1. Record Nr. UNINA9910626103403321 Conservation agriculture in subsistence farming: case studies from Titolo South Asia and beyond / / edited by Catherine Chan and Jean Fantle-Lepczyk; contributors, Adrian Ares [and twenty seven others] Oxfordshire, England;; Boston, Massachusetts:,: CAB International,, Pubbl/distr/stampa 2015 ©2015 **ISBN** 1-78924-388-2 1-78064-424-8 Descrizione fisica 1 online resource (278 p.) Disciplina 631.4 631.45 Soggetti Agricultural conservation - South Asia Soil conservation - South Asia Sustainable agriculture - South Asia Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Conservation Agriculture in Subsistence Farming: Case Studies from South Asia and Beyond; Copyright; Contents; Contributors; Foreword; Preface: 1: A Brief History of Conservation Agriculture: 1.1 Introduction: 1.1.1 Reduced tillage; 1.1.2 Crop rotation and diversification; 1.1.3 Organic soil cover; 1.1.4 Integration of practices in CA systems; 1.2 Development of CA Around the World; 1.2.1 USA; 1.2.2 South America; 1.2.3 Africa; 1.2.4 South and Southeast Asia; 1.3 Lessons from History; References; 2: Global Perspectives on Conservation Agriculture for Small Households: 2.1 Introduction 2.1.1 Potential benefits of conservation agriculture 2.2 Constraints for Scaling Up Conservation Agriculture; 2.3 Sustainable Intensification; 2.4 Resilience; 2.5 Regional Perspectives; 2.5.1 Conservation agriculture in southern Africa; Benefits of CA in southern Africa; Constraints to the adoption of CA in southern Africa; A case of successful promotion of CA in southern Africa; Evolution of conservation agriculture in Monze, Zambia; 2.5.2 Conservation agriculture in Southeast Asia; Benefits of

CA in Southeast Asia; Conservation agriculture adoption constraints in Southeast Asia

Conservation agriculture case studies in Southeast Asia2.6 Conclusions: References; 3: Potential of Conservation Agriculture Production Systems (CAPS) for Improving Sustainable Food and Nutrition Security in the Hill Region of Nepal; 3.1 Introduction; 3.1.1 Food and nutritional security in Nepal; 3.1.2 Nepal's agroecological condition; 3.1.3 Agriculture and food security; 3.1.4 Historical trends of crop yields and food balance in Nepal: 3.1.5 Intensification of hill agriculture and concerns for sustainability: 3.1.6 Soil degradation status in the hill region of Nepal 3.1.7 Conservation agriculture production systems (CAPS) as a method to increase productivity and enhance sustainability 3.2 On-farm Evaluation of CAPS; 3.2.1 Study villages; 3.2.2 Identification of suitable CAPS; 3.2.3 On-farm trial; 3.3 Results and Discussion; 3.3.1 Results of farm trials: crop yields under different CAPS; 3.3.2 Relating CAPS performances to food and nutritional security; 3.3.3 CAPS and stability of food security; 3.4 Conclusion; References 4: Effect of Tillage, Intercropping and Residue Cover on Crop Productivity, Profitability, and Soil Fertility under Tribal Farming Situations in Odisha, India4.1 Introduction; 4.1.1 The need for resource-conserving agriculture; 4.1.2 Tribal farming situations in Odisha, India; 4.1.3 Definition and description of conservation agriculture; 4.2 Methodology; 4.2.1 Background; 4.2.2 Experimental design; 4.2.3 Soil sampling and analysis; 4.3 Results and Discussion; 4.3.1 Maize and cowpea yield response: 4.3.2 Mustard yield response: 4.3.3 Labor and profitability; 4.3.4 Soil fertility 4.4 Conclusions and Future Outlook

## Sommario/riassunto

Conservation agriculture systems have long-term impacts on livelihoods, agricultural production, gender equity, and regional economic development of tribal societies in South Asia. This book presents South Asia as a case study, due to the high soil erosion caused by monsoon rainfall and geophysical conditions in the region, which necessitate conservation agriculture approaches, and the high percentage of people in South Asia relying on subsistence and traditional farming. The book takes an interdisciplinary approach to analyse systems at scales ranging from household to regional and national I