Lobamba solar energy policy

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Despite increased economic opportunities in the solar energy sector, policy-based social inequities still pose barriers to progress. Martin Pasqualetti is a professor at the School of Geographical Sciences and Urban Planning and former co-director of the Energy Policy Information Council. According to him, solar power presents many unique advantages over other sources.

The global push for sustainable energy solutions has sparked interest in Space-Based Solar Power (SBSP) as a transformative innovation. This review article explores SBSP through the dual lenses of legal frameworks and sustainable development. It provides an analysis of the legal landscape governing SBSP, focusing on international treaties such as the Outer Space Treaty and the Moon Agreement ...

Decarbonisation plans across the globe require zero-carbon energy sources to be widely deployed by 2050 or 2060. Solar energy is the most widely available energy resource on Earth, and its...

Different countries have formulated solar energy policies to reducing dependence on fossil fuel and increasing domestic energy production by solar energy. This paper discusses a review about the different solar energy policies implemented on the different countries of the world.

India has committed to sourcing nearly half its energy from non-fossil fuel sources by 2030, with solar power contributing at least 60% of its renewable energy mix. As part of its ambitious goal of achieving 500 GW of non-fossil fuel energy capacity by 2030, solar power leads the charge, leveraging India"s abundant sunlight.

Examines the legal frameworks and global regulations governing SBSP deployment.

Assesses the environmental and social impacts of SBSP, including energy equity and space sustainability.

Identifies challenges to SBSP adoption and proposes strategies for overcoming legal, technical, and economic hurdles.

Firstly, the treaty mandates that States Parties to the treaty, including those involved in SBSP projects, must avoid harmful contamination of both the Earth and other celestial bodies. This provision is particularly significant in the context of SBSP, as it underscores the importance of mitigating any potential adverse environmental impacts associated with SBSP deployment. For instance, the construction, operation, and decommissioning of SBSP infrastructure could potentially introduce contaminants or pollutants into the Earth"s atmosphere or outer space. By adhering to the principles of the Outer Space Treaty, States are not just encouraged but obligated to implement measures to minimise contamination risks and safeguard the integrity of the environment.

This means that any space-based solar power activities that do not harm the environment or interfere with other activities in outer space must be conducted. The Outer Space Treaty provides a framework for the peaceful and responsible exploration and use of outer space, and it is a crucial document for the development of space-based solar power activities.

The principle of the common heritage of mankind, enshrined in the Moon Agreement, asserts that celestial bodies like the Moon are the collective inheritance of humanity, not subject to national appropriation. This principle was established to ensure that outer space resources are utilised for the collective benefit of humanity rather than being exploited by individual nations for their exclusive gain. While the Moon Agreement lacks the widespread ratification of the Outer Space Treaty, it embodies essential principles that can inform discussions surrounding space-based activities, including space-based solar power (SBSP) projects [6].

Due to their vast scale, space-based solar power projects would likely require collaboration among multiple countries. The construction and operation of space-based infrastructure for solar power generation would necessitate expertise, resources, and funding from various nations. This underscores the importance of international cooperation in such projects.