２００２年度修士論文

RECOMMENDATIONS OF MULTI CRITERIA ANALYSIS UNDER MULTI ACTOR DECISION PROBLEM IN TRANSPORT PROJECT EVALUATION

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ABSTRACT

In Japan, transport project evaluation trends to employ multi criteria analysis (MCA) increasingly nowadays because, the traditional evaluation method, cost benefit analysis, has some limitation that it cannot estimate some aspects accurately. However, there are some details of MCA, especially in multi actor decision making, which has never been established in the guideline, since MCA still new to Japan. In this study, a stop working transport project, Kyushu International Airport site selection, was discussed why the concern actors could not reach a consensus. One important reason was about how to select appropriate decision making team. The representatives from concern interest groups must be involved in decision making team in order to allow them to protect their benefit in the decision making. On the other hand, southwestern Ehime road network improvement project prioritization also employed MCA as the case of KIA, but the representatives of local policy units were involved in the decision making team for weighting process. However, still, there were other aspects which were not handled appropriately; therefore, the guidelines for using MCA with multi actors were proposed in this study by featuring on the southern Ehime road network improvement project by assuming a scenario. In the assuming scenario, established rules constrained them to involve local policy units in decision maker team to have close communication, which was advantage to get feedback whether the decision team were satisfied evaluation model. If not, they could modify it to reflect their real needs. Moreover, the existing weighting procedure, which has been established in formal guidelines for the evaluation, was examined. The existing procedure composes of the concept of AHP and additive value method which was not correct theoretically and it could bring mistake result, especially in the multi actor team who had different perception. A stronger theoretical weighting method was proposed to support multi actor decision making.