

FOREWORD

The Food and Agriculture Organization of the United Nations (FAO) has been concerned with the need for soil and water conservation since its establishment in 1945. Since that time, FAO has supported numerous projects, sponsored or participated in various conferences and seminars, and published various bulletins, reports, proceedings, etc. to focus attention on the nature of this worldwide problem and to provide information regarding remedial action to be taken to alleviate the problem. However, the problem remains, and the increasing world population is resulting in intensified cropping of the limited areas of arable land to provide the necessary food in some countries. Unless effective conservation practices are used, such intensive cropping tends to increase the loss of soil and water resources. This trend must be reversed.

The objectives of this Soils Bulletin are to present the principles and practices of tillage systems for sustained food production and to create an awareness of the need to conserve the world's soil water and energy resources for future generations. Although energy is an integral part of tillage systems, the emphasis is on soil and water conservation. However, effects of the systems on energy are discussed where appropriate.

This Bulletin emphasizes tillage systems for developing countries, but relies heavily on principles that have been developed throughout the world. It is intended mainly for the training of and use by extension workers for improving crop production through use of improved tillage systems for conserving the soil and water resources in developing countries.

Since not all the solutions to particular soil conditions are yet known, the need for more research on conservation tillage in developing countries is stressed.

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The author is a noted Soil Scientist with years of experience in conservation tillage research under a range of conditions. He has published about a hundred papers, many dealing with conservation tillage, and is one of the most renowned experts in this field.

Though material for this publication has been drawn in large part from the USA where most of the experience on conservation tillage exists, results from developing countries have been taken into due consideration and cited.

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