

# Telecommunications



Practical training on making a TV program in a studio-setting (Multi Media Training Center)

## Overview

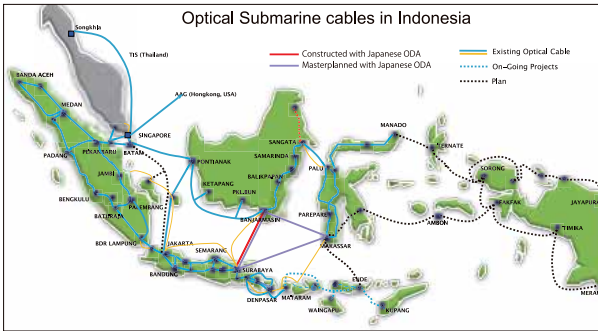
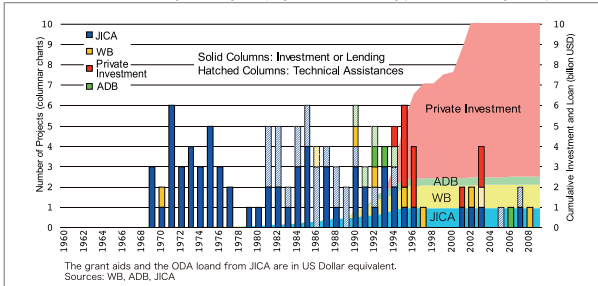
The telecommunications sector includes communications, represented by telephone services, and broadcasting. In the communications field, Indonesia's need for better infrastructure grew greatly from the late 1960s, and improvement of inter-island communications lines became a priority goal entering the 1970s. JICA supported the improvement of the inter-island communications network and provided planning and financial assistance to expand metropolitan Jakarta's telephone network. From the mid-1970s into the 1980s, JICA supported work to improve the telephone network in metropolitan Jakarta as well as networks in the major regional cities of Surabaya and Makassar. It was also at this time that JICA began providing assistance with the formulation of master plans in the communications field. From the mid-1980s, JICA supported the laying of submarine communications cables between islands, and these cables continue to be key communications links. Entering the 1990s, JICA began supporting human resources development in telephone line maintenance. And from the mid-1990s it shifted the focus of its cooperation to policy recommendations for formulation of communication strategies and other such matters, given that infrastructure development through private investment was solidly on track.

In the broadcasting field, JICA began supporting the installation of a number of television and radio stations in the 1970s. And entering the 1980s, JICA provided cooperation for the formulation of master plans in the broadcast field. During this same time, JICA began targeting the training of broadcast technicians, and today the JICA-cooperated Multi Media Training Center accepts trainees from both the public and private sectors as Indonesians only broadcast training institute. In fact, the center has become an international training institute that even accepts trainees from other countries.

## Results

In addition to its support for the formulation and establishment of development plans for telecommunications networks, JICA provided technical cooperation in such areas as policy recommendations, maintenance, and management. In the broadcast field, JICA supported facilities improvement and human resources development. As a result:

- JICA contributed to smoother economic activity by improving telecommunications networks. It also played a role in connecting people in Indonesia's vast and diverse territory.
- JICA helped improve Indonesia's radio and television broadcasting and thus played a role in information-sharing and social integration in the country's vast territory. It also contributed to the training of radio and television broadcast technicians by reinforcing the organization that trains them.



### The Surabaya-Banjarmasin Optical Fiber Submarine Cable Project (1987 - 1992)

This project involved the laying of optical fiber submarine cables having a total length of 400 kilometers between Java and Kalimantan. The project's purpose was twofold: to respond to expanding and diversifying telecommunications demand between the two islands, and to secure reliability and safety in telecommunications while promoting economic development on Kalimantan as well as exchange between the two islands. The project not only expanded the volume of telecommunications between Java and Kalimantan but, by introducing digital transmission lines, also greatly improved communications accuracy. Today, the resulting infrastructure continues to serve as a key link in Indonesia's telecommunications system.



Practical training on operating a studio video camera (Multi Media Training Center)

# V. Toward Industrial Development Agriculture and Fisheries



## Overview

One of the foremost issues for Indonesia following its independence was self-sufficiency in rice, its main staple. From the 1960s into the 1970s, JICA provided technical cooperation and supported the development and upgrade of irrigation facilities in line with Indonesia's rice self-sufficiency policy. Entering the 1980s, JICA utilized this experience to implement "umbrella cooperation" that systematically implemented various related projects under a single program. The purpose was to link individual forms of cooperation to produce synergetic effects. Umbrella cooperation was implemented in three phases beginning in the 1980s and contributed to Indonesia's effort to gain food self-sufficiency, particularly for rice.

Japan did more than provide assistance for expanded rice production. When Indonesia faced rice shortages in the 1960s to 1970s and again in the late 1990s, the Japanese government provided food aid that supplied rice and supported food security as this support also lowered the burden on Indonesia's international balance of payments.

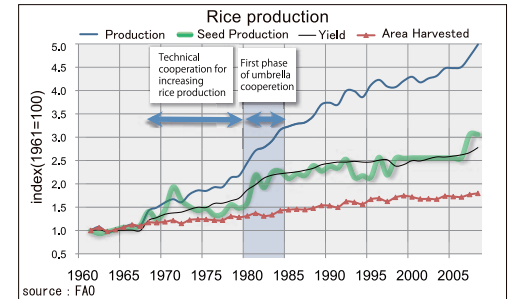
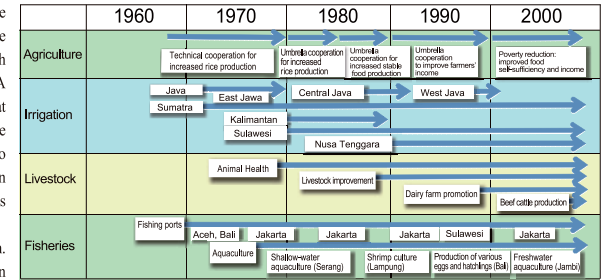
Moreover, as a result of JICA's cooperation targeting Bogor Agricultural University—i.e., facility improvement, reinforcement of research capacity, and establishment of a graduate school—the university has become the central institution among Indonesia's agricultural universities. It is contributing to stronger agricultural faculties at universities in other regions and advanced human resources development. JICA's cooperation in the fisheries field has primarily focused on two areas: "upgrade of fishing ports and markets" and "aquaculture" for the purpose of diversifying income sources for fishing and farm households. JICA's work to upgrade fishing ports was centered around Jakarta's fishing port, which began in the 1970s and expanded to other ports around the country into the 2000s. Its cooperation in aquaculture began in the latter half of the 1970s. During the 2000s, JICA provided technical cooperation for freshwater aquaculture in Jambi Province. JICA began providing cooperation in the livestock field in the 1970s. It extended technical cooperation to the Singosari Artificial Insemination Center in East Java Province that helped make the center a base for distribution and sales of frozen semen to surrounding regions. In addition, JICA has provided cooperation for the promotion of dairy farming in West Java Province and, in recent years, beef cattle production in West Nusa Tenggara Province and countermeasures against livestock diseases (avian influenza, etc.).

## Results

JICA has supported the Indonesian government's policy of emphasizing food security and improving farmers' income. As a result, JICA:

- Contributed to higher rice production through upgrading infrastructure and technical capacity development: improvement of irrigation facilities, organizational reinforcement and human resources development for agricultural research, pest control, post-harvest management.
- Supported improvements to Bogor Agricultural University's facilities and research capacity and contributed to advanced human resources development in agriculture.
- Helped promote fisheries through improvement of fishing ports in Jakarta, the center of fisheries products trade in Indonesia, and other locations.
- Contributed to better livestock productivity through cooperation to artificial insemination centers and the animal health field.

### Trends in Japan's cooperation in the agriculture and fisheries industries



### The first phase of "umbrella cooperation" for comprehensive rice production increase

The first phase of "umbrella cooperation" took place from 1981 to 1985. It was a comprehensive undertaking that combined technical cooperation, grant aid, and loan assistance to various fields associated with increased rice production. Behind the umbrella cooperation were circumstances that began in the 1970s, when pest damage and other factors prevented rice yields from increasing, as yield rates remained poor even when more rice plants were grown. Umbrella cooperation combined various approaches, including productivity improvement through protection of crops from pest damage and yield-ratio improvement by upgrading post-harvest management technologies.



Dairy cattle used for the progeny test (Singosari Artificial Insemination Center)



Improvement of infrastructure and technical cooperation to increase food production