Synergistic Use

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In this lecture we are going to talk about what is the synergetic use of a rainfall surface runoff surface water, as well as the ground water so that the crop area could be better managed. So what are all the different aspects which we need to know in the synergetic is; we have a crop crop duration okay and we have got a different sections of phase of growth of the crops. So there are certain a times where this is if it is going to be a matured, maturing activity then what is happening is there is a water requirement is less hear the water requirement is more.

So we have to; we have to have some activity so that if there is going to be rain in this area the rainfall. Rainfall is nothing but you have rains somewhere here somewhere here somewhere here. So this isfor the crop rain-fed crop areas and in this way when we are talking about the clouds and when we are talking about the ground water when we are talking about the surface water we cannot ignore one type of source from the others.

So what we need to do is we have to use synergetically; synergistically use means then using all the resources when as when one is available start using it. When there is one; now it is going to be rainfall. See, rainfall has got a duration; duration as well as there are; in this area then we have got lot of wet spells as well as dry spells are there when you have a wet spell and dry spell what need to be done is when there is; when you are going to have a rain-fed agriculture so during the dry period that means when there is no rain then crops needs irrigation crop needs what. During the time what is the source which I can use it one is I can use the groundwater and another thing is I can use the surface water the rain-fed areas, the surface water is always minimum or it is nil then we have to go for the ground water sources.

Then ground water sources how many indications like which we have seen in the weekly analysis how many irrigations are needed through the ground water and how many are needed in the rain assisted areas. So those two things can be synergized. So, save ground water for the dryer periods and then use it and for the crop growth. So this is what the synergetic use of ground water synergetic use of different water sources.

So now only the question is the amount of water which you need is more important. So in the amount of water if by doing the groundwater level analysis and over the period during the growth period how much water is getting the recharged into the well based on that then whether we can use the application that is the agriculture application or the practices which you can always change it and then use the minimum amount of water for the growth. So this can be done for individual places, individual areas by studying the wet spell and dry spell which is prevalent in that area. So that your crop does not grow another important thing which way I just want to tell you about that is the cloud presence or absence of a cloud or a group of clouds in and around your area of interest makes the difference.

Suppose when you want to take whether to pump it out from these wells or use the resources of ground water. So if you can make use of this cloud reading and then we can make use of it

instead of rain also gives water to the plant and you are also giving water to the plant that means plants gets more water which should not get into some other way. So this is what I mean by the synergetic use; watch the clouds in and around the area for if you have to do a irrigation today then look around the clouds in and around and you just see whether it is possible that our rain bearing clouds whatever we have said our cumulus, and things like that so you look for those clouds in the satellite data which is freely available from the Indian meteorological website and then see whether is there any major cloud pattern in that area.

So that if it is there just hold on for a day if it is not there then you can go about with this type of ground water. This is the major advantage of reading the clouds for the irrigation purposes in a rain-fed areas. So, that is what this lecture is meant you read the clouds and before deciding to go for the precious groundwater resources which is available with you for your any agriculture activities. Thank you.