

agMOOCs  
Assessment of Existing Water Storage Structures & Rehabilitation  
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In sustainable agriculture what I am supposed to do. I am a traditional agricultural land and we have developed our own system.  
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## **Assessment of Existing Water Storage Structures & Rehabilitation**

So what is the another probable which you could do with the GIS and then recordings and other digital information is about what do we do with the traditional tanks which are there in a cascading manner to improve the solution.  
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## Water assessment of traditional tank cascade areas

Tank irrigation is prevalent in southern Peninsular to catch and store the sporadic rainfall

It is advocated for the self sustenance of resources in a village or group villages in semi-arid regions

Emergence of Canal and ground lifts have led to degradation of the system

As the tank conditions of embankment, spillway & water release structures, are precarious in nature.

Need for rehabilitation to increase water storage capacity and reduce water stress/flooding

**Tank cascade** – series of tanks/Cheruvus located on up and down stream sides are connected with each to harvest overflow

Figure 8: Field Photos showing present day tank condition.



1. Permanent structure constructed within the tank area



2. Growth of Babul and other thorny trees



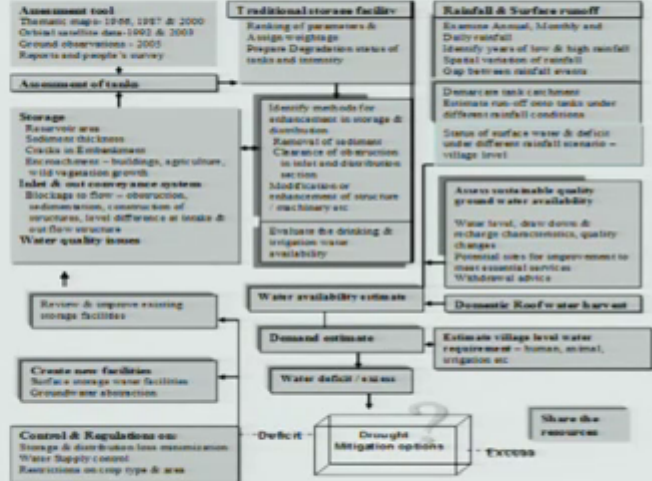
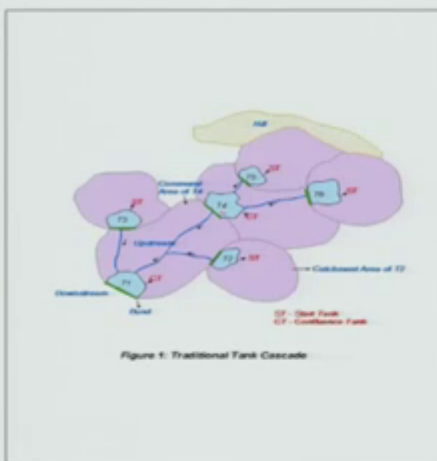
3. Human encroachment, Cultivation can be observed



4. Tank spillway and silted area

So now what is happening in these type of tanks are they are unattended and there is the storage has reduced and that unwanted growth has taken place, this needs to be addressed, this need to be rehabilitated because in many of the areas we do not have enough space for creation of another storage system because of so many reasons.  
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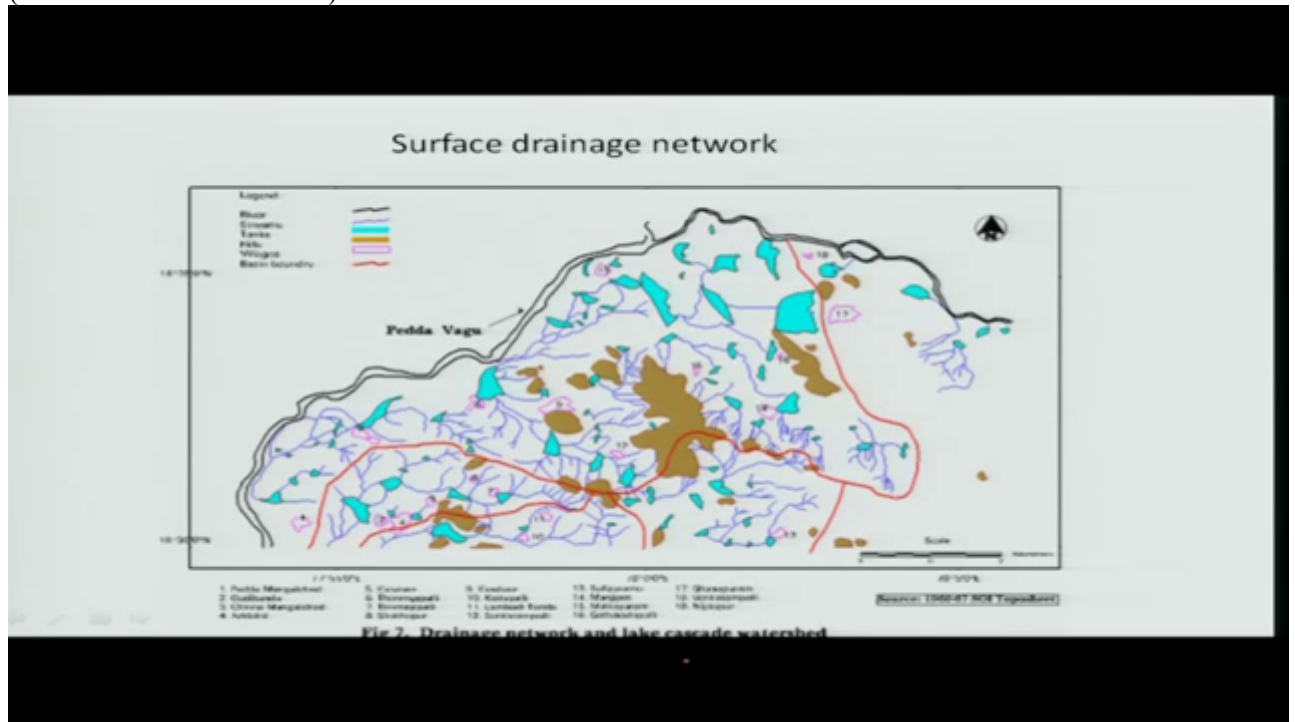
## Water assessment of traditional tank cascade areas



So in this cascade of tanks are one place where one lake it gets filled up, over flows comes to the next one on the down side as well as it goes to the downside. This is the way it moves from overflow is shared between people and this is the way wherein you'll understand what is the storage condition, how much is the damage which has happened, what can be done and

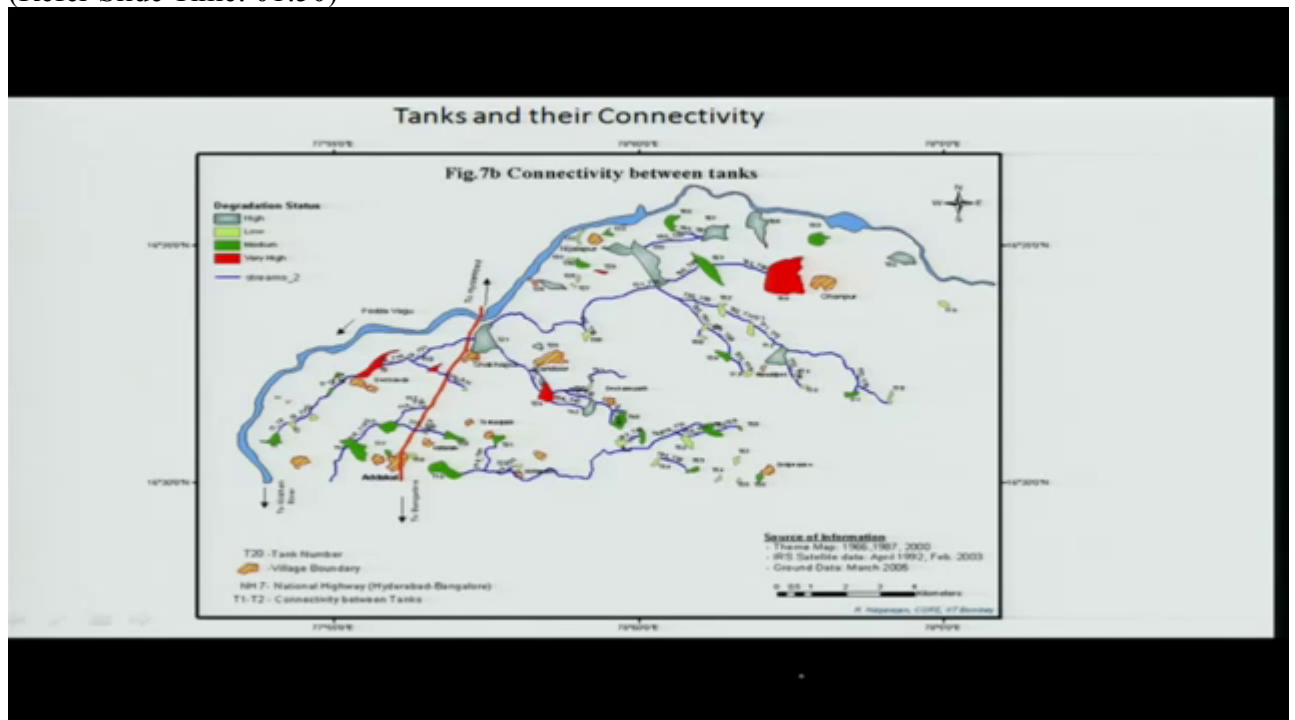
whether with this storage system whether the drought could be accommodated, shed and things like that.

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So now when you try to do this what we can do is we identify the lakes maybe sometimes it is reclaimed in and it has got an urban system or it is still available with a deteriorated condition. If it is in the deteriorated condition there is a possibility for -- there is a possibility for removing the silt and making the storage, enhance the storages which we can do it.

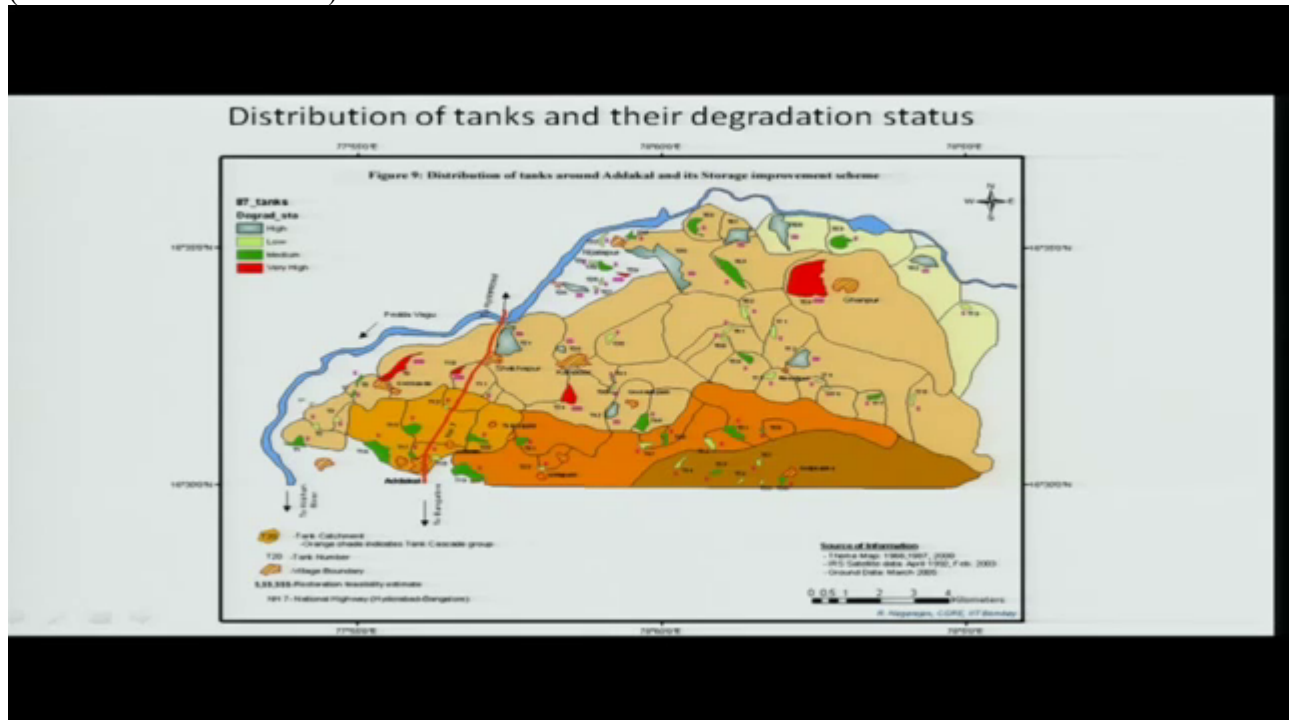
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And even enhancing the storages we have a different option. So the different option is like which one I should take it up. See here what is happening is depending upon the need and

depending upon the resources which you are able to collect it. In this case what has been done in this is these are all the different tanks, different cascade tanks of a different cascade with the spread is given in this area. Now if you do it that the one option is if you attempt from the larger lakes, assuming larger lakes. Then if you try to do it there will be lot of investment needed and a lot of -- once that investment is arranged and if it is rehabilitated then there will be enough -- the advantages are also -- or t benefits also very high. That is what is made it here in the terms of dollars which has been given in this area. This is been the first one which is need to be done and the degradation status is very bad.

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And how do we come out of that is we have given rehabilitation and feasibility estimates which we can work out and larger the tank and more number of people are likely to get benefited that is the one which we have term rather than it starting from the smaller one, even though smaller but dependency of the people are more important or dependency of the agriculture land which is dependent on that particular lake, that can be prioritized and it can be worked out and this existing tanks can be put into use for the agriculture thing.

So this is the way different ways where the sustainable agriculture can be achieved by recording it, measuring it and then creating a database so that it can be compared over the years with reference the past as well as in the future with different information system --informations could be created as a database or a (inaudible 00:03:57) database so that you will be able to have a sustainable agriculture in the near future. Thank you.