Studies on the area change in Basianshan forest station

【Abstract】Basianshan forest station is one of the three most important forest stations in Taiwan. It set up from 1915, then became the most important timbers production place in the middle of Taiwan until it finished logging in 1963. This study collected the time and the location of Basianshan cableways and railroads built, then integrated with the compartments in Basianshan working circle by GIS. We found that the change of area in Basianshan forest station be close relationship to transportation system. This result could help us to understand the development of Basianshan forest station and to identify the boundary of Basianshan forest station in different periods of time.

Introduction

Japanese implemented policy was “Industry in Japan, Agriculture in Taiwan.” Forestry was one of the important items, so they set up Basianshan forest station was managed by Taiwan Forest Bureau set up in 1915, then became the most important timbers production place in the middle of Taiwan until it finished logging in 1963. This study divided Basianshan forest station history into five periods, Preparing and Investigation period (1895-1914), The Developing Infrastructure time (1915-1924), Forestry Developing time (1925-1936), Deforestation with the War period (1937-1945), and Republic of China in Taiwan period (1945-1963).

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The location of Basianshan cableway and railroad transportation system are found in <八仙山山林業務概況>, and their building time are got from <八仙山山林業務概況>. We used geographic information system to integrate Basianshan cableway and railroad transportation system with the distribution of compartments in Basianshan working circle. We defined the compartments that Basianshan forest station was managed by Taiwan Development Company, and it built Shiwensi railroad in 1945.

Results and Discussion

Forestry Developing time (1925-1936)

It started to build Dajia river railroad in 1924. It linked Basianshan to Feng-yuan city. In 1925, it built the first and third cableway and Zhongping railroad. It built Liming cableway in 1931.

Deforestation with the War period (1937-1945)

Government needed a lot of timbers because the war started in 1937. So it started to developed the new Basianshan forest. It started to build Shiwensi first and second cableway in1938. Then it built Malun cableway in 1940. After 1942, Basianshan forest station was managed by Taiwan Development Company, and it built Shiwensi railroad in 1945.

Conclusion

For there is no clear area of Basianshan forest station, which we could use to estimate the timbers production of this area from 1915 to 1963. We tried to use the time and location of forest railroads and cableways built with the distribution of compartments in Basianshan working circle in GIS to find the change of area in Basianshan forest station. The results could help us to understand Basianshan forest station history with digital records.