

Influence of ILC on Nature

I. Motive

The purpose of this study is to protect Iwate's nature from ILC project. We found that now the measures against the influence are not enough. Under the present condition, ILC project will attack the nature. If such things happen, we must stop ILC project. ILC project is a very important study. So we must protect nature for the ILC project.

II. Increase in Population

First, an increase in population might destroy nature. ILC needs a big tunnel. Many people from various kinds of fields will come not only science, physics but also engineering to build tunnels. Furthermore, we predict researchers' families will come. For example, in CERN, the European Organization for Nuclear Research, there are some houses, schools, and hospitals that people working for CERN use. Moreover, ILC may have larger scale than CERN has. Therefore, we thought that forests will be cut down for these buildings.

However, we have realized that forests will be not cut down, because there are many places in Iwate. The first graph provided below shows that population in Iwate has decreased now. So, Iwate has many places that the people moving there can live in. Thus, increase of population do not cause destruction of nature.

III. Birds

The next theme is influences of animals. This study focuses on golden eagles living in the Kitakami Mountains. They are very sensitive to influences of human. And the number of them is decreasing gradually. So, this study reviews how ILC project influence them.

The graph shows decrease of number of them and pairs of them. This decrease is due to two reasons. The first reason is changes in surroundings by human's action. Making facilities and roads cause decrease of them because it breaks their nest and territory. So ILC project must be careful of their surroundings.

The second reason is decrease of their hunting ground. They need the level ground for hunting, but the forest of Kitakami Mountains is not cared for very much and the level ground is not wide. So forestry in Iwate should more actively try to make their hunting ground (for example, facilities of ILC can be made in the woods of Iwate). Therefore, developing ILC without consideration for their surroundings decrease the number of eagles, but examining their surroundings very much and using woods of Iwate for

facilities of ILC can give good influences to them.

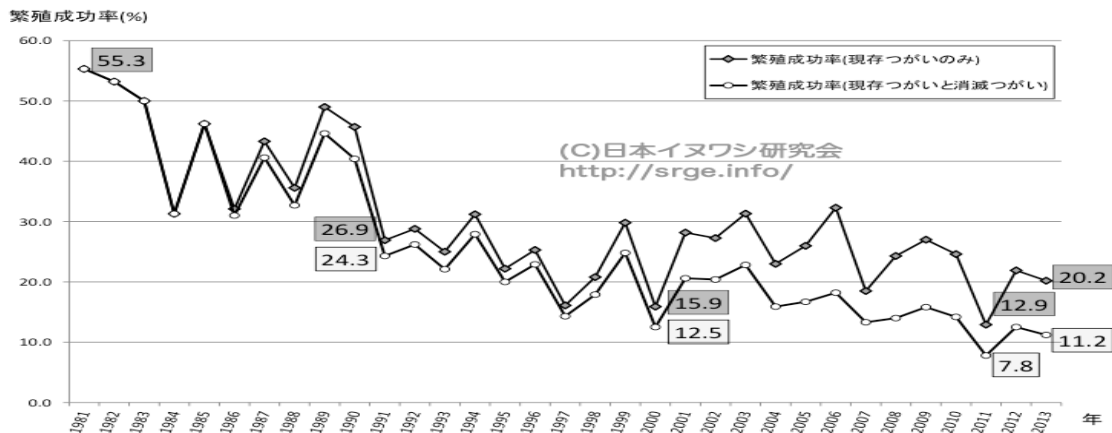
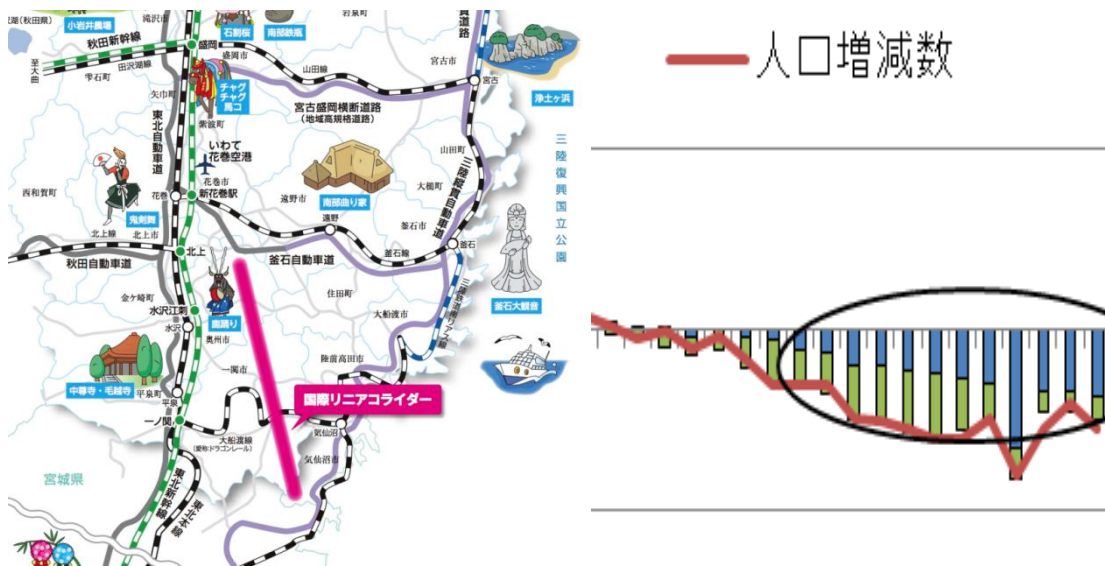
IV. Soil

Finally, we'll explain bad effects to soil. We predict two things. One is that much soil will be dug up when the tunnel is built. As we said, the tunnel is large. So much soil will be dug out. We have to beg for some place or use the ocean to dispose it. What's more, it is too expensive to survey microorganisms which will destroy ecosystem in soil. If the solution should not be found officially, we might abandon the soil somewhere.

The second expectation is deforestation by building roads. At the time of building a tunnel, we have to build a road with using large heavy equipment and trucks. We consider that the destruction of forests will advance for building ILC's tunnel to the basement of the forest.

According to this map, the construction site of ILC's tunnel is inconvenient to transport and the road construction will definitely occur. Therefore, we concluded that the possibility of deforestation is high.

A proposed measure for the first expectation is deciding a processing method of soil as soon as possible. The soil which is processed, land transfer, in either case to investigate sufficiently we should find an acceptable destination is to device road construction site. Because it does not mean that it is not through at all road, we think that we should make the most of road, we think that we should make the most of road there now, and suppress deforestation.



V. Conclusion

According to our research, two big problems about nature were analyzed so we can understand how serious this ILC project is. In conclusion, we consider it necessary to grasp the current nature situation in Iwate and to cooperate with experts in various fields. Protecting Iwate's nature is important for not only Iwate but also ILC project. Through the SGH, we will protect Iwate's nature.

VI. Cited Literature and References