

10.19 Should the groundwater for the purpose of cultivation of rice needs to be discouraged? If not, how groundwater can be used effectively for cultivation. (200 words)

International Rice Research Institute (IRRI) says, "There is a wrong perception that rice needs a lot of water." IRRI defending the crop for indicting it as a reason for ground water depletion.

So the ground water for the purpose of cultivation of rice need not to be discouraged.

Effective use of groundwater for cultivation

- ① Rice need not to be flooded and it can survive in anaerobic conditions.
- ② If aquifers are well connected and rechargeable pumping of water is a good practice.
- ③ Meanwhile the pumping percentage is depending on the recharge capacity and type of aquifer.
- ④ Farmers should be educated about praise water management.
- ⑤ Incentivising farmers with carbon credits
- ⑥ Growing of rice in aerobic conditions like Direct Seeded Rice (DSR) leads 12-35% of savings of groundwater

⑦ DSR is widely practised in

Malaysia - 95%.

Cambodia - 85-90%.

Vietnam } - 70%.

Thailand }

Philippines - 42%.

Sri Lanka - 95%.

UNDER DSR
Direct seeded
Rice

⑧ Pokhali rice variety grown in coastal Kerala is Saltol gene which makes rice salt tolerant. It can be implemented to other coastal areas too.

④ Conclusion

Rice is the staple food across India. Though DSR can reduce yields up to 5-7%. This can be compensated by whole cost savings. With the help of IRRRI and ICAR we can develop and stack a multiple traits in single variety of rice without depleting ground water table. So, ultimately rice cultivation need not to be discouraged in terms of use of ground water.

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