Record Nr. UNINA9910464783503321 Sustainable development of algal biofuels in the United States // **Titolo** Committee on the Sustainable Development of Algal Biofuels, Board on Agriculture and Natural Resources, Division on Earth and Life Studies. Board on Energy and Environmental Systems, Division on Engineering and Physical Sciences, National Research Council of the National Academies Washington, District of Columbia: .: National Academies Press. . Pubbl/distr/stampa [2012] ©2012 **ISBN** 0-309-26033-7 Descrizione fisica 1 online resource (247 p.) Disciplina 662/.88 Soggetti Biomass energy Algae - Biotechnology Electronic books. 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. Introduction -- Overview of algal biofuel supply chain -- Pathways for Nota di contenuto algal biofuel production -- Natural resource use -- Environmnental effects -- A framework to assess sustainable development of algal biofuels. "Biofuels made from algae are gaining attention as a domestic source of Sommario/riassunto renewable fuel. However, with current technologies, scaling up production of algal biofuels to meet even 5 percent of U.S. transportation fuel needs could create unsustainable demands for energy, water, and nutrient resources. Continued research and development could yield innovations to address these challenges, but determining if algal biofuel is a viable fuel alternative will involve comparing the environmental, economic and social impacts of algal biofuel production and use to those associated with petroleum-based fuels and other fuel sources. This report was produced at the request of the U.S. Department of Energy."--Provided by publisher.