



Palestinian National Authority
Palestinian Water Authority



السلطة الوطنية الفلسطينية
سلطة المياه الفلسطينية



Evaluation of Socio-Economic Sustainability Indicators for Water Resources Management Options in Palestine

Sustainable Management of the West Bank and Gaza Aquifers

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<p>The SUSMAQ Project</p> <p>The aim of the project is to increase understanding of the sustainable yield of the West Bank and Gaza aquifers under a range of future economic, demographic and land use scenarios, and to evaluate alternative groundwater management options. The project is interdisciplinary, bringing together hydrogeologists and groundwater modellers with economists and policy experts. In this way, hydrogeological understanding can inform, and be informed by, insights from the social sciences. The results of the study will provide support to decision-making at all levels in relation to the sustainable yield of the West Bank and Gaza aquifers.</p> <p>The project runs from November 1999 to October 2004, and is a partnership between the Palestinian Water Authority, University of Newcastle upon Tyne. The project is funded by the United Kingdom Government’s Department for International Development (DfID).</p>	<p>Project Results Dissemination</p> <p>The project disseminates its results through the project website www.ncl.ac.uk/susmaq, newsletters, workshops, technical meetings, publications in conference and scientific journals.</p>
<p>Bibliographical Reference</p> <p>This report should be referenced as: SUSMAQ (2005). Evaluation of Socio-Economic Sustainability Indicators for Water Resources Management Options in Palestine. Report No. SUSMAQ - SUS #53 V1.1, Sustainable Management of the West Bank and Gaza Aquifers, Palestinian Water Authority (Palestine) and University of Newcastle upon Tyne (UK).</p> <p>Authors: Alan Nicol, Yasser Shalabi</p>	

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1 Introduction

1.1 Scope of report

This report provides a description of the socio-economic Basic Indicators (BIs) and how they have been evaluated as part of assessing the sustainability of a range of Management Options (MO). These BIs have been evaluated under a set of scenarios considered by the SUSMAQ project.

The BI evaluations provide data in support of policy makers and their use of a multi-criteria analysis (MCA) methodology being implemented as part of a decision support toolkit (DST) for the Palestinian Water Authority.

1.2 Overall approach

The socio-economic indicators are subdivided into: Household Water (SE01-03) which relate to water availability and quality; and Household Livelihoods (SE 04-07) which relate to various aspects of household livelihoods ranging from agricultural and industrial use to impact of yield fluctuations and expenditure on household water.

We have evaluated the BIs for a demonstration case study for the West Bank. The socio-economic indicators are evaluated only for the North West Bank (current, consolidating and future scenarios) and Central and Southern West Bank (current scenario). The evaluations are based on the PCBS survey and other available statistical and qualitative data gathered in the past two years, and SUSMAQ Package Database using data from the Palestine National Water Plan (SUSMAQ Report #34, 2005; SUSMAQ Report #35, 2005).

We have calculated values for each BI using information retrieved from the household survey and the relevant case studies (see SUSMAQ Report #35, 2005). The indicator values over the 25 year period are calculated (as far as available data allows) using information from the SUSMAQ Package database for groups of projects representing each MO being tested, and from household survey data and other secondary sources.

Whilst calculations of exact values are somewhat hampered at present by a lack of data in the SUSMAQ Package database, the calculation methods remain relevant and can help guide future decision makers in the type of data sets they need to create when developing and implementing new projects. In order to facilitate piloting of the Decision Support Tool (DST) an additional set of qualitative indicators using analysis derived from the results of the PCBS survey and case studies is also presented.

1.3 Scenario definition

The BIs are evaluated for three hydropolitical/socio-economic scenarios representing possible alternative futures for Palestine (see SUSMAQ Report #35, 2005):

- Current scenario;
- Consolidating scenario;
- Future scenario.

1.4 Regional assessments

The social, geographical and economic conditions of Palestine differ markedly between areas of the West Bank, and between the West Bank as a whole and the Gaza Strip. Average conditions therefore apply only in the most general sense and are not useful for the purposes of assessing Management Options. The Occupied Palestinian Territories are therefore subdivided into 4 regions, based on administrative boundaries:

- West Bank North: Nablus, Tulkarem and Jenin;
- West Bank Central: Ramallah, Jerusalem and Jericho;
- West Bank South: Bethlehem and Hebron;
- Gaza.



Full report/document is not available online