Record Nr. UNINA9910741144803321 Autore Pereira Allana Katiussya Silva Titolo Impacts of Using Biomass as an Energy Source in Homes / / edited by Allana Katiussya Silva Pereira, Ananias Francisco Dias Júnior Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2023 **ISBN** 9783031388248 3031388240 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (123 pages) Collana Green Energy and Technology, , 1865-3537 Dias JúniorAnanias Francisco Altri autori (Persone) Disciplina 621.042 Soggetti Renewable energy sources Sustainable architecture Power resources Bioclimatology Renewable Energy Sustainable Architecture/Green Buildings Natural Resource and Energy Economics Climate Change Ecology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Energy sources used in food preparation and impacts on climate change -- Biomass as a biofuel used in food preparation: qualitative variables that contribute to people's quality of air and life --Combustion equipment used in food preparation around the world: what is its influence on air pollution and how to mitigate these harmful effects? -- Wastes from sustainable forest management as an alternative: the Amazon case for bioenergy generation -- Wastes from sustainable forest management as an alternative: the Amazon case for bioenergy generation -- Renewable energy sources to promote food sovereignty and social inclusion. Sommario/riassunto The book deepens understanding of biomass sources and technologies used for cooking worldwide. It contributes directly to the creation of policies aimed at the mitigation of climate change. Historically, wood is

considered humanity's first source of energy. Even after decades of use

and industrialization processes, it is still considered the most important single source of renewable energy. About a third of the world's population is energetically dependent on wood for cooking and/or heating. Recently, the Covid-19 pandemic made it impossible to purchase fuels such as liquefied petroleum gas (LPG), forcing families in financial difficulties to opt for cheaper and more accessible sources of energy, such as wood and vegetable coal. This has been the picture of many families around the world and negatively impacts the environment and energy security. Considering that there are still many wood residues that are wasted and that tropical forests need to be conserved, knowledge about the energy use of wood residues is also essential. This is even more relevant when considering the significant volume of biomass coming from the sustainable management of the largest tropical forest in the world, the Amazon Forest. The book considers which wood variables should be taken into account when thinking about energy generation, how do food cooking technologies contribute to potentiating pollutants emissions, and how can these harmful effects be mitigated. It describes the chemical composition of biomass and the chemical compounds released during its burning, as well as their impacts on the environment and human health. It also presents the influence that technologies used in food cooking have on pollutant emissions and which alternatives can be used, such as the use of solar energy.