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PM KUSUM Scheme

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The Central Government has announced the Kisan Urja Suraksha evam Utthaan Mahabhiyan or KUSUM scheme which aims at furthering the production of solar power in India and also gives the benefits of solar farming to farmers. The Union Budget 2018-19 has set aside a sum of Rs.48000 crores for this program for ten years.

- In March 2021, the Central Government introduced modifications to an existing component of the PM-KUSUM scheme – a farmer income support and a de-dieseling scheme – so as to channelise its focus on solarising agricultural feeders instead of pumps. This move would obviate the need for farmers to replace every existing pump in a village with a solar pump.

Kusum Scheme Details

- Kusum Scheme implemented by: The Ministry responsible for this scheme is the New and Renewable Energy Ministry.
- Initially, the government will distribute 1.75 million off-grid agricultural solar pumps.
- 10000 Mega Watts Solar plants will be put up on lands that are barren.
- The state electricity distribution companies, also called, DISCOMS will buy the additional solar power produced by the farmers on barren lands. DISCOMS will get sops to buy this electricity.
- Tube wells and existing pumps of the government will be converted to run on solar power.
- Farmers will get a subsidy of 60% on solar pumps. It shall be deposited to their bank accounts directly. This subsidy is going to be shared by the central and state governments. 30% of the cost will be obtained as a bank loan. Hence, only the rest 10% will have to be borne by the farmers themselves.
- The approved scheme comprised of three components:
- **Component-A**: Addition of 10,000 MW of solar capacity through the installation of small solar power plants of capacity up to 2 MW.
- **Component-B**: Installation of 20 lakh standalone solar-powered agricultural pumps
- **Component-C**: Solarisation of 15 lakh existing Grid-connected Agriculture Pumps

PM-KUSUM scheme is one of the largest initiatives of the world to provide clean energy to more than 35 lakhs farmers by solarising their agriculture pump under components B and C.

Background

- As a part of Intended Nationally Determined Contributions (INDCs), India has committed to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030.

- The Cabinet had approved scaling-up of solar power target from 20,000 MW of Grid Connected Solar power Projects to 1,00,000 MW by 2022.

Latest information on PM KUSUM Scheme –

1. The farmer focus of the KUSUM scheme has given a fillip to the farmer-oriented scheme involving decentralized solar power production up to 28,250 MW over a period of five years.
2. The Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) scheme would provide additional income to farmers, by giving them the option to sell additional power to the grid, through solar power projects set up on their barren lands.
3. The government's Budget for 2020-21 expanded the scope for the scheme with 20 lakh farmers to be provided assistance to install standalone solar pumps; another 15 lakh farmers to be given help to solarise their grid-connected pump sets. This will enable farmers to set up solar power generation capacity on their barren lands and to sell it to the grid.

Kusum Scheme Benefits

- It shall enable the decentralisation of the production of solar power.
- Transmission losses of DISCOMS will be under control.
- Subsidy burden on DISCOMS in the sector of agriculture will be decreased to a large extent.
- This will give farmers the chance to sell to the grid the extra power that is generated by the solar plants that are stationed on their barren lands.
- It will provide a fillip to the emerging green economy in India.
- The scheme also has direct employment generation potential. As per available studies, around 24.50 job-years are created per MW of small capacity solar installation. Therefore, besides increasing self-employment, the scheme is likely to generate employment opportunities equivalent to 7.55 lakh job-years for skilled and unskilled workers.
- The program will also aid in the de-dieseling of the agricultural sector in India. This implies that the existing diesel pumps will be replaced.
- Other benefits that will accrue to the farmers due to the implementation of this program include conservation of water, water security as well as energy efficiency.

Kusum Scheme Drawbacks

- **Water table depletion** – Due to power subsidies, the recurring cost of electricity is so low that farmers keep on pumping water and the water table is going down. It is much difficult to upgrade to higher capacity pumps in case the water table falls in a solar installation because a new solar panel is required to be added which is very expensive.
- **Omission of Small and Marginal Farmers** – as the scheme focuses on pumps of 3 HP and higher capacities there has been the relative omission of small and marginal farmers because of which Solar pumps are not reaching the majority of farmers, as nearly 85% of them are small & marginal farmers. Also, the reality of low water tables, especially in North India and parts of South India, make small-sized pumps limiting for the farmer.
- **Logistics Issue**: There is a matter of domestic availability of equipment itself. While pumps are not a challenge for domestic suppliers, the availability of solar pumps is still an issue. Further, due to the strict DCR (Domestic Content Requirements), the suppliers of solar equipment have to raise the domestic cell sourcing. However, there isn't enough domestic cell manufacturing capacity.

Way Forward with Kusum Scheme

- **Bring States Together:** Consensus between the Centre and States is the key to the success of this decentralized solar power scheme. Any reform in India's power space cannot take place unless there is consensus between the Centre, States, and stakeholders.
- **Lucrative Solar Energy Pricing:** For effective implementation and serious participation by stakeholders, the scheme should be more attractive in terms of benchmark prices in view of the challenges on account of higher costs of implementation and comprehensive maintenance.
- **Sustainable Farming:** Apart from switching to solar power, farmers should also switch over to drip irrigation mode which saves water and power with increased crop output.