

By Using Adjusting Nozzle or regulatory valve 24x7 Water Supply by Using Existing Resources

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Abstract - The country is facing the problem of effective water supply because of summer season and draught and so many other reasons. In rural and urban area there are so many tube wells (bore wells), if we adjust the pipe diameter and capacity of pump and introducing one regulatory valve at outlet, we can adjust the outlet discharge from the bore well less than or equal to the inlet discharge i. e. as per supply of water in the tube wells (bore wells). It leads to 24 X7 hours water supply in some area and even it is effective in draught. Also it is more effective for irrigation just by constructing small water tanks or by changing methods of irrigation like sprinkler or drip. By using this small principle (outlet discharge less than or equal to inlet discharge) we can make use of existing bore wells (tube wells) which are not in use because of their less supply of water and save lot of money of nation and can serve nation more effectively.

By the use of adjusting nozzle/regulatory valve (which we are using for vehicle washing) we can adjust the yield from the bore wells as per supply, which gives the continuous supply of water, as per the supply of water from ground in the tube wells and which can be used in any corner of the world. In this case it is not necessary to adjust the capacity of pump and diameter of pipe, and the same pipe and pump can be used

Key wards – Drought, Water Supply, Bore Wells, and Economy etc.

I.INTRODUCTION

As India is agricultural country and facing problems like drinking water, water for irrigation etc., though there are so many big projects are fulfilling the needs. e.g. dams, small reservoirs etc. But it not possible to supply the water in every corner of the country by constructing dams. But if we adopt this very small principle ($Q_{out} < Q_{in}$) then it is possible up to great extent. The principle is to make use of existing bore wells (tube wells) even which are not in use because of their small supply of water. This small supply of water can be used effectively just by adjusting/ reducing the pipe diameter and capacity of pump. In country almost pipe diameter (in bore wells) used is 50 mm, so country is facing the problem when the supply of water in tube wells becomes less due summer, draught etc. But even in summer and draught also there is small supply of water. If we make the use of this small supply of water effectively which is possible just by replacing the bigger diameter pipes say 50 mm by 25 mm or 12.5 mm and same pump can be used to achieve the economy. So the bore wells which are not in use can also fulfill the need. In case of heavy drought diameter of pipe and capacity of pump should be used minimum so that supply of water from ground in bore well and supply of water from bore well can be maintained for continuous flow. And can be used effectively in which case recuperation of well is more effective. In such a way we can get the continuous supply of water from tube wells. So we will get maximum quantity of water as per our requirement.

In case of drip irrigation the use of water lifted is used effectively at surface level, and at the same time in case where connection between drip and bore well is direct it maintains the supply of water in bore well from the ground and supply of water from well is also optimum. If any bore well is not continuously working in case of flood irrigation, in that case if we just connect the bore well pipe to drip then there is magic that we will get continuous supply of water and total amount of water lifted will be maximum.

By this principle of outlet discharge is less than or equal to the inlet discharge ($Q_{out} < Q_{in}$) leads small capacity of pump and smaller diameter of pipe in new tube wells in urban area for effective water supply, where the required quantity of water is less e.g. in urban area for domestic use only which also leads to save electricity and money for larger capacity of pump, pipe etc.

By this principle the farmers can make use of existing tube wells along with existing pump instead of going to new and deeper depth of bore wells which save money along with maintaining the higher water level.

Miracle- By the use of adjusting nozzle (which we are using for vehicle washing) or regulatory valve at outlet we can adjust the yield from the bore wells as per supply, which gives the continuous supply of water as per the supply of water from ground in the tube wells and which can be used in any corner of the world. In this case it is not necessary to adjust the capacity of pump and diameter of pipe, and the same pipe and pump can be used. The water collected from bore wells can be collected in small water tanks and lifted by another pump. Use of adjusting nozzle or regulatory valve makes easy to adjust out discharge from bore well with inlet discharge from ground to bore well.

II.SALIENT FEATURES

1. Effective water supply by existing resources.
2. 24X7 hours water supply is possible by existing resources in some area.
3. Water level will remain at higher level.
4. More effective for drip and sprinkler irrigation by existing resources, hence increases agricultural wealth/products.
5. More effective in summer and draughts when there is more need.
6. Easy to adjust outlet discharge from bore well with inlet discharge from ground to bore well.
7. Funding agencies can happily give the funds for demonstration and experimentation of this principle in urban and rural area, which can be done by student power and zilla parishad, panchayat sammittee, gram panchayat, NGO etc.
8. In rural area human and animal resource can be used more effectively for their important other works. e.g. students can give more time for study and play also.
9. In urban and rural area water tankers are not required up to great extent; hence there is a saving of petrol and diesel.
10. Saves millions of Rs of the nation and leads to overall economy.

III.CONCLUSION

This principle of adjusting the outlet discharge less than or equal to the inlet discharge in the bore wells (by adjusting capacity of pump, diameter of the pipe and introducing the regulatory valve at outlet) give us the wonderful result for effective water supply which save water, save electricity, save time and money and serves nation up to great extent.