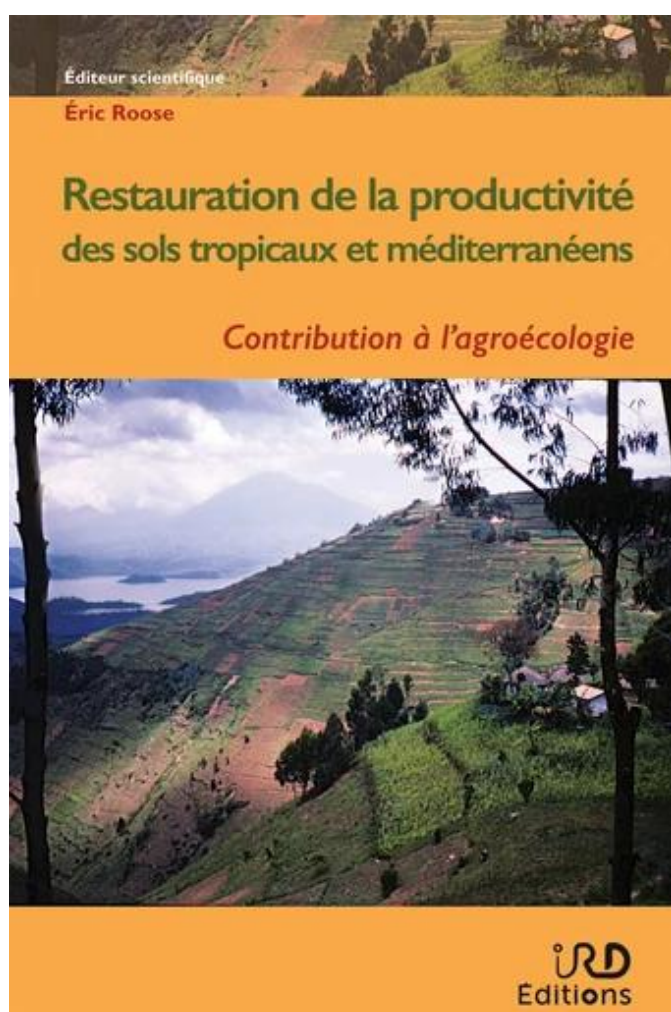


#preservation

PUBLICATION: RESTORING SOIL PRODUCTIVITY IN TROPICAL AND MEDITERRANEAN REGIONS: A CONTRIBUTION TO AGROECOLOGY

Structure : IRD (French National Research Institute for Sustainable Development)



INTRODUCTION

Since the mid-20th century, due to rapid population growth, soils and vegetation in tropical and Mediterranean regions have suffered significant degradation. Currently, more than 20% of cultivated land is chemically, physically, and biologically degraded. Indeed,

despite the implementation of major projects such as water and soil conservation (WSC), agricultural production cannot be maintained at a level sufficient to feed a population that doubles every twenty years in the Global South. This book therefore aims to present the main findings of research in the field of restoring soil productivity.

The causes of soil degradation in warm regions are first presented. We then evaluate various methods of biomass and nutrient management, followed by cultivation techniques and water management systems.

The extensive experimental data presented demonstrate that the sustainable restoration of agroecological systems is possible, provided six principles are followed: effective water management, the addition of organic matter, the use of mineral supplements, soil revitalization (manure/compost), soil pH correction, and the judicious selection of crops with high biomass production.

The book, which presents numerous original field studies, is intended for researchers, educators, students, policymakers, and various stakeholders involved in rural development.

TABLE OF CONTENTS

1. The decline in tropical soil productivity due to various types of erosion
2. Soil restoration through the management of organic and mineral matter in agrosystems
3. Soil restoration through cultivation techniques in tropical agrosystems
4. Soil restoration through complex techniques

CHARACTERISTICS

Publisher: IRD Diffusion

Series: Synthèses

Publication date: May 23, 2017

Liens

<https://www.editions.ird.fr/produit/450/9782709922791/restauration-de-la-productivite-des-sols-tropicaux-et-mediterraneens>

<https://www.ird.fr>