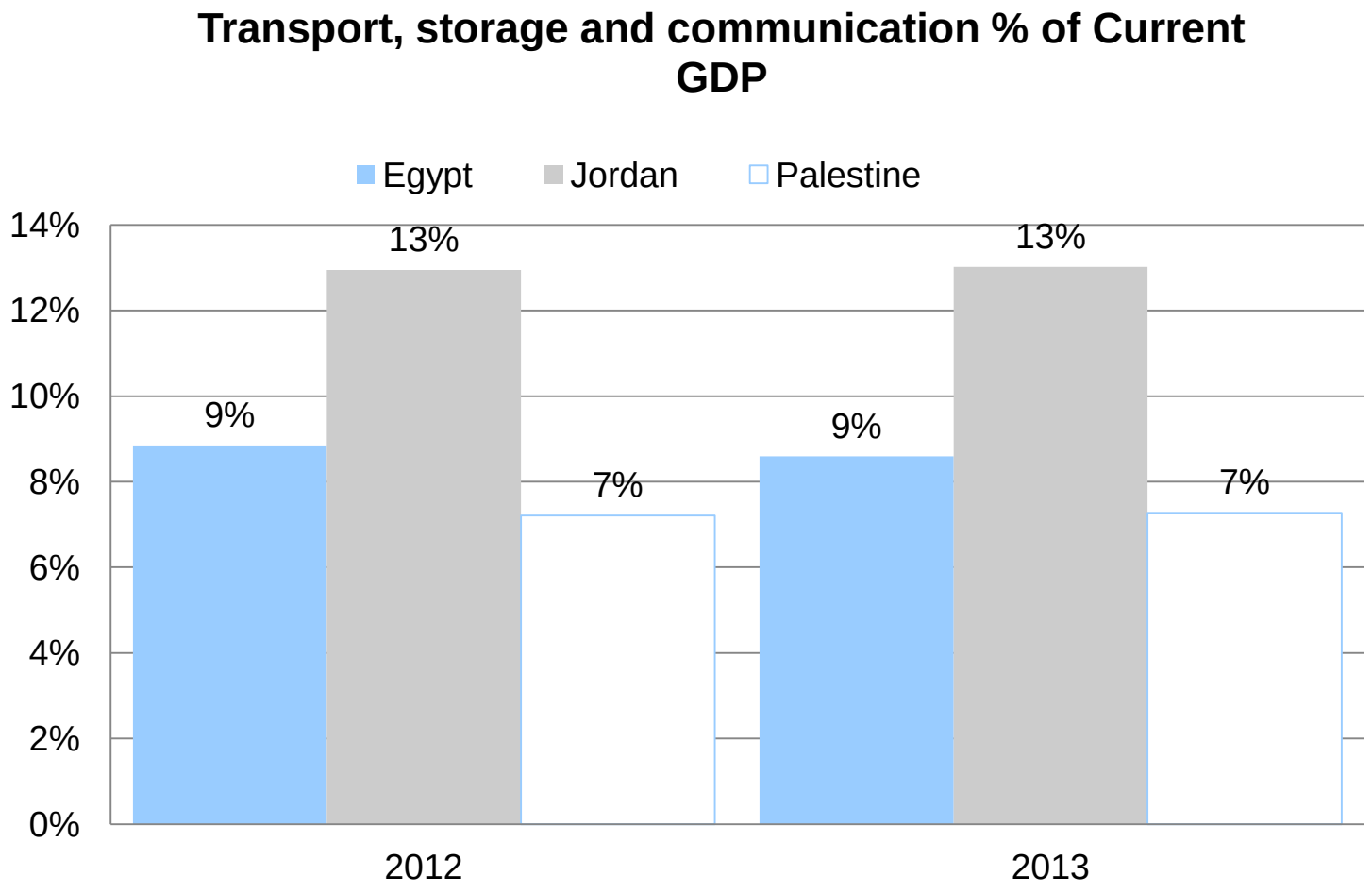
•In most studies, transport fuel demand considered aggregate transport fuel demand (E), often gasoline, (sometimes diesel), total transport, or total highway transport fuel.

•Econometric Models , with consumption related to price, income or economic activity and sometimes other variables as well. (stock of vehicles). E could be fuel demand as well as any of the components of demand such as new vehicles purchased, miles travelled, etc.

•Input Output Models

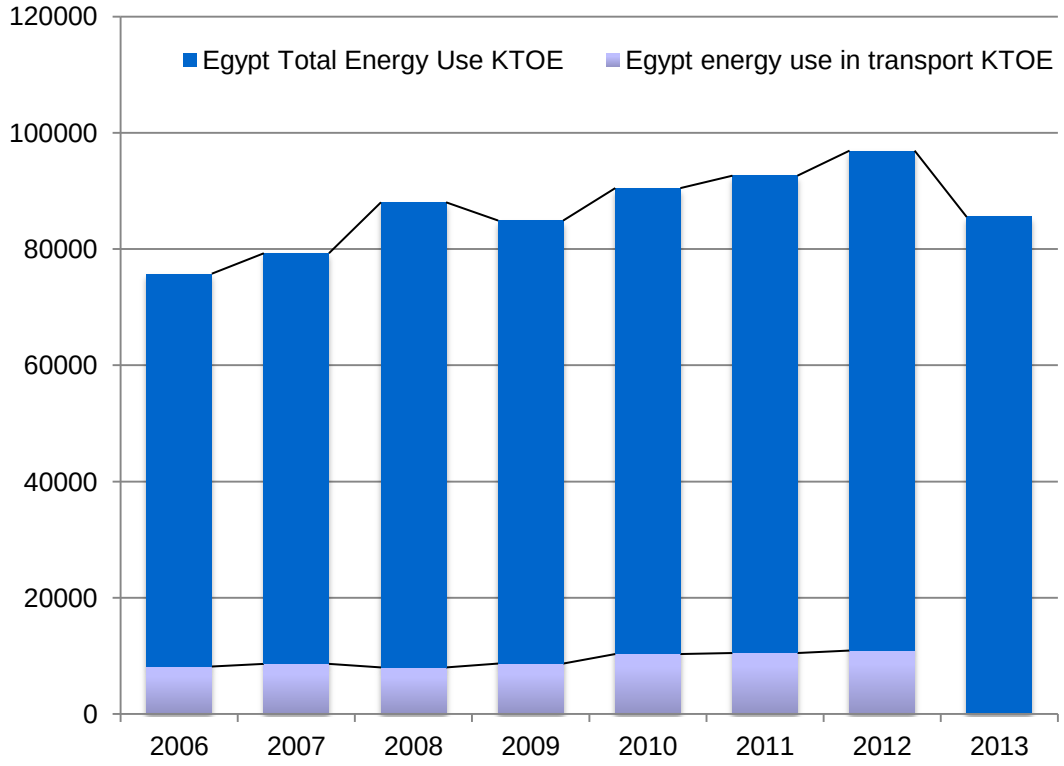
•Amela Ajanovic , Carol Dahl, Lee Schipper . 2012. Modelling transport (energy) demand and policies — An introduction Energy Policy 41 (2012) iii–xiv http://publik.tuwien.ac.at/files/PubDat_214903.pdf

Transport Sector Contribution to Economic Activities



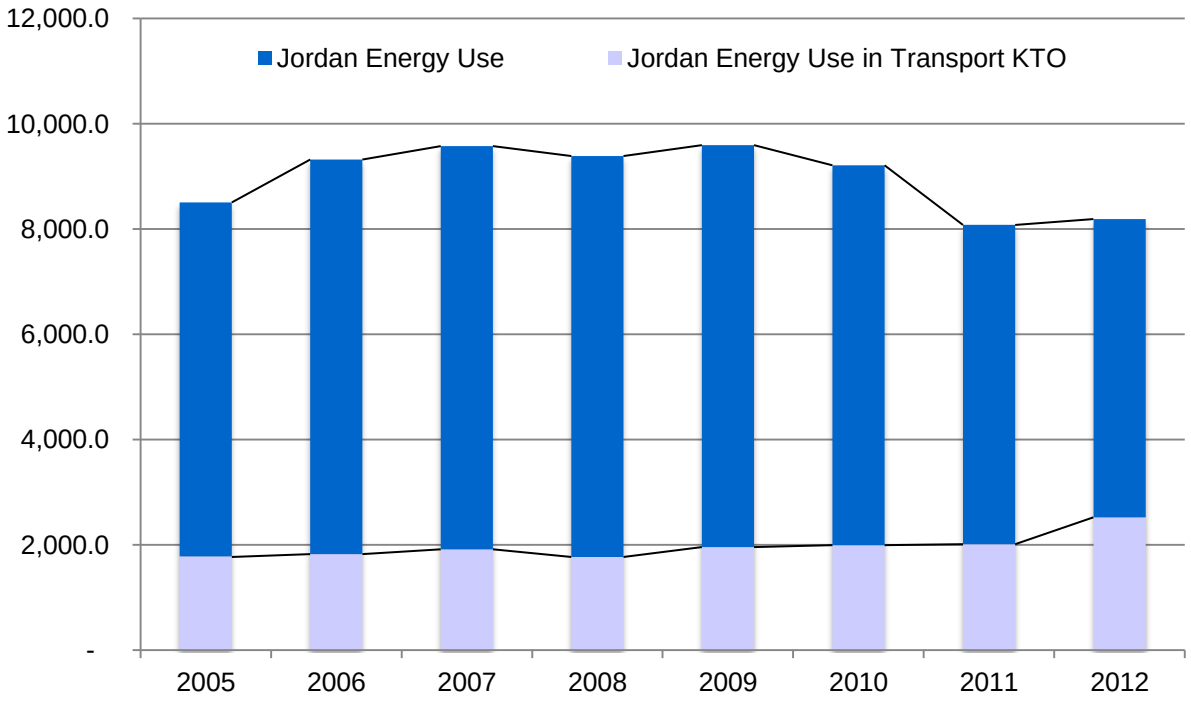
UNESCWA 2015. National accounts studies of the Arab region E/ESCWA/SD/2015/1

Egypt energy use in transport of total use 2006-2013



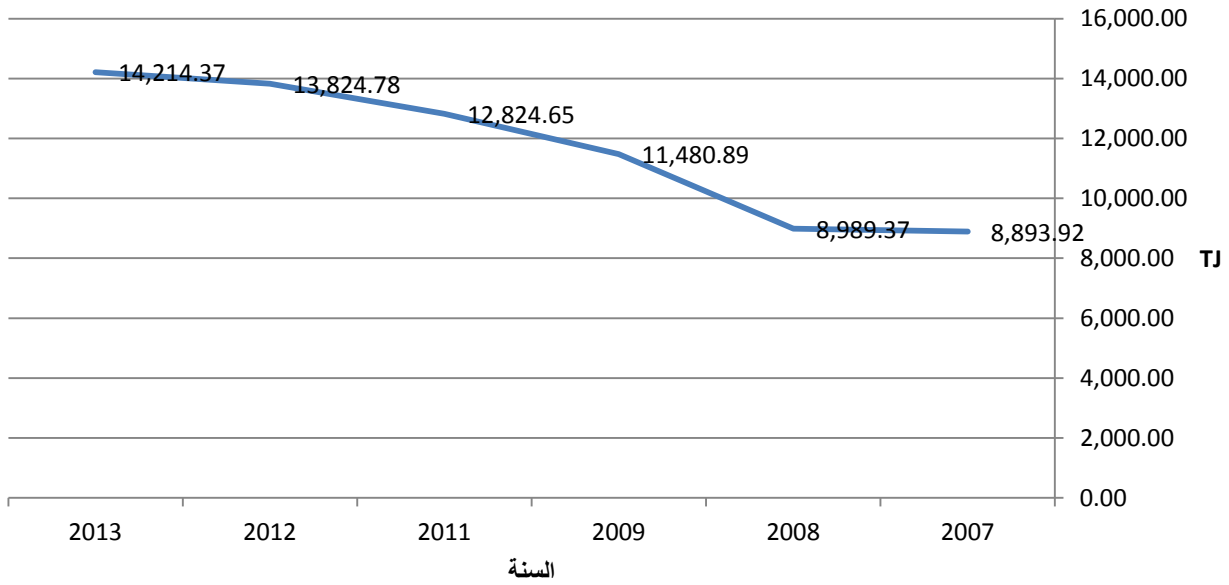
Sources: Statistical Yearbook, CAPMAS, 2013
ESCWA Statistical Abstract Chap 7 2014,

Jordan energy use in transport of total use 2006-2012



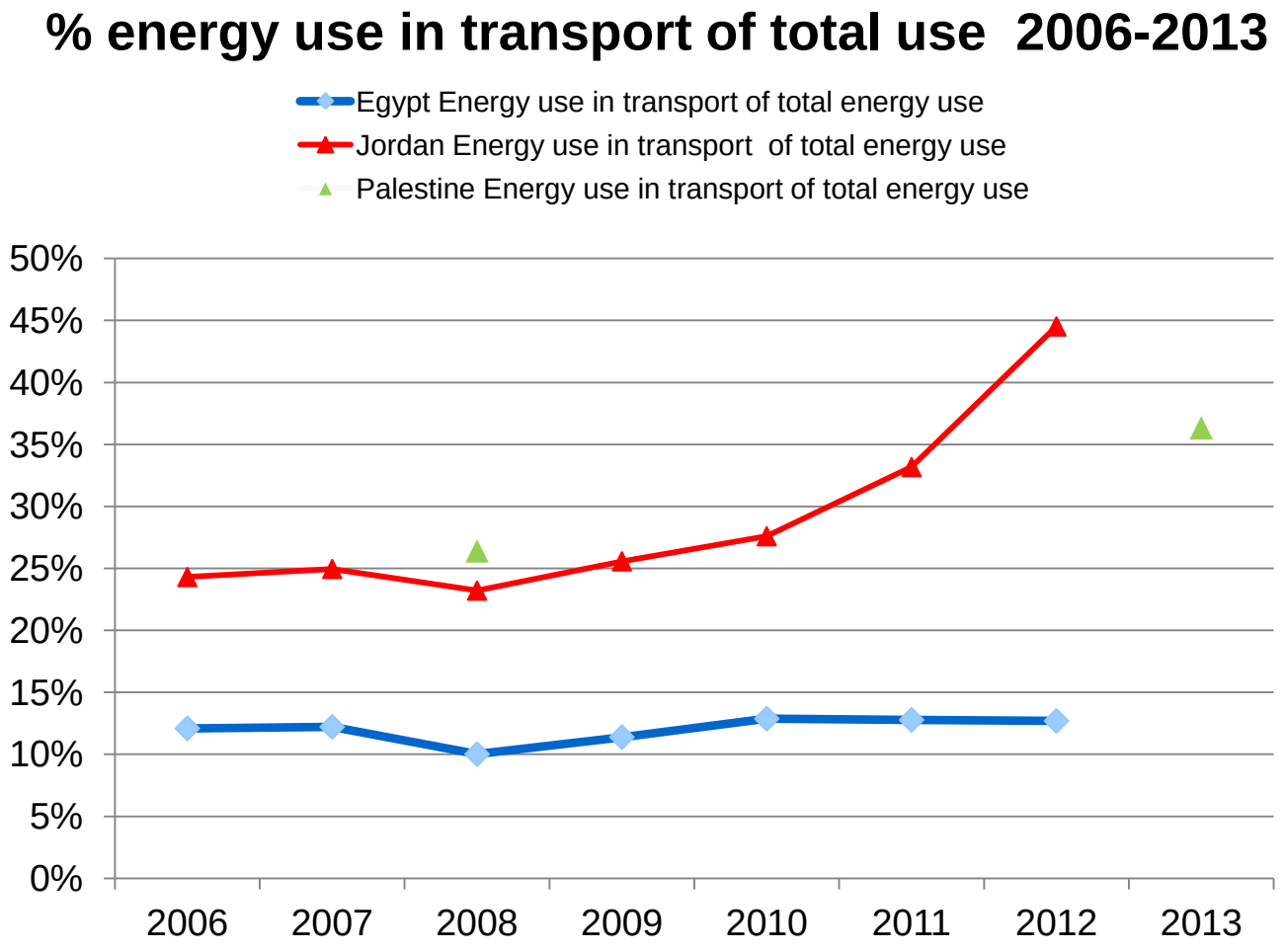
Sources:
ESCWA Statistical Abstract Chap 7 2014
Ministry of Energy and Mineral Resources, Energy Balances. Jordan

Palestine energy use in transport of total 2007-2013



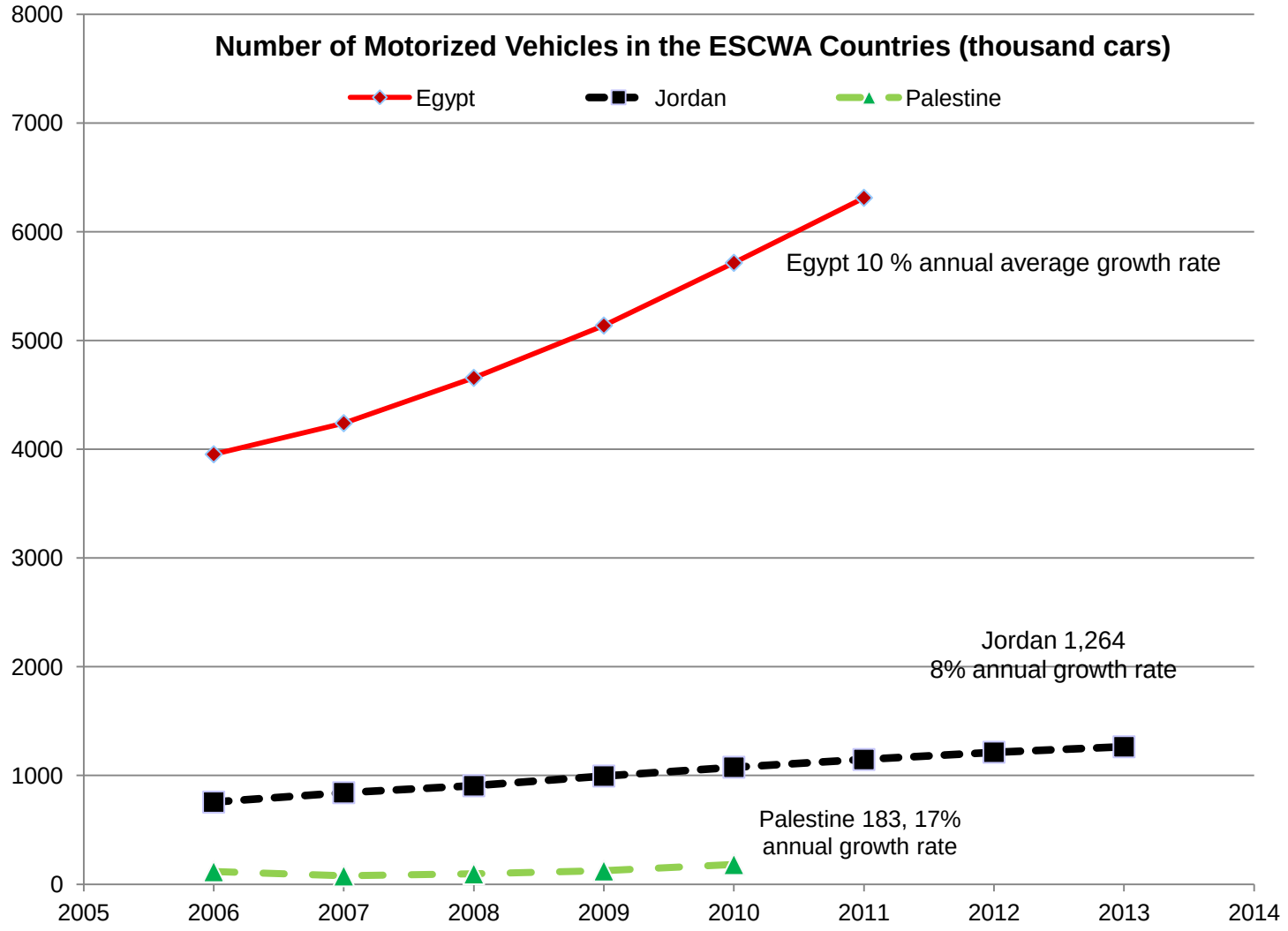
Sources: ESCWA Statistical Abstract Chap 7 2014
Energy Balance of Palestine, PCBS,

Trends in energy use in transport

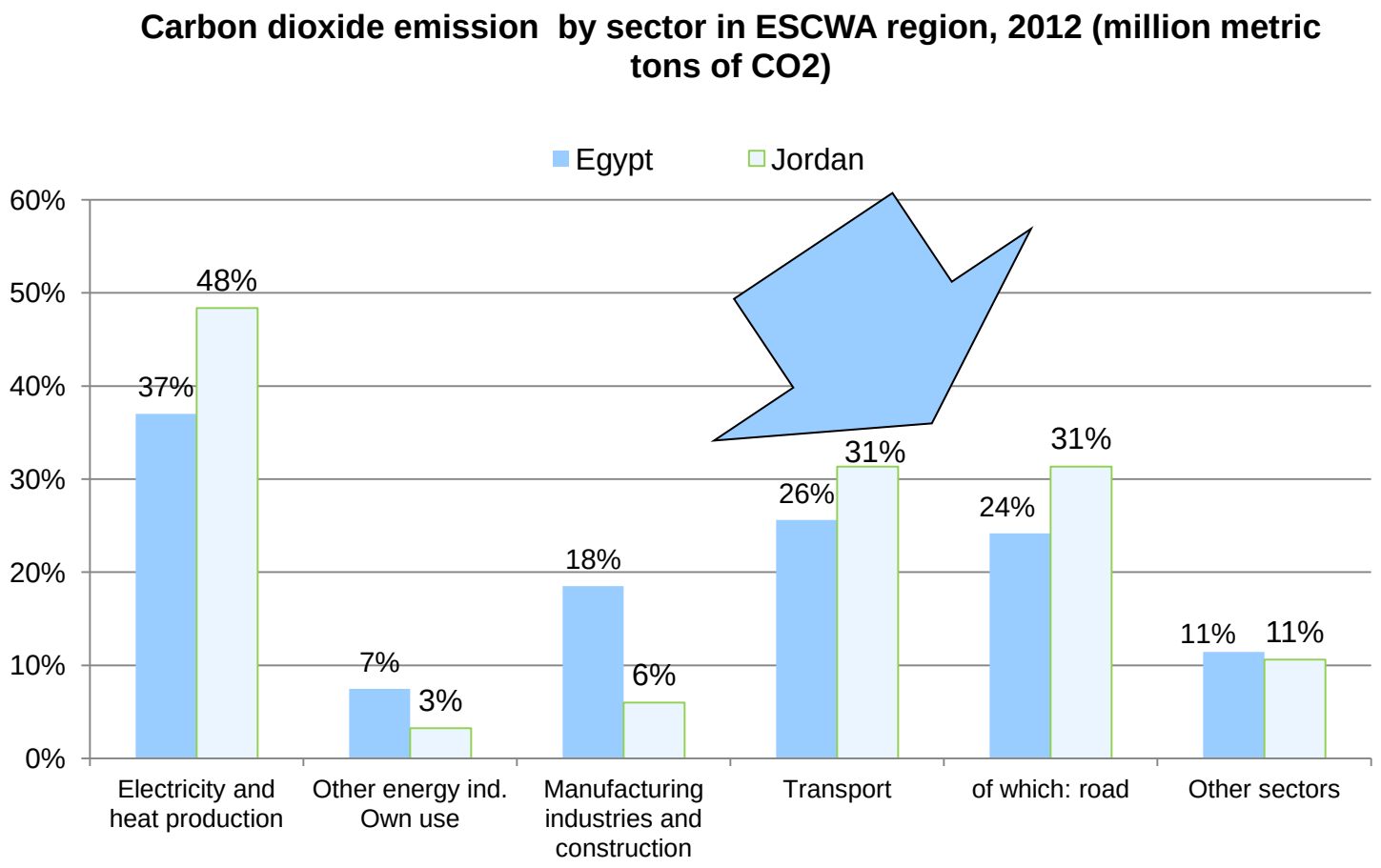


Sources: Statistical Yearbook, CAPMAS, 2013
ESCWA Statistical Abstract Chap 7 2014
Ministry of Energy and Mineral Resources, Energy Balances. Jordan
Energy Balance of Palestine, PCBS,

Number of Motorized Vehicles in ESCWA Countries (thousand cars)



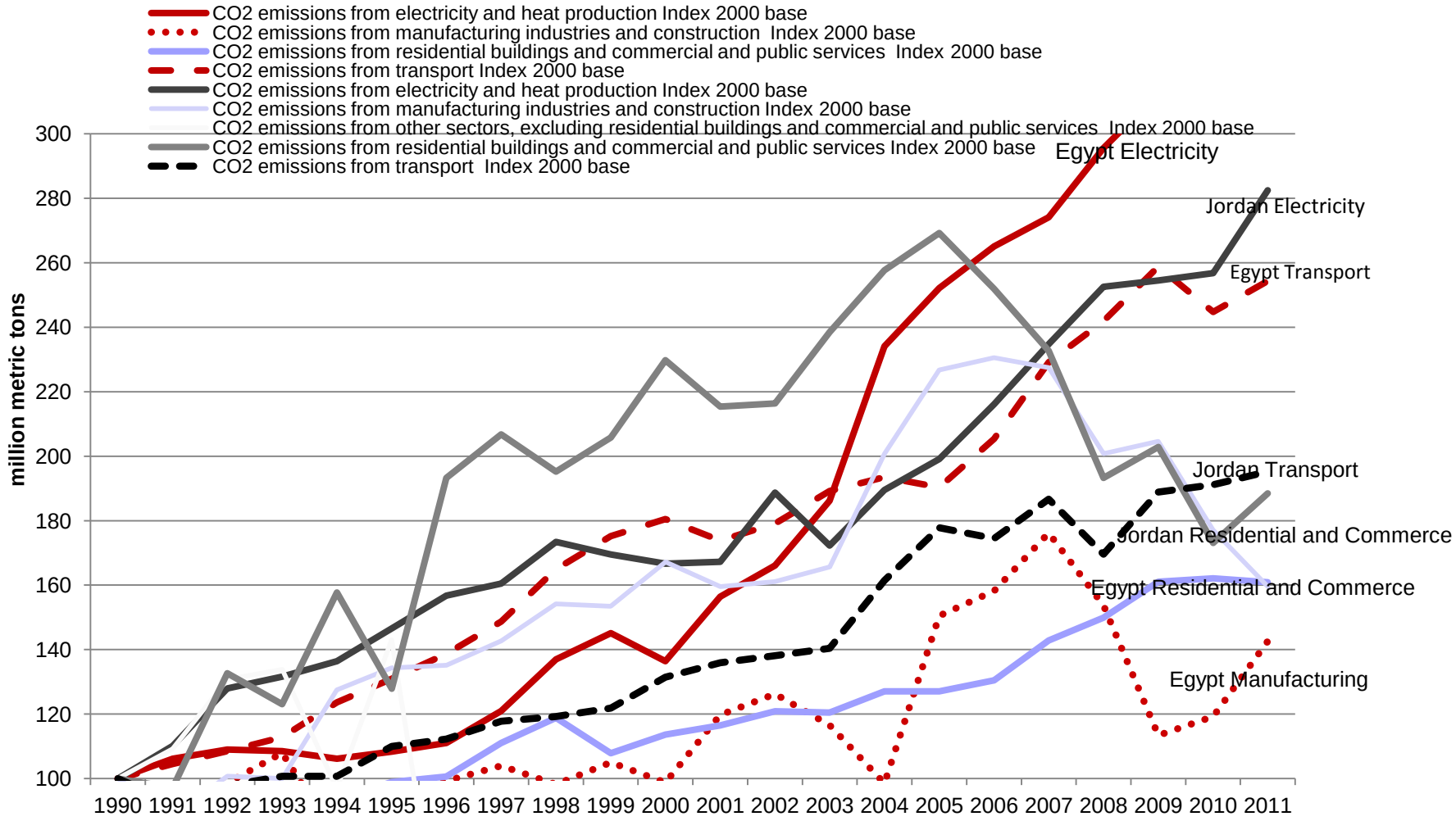
Carbon dioxide emission by sector in ESCWA region, 2012 (million metric tons of CO2)



(1) Total ESCWA excludes Palestine

2- Source : IEA. 2014. CO2 EMISSIONS FROM FUEL COMBUSTION Highlights (2014 Edition)

CO2 emissions Different Sectors Index 2000 base year



Data Source : IEA. 2014. CO2 EMISSIONS FROM FUEL COMBUSTION Highlights (2014 Edition)

Information from Surveys for Policies

- Improve information on transport activities by road, rail, and other modes and energy efficiency, expenditures on fuel use and fleet characteristics (wider coverage than formal registered/maintained vehicles)
- Transport Demand Model. as sub-model which projects demand in the transport sector, for both domestic transport

Energy Policies	Transport Policies	Economic and Social Policies	Environmental Policies
Types and Quantities of Energy products used in transport	Trade off to replace old fleet of vehicles that consume more and need more maintenance and provide incentives/loans to buy new more efficient vehicles	Expenditures of residents on energy products in transport and on transport services	Emissions from fuel use in transport CO2 and GHG (amounts of each product burned, conversions factors and emission factors to calculate emissions according to UNFCCC/IPCCC guidelines
•Investment in new refineries?	•Road transport Efficiency	Remove Subsidies Set Prices Increase Taxes	Climate Change and Air Pollution
•Fuel switch /trade off ?	•Traffic management		
	• Public transportation		

Fiscal and Monetary Policies-Energy Subsidies /Inflation

Adverse effects

-Distort price signals, with serious implications on efficiency and the optimal allocation of resources.

-Regressive, with high-income households and industries benefiting proportionately most from low energy prices.

+Constitute an important social safety net for the poor in many parts of the Arab world,

Inflation

= Attempts to reduce or eliminate them in the absence of compensatory programmes would lead to a decline in households' welfare and erode the competitiveness of certain industries.

=Successful reforms to compensate populations for the reduction or removal of subsidies through carefully designed mitigation measures that protect the poorest and assist the economy in its long-term adaptation

Ref. UNDP 2012. RBAS, AHDR. Research papers Series. Energy Subsidies in the Arab World

Focus of Energy Surveys Project
Sep 2014- July 2015 421, 897 $

Technical assistance tailored to the needs of the countries on Statistical Survey

Demand Driven Agreement with 3 Countries

Coordination with national partners: Statistics, Transport, Energy, Planning, Environment on energy process and results

Better Information on Energy Use in Transport by mode and vehicle type and by product

Enhanced regional coordination networking and knowledge sharing Egypt, Jordan Palestine with Tunisia and Morocco

Workshop and trainings

methodological documents

Technical assistance

Countries:

- Surveys Departments in NSOs led the design and implementation
- Energy Units, Transport Units, IT units, Regional Offices
- Transport and Energy Ministries involved

ESCWA Assistance Team:

- Dr Abdul Hakeem Eideh, Expert on Sampling Methodologies
- Dr Mohammad Nagy EL Tony, Expert in Energy Demand, Canada
- Dr Elias Kinab, Professor Energy Systems in Lebanese University
- Ms Therese Elgemayel Project Coordinator
- Wafa Aboul Hosn, ESCWA, Project Manager

First Set of Missions February 2015

- Egypt, 8-9 Feb 2015
-Palestine, 4-5 Feb 2015
-Jordan 2 Feb 2015

Second Set of Mission 4th week April 1st week May 2015

Discuss results and Problems encountered

Third Set of Missions July 2015

All Along: Biweekly Skype calls to answer questions and get clarifications

Methodological Documents

Guidelines on Energy Consumption Surveys in the Transport Sector Dr AbdulHakeem Eideh

Survey Results for Policy by Mohamad Nagy El Tony and Elias Kinab

Arabic Version of the IEA training material on energy statistics

Training Manual On Methodologies For Data Collection On Energy Use By The Transport Sector And Case Studies From The Arab REGION

E-glossary Arabic-English for Statistical terms

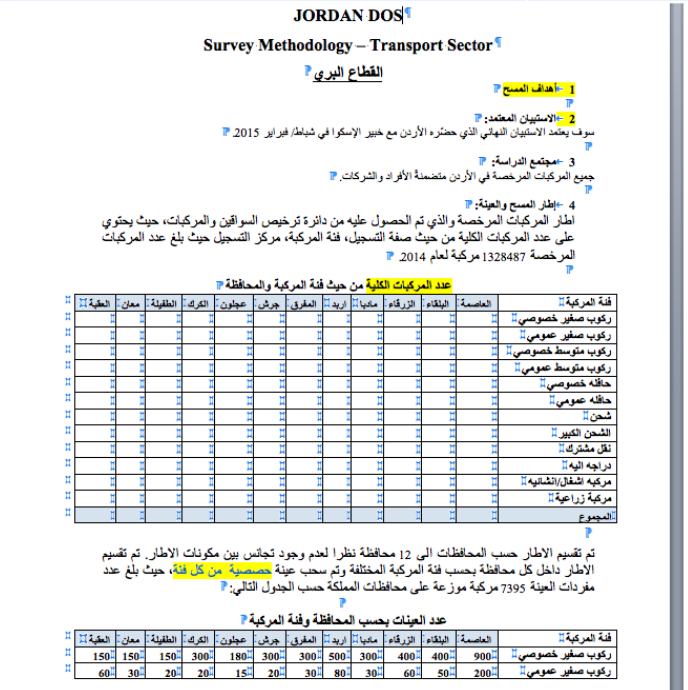
Energy Questionnaires Translation IEA and UNSD

From Previous Project

Survey Methodology

Based on Guidelines, and technical assistance provided by ESCWA experts and consultants, countries developed survey methodology to be most cost effective

Transportation Mode	Method	Country
Road	Sampling	Egypt Jordan Palestine
Maritime, Rail, Air	Complete Enumeration	Egypt and Jordan
River, Metro	Complete Enumeration	Egypt



JORDAN DOS

Survey Methodology – Transport Sector

القطاع البري

1- **اهداف المسح**

2- **الاستبيان المعتمد:**

سوف يعتمد الاستبيان النهائي الذي حضرته الأردن مع خبير الإسكوا في شباط/ فبراير 2015.

3- **مجتمع الدراسة:**

جميع المركبات المرخصة في الأردن متضمنة الأفراد والشركات.

4- **إطار المسح والعينة:**

اطار المركبات المرخصة والذي تم الحصول عليه من دائرة ترخيص السواقين والمركبات، حيث يحتوي على عدد المركبات الكلية من حيث صفة التسجيل، فئة المركبة، مركز التسجيل حيث بلغ عدد المركبات المرخصة 1328487 مركبة لعام 2014.

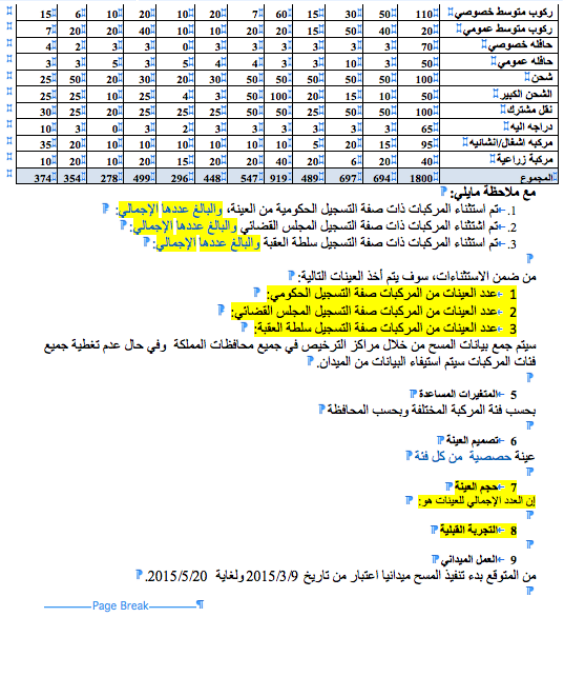
عدد المركبات الكلية من حيث فئة المركبة والمحافظة

فئة المركبة	العاصمة	البلقاء	الزرقاء	مادبا	اربد	المفرق	جرش	عجلون	الكرك	الطفيلة	معان	العقبة
ركوب صغير خصوصي												
ركوب صغير عمومي												
ركوب متوسط خصوصي												
ركوب متوسط عمومي												
حافله خصوصي												
حافله عمومي												
شحن												
الشحن الكبير												
نقل مشترك												
دراجه اليه												
مركبه اشغال/اشغاليه												
مركبة زراعية												
المجموع												

تم تقسيم الاطار حسب المحافظات الى 12 محافظة نظرا لعدم وجود تجانس بين مكونات الاطار. تم تقسيم الاطار داخل كل محافظة بحسب فئة المركبة المختلفة وتم سحب عينة حصصية من كل فئة، حيث بلغ عدد مفردات العينة 7395 مركبة موزعة على محافظات المملكة حسب الجدول التالي:

عدد العينات بحسب المحافظة وفئة المركبة

فئة المركبة	العاصمة	البلقاء	الزرقاء	مادبا	اربد	المفرق	جرش	عجلون	الكرك	الطفيلة	معان	العقبة
ركوب صغير خصوصي	900	400	400	300	500	300	300	180	300	150	150	150
ركوب صغير عمومي	200	50	60	30	80	30	20	15	20	20	30	60



ركوب متوسط خصوصي	110	50	30	15	60	7	20	10	20	10	6	15
ركوب متوسط عمومي	20	40	50	15	20	20	10	10	20	40	20	7
حافله خصوصي	70	3	3	3	3	3	0	3	3	3	2	4
حافله عمومي	50	3	10	3	3	4	4	5	3	5	3	3
شحن	100	50	50	50	50	30	20	30	20	30	50	25
الشحن الكبير	50	10	15	20	100	50	3	4	25	10	25	25
نقل مشترك	100	50	50	25	50	25	25	25	20	25	25	30
دراجه اليه	65	3	3	3	3	3	3	2	3	0	3	10
مركبه اشغال/اشغاليه	95	15	20	5	10	10	10	10	10	10	3	35
مركبة زراعية	40	20	6	20	40	20	15	20	20	10	10	10
المجموع	1800	694	697	489	919	547	448	296	499	278	354	374

مع ملاحظة مايلي:

1- تم استثناء المركبات ذات صفة التسجيل الحكومية من العينة، والبالغ عددها الإجمالي:

2- تم استثناء المركبات ذات صفة التسجيل المجلس القضائي والبالغ عددها الإجمالي:

3- تم استثناء المركبات ذات صفة التسجيل سلطة العقبة والبالغ عددها الإجمالي:

من ضمن الاستثناءات، سوف يتم أخذ العينات التالية:

1- عدد العينات من المركبات صفة التسجيل الحكومي:

2- عدد العينات من المركبات صفة التسجيل المجلس القضائي:

3- عدد العينات من المركبات صفة التسجيل سلطة العقبة:

سيتم جمع بيانات المسح من خلال مراكز الترخيص في جميع محافظات المملكة وفي حال عدم تغطية جميع فئات المركبات سيتم استيفاء البيانات من الميدان.

5- **المتغيرات المساعدة**

بحسب فئة المركبة المختلفة وبحسب المحافظة

6- **تصميم العينة**

عينة حصصية من كل فئة

7- **حجم العينة**

إن العدد الإجمالي للعينات هو:

8- **التجربة الفيلية**

9- **العمل الميداني**

من المتوقع بدء تنفيذ المسح ميدانيا اعتبار من تاريخ 2015/3/9 ولغاية 2015/5/20.

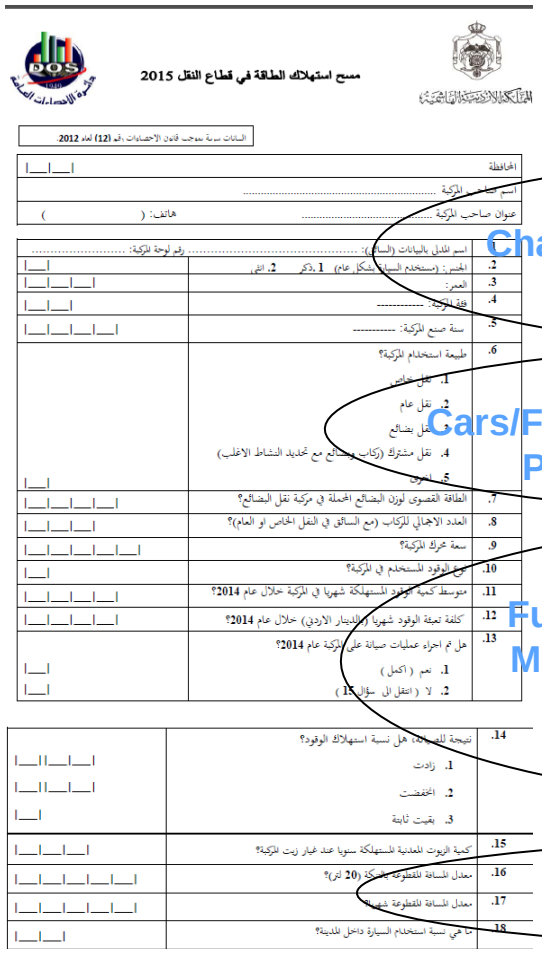
Page Break

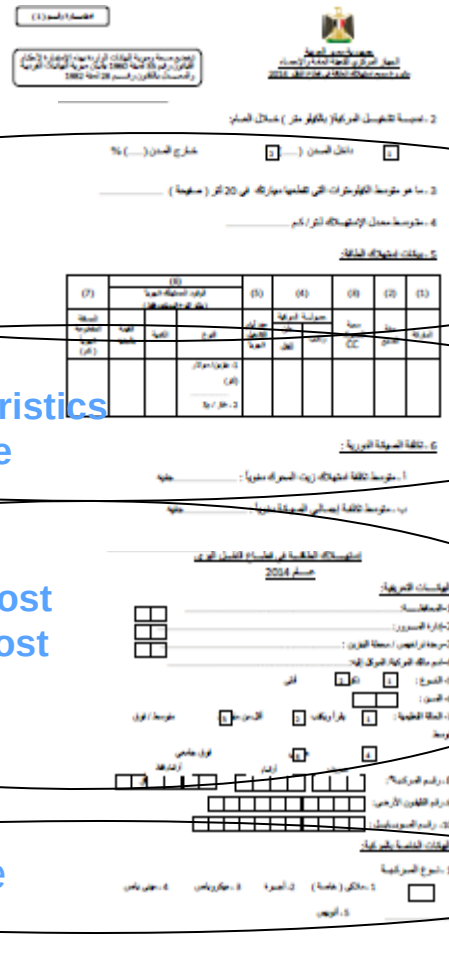
Common Core Survey Questionnaires

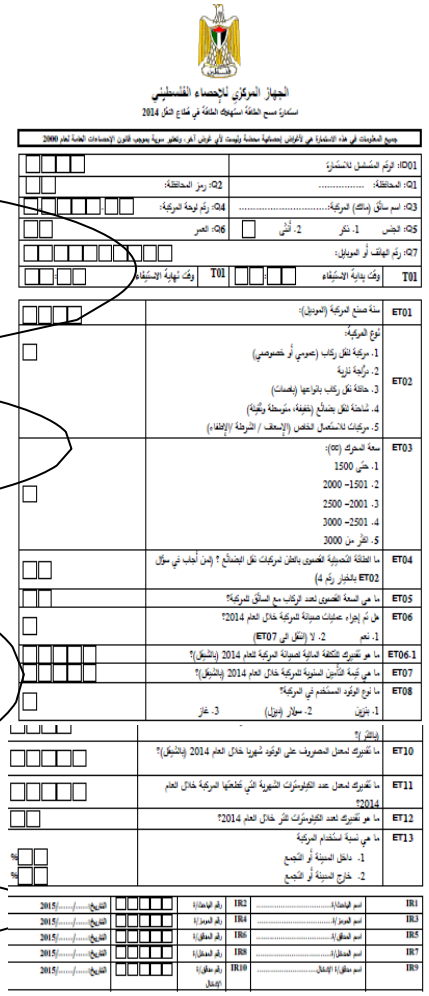
JORDAN

Egypt

Palestine


مسح استهلاك الطاقة في قطاع النقل 2015




الجهاز المركزي للإحصاء الفلسطيني

Drivers Characteristics

Cars/Fleet Characteristics Purpose of use

Fuel Use and Cost Maintenance Cost

Distance

Questionnaires of Morocco (6 Questionnaires by mode) 1 of Tunis Shared with the three countries to serve as examples

Countries Progress

- Countries provided progress reports and continuous update and revision of time tables for implementation phases
- Implementation stages met the expectations
- Support from High Level Management in Egypt and Palestine
- Coordination at national level: in Egypt and Palestine, Existence of National Committees
- Adequate infrastructure for undertaking surveys in 3 countries
- Commitment to deliver despite major activities like census in Jordan and PHS in Egypt
- Financial reporting (International Standards in Palestine)

جمهورية مصر العربية
تقرير حول
"مسح إستهلاك الطاقة في قطاع النقل
عام ٢٠١٤"
في مصر

إعداد
مهندس/ منتخب أمين
المنسق الوطني للطاقة - مسئول الاتصال

إشراف
استاذ/ نبيل محمود
المدير التنفيذي للمسح

6. الجدول الزمني المقترح

مسح استهلاك الطاقة في قطاع النقل، 2014

الجهاز المركزي للإحصاء الفلسطيني

الجدول الزمني المقترح

النشاط: مسح استهلاك الطاقة في قطاع النقل، 2014	تاريخ تنفيذ النشاط	
المرحلة التحضيرية		
تحضير واعتماد الملف التحضيري للمسح	2015/02/01	2015/05/21
العمل الميداني		
تدريب الباحثين	2015/05/25	2015/05/26
جمع وتدقيق البيانات	2015/05/28	2015/06/25
مرحلة ادخال ومعالجة البيانات		
إدخال البيانات	2015/05/31	2015/06/28
تنظيف ومعالجة البيانات وحساب الأوزان والتباين	2015/06/29	2015/07/01
مرحلة الجدولة واعداد التقرير والنشر		
استخراج النتائج واستيفاء الجداول وتدقيقها	2015/07/02	2015/07/06
اعتماد التقرير من مدير الدائرة والمدير العام	2015/07/07	2015/07/09
اعتماد التقرير من ACSP	2015/07/09	2015/07/13
اعتماد التقرير من رئيس الجهاز	2015/07/14	2015/07/16
نشر التقرير على الصفحة الإلكترونية	2015/07/16	2015/07/16

Flyer on results

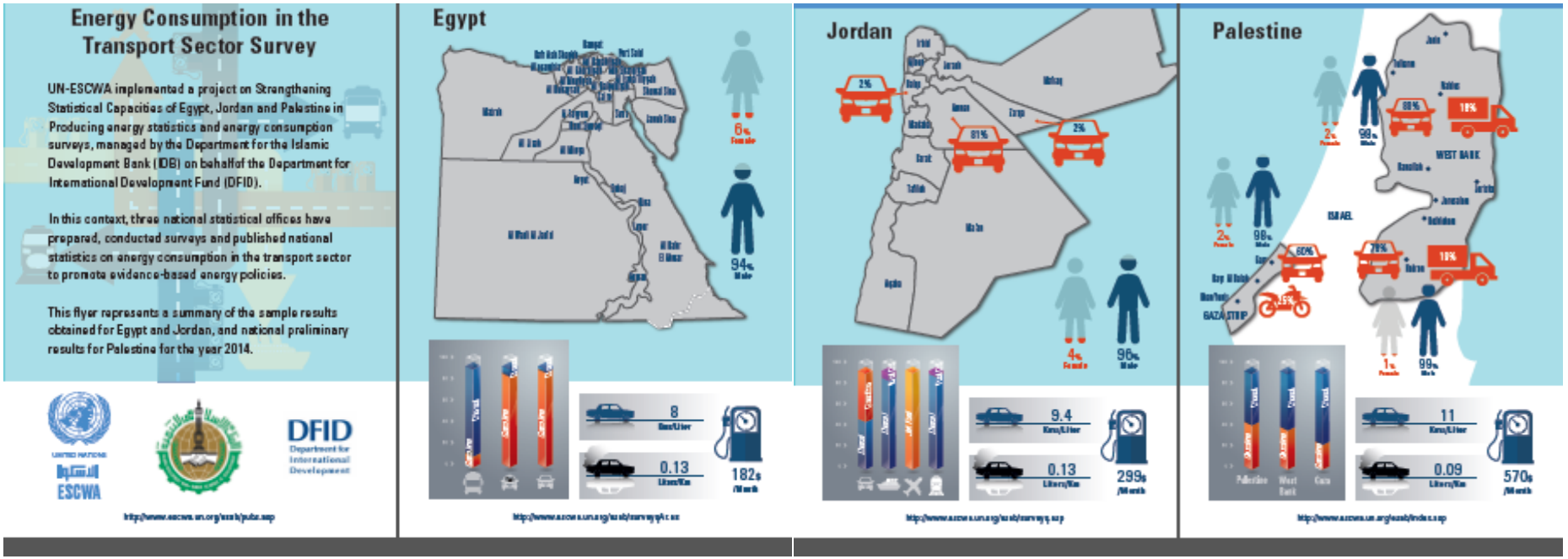


Table 2: Energy Balance in the Palestinian Territory in Terajoules, 2008

Production and Utilization	Total	Energy Sources and Products				
		Solar Energy	Electricity	Gasoline	bitumen	Kerosene
1.Primary production	8,413.38	4,470.81	.	.	.	.
2.Imports	43,146.88	.	13,913.32	4,333.12	21.19	133.35
3.Exports	-133.01	.	.	.	.	.
4.Bunkers	.	.	.	.	.	.
5.Stock change	.	.	.	.	.	.
6.Total energy requirements	**51,427.25**	**4,470.81**	**13,913.32**	**4,333.12**	**21.19**	**133.35**
7.Energy converted	**-2,334.10**	**.**	**1,535.81**	**.**	**.**	**.**
8.Electricity generation	-2,334.10	.	1,535.81	.	.	.
9.Consumption for non-energy purposes	498.98	.	.	.	21.19	.
10.Losses in transport and distribution	3,384.41	603.56	2,780.85	.	.	.
11.Statistical differences	11,226.38	0.00	1,683.31	42.39	0.00	8.48
12.Final consumption	**33,983.38**	**3,867.25**	**10,984.97**	**4,290.73**	**.**	**124.87**
13.Consumption by industry and construction	**1,941.76**	**.**	**1,063.23**	**50.66**	**.**	**19.05**
14.Mining	215.65	.	16.47	0.78	.	.
15.Manufacturing	1,509.55	.	1,015.73	4.16	.	15.12
16.Electricity and water supply	10.73	.	0.24	.	.	0.04
17.Construction	205.83	.	30.79	45.72	.	3.89
18.Consumption by transport	**8,989.37**	**.**	**27.93**	**4,224.87**	**.**	**2.91**
19.Road	8,955.75	.	.	4,224.87	.	.
20.Air	.	.	.	.	.	.
21.Other	33.62	.	27.93	.	.	2.91
22.Consumption by households and other sectors	**23,052.25**	**3,867.25**	**9,893.81**	**15.20**	**.**	**102.91**
23.Households	20,455.88	3,867.25	7,874.74	.	.	93.24
24.Agriculture/fishing	191.85	.	29.41	5.34	.	3.26
25.Internal trade	379.48	.	244.98	.	.	5.29
26.Services	2,025.04	.	1,744.68	9.86	.	1.12

جدول 2: ميزان الطاقة في الأراضي الفلسطينية بالتيراجول، 2008

مصادر الطاقة والمنتوجات					الإنتاج والاستخدام
السولار Diesel	الزيوت والشحوم Oils and Lubricants	غاز البترول المسيل LPG	الجفت Olive Cake	الحطب والفحم Wood and Charcoal	
.	.	.	511.80	3,430.77	1.الإنتاج الابتدائي
18,919.74	176.65	5,543.80	.	105.71	2.الواردات
.	-3.83	.	.	-129.18	3.الصادرات
.	.	.	.	.	4.الخزانات
.	.	.	.	.	5.التغير في المخزون
18,919.74	**172.82**	**5,543.80**	**511.80**	**3,407.30**	**6.الاحتياجات الكلية من الطاقة**
-3,869.91	**.**	**.**	**.**	**.**	**7.الطاقة المحولة**
-3,869.91	.	.	.	.	8.توليد الكهرباء
.	172.82	.	304.97	.	9.الاستهلاك لاستعمالات غير الطاقة
.	.	.	.	.	10.الخسائر في النقل والتوزيع
9,549.60	0.00	-57.40	0.00	0.00	11.فروقات إحصائية
5,500.23	**.**	**5,601.20**	**206.83**	**3,407.30**	**12.الاستهلاك النهائي**
542.17	**.**	**256.90**	**.**	**9.75**	**13. الاستهلاك بواسطة الصناعة والإنشاءات**
192.94	.	5.42	.	0.04	14.التعدين
223.81	.	241.10	.	9.63	15.صناعات تحويلية
4.62	.	5.78	.	0.05	16.إمدادات الكهرباء والماء
120.80	.	4.60	.	0.03	17.البناء والتشييد
4,730.88	**.**	**2.78**	**.**	**.**	**18. الاستهلاك بواسطة النقل**
4,730.88	.	.	.	.	19.الطرق
.	.	.	.	.	20.الجو
.	.	2.78	.	.	21. أخرى
227.18	**.**	**5,341.52**	**206.83**	**3,397.55**	**22. الاستهلاك بواسطة القطاع المنزلي وقطاعات أخرى**
57.84	.	4,977.89	206.83	3,378.09	23.المنزلي
125.64	.	15.40	.	12.80	24.الزراعة/الصيد
.	.	125.99	.	3.22	25.التجارة الداخلية
43.70	.	222.24	.	3.44	26.الخدمات

Egypt Energy Balance End Use

5- الاستهلاك النهائي للمشتقات النفطية والغاز الطبيعي و الكهرباء (بيانات أولية)

Final consumption of petroleum products and natural gas and electric energy

2010/2011

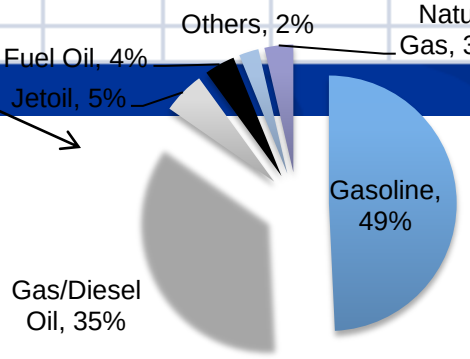
List	Hard coal	LPG	Gasoline	Jet fuel	Kerosene	Gas/Diesel oil	Fuel oil	Others	Natural gas	Electrical energy
Industry	634	28			42	1972	3217	381	13903	40702
Transport			5154	556		3707	405	260	456	
Households		4365			99				1133	51370
Agriculture					10	2034		56		4927
others						4652	120	645	5437	29935
Total	634	4393	5154	556	151	12365	3742	1342	20929	126934

Thousand tons oil products

Natural gas in million m ³

Power Gigawatt / h (Gigawatt=1000000 KW)

Total Transport
10,646



Jordan Energy Balance

ميزان الطاقة لعام 2013 (ألف طن مكافئ نفط)

القطاع	النفط الخام	زيت الوقود	ديزل	بنزين	غاز سائل	كاز	وقود طائرات	مخلفات مقطرة	أخرى	المجموع	فحم حجري	فحم بترولي	فحم لجنايت	الغاز الطبيعي	الكهرباء	الطاقة الشمسية	الطاقة الكلية
الانتاج المحلي	0.8									0.8				111.5	16.0	145.0	273.4
المستوردات	3173.4	662.6	1702.1	536.3	310.9		27.9	32.0		6445.2	203.9	106.9	9.0	795.2	95.3		7655.5
الصادرات															14.7		14.7
مبيعات الموانئ		4.356	2.748				0.8			7.951							8.0
التغير في المخزون	-41.2	-71.6	-82.6	-12.1	-6.2	-29.8	-4.3		-3.152	-250.920							-250.9
الطاقة الأولية اللازمة	3215.4	729.9	1782.0	548.4	317.1	29.8	31.3	32.0	3.2	6689.0	203.9	106.9	9.0	906.7	96.6	145.0	8157.2
قطاع التكرير	-3215.4	870.0	998.4	690.6	87.1	35.2	337.2		96.3	-100.6							-100.6
قطاع توليد الكهرباء		1287.1	1408.3							-2695.3				-906.698	1454.432		2147.6
الفاقد في النقل والتوزيع															203.476		203.5
الاستهلاك الداخلي في القطاع التحويلي		155.8	3.7						46.626	206.1					60.199		266.3
الطاقة النهائية المستهلكة	0.0	157.0	1368.4	1239.0	404.2	65.1	368.5	32.0	52.8	3687.0	203.9	106.9	9.0	0.0	1254.6	145.0	5406.4
قطاع الصناعة		139.0	118.2		40.6			32		299.8	203.9	106.9	9.0		304.535		924.1
قطاع النقل		4.4	1117.8	1243.0			368.509			2733.7							2733.7
القطاع المنزلي			71.3		314.1	65.1				450.5					538.8	120.0	1109.3
قطاع الخدمات			66.2		29.4					95.7					207.7	25.0	328.4
أخرى		13.710	21.4		50.0					85.1					203.6		288.7
استخدامات غير طاقوية									52.8	52.8							52.8
الفروقات	0.0	-0.0	-26.6	-4.0	-0.0	0.0	0.0	0.0	0.0	-30.6	0.0	-0.0	0.0	0.0	-0.0	0.0	-30.6

Comparative Results

Palestine Survey Results 2014 Road	Liters Gasoline كمية البنزين لتر	Liters Diesel كمية السولار لتر	Total Fuel Terajoules اجمالي الوقود بالتيراجول	Total Fuel TOE طن مكافئ نفط
6. إجمالي استهلاك الوقود بالتر حسب نوع الوقود لمركبات الركاب 2014	261,872,905	321,781,503	20,623	492,562
7. إجمالي استهلاك الوقود بالتر حسب نوع الوقود لمركبات نقل البضائع 2014	9,014,661	309,777,305	11,884	283,852
Total	270,887,566	631,558,808	32,507	776,414

Palestine Energy Balance 2013	455 ,000

8% increase from 2013

In Egypt, total transport sector petroleum energy consumption increased from
???? Ktoe in 2014/2015??
11,187 ktoe in 2012/2013
10,646 ktoe in 2010/2011

7% increase

2014 Jordan Survey Results In TOE

Road	Gasoline	Diesel	Fuel Oil %	Jet Fuel %	
Energy Use by Road Transport of Passengers	1,707,434	253,839	0.03	9.22	1,961,273
Energy Use by Road Transport of Merchandise	10597.71	1,155,171			1,165,769
Other Modes Passengers (Rail and Air)					3,092
Other Modes Merchandise (Rail and Air)					17,756
Total Energy Use by Transport					3,147,890

15% increase from 2013

	Gasoline	Diesel	Fuel Oil	Jetfuel	Total
Jordan Energy Balance 2010 in 000 tons	1,109	630	7	245	1,991
Jordan Energy Balance 2013 in 000 tons	1243	1117.8	4.4	368.5	2733.7

Results Launching and Way Ahead

1. Share Lessons learned from survey
2. Finalize the results and have them approved
3. Disseminate and launch as national events
4. National Discussion to Use results in energy and transport policies for efficiency and sustainability
5. Share with Arab countries (WG on Energy Statistics/Medstat)
6. 2015 Baseline Survey, Set the programme to update the survey (field or administrative records in future)
7. Use of smart cards in Egypt/ big data to serve for data collection
8. Improve data in Energy Balance for the transport sector and for all end use sectors; Households, Industry

Potential Partnerships/Projects

1. World Bank
    1. Sustainable Cities
    2. ESMAP project : Energy Efficient Urban Transport https://www.esmap.org/
    3. Sustainable Energy for ALL (SEA4ALL) Global Tracking Framework
2. IDB, DFID, UNDA on Post 2015: Sustainable Development Goals (SDGs) includes Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable with a key target for sustainable transportation
3. OECD/IEA: Capacity building on improving energy balance and knowledge sharing of survey results/questionnaires and methodologies http://www.iea.org/eeindicatorsmanual/?methodology%5B%5D=Surveying&keywords=

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DFID Department for International Development