

### **GROUNDWATER INTERVENTIONS / SUGGESTIONS:**

- ❖ The first and foremost intervention required is creating awareness amongst planners, implementation organizations and people at large on the occurrence, distribution and limitations for exploitation of groundwater.
- ❖ Apart from awareness, the desire and conviction of each and every individual to participate in groundwater management has to be brought out. People are generally aware about the problems related to groundwater exploitation and also about the future. But, their participation gets diluted because of the scarce resource. Limited resource generally makes a person selfish. Thus, they want to live in the present rather than think of the future. The best intervention to overcome this serious problem is both supply and demand side management.
- ❖ One of the foremost interventions to be planned is inventory of all existing water sources. This has to be done on a mission mode. Unless this operation is completed a moratorium is to be thought of regarding execution of new structure. Lack of proper data base on the existing sources is a major hurdle for future planning.
- ❖ Groundwater scientists should be made responsible for planning, management and regulating its use.
- ❖ Based on the Rainfall and crop water requirement only 20% of the unit area can and should be irrigated through groundwater for ID crops and it can be extended to 40% by introducing micro irrigation practice. But at present more than 50% of the unit area is irrigated by groundwater, thus, resulting in over exploitation and shortages in non-command areas. Effective intervention by way of creating awareness is necessary.
- ❖ Groundwater is presently encouraged for utilization of ID crops and not for high water intensive crops. But, keeping the future in view groundwater needs to be utilized for giving wettings to rain fed crops in between long dry spells.
- ❖ One very effective intervention being taken up is the revival, renovation and restoration of MI tanks on a massive scale with peoples' participation. This is a joint surface/ groundwater intervention involving other branches viz. agriculture, forests, fisheries, horticulture, animal husbandry, market etc., Success of this intervention will also act as a platform for future participatory approach.
- ❖ APWALTA is not applicable to extraction of groundwater from existing sources which are responsible for over exploitation in the area. As such a mechanism has to be devised

in order to control draft from existing sources. Further, concerted efforts are to be made to recharge groundwater in these areas and also adopting less water intensive and high yielding crops.

- ❖ If above measures are not implemented, there may be a possibility of shortage of groundwater even for drinking purpose.
- ❖ It is generally observed that in Over Exploited area, wells dry up resulting in crop loss. Further, seasonal wells have to be identified in these areas and farmers should be cautioned not to use them for second crop.
- ❖ Groundwater study and planning for taking up interventions and for management should not be done in isolation. All the components of hydrologic cycle should be considered.
- ❖ It's a well known fact that green cover not only attracts rainfall but also helps in protection of soil cover, soil moisture retention and groundwater recharge, in a very effective and economic way.
- ❖ If environment is taken care of and nature helps us, there is not much need for human interventions, thus, limiting the cost
- ❖ Artificial recharge should be site specific and purpose specific and taken up only in extreme cases to solve drinking water problems only.
- ❖ Recharge through defunct dug wells is a good concept of artificial recharge and may prove to be effective. But, it should be planned properly
- ❖ Without any type of interferences, the source and type of man made pollution must be identified and stopped.
- ❖ Natural pollution will be taken care of to a large extent by the increase in recharge.
- ❖ Thus, concerted efforts should be made to protect the environment and increase the green cover for our good.