25. Study on Function Levels of National University Corporation Facilities

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1. Outline of the study

In response to the August 2009 interim report by the “Consultative Council for Research and Survey on Future Development of National University Corporation Facilities” (chaired by Tsutomu Kimura, Professor Emeritus at the Tokyo Institute of Technology), established by the Ministry of Education, Culture, Sports, Science and Technology, the Education Facilities Research Center conducted research with the aim of developing objective and reasonable criteria for assessing facilities of national university corporations (hereinafter referred to as “national universities”), and recently released report on the study.

2. Basic approaches

In this study, we developed a new method to assess the level of respective university buildings, in light of their required functions and how they measured up to the standard for national university facilities.

Assessment results are supposed to be utilized as one of the grounds for judging the necessity and priority of facility renovations. Assessment is to be made for each building and the criteria are designed to enable comparisons before and after a large scale renovation.

3. Setting of assessment items

Under this system, the following five major categories are set, and the overall assessment is to be made by integrating the assessment results for all of these categories:

(i) Indicator concerning low carbonization
(ii) Indicator concerning earthquake resistance
(iii) Indicator concerning aging
(iv) Indicator concerning residential environment
(v) Indicator concerning education and research bases

The five indicators above consist of a total of 15 sub-items, which are specified with the help of the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), which is one of the existing assessment methods. The new system is designed to allow the flexible reduction of assessment items, for the sake of simplification.

4. Method to make an assessment

Assessment of buildings should start with the sub-items, on a scale of Level 1 (basic point: zero) to Level 4 (10 points). Then, by multiplying the total sum of the basic points for each

indicator by its respective weight, assessment points for the respective major categories can be obtained. Lastly, the overall assessment (on a scale of 1 to 100) is calculated by multiplying the total sum of assessment points for major categories by the relevant weight.

The overall assessment results are indicated by four grades from D (less than 30 points) to A (80 points or more). The lower the points, the more urgently renovation is needed.

In the process of our research, we made trial assessments for buildings of different ages, in cooperation with four national universities and the Institute of National Colleges of Technology, so as to check the usability and amend some of the assessment items and assessment criteria.

5. Reports on this study

"Performance Assessment Systems for University Facilities" (March 2010)

http://www.nier.go.jp/shisetsu/pdf/hyokasystem.pdf