Figure on cover: Herdsmen and their herd cross a river or canal. The old Egypt knew a complicated system of irrigation systems that also played a role in transportation. The later state structure even evolved out of the many small hydrologically defined units. Which forms a parallel with our Low Countries. Try to imagine which infection cycles discussed in this book can occur and persist in a situation as shown in the picture. There are more than you may think first. Take also into account the lower bar with under water life. (Source: JH Breasted: History of Egypt).
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Introduction

This is the text book of the college course ‘Public Hygiene and Epidemiology’ (CT5420) of the Section Sanitary Engineering. It is intended for students of civil engineering but also for others who are interested in sanitary engineering. Many of the students are or will be working in the field of applying technical knowledge and materials to improve human health, here and abroad.

The civil engineers are e.g. employed in the cleaning and distribution of drinking water, the collecting, transport and processing of waste and sewage water, soil sanitation, the construction of dams, water reservoirs and irrigation and drainage systems. This implies a conscious adaptation of the environment to the needs of mankind.

The operations they perform are in many cases not just beneficial to the other inhabitants of our planet. And to make things worse, man and his health can eventually be at risk because of the changed circumstances, that can have unsuspected negative consequences. This course hopes to clarify that engineers, like doctors, should not apply their technical power in an isolated way, but in good coordination with other disciplines. Only then the ability of mankind to adapt his environment can be used in a balanced way.

Delft, 5 January 2005, Dr. P. Bol, medical epidemiologist
A word of thanks

I would like to thank my predecessor Prof. Dr. J. Huisman, who taught Public Hygiene and Epidemiology till mid 1993. Not only did I make use of his course book, but he was also kind enough to review and comment on the text book that I wrote in Dutch (1997). His work has really improved the book. Historian dr. H. van Zon (State University Groningen) reviewed the historical parts critically, I thank him for that. I also thank doctor Sebastain Kalwij for a very well written appendix. Dr. A.E.M. de Hollander (RIVM), environmental epidemiologist and ecotoxicologist contributed greatly to the book. And last but not least my thanks to Kate Steenhauer and Petrina Reynolds who assisted in translating.

P. Bol