

The Impact of Infrastructure Costs on the Competitiveness of the Palestinian Industrial Sector



PALESTINE ECONOMIC POLICY RESEARCH INSTITUTE

2007



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FOREWORD

This study comes as a part of a programme of research that aims to understand the reasons for the lack of competitiveness of Palestinian products. Improving competitiveness is one of the vital steps in establishing a Palestinian industrial sector that is able to endure the unnatural circumstances of Occupation and Intifada. Even though Palestinian infrastructure witnessed remarkable improvements since the formation of the Palestinian Authority, it is still weak and costly compared to Israel's. Furthermore, it remains under complete Israeli control, and Palestinian firms have few options when it comes to their electricity, water, roads, gas and communications. However, infrastructure is crucial for production and marketing, and this study was conducted in order to examine exactly how its high cost affects the competitiveness of Palestinian industrial establishments.

On the occasion of the publication of this study, I would like to thank the International Development Research Centre (IDRC), Canada, for funding it, and the researchers who conducted it, Mr. Yousef Odwan and Ms. Sarah Al-Haj Ali. I would also like to thank the external reviewers and editor, as well as the Palestinian institutions that cooperated with us and provided us with information.

Dr. Samir Abdullah
Director General

Executive Summary

This study examines the effect of infrastructure costs on the competitiveness of Palestinian industry. It analyses the overall cost structure of industry and focuses in particular on exporting establishments, a sample of which were surveyed. The current state of Palestinian infrastructure is also compared to that of different Arab and foreign countries, and its contribution to productivity is assessed. The results of this study are summed up below.

Palestinian industrial cost framework

The greater portion (82%) of the costs for Palestinian industries comes from intermediate goods, while labour costs represent 13.5% of the total and other costs including capital, taxes, and depreciation are negligible. If infrastructure costs are separated from intermediate goods, they are found to represent an average of 8.4% of production costs.

As expected, this burden is shared unequally between sub-sectors. At the bottom end come electricity supply (1.2%), tobacco products (2.6%) and rubber and plastic production (3.6%), while infrastructure costs represent 37.3% of the total costs for firms involved in mining and quarrying, and the same for those which conduct water collection and purification. The cost of fossil fuels forms the largest part of infrastructure costs of Palestinian industries (49.1%), followed by electricity (27.9%) and transportation (11.8%).

An indicator measuring the productivity of a dollar spent on infrastructure was used to compare the Palestinian situation to that of Jordan. It was found that Palestinian industries had much higher productivity in this regard, where the cost of infrastructure to produce one dollar in Palestinian industries was one third of the cost to do so in Jordan.

Principal Components of Infrastructure

Regarding **electricity**, each Palestinian industrial establishment uses an average of 0.03 gigawatt-hours per year. This places Palestinian industries in the ranks of some industrially advanced countries such as Italy and France, but below others such as Israel, Germany, and Belgium. However, it represents three times the amount used by the average Jordanian industrial establishment. The value added of Palestinian industry per unit of electricity used surpasses that of countries such as Belgium,

Spain, Finland, Sweden and Jordan, but falls below that of countries such as Germany, France, and Morocco, and is close to that of Israel's. However, industrial firms complained that their competitiveness was hindered by the high cost and irregularity of electricity services.

The total amount of **water** consumed in the West Bank from reservoirs and springs reached 103 million m³. This represents only 16% of the total amount of water replenished during the 2004/2005 rainy season, the rest being consumed by Israel. 388 West Bank communities, containing 1.9 million people, are served by the Palestinian water company, and although industrial firms believed that the price of water is acceptable, concerns were raised about the paucity of coverage and the quality of water available. Similar complaints were heard about the **sewage** system, particularly in rural areas. Only 74 of the largest communities in the Palestinian territory are connected to the sewage system, while 533 still rely on soak-aways.

Regarding **communications**, compared to other Arab countries and Israel, Palestine came eleventh in the number of cell phones per person and fifteenth in terms of fixed telephone lines per household. With an average of 6.5 internet users per 100 people, Palestine also ranked fifteenth, on a par with Egypt but 42% less than Jordan and 73% less than Israel. An average of 4.5% of people in Palestine own computers, a similar figure to Jordan's but 94% less than Israel's. The Palestinian industrialists surveyed voiced general content with Palestinian telephone and internet services (the companies 'Jawwal' and 'Hadara' being singled out for praise), but complained about the availability and quality of their Israeli counterparts.

With regard to **roads and transportation**, the system of Israeli roadblocks and checkpoints massively increases costs. Furthermore, Palestinian exporters complain of the high price of Israeli transportation services, which they are forced to use to move goods through Israel, and also the cost of transporting goods through Israeli ports. The Palestinian road network, which in total measures over 6,000km, is inadequate, especially in rural areas, and is often poorly maintained and prone to flooding. Palestine averages only 37 vehicles per 1,000 people, much less than in both Israel and Jordan.

Recommendations:

The study concludes with a number of recommendations which would enhance the infrastructure services available and increase the competitiveness of Palestinian industry. These include the following:

- ✧ To repair damaged roads, including resurfacing them and improving the drainage, and to pave more roads in rural areas.
- ✧ To decrease or eliminate tariffs on new vehicles.
- ✧ To increase political efforts to eliminate Israeli roadblocks.
- ✧ To improve the availability of electricity by reducing the number of blackouts and increasing coverage in rural areas.
- ✧ To provide electricity at a lower rate for industrial companies, especially huge establishments that use a lot of electricity in their manufacturing processes.
- ✧ To make political efforts to search for other sources of fuel instead of Israel, such as Jordan or Egypt.
- ✧ To establish a high quality treatment system for water reservoirs instead of using chlorine.
- ✧ To provide rural areas with sewage systems and allow them to establish their own waste-water treatment plants.
- ✧ To encourage Palestinian banks to decrease the cost of banking services – especially money transfers – to the industrial sector.
- ✧ To make political efforts with Israel to allow the placement of cell phone masts in so-called ‘Area C’ (the large part of the West Bank still under direct Israeli control) and to increase the number of frequencies available.
- ✧ To supply rural areas, especially those that contain industrial establishments, with fast internet connections.
- ✧ To establish, as soon as possible, a port in Gaza independent of Israeli control.