

Preface

This is a research paper of the *Centre for Applied Population Research (CAPR)*, University of Dundee. The four central research themes of the *Centre for Applied Population Research* over recent years have been international migration, population policies, population-environment issues, and population and social theory. Related research work has included analysis of post-Fordism and labour market trends, rural development and population change, and the use of census population data in relation to urban crime analysis.

This research paper reports the fruits of international and interdisciplinary collaboration between staff in the *Centre for Applied Population Research* and colleagues in the Department of Population Studies at the University of Jordan. The work forms part of a wider research and development project of the Royal Geographical Society, London and the Higher Council for Science and Technology, Amman. The research is a contribution to the analysis of population-environment relationships in arid lands and is part of an ongoing research collaboration on this theme by the authors.

The work could not have been completed without the support of a wide range of colleagues and institutions. Allan Findlay is very grateful to the John Robertson Bequest, University of Glasgow, which helped to fund the early phases of the project and to the University of Dundee which met the costs of preparing this report. All the authors are grateful to the corporate sponsors of the Badia Research and Development Project, without whom it would have been impossible to undertake the 1993 Demographic Survey and whose assistance made it possible to meet to analyse the results. At a personal level the authors are indebted to Rodney Stobbs, University of Durham, who assisted with place-name research necessary to the preparation of Figure 2 and to Jim Ford, Nicola Ross and Pat Michie, all of the University of Dundee who contributed in various ways to the technical production of this research paper. Hopefully, the demographic projections presented in this paper will form a significant contribution to other researchers involved in evaluating the policy options for the development of the Badia region of Jordan.

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Allan M Findlay

Demographic Change and Population Projections for the Badia Region of Jordan, 1976-2013

Introduction

Population trends in Jordan are of great interest to demographers given the country's distinctive demographic regime. Until very recently the rate of natural increase was amongst the highest in the world (Findlay and Maani, 1995). In the mid-1990s the population doubling time for Jordan remains only 18 years. As well as having a very high rate of natural increase Jordan has also been a major destination for refugee movements. Palestinians fleeing from conflicts in neighbouring territories to the west, have formed the majority of refugees, but other influxes of population have also occurred, including the recent arrival of Palestinian labour migrants and their families from Kuwait in the aftermath of the Gulf war of 1991. The size of Jordan's refugee population is a matter of some dispute, but few would contest that in world terms Jordan has one of the highest proportions of refugees in relation to total population. In addition to these exceptional circumstances, in the 1970s and 1980s Jordan experienced an intense involvement in the system of international labour migration which focused on the Arab oil economies. A very significant proportion of skilled Jordanians emigrated during these years resulting in Jordan's national earnings from migrant remittances rising rapidly to account by the 1980s for the equivalent of a quarter of the value of the Gross Domestic Product. In short, Jordan is a state which has experienced remarkable demographic and economic circumstances over the last few decades. It is as a result a site of particular interest to demographers and population geographers.

This paper is concerned with the demographic regime of the peoples of the arid eastern part of Jordan. The study area defined in Figure 1 represents just one part of the much wider territory of eastern and southern Jordan known as the Badia. The Badia, having one of the highest fertility rates of any region in Jordan, provides an extreme example of the demographic pressures experienced in the rest of the country. In the Badia a demographic regime with an exceptionally high rate of natural increase combines with a physical environment which is one of the most arid in Jordan. This combination has led to fears in some quarters of population growth triggering environmental degradation.

Historically the economy of the Badia has been based on pastoralism. Employment opportunities have not diversified to the degree that they have in the major conurbations of Jordan, such as Amman and Zarqa. The rapid rate of population growth presents a difficult challenge, requiring new opportunities for sustainable development to be initiated in the area to combat the continued heavy out-migration from the Badia. The detailed demographic picture, presented here, of the situation in the Badia seeks not only to provide an essential data base for planners concerned with this region, but also to raise questions of wider significance to planners concerned with the future welfare of populations in arid environments in general (Findlay, 1996 in press).