



11. Infrastructure

11.1 HOUSING & CONSTRUCTION

- As of Sept. 2008, 9.7% of the **employed persons** in the WBGs were working in construction (PCBS, *Labor Force Survey*, July-Sept. 2008).
- Average housing **density** is currently 1.7 persons per room, while the average **number of rooms** per housing unit is 3.6. (PCBS, *Housing and Housing Conditions Statistics*, 2008).
- 53.3% of WBGs households live in a house, while 45.0% live in apartments (PCBS, *Housing Statistics*, 2008).

Number and Area (in 1000 m²) of Licensed Housing Units, 1997-2008

	1997	1999	2003	2006	1 st half 2008
Number of New Licensed Housing Units	13,230	14,587	8,152	6,909	2,912
Area of New Licensed Housing Units	1,768	2,050.6	1,234.2	1,193.6	492.6
Number of Existing Licensed Housing Units	2,759	3,675	1,671	3,301	745
Area of Existing Licensed Housing Units	391.8	439.0	175.8	524.2	149

(Source: PCBS, *Construction Statistics/Building Licenses*, 2008; RCs and Jerusalem are excluded.)



- In 2007, there were 466,707 buildings in the WBGS, excl. Jerusalem (WB: 319,270, GS: 147,437) and 701,937 housing units (456,314 in WB and 245,623 in GS) – implying a 50.4%-increase compared to the 1997 Census. (PCBS, *Buildings and Housing Units Census 2007*, 2008).
- The vast majority of licenses are being issued for the construction of **residential buildings**, and the main **License Issuing Authority** are municipalities, followed by construction authorities and rural authorities.
- **Gaza's construction sector** has been particularly hard hit by Israel's restrictions on deliveries of materials; the PCHR reports that during the period 15 June 2007-14 June 2008 only 5 of the 120 Gaza-registered construction companies survived the import restrictions, an estimated 42,000 construction workers were laid off, and losses reached an estimated \$58 million. (PCHR *Destruction of Gaza's Economy*, August 2008.)

11.2 TRANSPORTATION & ROADS

- As of late 2007, 5.6% of all **employed** Palestinian (WB: 5.1%) were working in the field of transportation, storage, and communications (PCBS, *Transportation and Communications, Annual Statistics*, Sept. 2008).

■ Vehicles (licensed; excl. Jerusalem)

	West Bank	Gaza	Total ¹
Private cars	50,275	42,372	92,647
Trucks/commercial cars	15,789	10,788	26,577
Public & private buses	984	203	1,187
Taxis	9,187	3,392	12,579
Motorcycles/mopeds	58	219	277
Tractors	960	1,416	2,376
Trailers/Semi-trailers	41	435	476
Others	290	322	612
Total	77,584	59,147	136,731

¹Approximate numbers since Gaza and West Bank figures have different reference years!

(Sources: For Gaza: PA Ministry of Transport, 2006; for the West Bank: PA Ministry of Transport, 2007.)

■ Roads (excl. bypass roads)

	West Bank	Gaza	Total
Area of main roads (km ²)	35.1	11.9	47
Area of district roads (km ²)	17.5	5.9	23.4
Area of local & access roads (km ²)	60.8	22.3	83.1
Total Area (km²)	113.4	40.1	153.5
Length of main roads (km)	699.1	237	936.1
Length of district roads (km)	586.7	195	781.7
Length of local & access roads (km)	3,036.2	1,113.8	4,190.0
Length of bypass roads (km)	973.7		973.7
Total Length (km)	5,294.7	1,545.8	6,840.5

(Source: PCBS, *Land Use Statistics*, 2005.)

11.3 COMMUNICATIONS

- Operations in the Palestinian telecommunications sector, which is characterized by a private regulated monopoly, unauthorized competition, and overall weak governance and regulation, are subject to the **Telecommunications Law 3/1996** and to **regulatory provisions** under the **Oslo II Agreement** (*Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip, 28 Sept. 1995*), which states in Art. 36 that the PA is permitted to "build and operate separate and independent communications systems and infrastructures."
- Currently, the **PalTel** group (Palestinian Telecommunications Co.), a public shareholding company in which the PA has a 10% stake, holds a **monopoly** position as the dominant network operator. The PalTel group includes fixed-line operations, a mobile subsidiary (**Jawwal**), and the data operator and an internet service provider **Hadara**, and controls other companies, incl. the biggest IT company and network integrator in the country (**Hulul**). However, the Ministry of Information Technologies and Telecommunications (MTIT) has recently awarded a mobile license to **Wataniya** in order to introduce a competitor. This \$350 million license deal was operationalized in July 2008 and is now pending Israeli permits such as to import and construct the necessary infrastructure. There is unauthorized competition through Israeli operators, who, authorized under the Oslo Agreement to offer services to settlers, cover a large part of the West Bank territory. (World Bank, *Introducing Competition in the Palestinian Telecommunications Sector*, Jan. 2008).
- PalTel has over 348,788 **fixed lines** (PalTel, as of Dec. 2007).
- On 21 June 1999, the regained international dialing code - **970** - for the WBGS was officially launched as was the first Palestinian cellular telephone service, known as '**Al-Jawwal**' (**subscribers** as of Dec. 2007: 1,021,481).

- According to Paltel, at the end of 2007, there were 529,476 subscribers of **ADSL lines** and 719,750 subscribers of service free **Internet** in the WBGS.
- As of Sept. 2008, 5.6% of all **employed** Palestinian were working in the field of communications, transportation, and storage (PCBS, *Labor Force Survey Report Series*, July-Sept. 2008).

11.4 ELECTRICITY & ENERGY

■ Overview:

- Total **energy consumption** in West Bank and Gaza is small by regional standards, let alone international standards. Nearly all energy is provided by **electricity** and **petroleum** products, most of which has been purchased from Israel. Israel prohibits Palestinians from developing other sources of energy thereby creating **dependency** of the Palestinian energy economy on Israel for 93% of its electricity supply.
- The West Bank depends almost entirely on the Israeli Electricity Co. (IEC) for **electricity supply** since it has no generation capacity or transmission network. The **electricity system** in the West Bank consists of numerous isolated distribution systems to which power is supplied to by four utilities - Jerusalem District Electricity Company (JDECO), Hebron Electric Power Co. (HEPCO), Southern Electric Co. (SELCO), and Northern Electricity Distribution Co. (NEDCO). The maximum **capacity of electricity supply** to the West Bank is about 550MVA, 30% directly by IEC which supplies electricity in bulk to 215 localities, and 70% indirectly by IEC through JDECO which supplies electricity to East Jerusalem and in bulk to 165 localities. In the West Bank, **fuel** is supplied to the terminals in Nilin (for LPG) and Deir Kadiz (other fuel types) from where it is distributed through the Palestinian Petroleum Commission (PPC). Since here is no **storage capacity** for petroleum products in the WBGS (though plans are being prepared) fuel is transferred on a day-to-day basis.
- The **Gaza Strip** is supplied with electricity from three main sources:
 1. The Israel Electricity Corp. provides 120 MW to north and central Gaza (about 60% of the electrical supply to Gaza);
 2. The Gaza Power Plant provides 60 MW to the southern area (but relies on fuel supplied by Israeli firms via the Nahal Oz terminal); the plant was bombed by Israel in June 2006 and in Sept. 2007, Israel further disrupted the supply of electricity and fuel - in violation of international law - as a purported "response" to the firing of Qassam rockets.
 3. Egypt provides 17 MW to the Rafah area.

(Source: World Bank, *West Bank and Gaza Energy Sector Review*, May 2007; NAD, *Negotiations Primer*, Aug. 2008)

- In Aug. 1999, large **gas resources** (about 35 bcm) were discovered 36 km offshore Gaza by British Gas (BG), holding 90% interest in the project to explore and develop natural gas in the area. The remaining 10% are owned by the Palestinian construction firm CCC-Consolidated Contractors Company. In Jan. 2008, BG announced an end to negotiations with Israel, due to the long impasse, and considering Egypt as a buyer, but in July 2008, talks resumed with Israel over developing the gas field, which is estimated to contain reserves worth an estimated US\$4 billion and would need some four years to develop.

■ Facts:

- Of the 557 WBGS localities, 38 **localities** (7%) with 12,337 persons are **not connected** to the public electricity network. Of those connected, 272 localities obtain electricity from the Israeli Electricity Company and 152 from the Jerusalem Electricity Company. (PCBS, *Local Community Survey*, 2008).
- Some 99.7% of Palestinian households were connected to the **public electricity network** in April 2008, while 0.3% had no electricity services, mainly in the southern West Bank. (PCBS, *Household Energy Survey*, 2008).
- As of April 2008, 69.8% of Palestinian households utilize **solar energy** (GS: 73.5%, WB: 67.9%). (PCBS, *Household Energy Survey*, 2008).
- Some 95.9% of Palestinian households used gas ovens for **cooking** as of April 2008, while 11.9% used wood burners, and 10.8% electrical ovens. LPG (Liquefied Petroleum Gas) is the **main fuel** used to **cook** (92.2%) and **heat**, while solar energy is the main source for **water heating** (48%), followed by electricity (22.1%). (PCBS, *Household Energy Surveys*, 2008).
- As of April 2008, the **average household consumption of electricity** was 282 KW/h, **average per capita electricity consumption** was 48.6 KW/h, that of LPG 16 kg and of gasoline 10 liter. (PCBS, *Household Energy Survey*, 2008).
- While the OPT has only 1/34 of Israel's GDP, Palestinians pay some of the highest **electricity rates** in the world. (NAD, *Negotiations Primer*, Aug. 2008).



Recommended Research Sources:

<http://www.pcbs.gov.ps/> (see under Economics and Area Statistics) <http://www.najah.edu/index.php?page=83>
<http://www.perc.ps/> (Palestinian Energy & Environment Research Center) <http://www.paltel.net/>
<http://pea-pal.tripod.com/> (Pal. Energy Authority)
<http://siteresources.worldbank.org/INTWESTBANKGAZA/Resources/294264-1166525851073/EnergySectorReviewMay07.pdf>

Makhoor, Basim & Nasr Atynai. *The Role of the Construction and Housing Sector in Palestinian Economic Development* MAS, 2002.

Mody, Ashoka. *Infrastructure in the West Bank and Gaza Strip: Institutions and Growth*. Ramallah: MAS, 1996.

PLO NAD, *Fuelling the Fire: Cutting off Gaza's Electricity and Fuel*, Sept. 2007.



World Bank, *West Bank and Gaza Energy Sector Review*, May 2007.

World Bank, *Introducing Competition in the Palestinian Telecommunications Sector*, January 2008.

