

GEOGRAPHICAL RECORD

JEDDAH'S ENVIRONMENTAL PROBLEMS*

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The Red Sea port of Jeddah is Saudi Arabia's second largest city and busiest port. It has some outstanding modern architecture, and its cosmopolitan ambience has made it a most attractive place to live. Rapid population growth in recent decades and the failure of infrastructure to keep pace with that growth have led to serious environmental problems associated with the high, saline water tables and the lack of a modern sewer system. Septic tanks no longer function properly in many parts of the city, and the domestic water-supply network has severe leakages. Without special building techniques, road surfaces buckle, and foundations and walls corrode and collapse. Major investments in infrastructure are urgently needed to save parts of the city from being engulfed by polluted groundwater.

JEDDAH'S MODERN DEVELOPMENT

In many ways Jeddah is a Saudi Arabian success story. Every year it copes with the influx of several million religious pilgrims, and its international workforce underpins a vibrant economy. Most of downtown Jeddah is modern and spacious (Figure 1), as befits the second largest city of the world's biggest oil producer (Pesce 1977). But all is not well, and rapid growth has brought Jeddah and its inhabitants face to face with harsh, everyday environmental realities. In a country that is generally extremely arid, it is rather ironic that most of Jeddah's environmental problems are associated with the presence of too much water rather than too little.

Modern Jeddah—more properly transliterated as “Juddah,” meaning “seashore” and locally pronounced “Jiddah”—stretches for about 50 kilometers north–south along a narrow, low-lying, coastal platform cut across Quaternary and Tertiary limestones, known as the “Tihama.” Unofficial estimates suggest that the city's population is now about 2.5 million. But this is almost certainly a serious underestimate, given the inadequacies of the last official census in 1992, the difficulties of producing accurate demographic projections, and the unknown, but very large, numbers of illegal residents (often Muslim pilgrims unable or unwilling to return home) located mainly in the sprawling slums of south Jeddah. Yet only sixty years ago the city had a population of about 35,000 and occupied little more than 2.6 square kilometers (Abu-Rizaiza 2000). The city's phenomenal growth since the 1970s was not

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