

PREFACE

Water is the center of all life. It serves as a critical input for every social and economic activity in which humans engage, including human health, food production, sanitation, energy production, and the manufacturing of many goods and services. However, in the 21st century, one of the major challenges for society is to cope with a growing mismatch between the demands for and supply of freshwater. Furthermore, water insecurity through the scarcity of quality and quantity of water is an issue of major and critical concern in many parts of the world, more especially in South and Southeast Asia. Print and electronic news reports, scientific researches and reports, on water insecurity, water resources are appearing with worrisome frequency in South and Southeast Asian newspapers and world journals and reports. However, in viewpoint of social dilemma, water insecurity is now a major alarming issue in the South and Southeast Asia.

Social dilemma is a relatively new pursuit in water insecurity issue. A classic example of a social dilemma, everyone perceives the need for cutting down water demands during drought, but at the same time it is very tempting for each individual household to sprinkle their garden. Through this example, the dilemma is posed by a conflict of interests between the individual and the collective. Regarding water, it is one of the most serious social dilemmas and that is growing every day.

This book is a modest attempt to provide an overview of quality and quantity aspect of water that cause water insecurity and social dilemma. This book also introduces three important natural and human induced issues that trigger water insecurity in the South and Southeast Asia. Water quality and quantity become the principal limiting factor for water insecurity, which accelerated by three issues viz. salinity, arsenic, and drought hazards. Considering water insecurity and social dilemma, this book consists of twelve chapters, which divided into four parts: introduction, water quality issues, water quantity issues, conclusion and future strategy that address some of the above issues through illustrative examples and country specific case studies. In Part I, it covers the first chapter that provides an overview of water insecurity and social dilemma issue. Part II consists of seven chapters that mainly illustrate the water quality issue in different

perspectives but special focus on salinity and arsenic concern. Part III consists of three chapters that mainly highlight water quantity issue that triggered through drought. In Part IV, it comprises conclusion that addresses priority actions for reducing water insecurity risks and specific issues for water insecurity and integrated water resource management. It is hoped that this book covers the interest of researchers, policy makers, and practitioners in the field of development, environment, and water planners and considers as a reference guide of future research in the field of water insecurity and risk management.

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