Record Nr. UNINA9910819978303321 Autore Vergara Walter <1950-> Titolo Assessment of the risk of Amazon dieback / / Walter Vergara and Sebastian Scholz Pubbl/distr/stampa Washington, D.C.:,: The World Bank,, 2011 **ISBN** 1-282-96654-5 9786612966545 0-8213-8622-0 Descrizione fisica xiv, 95 pages: illustrations (some color), color maps.;; 26 cm Collana World Bank study Altri autori (Persone) ScholzSebastian M Disciplina 333.75/1409811 Soggetti Climatic changes - Amazon River Region - Forecasting - Computer simulation Deforestation - Amazon River Region - Computer simulation Forest biomass - Carbon content - Amazon River Region - Computer simulation Forest microclimatology - Amazon River Region - Computer simulation Rain forest plants - Climatic factors - Amazon River Region - Computer simulation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Cover; Title Page; Copyright; Contents; Preface; Acknowledgments; Acronyms and Abbreviations; 1. Introduction; 2. Modeling Future Climate in the Amazon Using the Earth Simulator; 3. Assessment of Future Rainfall over the Amazon Basin: 4. Analysis of Amazon Forest Response to Climate Change; 5. Interplay of Climate Impacts and Deforestation in the Amazon; 6. Conclusions; Appendixes; References; **Back Cover** Sommario/riassunto The Amazon basin is a key component of the global carbon cycle. Not only is the old-growth rainforests in the basin huge carbon storage with about 120 billion metric tons of carbon in their biomass, but they also process annually twice the rate of global anthropogenic fossil fuel emissions through respiration and photosynthesis. In addition, the basin is the largest global repository of biodiversity and produces

about 20 percent of the world's flow of fresh water into the oceans.

Despite the large CO2 efflux from recent deforestation, the Amazon rainforest is still considered to be a net carbon