agMOOCs
Water Logging
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Now we are going to talk about Water Logging. What are the problems? See, when the land gets degraded it can get degraded because of the soil salinity, salt is added to the system. So that the salt intake by the plant is reduced and nutrient intake is reduce and crop production goes into vary. Another problem is the water lodging. Water logging is nothing but it is a drainage problem. So whatever the water is not getting moved out from the root zone fast enough so that it is able to intake better facilities, okay.

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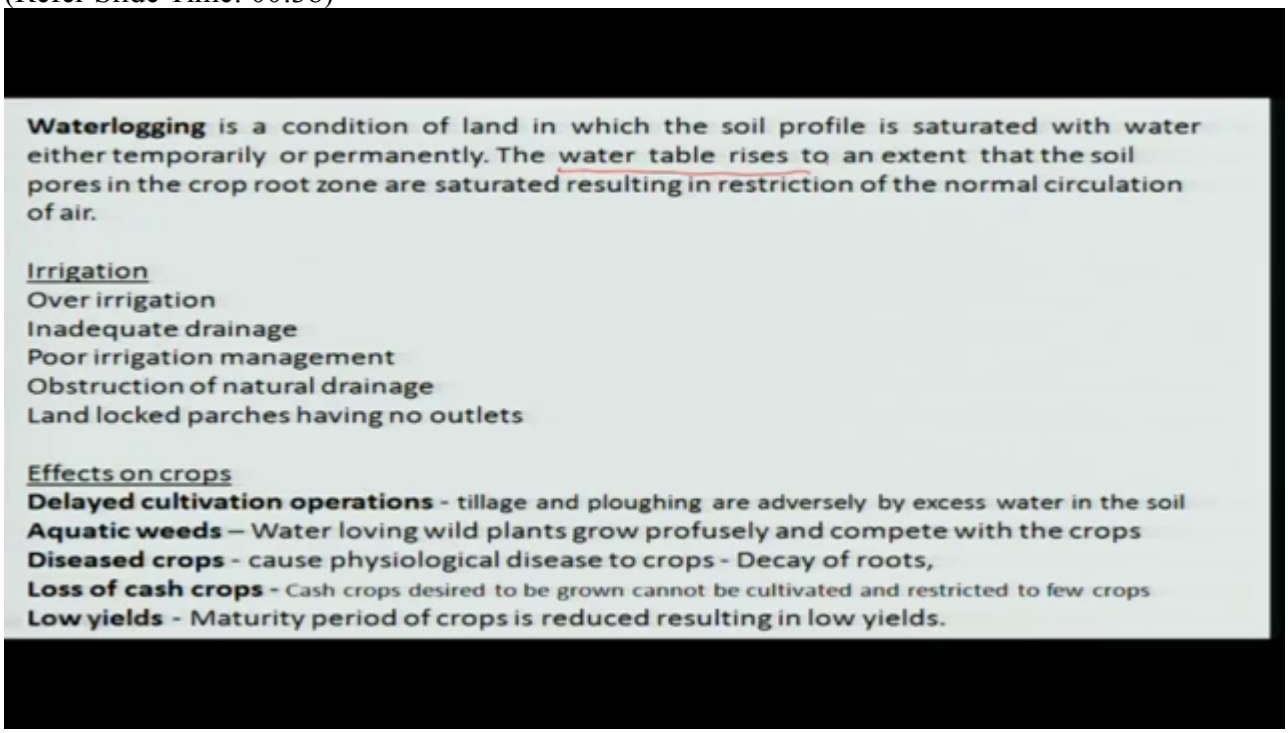

Now water logging is the water table which raises up that means the water which is paving percolated is not moving to the source, further down or on the sideways are one situation. Another situation, water which is gets percolated elsewhere they come, try to come and then come out of the root zone areas, so causing a circulation problem, so that is what the water logging problems. And it is normally happens in the alluvial areas, close to the alluvial areas whether the inflow from the river or inflow from the adjoining areas they try to make the water table to the closest thing.

So, other reasons are that over irrigation, that means before the water goes down, go out of the root zone areas you irrigate it or inadequate drainages or management of poor irrigation management whatever the drainage which is happening natural drainage, subsurface, natural drainages which happens that is blocked due to so many construction activities in the nearby areas, and/or the what is happening is if it is a land which is (inaudible 00:01:45), where the land is long and water does not have any outlet to move away. These are all the major causes for the water logging problems.

And what are the effects which can happen on this is, you may have to delay cultivation operations as well as aquatic weeds are likely to grow in those areas. If they are aquatic

weeds then that will be fertilizer sharing issues they come into picture instead of crops, the weeds they eat away the consumed majority of the fertilizers. And either or it could be a plants will be leading to deceased crops, some physiological changes could happen and decay of roots can happen. And if it is in the cash crops and only few crops could come up and the rest of it is gets stuck in the system and low yield which is the major cost for the irrigation or cultivation activities or agriculture activities. Now having seen what are the different logging, water logging conditions, causes and effects on the crops.

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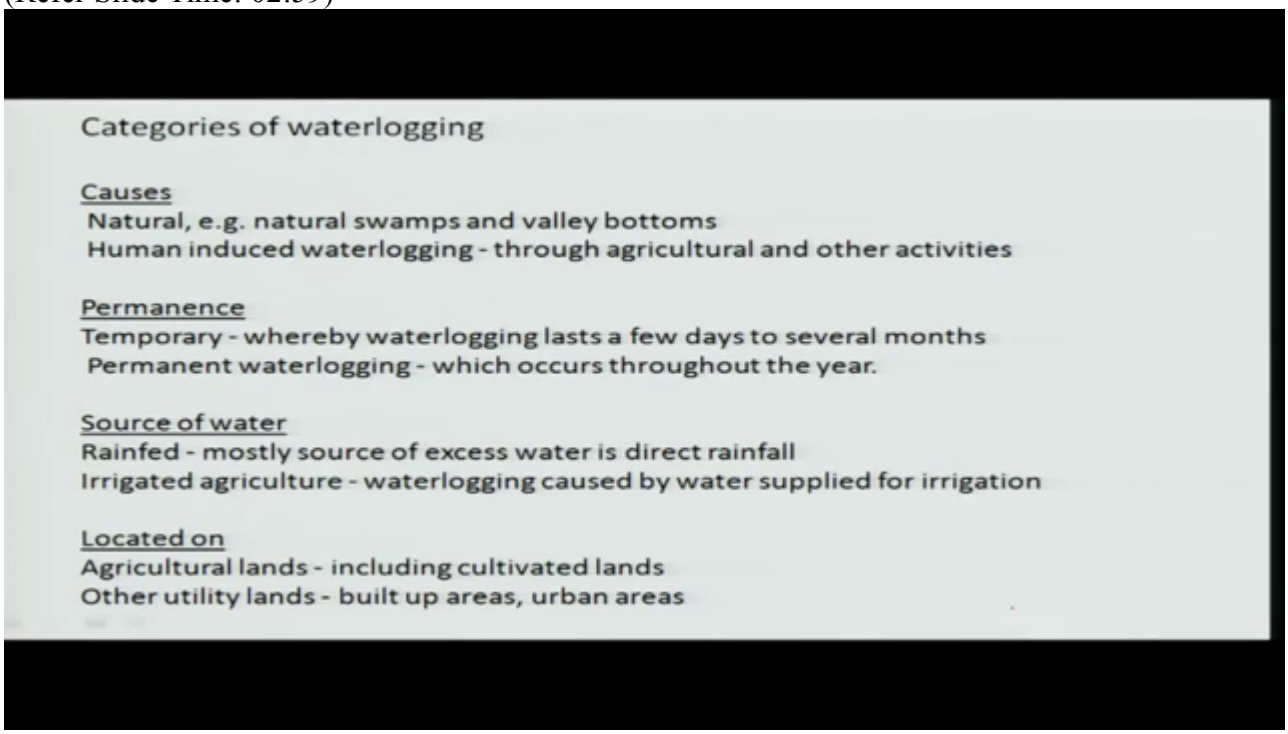

Now, there are causes, it could be a natural causes, it could be a human induced causes or it could be a permanent activity, it could be a be a when during the rainfall days you must be seeing then what water logging, water accumulations they take place and when it is immediately after the rainfall this type of water logging moves away to other places. So that is what we call it as a temporary or it is a water logging which is a permanent like what we call all along the coastal area you have marshy land, so that is what the permanent water landing areas. Or it could be the sources of water which causes this thing could be either it could be a rain-fed sources, direct rainfall, there is no much, of drainages so again water logs or excess irrigation in this area that causes a problem.

Many of them it happens on an agriculture land or it could be in a other utility land, built up areas which happens this type of water logging. It is not only meant only for the agriculture land or it can happen in the built-up areas also there will be water logging will be there and there will be a dampness in the building and there will be other related issues it come up in the urban areas because it is manipulated, the surface is manipulated very heavily in the urban areas, whereas it is minimum in the agriculture except for ploughing conditions.

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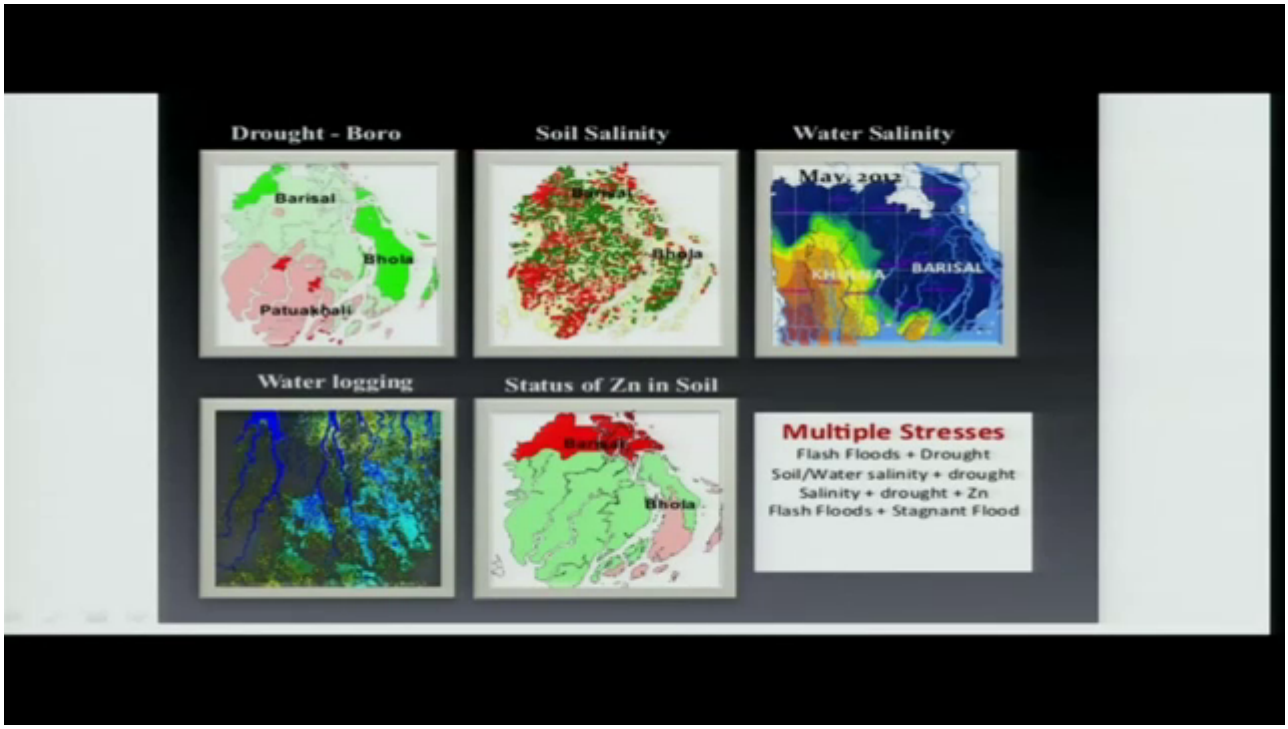

Now, what are all the multiple stresses which can happen because of that is, one thing is non-availability of water that is what the drought we call it. Then the soil salinity which has gets improved or it could be a water salinity, water salinity is nothing but the groundwater salinity or the water – the surface water passes through the area where the salt content in the surfaces can get dissolved and then (inaudible 00:05:02) or it could be a water logging, water logging means, the water does not have any place to move around, drainage is poor. So that could be some element concentration is possible.

So, these are all the different stresses and the reasons for the different kind of stresses which can happen to the crops. So how these things could be used is -- make a baseline information and then try to get all those areas mark and then do your practices and how best it is removed after few years of time. That is how the GIS could be brought into picture even on a smaller area or on a larger area because this water, water movement and salinity, water logging and all those things there of regional nature not of a smaller scale activities.

So, that is what we wanted to show that agriculture practices are affected by drought, water logging. Salinity, concentration of a particular minerals. So these are all the probable things which can affected agriculture crops that needs not only the observations, monitoring and updation of the information is possible so that we will be able to take a better management practices to reclaim the degraded agricultural land back into the system. Thank you.