Palestinian Central Bureau of Statistics

Household Environmental Survey 2003

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Concepts and Definitions

Agriculture waste: Waste produced as a result of various agricultural operations. It includes manure and other waste from farms, poultry houses and slaughterhouses; harvest waste; fertilizer run-off from fields; pesticides that enter into water, air or soil; and salt and silt drained from fields.

Air pollution: The presence of contaminants or pollutant substances in the air that do not disperse properly and that interfere with human health or welfare.

Cesspit: A well or a pit in which night soil and other refuse is stored, constructed with either tight or porous walls.

Dump: Site used to dispose solid waste without environmental control.

Dust: Particles light enough to be suspended in the air.

Environment: The totality of all the external conditions affecting the life, development and survival of an organism.

Exposure to noise and air pollution: The respondent is considered to be exposed to noise, dust, smell or smoke if he considers it a real problem.

Household: One or group of persons living together who make common provision for food or other essentials for living. Households members may be related, unrelated or a combination of both.

Household waste: Waste material usually generated in the residential environment. Waste with similar characteristics may be generated in other economic activities and can thus be treated and disposed together with household waste.

Households without solid waste collection service: The households that are not receiving the solid waste collection service from any of the parts, the local authority or UNRW or the private contractor and dispose of waste by themselves, or by themselves beside another part, these households are considered non-served households.

Local Authority: It is a government authorized by one of the ministries to have competence for providing public services, and handing the community affairs.

Noise: Audible sound from traffic, construction, and so on that may generate unpleasant and harmful effects (hearingloss). It is measured in decibels.

Open burning: Out door burning of waste such as lumber, scrapped cars, textiles, and so forth.

Public water network:	A net of pipes for the purpose of providing clean water to households. It normally belongs to a municipality, the council or to a private company.
Sewage network:	System of collectors, pipelines, conduits and pumps to evacuate wastewater (rainwater, domestic and other wastewater) from any of the location places of generation either to municipal sewage treatment plant or to a location place where wastewater is discharged.
Smoke:	Particles suspended in air after incomplete combustion of materials.
Solid waste disposal:	Ultimate deposition or placement of refuse that is not salvaged or recycled
Solid waste:	Useless and sometimes hazardous material with low liquid content, solid waste include municipal garbage, industrial and commercial waste, sewage sludge, waste resulting from agricultural and animal husbandry operations and other connected activities, demolition waste and mining residues
Waste collection:	Collection or transport of waste to the place of treatment or discharge by municipal services or similar institutions, or by public or private corporations, specialized enterprises or general government. Collection of municipal waste may be selective, that's to say carried out for a specific type of product, or undifferentiated, in other words, covering all kinds of waste at the same time.
Wastewater:	Used water, typically discharged into the sewage system. It contains matter and bacteria in solution or suspension.
Water quality:	The water without color, taste, smell or precipitates is considered as good water, the water with some color or taste or smell or precipitates but still acceptable from the respondent's point of view is considered to be fairly good water, and the water with some color or taste or smell or precipitates to an extent that is not acceptable from the respondent's point of view is considered to be bad water.

Survey Questionnaire

The environmental questionnaire was designed in accordance with the similar country experiments and with international standards and recommendations for the most important indicators, taking into account the special situation of Palestine.

-Water: Sources, Quality, Availability of Domestic Wells
-Solid Waste: Disposal of Solid Waste, Quantity Produced Daily, and Components of Solid Waste
-Wastewater: Wastewater Disposal Methods,
-Air pollution: Exposure to Noise, Exposure to Smells, Exposure to Dust, Exposure to Smoke.

Target Population

All Palestinians households living in West Bank and Gaza Strip.

Sample and Frame

Sampling frame consists of master sample chosen from census 1997, and this master sample comprises geographical areas closed in size (number of households) which is the enumeration areas used in census, such frame has been used as the Primary Sampling Units (PSUs) in the first stage of selection.

Sample Design:
The sample of this survey is part of the sample of the labor force survey (LFS), that is conducted every 13 weeks. The total sample of LFS is about 7,559 households distributed over 13 weeks. The sample of the households environmental survey occupies six weeks of the thirty round of the LFS. The sample chosen by two stages, the first stage represented by choosing a stratified uniform random sample consisted of 481 enumeration areas, while the second stage represented by the choice of a random uniform sample of households in each enumeration area, where 16 households was chosen in each one.

Stratification:
In designing the sample of LFS four levels of stratification have been made:
1. Stratification by District.
2. Stratification by the locality type which comprises:
(a)Urban   (b) Rural   (c) Camps
3. Stratification by households ownership of permanent commodities and means as it was mentioned in census 1997.

4. Stratification by locality size (no of households in the locality).

Sampling Unit:
First stage sampling units are the enumeration in the master sample. The second stage sampling units are households.

Target Cluster Size:
The "target cluster size" or "sample-take" is around 16 households per PSU.

Sample Size:
The sample size is 3492 Palestinian households in West Bank and Gaza Strip, where this sample has been distributed according to the locality type.

Sample and Frame:
The sample is a two-stage stratified cluster random sample.

Weight and Variance Calculation

Because the sampling weight counteractive with the percentage sample from the frame, and as this ratio different from the percentage sample for the society in reference period, therefore the weight was adjusted to show number of population in the middle of 2003. And the weight was adjusted to make the distribution of people in the sample by region, sort, and structure age become identical to this distribution on census 1997. Finally, weight were adjusted to compensate for incomplete cases that occur during data collecting.

Reference Date

household sample survey was conducted during the period from 23/08/2003 until 02/10/2003, about July 2003.

Data Collection

Field operations started on 23/08/2003 and lasted until 02/10/2003. Fieldwork teams were distributed to all districts proportional to the sample size in each district. The fieldwork team consists of 18 members including one fieldwork coordinator, (4) supervisors, (1) editors and 12 interviewers.

Fieldwork:

Training Fieldworkers:
As a part of the LFS training, the field workers were trained on the main skills before the start of data collection. The interviewers were trained on the environmental survey. Instructions for filling the questionnaire were made available for the interviewers. The training provided the participants with aims and definitions of the different indicators of the survey and how to fill in the questionnaire. Moreover, the training course includes practical exercises about filling in the questionnaire to make sure of the performance of the trainees.

Response Rate

During fieldwork 3,457 families were visited in the Palestinian Territory, the end results for the interview become as following:

(2835)	complete questioner
(43)	traveling family
(44)	housing unit not existed
(189)	cases no body in the house
(21)	objection cases
(194)	housing unit abandoned
(42)	family can't give data
(89)	other cases

Data Quality

Two types of errors affect the quality of survey data, sampling and non-sampling errors. The sampling errors are measurable. The non-sampling errors could not be determined easily, due to the diversity of sources (e.g. the interviewers, respondent, editor, coders, data entry operator... etc).

However, several measures were adopted to minimize the effects of these errors. The interviewers, editors and coders hand undergone intensive training and were provided with fieldwork manuals to consult when facing any problem.

The data entry program was designed in a way that allows error detection and correction. This applies particularly to logical errors that might not be discovered before data entry operations. A consistency check was also performed to assure accuracy after data entry.