

# Necessity of Paradigm Shift in Japan's ODA for Human Resources and Technology Development in Recipient Countries

Kochi University of Technology

JSCE Member

Rajendra NIRLAULA

Kochi University of Technology

JSCE Fellow Member

Shunji KUSAYANAGI

## 1. Official Development Assistance (ODA):

Official Development Assistance (ODA) concept was adopted by Development Assistance Committee (DAC) established in 1961 in organization for economic cooperation and development (OECD) separating ODA from "Other Official Flows" (OOF) and identifying as ODA those official transactions which were made with the main objective of promoting the economic and social development of developing countries and the financial terms of which were "intended to be concessional in character". ODA since its adoption has become a major resource for socio-economic development of developing countries. The developed country have already spent more than 1 trillion US\$ under ODA in the last 20 years. However, many low-income developing countries are still striving for basic infrastructures and fighting for poverty reduction. Among others the USA and Japan are the largest donors to developing countries. However, this paper is focused on Japan's ODA, as it occupies the largest amount of assistance in Asian and some African countries. Japan's ODA to the low-income developing countries contains considerable amount of grants aid inclusive of technical cooperation. The main activities of Japan's ODA seemed to be hard infrastructure development along with inefficient human resource development. For instance, all grant aids excluding technical cooperation under Japan's ODA in 1994-2001 to Nepal was used in hard infrastructure development in which as much as 3 percent was utilized in educational infrastructure related activities-- materials and equipment for the construction of primary schools. Similarly, less than 1 percent of the grant aids to Cambodia in the same period was used in human resource development scholarship. Further, all grant aid projects have been executed by donor's own consultants and contractors. Human resource development and technology transfer were not the major elements in grant aid projects. In addition, Japan's ODA had not been utilized to improve the quality of higher education and to develop technology in these countries.

## 2. Human Resources and Technology Development Under Japan's ODA

Human resources and technology development under Japan's ODA consists of the dispatch of the Japanese experts and volunteers, acceptance of the trainees from developing countries and providing equipment and materials to facilitate technology transfer. Human resource development cost under the Japan's ODA is very high compared to the government expenditure on education in the low-income developing countries. Typically, it was found that the training cost per trainee under Japan's ODA was 140 times higher than that of the government expenditure per student in higher education in Nepal. Only few people had opportunities to be trained under Japan's ODA. Training for a few people from clients' organization could not improve the overall skill level of the construction engineers due to the inflow of hundreds of untrained engineers in the construction industry every year. Further, there is no horizontal flow of human resources and diffusion of technology across implementing/executing agencies. Human resource if trained and technology if developed in an agency in the existing system is limited within its own boundary and vertically flowed down if not died out. In addition, there were no evident activities for technology development besides supplying some equipment and materials in the recipient countries. In order to efficiently utilize ODA and to produce appropriate human resources and

---

**Keywords:** *Official development assistance, human resources, technology, recipient countries*

**Contact Address:** [rajendra.niraula@kochi-tech.ac.jp](mailto:rajendra.niraula@kochi-tech.ac.jp), Tel: 0887-57-2771

technologies for infrastructure development in recipient (ODA receiving) countries, an integrated system based on the Nepalese and Cambodian context has been developed as discussed below and is shown in Figure 1.

### 3. Integrated System for Human Resources and Infrastructure Development (ISHID)

The integrated human resources and infrastructure development system incorporates research and development functions of university in cooperation with lending agencies (donors) and university/industry from the donors' countries to produce appropriate human resources and technology required for infrastructure development in recipient (developing) countries. This system consists of universities collaboration and center of excellence approaches.

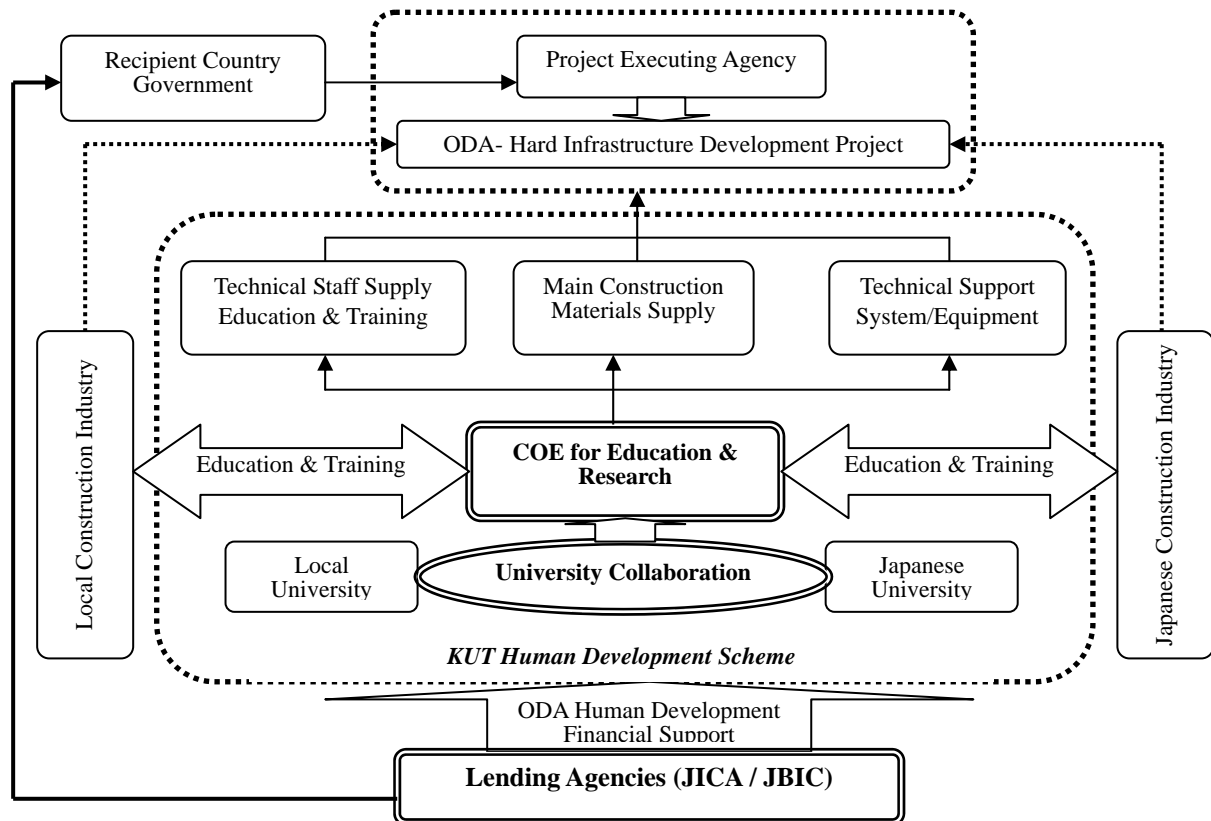


Fig.1: Model of new ODA Scheme

Since many other developing countries including Nepal and Cambodia could not produce appropriate skilled manpower and technology due to lack of enough competent faculties, facilities and funds for research and development at the universities, and consequently could not fulfill the demands for human resources and technology required for domestic infrastructure development. Universities collaboration in the proposed system-ISHID provides the faculties from developing countries opportunities to pursue higher studies/advanced research and to transfer the seed technology in order to address the technological demands in recipient countries. The center of excellence for education and research designed in this system is to deliver quality education/training, materialize the seed technology in to products, develop new technology through R&D and provide integrated professional services. Kochi University of Technology under the proposed system has been providing the faculties from Institute of Technology of Cambodia opportunities to acquire advanced knowledge and skills in concrete technology, construction and management, and to transfer high-strength concrete technology for the Cambodian infrastructure rehabilitation. Thus, the new system would enable developing countries able to produce appropriate human resources and technology domestically

### 4. Concluding Remarks

The new system would make efficient use of ODA and enables recipient countries able to produce appropriate human resources and technology for domestic infrastructure development.