Solar power to double farmers' income (DFI)

What is the issue?

- The government had proposed to double the farmer's income (DFI) by 2022.
- Solar power seems to be the only option to achieve the target of DFI.

What are the things that augment the DFI?

- First, the Union finance minister (FM) questioned why a farmer can't become the producer of solar power.
- Second, in the Parliament the Minister of State for agriculture admitted that the existing set of policies cannot DFI by 2022.

What is the story behind?

- The PM said that it is his dream to DFI by 2022. It was followed by setting up a committee, headed by Ashok Dalwai, in April 2016.
- It clarified that it is real income that needs to be doubled over 7 years (base income of 2015-16), requiring a growth rate of 10.4% per year.
- The committee submitted its final report in September 2018 with 619 recommendations.
- There is a debate whether the government can implement 619 recommendations before 2022.
- If the report is brought to a summary in 20-25 pages, and prioritised just 5-10 recommendations from list of 619 recommendations, it may be achievable.

How farmers becoming a solar power producer can help achieve the target of DFI?

- The PM has set a target of producing 100 GW of solar power by 2022.
- He wants to be one of the frontrunners in International Solar Alliance for clean energy.
- So far, the model that has been adopted to develop solar power is inviting bids from large business players and big players did enter.
- Some people who entered early into Power Purchase Agreements (PPA) with state governments had to suffer, when the costs came down.
- Then, the state governments also forced them to revise the costs of PPA downwards, upsetting their economic calculations.

- But, this model of generating solar power was not very inclusive.

What is the alternative model?

- The alternative is **to help farmers produce solar power on their lands**. After all, farmers occupy the largest chunk of land in India.
- This model will be much **more inclusive** and can help augment the farmers' incomes significantly.

What are the two variants of this model?

- **Replace all pump sets with solar pumps** and the excess power generated can be purchased by the state government.
- This gives the farmers a good margin over their cost of producing it.
- **Encourage farmers to grow "solar trees" on their lands** in a manner that enough sunlight keeps coming to plants below.
- Here, the farmers can keep growing irrigated crops as they have been doing, but the solar trees generate a lot of excess power that can be purchased by the state government.
- The power generated under this variant is multiple times more than that produced under the first variant, and, the income augmentation can also be several times more.

What did the survey find out?

- Indian Council for Research on International Economic Relations' (ICRIER) global survey found that it is being practiced in many countries like Japan, China, Germany, etc and India is ripe for this.
- The problem is **mobilising enough capital** to install these solar trees.
- In one acre, you can have 500 solar trees in such a manner that even tractors can move through them and farmers can keep growing their normal crops.
- It does **not affect their productivity** as there is ample sunlight coming from the sides for the crops to perform photosynthesis.
- The second precondition is that the state should be ready to sign the power purchase agreement.

Source: Financial Express

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