Geographical Information System (GIS)
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Geographical information system for agriculture applications. Now we have been talking about what was the different methods different data sets which we have which we were using it for the past so many years that includes your cadastral map then rate card or RoR that is about your farmland activities then topographic sheets and further on and there were problems in knowing what is happening the rest of the area in addition to what you are looking for. So, and the second thing is there were no references with reference to whatever they have surveyed.

So, now there is a need because of the global climatic change and other things we need to know what is happening in our field as well as in the adjoining areas for this purpose we need to do reference the are we need to look around that all the datasets in one platform and then integrate it, analyze it and then get the information. For this purpose we were trying to use the geographical information system is being useful in growing all those things, in analyzing it in space in time and other activities.

So, now we will just get into what are the different aspects in the geographical information that we could use it for the agriculture practices. Geographical information system is a system designed to capture in the sense wherever it is, however it is the data could be captured and stored in the computer and the integrated data could be manipulated; manipulated in the sense giving to a common reference system of mapping and also you can analyze as well as manage the data set and present all type of spatial of geographical data.

So these data they are all location based on the; locations on the earth's surface which has been recorded as X, Y coordinates as well as Z coordinates that is the vertical coordinates representing the longitude as well as latitude and elevation respectively. This portion can also record dates as well as time of the occurrence of the any event that we are going to record on that surface. Now, in the earth-based it has to be a spatial, temporal and locations and it should have ideally related to each other. So, that is what the geographical information system. If you look at the geographical database; what is the system; geographical database which we have got; we have got one set you have got a thematic data in another side we have got a framework of data.

Now thematic data which basic thematic data comes from different sources it comes from the aerial photography, it comes from the digital elevation models which has been done by the topographic sheets and also it has come from the different land owner records and transportation network like that we have got a framework of data and these datasets; they can be integrated in the sense whatever the information which you wanted to do it those things they will be able to overlay it each other and the thematic information is the nothing but it is the output which you wanted to present it for a geological or it is a decision-making purposes.

Suppose now we are interested in the flood zones if you are interested in making out which are the areas which are likely to be come under flood zones during that activity. Now the

functions also there are several functions one of them is input from how you give and where you take it up manipulation is adjusting the data types to a common platform management and query and analysis is nothing but it is what is the information result like the thematic data which you wanted to do that could be done visualization is possible either in the form of a map either in the mouth of a turbine or either in the form of a P-chart and other things. So that you are your results can be presented to your decision making bodies.

Now another view that we want to just see that is the different layers; one thing is, this is the data. These are all the geo-reference points on either side on all four corners and this is captured and the road network is given over here and here it is position of the various structures on this side and vegetation covered in and around as a separate layer that has been done over there but after integrating all the things; this type of information what you are likely to get is the one where you have a road, where you have the well actually it is nothing but what do you see each on the reality content. So each reality content has got a relevance as an attribute data this attribute data are given over here in the form of in the form of it different features and what else and it is the address and it is ID you quote. So then in this way what we can do is different type of data layers can be merged and you can say and you can visualize or you can project it as though what do you see it on the reality things.

So what are the different type of data set GIS which we can use it one thing is a desktop data right. So where in your; the software is installed and runs on a personal computer on the side the another one is on the web GIS this is For an online GIS application having data visualization tool is very good in this category another one is what all of us are about, all of us are about or know about the Google Earth images maps and other it's own thing the Google led to what you might have done it the road network and road network then you can superimpose the satellite data and you can select where all the places which are available like restaurants and other bus stands and so many things which you are able to see it those are all the things are known as the geo-browser data that is also available for our process.

So these datasets what we have got is nothing but this is how we will be able to use the geographical information system on a different platforms and it can be given it for a different information or different decision-making bodies that is what we wanted to show it as a short presentation.