

**IMMIGRATION CONTROL ADMINISTRATION
(ASIAN COUNTRIES)**

Aug. 16, 1999 - Sep. 23, 1999, 8 participants

出入国管理行政(アジア諸国)

J-99-03256

- 1. PURPOSE** The purpose of this course is to provide participants with practical knowledge and training on immigration control administration introducing the Japanese system, in order to contribute to the development of immigration control and mechanism of regional network in participating countries of Asia.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips; (1) law and regulation system, control administration mechanism (2) inspection service (3) computer service (4) document identification service (5) theme study
- 3. QUALIFICATION OF APPLICANT** (1) immigration officer (2) over 10 years' experience (3) under 40 years of age (4) university graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Ministry of Justice, Osaka Regional Immigration Bureau
- 5. REMARKS**

ASOSAI WORKSHOP

no executed in FY 99

ASOSAIワークショップ

- 1. PURPOSE** The purpose of the workshop is as follows: (1) to provide forum for seeking strategies and methodologies on the following themes and sub-themes: Theme: The Role of SAIs in Promoting Efficient and Effective Public Administration through Performance Auditing, Sub-theme 1: Performance Auditing: Concepts, Mandates, Methodologies and Practices, Reporting and Problems, Sub-theme 2: The SAIs Performance Audit Report and its Utilization by Legislature and Executive, Sub-theme 3: Audit of Social Services (2) to introduce theories and experiences of the Board of Audit of Japan, and (3) to prepare the draft recommendation to be adopted in the 7th ASOSAI Assembly in Indonesia in October 1997.
- 2. MAIN FEATURES OF CURRICULUM** The tentative programme includes plenary session on the sub-themes, sub-group discussions, and observation tours.
- 3. QUALIFICATION OF APPLICANT** be senior official of the Supreme Audit Institution of ASOSAI member country with sufficient knowledge and audit experience on all or one of the sub-themes of the workshop.
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Board of Audit of Japan
- 5. REMARKS**

**LOCAL GOVERNMENT ADMINISTRATION AND
PUBLIC SERVICES (OCEANIAN COUNTRIES)**

Jun. 14, 1999 - Aug. 8, 1999, 5 participants

地方自治体行政実務(大洋州諸国)

J-99-03274

- 1. PURPOSE** This course provides the participants of small and medium-sized local governments in Oceanian countries with general information on Japanese local government administration. It also introduces the role of local government in the process of regional development planning and public services. The participants are expected to acquire basic and practical knowledge on the legal framework of Japanese local government system, local taxation and finance, election, and assembly system on which local autonomy is based.
- 2. MAIN FEATURES OF CURRICULUM** The following subjects are covered in this course through lectures, discussion and observation: (1) local autonomy system, which includes local taxation and finance, assembly and election, civil service system, and organization and function of local bodies (2) role of local government in regional development (main policies, rural and urban development measures) (3) local public services in Hiroshima Prefecture (disaster prevention, social services, education, and industry promotion, etc.)
- 3. QUALIFICATION OF APPLICANT** (1) a government officer who is in charge of local government administration with more than three years of experience in the central/local government, or similar institution (2) university graduate or equivalent (3) under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Hiroshima International Center (3) Hiroshima Prefectural Government
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

COPYRIGHT SYSTEMS DEVELOPMENT

Jul. 20, 1999 - Aug. 15, 1999, 7 participants

著作権制度整備

J-99-03380

- 1. PURPOSE** Purpose of the course is to contribute to the development of copyright systems including collective administration and educational activities of copyright in the participating countries through providing practical trainings on various copyright related subjects, such as the purpose and significance of copyright system, international trends in copyright including relevant treaties, outline of copyright system in Japan, copyright management/administration system, etc., to the officials in charge of copyright policy planning in their administrative organizations, and those who belong to copyright management/administration organizations, as well as professors in universities.
- 2. MAIN FEATURES OF CURRICULUM** By the end of the course period the participants are expected to; (1) understand the purpose and significance of copyright system (2) understand the development of the copyright system (3) understand the significance of the establishment of copyright management/administration organizations (4) deepen the knowledge of the development of copyright system to cope with the development of digitization and network, and (5) understand the contents of current international copyright treaties and recent international movements.
- 3. QUALIFICATION OF APPLICANT** The applicants should; (1) be administrative officials who belong to organization related to copyright management/administration or lecturers at university (2) have the experience of at least 10 years in their profession (3) be more than 35 years old, and (4) be university graduates or have higher education.
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Agency for Cultural Affairs
- 5. REMARKS**

GOVERNMENT HUMAN RESOURCE MANAGEMENT

Jan. 11, 2000 - Feb. 5, 2000, 10 participants

人事行政研修

J-99-03424

1. **PURPOSE** The purpose of the course is to provide executive administrative officials who are engaged in the human resources development in the central government with the basic knowledge and practical skills for human resources cultivation and management to contribute to the effective and efficient administration.
2. **MAIN FEATURES OF CURRICULUM** The following subjects are covered in the course through the lectures, discussions and observations (1) Group personnel management/OJT (2) Theory and practice of personnel management in Japan (3) Ethics of public service personnel (4) Human resources development (5) Comparative study on the business management system
3. **QUALIFICATION OF APPLICANT** Applicants should; (1) be executive officials of the human resources administrative office in the central government, (2) be under forty (40) years of age, (3) be university graduates or have the equivalent academic background, (4) have a sufficient command of spoken and written English, and (5) be in good health both physically and mentally to undergo the course.
4. **TRAINING INSTITUTIONS** National Personnel Authority
5. **REMARKS**

STOCK EXCHANGE SEMINAR

Feb. 15, 2000 - Mar. 9, 2000, 7 participants

証券取引所セミナー

J-99-03257

1. **PURPOSE** To provide opportunity to acquire basic knowledge of the Japanese Stock Exchange, in order to help the participants contribute to the development of capital markets of their countries.
2. **MAIN FEATURES OF CURRICULUM** This seminar is aimed mainly at furnishing participants with general, basic information on the Japanese securities market. The program of the seminar is as follows; (1) outline of stock exchange (outline of Tokyo Stock Exchange, law, taxation, public administration) (2) detail of stock exchange (membership system, listing system, trading system, market surveillance and compliance system, clearing and settlement system)
3. **QUALIFICATION OF APPLICANT** (1) staff members of stock exchanges or the competent regulatory authorities of securities markets who have more than 3 years of occupational experience in this field (2) between 25 and 35 years of age.
4. **TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Tokyo Stock Exchange (TSE)
5. **REMARKS**

INTERNATIONAL CIVIL AND COMMERCIAL LAW

Oct. 4, 1999 - Dec. 4, 1999, 12 participants

国際民事法研修

J-99-03284

1. **PURPOSE** The purpose of this course is to discuss reasons and solutions for various problems which the civil judiciary faces in respective countries, and give lectures on basic economic transaction laws in Japan (especially the ones which are indispensable in the transition to market-oriented economy and some topics needed in preparation of its operation system), and thereby to contribute to the improvement of strategies for prevention and solution of disputes concerning economic transaction.
2. **MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course; (1) Japanese law system (2) structure and role of the Ministry of Justice (3) basic legislation of civil and commercial affairs (4) monitoring committee of stock exchange (5) international private law, and (6) court system
3. **QUALIFICATION OF APPLICANT** (1) officials in department of justice in respective government, public prosecutors, registrars, judges (2) have more than 8 years' experience (3) under 50 years of age (4) university graduates from faculty of law (5) officials who are engaged in jobs relevant to the main topic of the course or middle-ranking executives with such experience who have good command of English (Applicants with judicial license are given priority.)
4. **TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Research and Training Institute, Ministry of Justice (3) International Civil and Commercial Law Centre
5. **REMARKS**

REGIONAL DRAINAGE BASIN ENVIRONMENT

May 24, 1999 - Aug. 5, 1999, 8 participants

地域流域環境

J-99-03383

1. **PURPOSE** This course is designed to learn the relation between regional area and water in general for the purpose of regional drainage basin environment and upgrading the water quality of water supply and sewage system and so on. This training course will provide technical officers and researchers with the knowledge about water and drainage basin environment through lecture, observation and discussion about the situation of own countries by each participant.
2. **MAIN FEATURES OF CURRICULUM** This course includes the curriculum such as below; (1) lectures; The Basic concept of Regional Drainage Basin Environmental Management, The Hydrological Cycle, The relation with Weather and Water, The relation with natural environment and water, The relation with residents and water, Water supply system, Sewage system (2) Practices; Water supply system, Water sewage system (3) Observation; Satunai river dam, Improvement of Obihiro river basin, Irrigation dam etc. (4) Discussion; (subject, environmental conservation in the view of regional drainage basin) (*notice; These subject has possibility to change in detail)
3. **QUALIFICATION OF APPLICANT** Applicants should; (1) be technical officers or researchers who are engaged in water and water quality management (2) have more than Three (3) years of practical experience (3) be university graduates or the equivalent (4) be at least twenty-five (25) and more than forty (40) of years of age (5) be in good health and able to undergo the training (6) not be serving military
4. **TRAINING INSTITUTIONS** (1) Northern Regions Center (2) City of Obihiro (3) Graduate School of Environmental Earth Science, Hokkaido University
5. **REMARKS**
6. **OTHER** The training field is Satunai River where the quality of water is very high in Japan.

WATER QUALITY MANAGEMENT

Aug. 24, 1999 - Oct. 17, 1999, 9 participants

水質環境管理

J-99-03239

- 1. PURPOSE** The main purpose of the course is to provide technical officials with professional knowledge and techniques as well as comprehensive planning perspectives for water quality management. The course is also intended to introduce Japanese experience and the current conditions in the field of water quality management, to provide the participants with principles and approaches for solving problems, and to enhance participants' capability to contribute to environmentally sound socio-economic development and human welfare in their home countries.
- 2. MAIN FEATURES OF CURRICULUM** The course is focused on the introduction of Japanese administration in water pollution control and the exchange of information among participants. Therefore the course is conducted mainly in the form of lectures, discussions, and observation tours. The following major subjects will be covered in the course: (1) water quality management in Japan (2) effects of water pollution on water use and its countermeasures (3) planning and implementation of water quality management (4) technology for waste and wastewater management
- 3. QUALIFICATION OF APPLICANT** (1) technical officials presently in charge of water pollution control administration including domestic and industrial wastewater management in central or local governments with three or more years of experience in this field (2) university graduates or possess equivalent technical qualifications in this field (3) not more than 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Water Quality Bureau, Environment Agency (3) Japan Society on Water Environment
- 5. REMARKS**

REGIONAL WATER ENVIRONMENT MANAGEMENT

Oct. 18, 1999 - Dec. 3, 1999, 8 participants

地域水環境管理

J-99-03430

- 1. PURPOSE** The course is designed for technical administrative officials who are engaged in planning and design sewerage and/or environment management project in local government scale. The objective of this course is not only to provide fundamental knowledge and technologies for planning and designing small scale distributed type of sewers and treatment plants but also give training in the operation and maintenance including the less energy requirement and recycling scenarios. The course also intends to improve their flexible capacity building taking into account the development policy balance between the metropolitan and local cities.
- 2. MAIN FEATURES OF CURRICULUM** The course covers (1) lecture on water ecosystem management, waste water treatment system and method of recycling and reuse (2) training of operation and maintenance of waste water treatment system including advanced treatment as Shimanto method, (3) excursion of advanced treatment and reuse projects, (4) preliminary planning for a small scale distributed type of sewage system including recycling and reuse.
- 3. QUALIFICATION OF APPLICANT** (1) a university graduate or a person who has equivalent technical qualifications in this field, and more than three years of practical experience (2) a technical official in charge of waste water treatment or environment management in central and/or local government or bodies (3) under 40 years of age with some knowledge of using personal computer (word processor level)
- 4. TRAINING INSTITUTIONS** Kochi University of Technology, KUT campus
- 5. REMARKS** The lecture and reporting preliminary planning will be carried out by using personal computer and LAN system in the KUT campus.

BIOPRODUCTION AND ENVIRONMENTAL MANAGEMENT IN SEMI-ENCLOSED SEA

Mar. 27, 2000 - Jul. 9, 2000, 8 participants

半閉鎖性水域における生物生産と環境保全

J-99-03345

- 1. PURPOSE** The purpose of this course is to acquire the methodology for controlling the natural environment and ecosystem by producing the bio-organisms based on recognition of the instability of the eco-system in semi-enclosed sea. The participants will be expected to plan a suitable system for the production of marine bio-organisms which can be applicable to their respective country.
- 2. MAIN FEATURES OF CURRICULUM** It mainly covers: (1) the present condition of the Seto Inland Sea, especially in biomass, biological phase, eco-system, water quality and environmental condition (2) the theory and method of marine farm management while protecting environmental condition (3) the method of making up their own marine ranch program and environmental management for their countries.
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in either planning, management or research of fisheries or marine environment with more than five years occupational experience (2) university graduate or equivalent (3) not more than 40 years of age.
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Faculty of Applied Biological Science, Hiroshima University
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

CONSERVATION AND SUSTAINABLE MANAGEMENT OF CORAL REEFS (OCEANIAN, CARIBBEAN AND INDIAN OCEAN COUNTRIES)

May 20, 1999 - Aug. 1, 1999, 7 participants

サンゴ礁保全(大洋州・カリブ・インド洋諸国)

J-99-03240

- 1. PURPOSE** This course is designed to contribute to the promotion of coral reefs conservation. The purpose of the course is to provide administrative and/or technical officials in charge of conservation of coral reefs of tropic and sub-tropic countries with the knowledge and skills on research and planning methods and practical measures required for the promotion of sustainable management of coral reefs.
- 2. MAIN FEATURES OF CURRICULUM** This course is focused on the introduction of Japanese administration in nature conservation especially of coral reefs, national parks management and information exchange among participants. The course will be conducted in the form of lectures, practices, discussions and observation tours. The following major subjects will be covered in the course: (1) outline of environment conservation system and activity in Japan (2) conservation and sustainable management of coral reefs ecosystem (3) methods of research and conservation of coral reefs area (4) techniques to produce educational materials
- 3. QUALIFICATION OF APPLICANT** (1) be administrative and/or technical official presently engaged in coral reefs conservation and/or management administration in a central or local government or its attached organization, with practical experience of 5 or more years (2) be university graduate or equivalent (3) be skilled in snorkeling (4) be not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Environment Agency (3) Yaeyama Marine Park Research Station, Marine Parks Center of Japan
- 5. REMARKS**

BIODIVERSITY INFORMATION SYSTEM

Oct. 4, 1999 - Dec. 5, 1999, 10 participants

生物多様性情報システム

J-99-03378

- PURPOSE** Through learning the following items necessary for the management of Nature Conservation or Biodiversity Conservation, the participants are expected to learn knowledge and techniques on the data collection, storage and dissemination of the biodiversity information (1) Nature Conservation Policy in Japan (2) Collection of biodiversity information (3) Trying Internet (HTML language) and GIS (Geographic Information System) for the management and dissemination of information (4) Practical dissemination of biodiversity information by Internet
- MAIN FEATURES OF CURRICULUM** (1) Outline of Policy for biodiversity conservation (2) Practice of policy for biodiversity conservation (3) Outline of the data collection, management and dissemination of biodiversity information (4) Collection of biodiversity information (5) Practice of building Internet homepage
- QUALIFICATION OF APPLICANT** (1) technical staff member of the Department of Nature Conservation or Biodiversity Conservation with two (2) or more years of experience in this field (2) university graduate or equivalent (3) not more than 40 years of age (4) have basic knowledge of how to use softwares on Windows 95
- TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Japan Wildlife Research Center (JWRC) (3) Biodiversity Center of Japan, Nature Conservation Bureau, Environment Agency
- REMARKS**

MONITORING AND CONTROL TECHNOLOGY OF ACID DEPOSITION

Oct. 11, 1999 - Dec. 18, 1999, 8 participants

酸性雨のモニタリングと対策技術

J-99-03339

- PURPOSE** The purpose of the course is to provide training for mid-level engineers of central and local governments in the East Asian region and enable them to acquire techniques for monitoring acid deposition, understand the mechanism of its generation and evaluate its impact on ecosystem through lectures, experiments and other methods. By visiting plants, participants also learn the theory and practice concerning measures to control the emission of SOx and NOx which cause acid deposition. In addition, the program seeks to establish a network for environmental problems by information exchange among administrators, scholars and engineers in Asian countries including Japan, thus contributing to the effective operation of the Acid Deposition Monitoring Network in East Asia.
- MAIN FEATURES OF CURRICULUM** (1) Monitoring acid deposition: Lecture, field exercise using mechanical instrument, experiments in the laboratories (2) Control technology of sources of air pollutants: lecture, observation of the factories (3) Visiting institutions: visiting and observing the institutions representing monitoring acid deposition in Japan
- QUALIFICATION OF APPLICANT** (1) Leading officers in administrative bodies engaged in the field of environmental management with an experience from more than 3 years to less than 10 years (2) University graduates and/or those who have equivalent practical experience (3) Those who have an elementary knowledge of data analysis by personal computer (4) Less than 35 years of age
- TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Hyogo Prefectural Institute of Environmental Science
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 8 days.

ENVIRONMENT MANAGEMENT SEMINAR (LATIN AMERICA)

Jun. 7, 1999 - Jul. 18, 1999, 8 participants

環境管理セミナー(中南米地域)

J-99-03265

- PURPOSE** In developing countries, countermeasures to industrial pollution and urban-life pollution from the viewpoint of prevention of global warming are to be promoted. The introduction of appropriate technology for sustainable development is also required.
- MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips: (1) countermeasure to environmental problem and its history (2) environmental law system in Japan (3) establishment of environmental standard and discharge standard (4) monitoring of generation sources (5) establishment of environmental management plan and regional pollution prevention plan (6) environmental assessment (7) sustainable development (8) preservation of global environment
- QUALIFICATION OF APPLICANT** (1) middle-ranking officials in charge of project planning in the field of environment (2) have more than 10 years' experience (3) between 35 and 45 years of age (4) university graduates
- TRAINING INSTITUTIONS** (1) Osaka International Centre, JICA (2) Global Environment Centre Foundation (GEC) (3) Environment and Public Health Bureau, Osaka City Government (4) Kwansai Gakuin University
- REMARKS**

ENGINEERING FOR REGIONAL ENVIRONMENTAL PRESERVATION

Aug. 30, 1999 - Nov. 17, 1999, 5 participants

地域環境保全技術

J-99-03260

- PURPOSE** The purpose of this course is to provide technical officials and researchers with comprehensive knowledge and techniques of measuring and analyzing environmental aspects such as air and water quality which is indispensable to the understanding of basic environmental factors. Consequently, the participants are expected to study the method of region-wise environmental management and thereby to contribute to the formulation of various measures for environmental management and preservation.
- MAIN FEATURES OF CURRICULUM** This course mainly covers the following themes: (1) environmental legislation system (2) environmental impact assessment (3) pollution control plans, environmental management plans and other plans (4) regional activities that address global environmental problems (5) environmental measuring and analyzing pollution-related technology (6) environmental monitoring (7) measures to reduce the burdens of environmental pollution
- QUALIFICATION OF APPLICANT** (1) technical official and researcher engaged in the environmental administration of the national and local government or related public organization (2) university graduate in science and engineering or equivalent (3) have more than 5 years' experience in the field of environmental preservation (4) not more than 40 years of age
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Hokkaido Institute of Environmental Science
- REMARKS**

**ENVIRONMENTAL RESOURCE MANAGEMENT
POLICY FOR SUSTAINABLE DEVELOPMENT**

Oct. 18, 1999 - Dec. 19, 1999, 8 participants

持続的開発と環境資源管理政策

J-99-03391

- 1. PURPOSE** The details of this course are under planning
- 2. MAIN FEATURES OF CURRICULUM** The details of this course are under planning
- 3. QUALIFICATION OF APPLICANT** The details of this course are under planning
- 4. TRAINING INSTITUTIONS** The details of this course are under planning
- 5. REMARKS**

**TECHNOLOGY FOR INDUSTRIAL EXHAUST GAS
TREATMENT AND ENERGY SAVING**

May 17, 1999 - Jul. 5, 1999, 8 participants

産業排ガス処理技術及び省エネルギー技術

J-99-03323

- 1. PURPOSE** To provide with current theories, information and technology concerning industrial exhaust gas treatment and industrial energy utilization, which enhance ability to plan, execute and evaluate projects concerned. To provide methods for solving the problems of control and treatment of industrial exhaust gas, and opportunities to exchange information about how to deal with problems in this field.
- 2. MAIN FEATURES OF CURRICULUM** Session I; History of industrial pollution in Yokkaichi City, Country Report presentation by the participants, Session II; System of environmental pollution control laws in Japan, Air pollution control law and environmental standard, Roles of central and local government in the environmental issues, Administrative guidelines to supplement laws and regulations, Introduction of Elemental dispersion model Session III; Energy saving law and related law on energy saving and recycling, Industrial energy use and energy conservation, Energy saving policies and activities in administration/industries, Resource recycling in industry, Energy saving activities in incinerating wastes, Energy saving technology for electric and energy use facilities, Session IV; Nitrogen oxides treatment technologies, Sulfur oxides treatment technologies, Experiment: Waste gas analysis, Dust collection technologies, Technology of Automobile exhaust gas treatment
- 3. QUALIFICATION OF APPLICANT** (1) national and local governmental officials, business executives or technical engineers with more than five '5' years of practical experience in the field of industrial policy planning, business management or pollution control technology (2) university graduates or those who have equivalent knowledge and/or professional experience (3) under forth-five '45' years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) International Center for Environmental Technology Transfer (ICETT)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

**MANAGEMENT OF INDUSTRIAL EFFLUENT AND
WASTE**

Jan. 17, 2000 - Mar. 6, 2000, 8 participants

産業廃水・廃棄物の処理及びリサイクル技術

J-99-03361

- 1. PURPOSE** To upgrade knowledge and techniques of the participants in the field of the management of industrial effluent and waste through lectures and observations, so as to enable them to contribute to the promotion of the most effective and appropriate measures for the environmental protection.
- 2. MAIN FEATURES OF CURRICULUM** The objective of the technical sessions is to understand the balance between sustainable development and environmental conservation, and will consist of six sessions: (1) background and history of Japan's environmental policies and strategies (2) environmental conservation in lakes (3) industrial effluent management (4) waste disposal management (5) perspective strategies for environmental conservation, environmental monitoring system and impact assessment, and (6) review and discussion.
- 3. QUALIFICATION OF APPLICANT** (1) University graduates or those who have equivalent knowledge and/or professional experience (2) academic staff, administrative officers, professional engineers with more than 5 years experience of practical experience in the following work: (a) environmental monitoring stations (b) water treatment industries (c) technical engineers of factories, especially water pollution management and/or waste disposal management (3) under 45 years of age.
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Tokai Technical Center
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

**INDUSTRIAL SOLID WASTE RECYCLING
TECHNOLOGY**

no executed in FY 99

産業廃棄物の再資源化

- 1. PURPOSE** (1) to provide the participants with an outline of recycling technologies for industrial solid waste (2) to enhance their ability to develop policies on industrial solid waste management and recycling (3) to enhance their ability to plan, execute and evaluate projects related to industrial solid waste recycling (4) identify and select options for solving the problems of industrial solid waste (5) to provide the participants with an opportunity to exchange information on ways they have found to deal with problems concerning industrial solid waste recycling
- 2. MAIN FEATURES OF CURRICULUM** The following core subjects will be covered through the course, in principle: (1) History of industrial solid waste management and problems in the development of industrial activities (2) Administrative structures to promote industrial solid waste recycling (3) Current systems of industrial solid waste management and recycling (4) Legislation and policies in industrial solid waste management and recycling (5) Industrial solid waste management and recycling technologies (6) Case studies of recycling of industrial solid waste streams (7) Country Report (8) Study Visits to Facilities
- 3. QUALIFICATION OF APPLICANT** (1) be technical university graduates or possess equivalent technical knowledge and/or professional experience (2) be technical officials in the central or local government with more than five (5) years in principle of practical experience in the field of industrial waste management (3) be thirty (30) to forty-five (45) years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Clean Japan Center
- 5. REMARKS**

**ENVIRONMENTAL AND SAFETY TECHNOLOGY
IN PETROCHEMICAL INDUSTRIES**

Jun. 14, 1999 - Aug. 9, 1999, 10 participants

石油化学工業における環境保安技術

J-99-03249

- 1. PURPOSE** The course is implemented with emphasis on the technology and countermeasure of environmental conservation and safety in petrochemical industry to contribute to the improvement of environment in participating countries.
- 2. MAIN FEATURES OF CURRICULUM** (1) Introduction: Environmental Conservation Measures in Japan, Petrochemical Industry in Japan and Yokkaichi City, Outline of the Basic Environment Law, Law and Regulations Related to Pollution Control, Presentation of Country Report by the Participants (2) Treatment Technology and Environmental Protection Measures and Safety Technologies; Oil Refining, Waste Water Treatment, Exhaust Gas Treatment, Other Environmental Protection Technology (Energy Saving, Recycling and Monitoring), Disaster Prevention and Countermeasures (High Pressure Gas, Dangerous Substance and Oil Spill), Fire Fighting System in Petrochemical Complex, Monitoring System (3) Applied Environmental Conservation Information; Primary Practice in Measuring Polluted Substances, Environmental Impact Assessment, Environmental Conservation and Economics, Environmental Information System
- 3. QUALIFICATION OF APPLICANT** (1) presently holding senior positions with more than five '5' years practical experience in the field of environmental conservation in petrochemical industry (2) university graduates or those who have the equivalent academic background (3) under forty '40' years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) International Center for Environmental Technology Transfer (ICETT)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours)

HEAVY METAL POLLUTION CONTROL

May 10, 1999 - Jul. 25, 1999, 6 participants

有害金属汚染対策

J-99-03304

- 1. PURPOSE** The purpose of this course is to make participants understand the importance of measures against harmful metal pollution through examples of pollution caused by harmful metal (i.e., lead in exhaust gas from automobiles, Minamata disease, and Itai-itai disease). The participants will master techniques to control source of pollutant through practice and the analysis of harmful metal in the source of pollutant, in the air, industrial wastewater, river water, soil, and plants, and thereby to contribute to establish pollution measures in respective countries.
- 2. MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course: (1) toxicity evaluation of toxic substance (2) case study on harmful metal pollution and its influence on plants and health (3) standard of harmful metal in the air, water, soil, and food and its restriction by laws (4) harmful metal analysis and analytic practice on the air, water, wastes, soil, and food etc. (5) influence on plants and health such as growth disorder caused by harmful metal (6) recovery strategy of polluted soil, etc., and (7) treatment technology of toxic substance
- 3. QUALIFICATION OF APPLICANT** (1) middle-ranking technical officials in the field of environment (2) have more than 3 years' experience (3) between 30 and 40 years of age (4) university graduate and equivalent (5) have experience in environmental analysis
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Global Environment Centre Foundation (3) Department of Environment Agriculture, Forestry, and Fisheries, Osaka Prefectural Government
- 5. REMARKS**

**POLLUTION CONTROL OF COAL-FIRED
THERMAL POWER PLANTS**

May 17, 1999 - Jul. 12, 1999, 5 participants

石炭火力発電公害防止

J-99-03271

- 1. PURPOSE** To learn techniques for collection, measurement and analysis of exhaust gas emitted from a coal-fired thermal power plant and ambient air. To acquire the knowledge and technology required for air pollution control through Japanese experience and methods of the exhaust gas monitoring system and other pollution countermeasures.
- 2. MAIN FEATURES OF CURRICULUM** This course is divided into four main themes. Theme I: Outline of Environmental Problems in Japan and Others (Environment Condition in Nagoya, Global Environmental Problems) Theme II: Administration on Environmental Conservation (Japanese Law System on Pollution Control) Theme III: Pollution Control at Coal-Fired Thermal Power Plant/Environmental Conservation Activities of Electric power company in Japan. (Desulfurization and Dust Collecting Technology, Combustion and Denitrification Technology, Effluent Treatment Technology) Theme IV: Practice on Pollutants Sampling and Analysis (Sampling and Analysis of coal, SO_x, NO_x, Dust, COD, and Others)
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or those who have equivalent professional experiences in this field (2) more than three '3' years of experience in pollution control of coal-fired thermal power generations (3) currently a governmental administrator in charge of pollution control on coal-fired thermal power plant or an engineer working in either public or private coal-fired thermal power plant (4) between twenty-five '25' and forty '40' years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Environmental Affairs Bureau, City of Nagoya (3) Nagoya City Environmental Science Research Institute, the City of Nagoya (4) Chubu Electric Power Co., Inc. (CEPCO)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

**MONITORING FOR ENVIRONMENTAL
CONTAMINANTS**

Feb. 7, 2000 - Sep. 4, 2000, 8 participants

環境負荷物質分析技術

J-99-03387

- 1. PURPOSE** The purpose of the course is to help intermediate level engineers to acquire in-depth knowledge of the technology for safety assessment of environmental chemicals to human beings and environment through understanding of principles and technology for monitoring environmental chemicals, analytical techniques and skills in instruments, and practice of immunoassay and bioassay methods, thus contributing to the improvement of plant and environmental monitoring technology.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) Safety of environmental chemicals to human beings and environment (2) Principles and technology for monitoring environmental chemicals (3) Analysis of residual agricultural chemicals in the plants (4) Technology for immunoassay and bioassay methods of environmental chemicals
- 3. QUALIFICATION OF APPLICANT** (1) Intermediate level technical officers in the fields of plant protection and environmental science (2) Experience in analysis and safety assessment of environmental chemicals required (3) University graduate or equivalent (4) 25 to 40 years old
- 4. TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Faculty of Agriculture, Kobe University (3) Hyogo Prefectural Agricultural Institute (4) Kobe Quarantine Station (5) Hyogo Prefectural Institute of Environmental Science (6) Sumitomo Chemical Co. Ltd. (7) Nissei Sangyo Co., Ltd.
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 8 days

DOMESTIC WASTE WATER MANAGEMENT USING SEWAGE SYSTEM AND "JOKASO"

Aug. 23, 1999 - Nov. 7, 1999, 12 participants

下水道と戸別浄化槽などによる生活排水処理対策 J-99-03347

- 1. PURPOSE** The purpose of this course is to learn planning skill of domestic waste water management based on future population estimate according the scale of target area, which contributes to the improvement of environmental conservation in a respective country.
- 2. MAIN FEATURES OF CURRICULUM** It mainly covers: (1) the physical and chemical measurement of water quality (2) the history of Japanese domestic waste water treatment and outline of countermeasures taken by the central or local government (3) the theory and practical treatment method (4) zoning of a collective treatment and a house scale treatment (5) environmental education.
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in planning and/or implementing of domestic waste water treatment with more than three years occupational experience (2) university graduate or equivalent (3) not more than 40 years of age.
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Higashi-Hiroshima City Office.
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours). The course will be conducted in Spanish.

SAVING AND RE-USING WASTE WATER

May 6, 1999 - Jun. 7, 1999, 5 participants

廃水の再生利用

J-99-03074

- 1. PURPOSE** In developing countries, countermeasures to industrial pollution and urban-life pollution from the viewpoint of prevention of global warming are to be promoted. The introduction of appropriate technology for sustainable development is also required.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips: (1) countermeasure to environmental problem and its history (2) environmental law system in Japan (3) establishment of environmental standard and discharge standard (4) monitoring of generation course (5) establishment of environmental management plan and regional pollution prevention plan (6) environmental assessment (7) sustainable development (8) preservation of global environment.
- 3. QUALIFICATION OF APPLICANT** (1) middle-class officials in charge of planning project in the field of environment (2) have more than 10 years experience (3) between 35 and 45 years of age (4) university graduates
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Water Re-Use Promotion Center
- 5. REMARKS**

ENVIRONMENTAL MANAGEMENT

Aug. 23, 1999 - Dec. 10, 1999, 8 participants

公害防止行政

J-99-03358

- 1. PURPOSE** This course is designed for officials working for the environmental sections which cover legislation, implementation, monitoring, or technical assistance, etc. in a national/local government or related public organizations, so as to deepen administrative knowledge and know-how. It further aims to improve a practical capability pertaining to supervision, inspection and examination carried out by the administrative sector through adoption of Japan's environmental protection measures and technologies
- 2. MAIN FEATURES OF CURRICULUM** Through the training program, participants are expected: (1) to learn steps to enhance an environmental management capability through the study of cases of Japanese local self-governments, which have played an important role in pollution control, in terms of the current situation of environmental regulations, pollution control agreements between local governments and enterprises, environmental policies, measures and their formulation. (2) to acquire institutional measures of environmental monitoring through lectures, practices and case studies. (3) to understand technologies and the mechanism of industrial pollution control to prevent air and water pollution. This course is composed of lectures, practices and observations to cover (1) environmental management by Japanese local self-government initiatives (2) institutional measures of environmental monitoring (3) technologies and the mechanism of industrial pollution control (4) case studies to solve common problems
- 3. QUALIFICATION OF APPLICANT** (1) senior technical staff presently directly engaged in the environmental administration in the national and local governmental or related public organizations (2) more than three years experience in the field of environmental protection (3) university graduate or equivalent (4) between 30 and 40 years old
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Hiroshima Prefectural Health and Environment Center
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (25 hours).

SEMINAR ON INDUSTRIAL STATISTICS

Oct. 26, 1999 - Nov. 20, 1999, 10 participants

産業統計セミナー

J-99-03341

- 1. PURPOSE** The purpose of this course is to provide participants engaged in statistics with general knowledge of industrial statistics, and to contribute to further statistical development in each county. (Industrial statistics: Economic statistics implemented within industries such as the manufactures and commerce, to be more specific, including Census of Manufactures, Census of Commerce, Current Survey of Production, Indices of Industrial Production and Input-Output Tables, excluding the statistics of population, agriculture, construction, service and international trade in a broad sense.) *Commerce basically means domestic wholesale and retail trade **OBJECTIVES** (1) to acquire knowledge and technique as to planning, data collection, sample design, and publication, etc., regarding industrial statistics, (2) to acquire how to analyze statistics utilizing industrial statistics and how to operate personal computers, (3) to recognize the importance of industrial statistics which is internationally comparable. (including to acquire knowledge of construction of statistical database comparable among countries.)
- 2. MAIN FEATURES OF CURRICULUM** Mainly consist of lectures on the following items: (1) Outlines of industrial statistics. (2) Various sorts of census surveys (manufactures and commerce) (3) Various sorts of current survey (production and commerce) (4) Enterprise based surveys (5) Various sorts of secondary statistics (Indices of Industrial Production and Input-Output Table, etc.) (6) Methods of analysis utilizing industrial statistics (7) Various sorts of classification (industrial classification, commodity classification, etc.) (8) Construction of statistical database (9) The importance of internationally comparable statistics (10) On-site observation of statistical practice, etc. (11) Industrial statistics of participants' countries (Presentation by participants, etc.)
- 3. QUALIFICATION OF APPLICANT** (1) be officers currently engaged in the field of industrial statistics, (2) have more than 5 years of occupational experience in this field, (3) over 25 years of age but under 40 years of age, (4) have a sufficient knowledge of basic mathematics
- 4. TRAINING INSTITUTIONS** (1) Research and Statistics Department, Minister's Secretariat, Ministry of International Trade and Industry (2) International Trade and Industry Statistics Association (3) Tokyo International Centre (TIC), JICA
- 5. REMARKS**

WATERWORKS ENGINEERING FOR COLD REGIONS

Oct. 4, 1999 - Dec. 5, 1999, 8 participants

寒冷地水道技術者養成

J-99-03252

- 1. PURPOSE** Focused on the technical problems of waterworks caused by climatic characteristics in cold regions, this course is designed to train technicians by providing basic knowledge and comprehensive techniques of water-supply system, integrated planning and designing methods of waterworks, and techniques for operation/maintenance of waterworks facilities.
- 2. MAIN FEATURES OF CURRICULUM** This course is emphasized on technical exercise: (1) water leakage prevention (2) water quality control (3) water treatment facilities (4) water distribution planning and pipe network (5) design and construction management (6) water service installations
- 3. QUALIFICATION OF APPLICANT** (1) technical official in charge of waterworks in central or local government, or in public bodies with more than three years of practical experience (2) university graduate or equivalent (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Waterworks Bureau, City of Sapporo
- 5. REMARKS**

NON-REVENUE WATER MANAGEMENT (LEAKAGE CONTROL)

Oct. 18, 1999 - Dec. 13, 1999, 8 participants

上水道無収水量管理対策

J-99-03311

- 1. PURPOSE** To provide with comprehensive knowledge of non-revenue water management, focusing on leakage control.
- 2. MAIN FEATURES OF CURRICULUM** The emphasis is put on lectures, observations and practices. The practical training is to be conducted at Technical Training Center of Nagoya Waterworks Bureau. The main themes are: (1) open seminar (2) leakage detection and repair (3) leakage prevention measures (planning, design, construction, maintenance) (4) metering system (5) mapping management (6) water charges (7) countermeasures for natural disasters. Case study is included at the end of the training, where participants will make an applicable plan for leakage prevention.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) administrative officials who have engineering background (3) currently engaged in the field of waterworks for more than five years (4) between 27 and 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Waterworks Bureau, City of Nagoya (3) other public institutions and private enterprises
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

STORMWATER DRAINAGE TECHNOLOGY WITH SEWERAGE SYSTEM

Aug. 23, 1999 - Nov. 27, 1999, 6 participants

都市排水

J-99-03325

- 1. PURPOSE** The purpose of this course is to offer technical administrative officers an opportunity to acquire knowledge and technological know-how on sewerage system improvement (basic planning, designing, construction, and maintenance), with emphasis on rainwater drainage works in urban areas, and hence contributing to the improvement of the expertise of the leading administrative officers in this field, and the effective execution of sewerage system improvements in participating countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on laboratory experiments and introduction of Japanese experience. The main themes are: (1) introduction to sewerage system (2) urbanization and urban drainage (3) improvement of urban sewerage system and countermeasures against stormwater (4) designing and construction of urban drainage facilities (5) maintenance of urban drainage facilities (6) improvement of urban infrastructure
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or those with equivalent technical qualifications in this field, and have five or more years of practical experience (2) between 30 and 40 years of age (3) technical administrative officers in charge of sewage works in the government or government-affiliated organizations
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Sewerage and Sewage Purification Department, City Bureau, Ministry of Construction (3) Japan Sewage Works Agency (4) Sewage Works Bureau, Osaka Municipal Government (5) Osaka City Sewerage Engineering Association
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

URBAN SOLID WASTE MANAGEMENT

Aug. 2, 1999 - Nov. 5, 1999, 6 participants

都市廃棄物処理

J-99-03366

- 1. PURPOSE** The purpose of the course is to contribute to the improvement of public health in participating countries by training personnel to take leadership and middle management roles in planning and implementing waste management programs in their own countries. This will be accomplished by having participants learn in detail about waste management in big cities in Japan. They will also learn about the special characteristics of urban waste management programs while acquiring comprehensive knowledge on waste management.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of the Japanese experience. The main themes are: (1) outline of waste management (2) outline of regional administration (3) economics and measures to counteract pollution (4) domestic waste management (5) intermediate treatment facilities (6) final disposal site (7) restrictions on industrial waste management
- 3. QUALIFICATION OF APPLICANT** (1) Engineers or administrative officials with at least three years of waste management experience or an equivalent level of specialized knowledge. Applications should also be limited to those who will continue working in the field of waste management after the training course (2) University graduates having majored in analytical chemistry or microbiology, or those with equivalent technical knowledge (3) Under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Global Environment Centre Foundation (GEC) (3) Osaka City Environmental Management Bureau
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

TECHNOLOGY FOR INSPECTION OF WATER POLLUTION IN URBAN AREAS

May 17, 1999 - Jul. 18, 1999, 5 participants

都市型水質汚濁検査技術

J-99-03293

- 1. PURPOSE** To help to overcome water pollution problems in developing countries, this course is designed to contribute to the promotion of countermeasures against water pollution by comprehensively introducing water quality inspection technology and preventive measures against water pollution to engineers from these countries engaged in this field.
- 2. MAIN FEATURES OF CURRICULUM** This course has the top priority on analysis exercises, and consists of lectures, exercises and observation studies. Main features are as follows: (1) lectures-urban water pollution and its control of water pollution in Sapporo City; (2) practices-river water analysis, drinking water analysis, water system bacillus analysis, toxic substance analysis, acid rain analysis; and (3) observation-water supply and sewerage facilities, waste management facilities, industrial waste water processing facilities; environmental monitoring center, environmental education facilities, commercial facilities to prevent environmental pollution.
- 3. QUALIFICATION OF APPLICANT** (1) engineer of an environmental pollution analysis institution of a central or a local government or technical official of a department concerning environmental pollution administration (2) university graduate or equivalent with over 3 years of experience (3) between 25 and 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Sapporo City Institute of Public Health
- 5. REMARKS**

COMPREHENSIVE WASTE MANAGEMENT TECHNIQUES

May 24, 1999 - Aug. 6, 1999, 8 participants

廃棄物処理総合対策技術

J-99-03308

- 1. PURPOSE** The appropriate knowledge and technology for solid waste management are very important for taking countermeasures for pollution of wastes in developing countries. To meet the demand, training is carried out in Hiroshima Prefecture, thus to contribute disseminating the knowledge and technology, and improving the solid waste management.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on workshop practice, laboratory experiments, discussion, and final report presentation by participants, besides lectures and observation. It mainly covers: (1) basic knowledge and techniques for planning, collection, haulage and disposal of solid wastes (2) techniques for examining and analyzing wastes (3) techniques for restricting waste discharge, recycling and re-use of wastes
- 3. QUALIFICATION OF APPLICANT** (1) senior technical staff engaged in the solid waste management in the national/local government, or related public organizations (2) more than three years experience in the field of solid waste management (3) university graduate or equivalent (4) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Hiroshima International Centre (3) Hiroshima Prefectural Health and Environment Center
- 5. REMARKS** A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

PRACTICAL TRAINING FOR MOTOR VEHICLE INSPECTION SYSTEM

Nov. 8, 1999 - Dec. 17, 1999, 8 participants

自動車検査制度

J-99-03374

- 1. PURPOSE** This course is designed to provide personnel in charge of motor vehicle administration with an opportunity to realize the importance in the area of motor vehicle administration of the establishment of systems for inspection and maintenance and repair through lectures and training concerning such systems, thereby contributing to the establishment of systems for inspection and maintenance and repair.
- 2. MAIN FEATURES OF CURRICULUM** In addition to understanding the concepts of systems for inspection and maintenance and repair, to acquire the knowhow to establish such systems in their own countries; (1) Motor vehicle inspection system, etc. (lectures; about 2 days) (2) Work practice; etc; in motor vehicle inspection (lectures/training; about 4 weeks) (a) Training using inspection instruments (b) Training in motor vehicle maintenance and repair (at the level of third class maintenance and repair mechanic) (3) Visits to motor vehicle manufacturers, etc. (about 2 days) (a) Passenger cars, two-wheeled motor vehicles (4) Visits to motor vehicle inspection sites, maintenance and repair factories (about 2 days)
- 3. QUALIFICATION OF APPLICANT** (1) technical officials engaged in motor vehicle administration, and has between 3 and 15 years of work experience in this field (2) between 20 and 40 years of age (3) senior high school graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Inspection Training Center, Ministry of Transport (3) Japan Automobile Standards Internationalization Center (JASIC)
- 5. REMARKS**

ROAD CONSTRUCTION ENGINEERING

Jul. 12, 1999 - Sep. 9, 1999, 5 participants

道路技術者養成

J-99-03294

- 1. PURPOSE** This course is designed for middle level technical officials who are concerned with road administration and projects in the developing countries. The purpose of this course is to introduce road construction engineering technologies as an indispensable infrastructure for activation and development of land and industries, and thereby to contribute to promotion of national land development.
- 2. MAIN FEATURES OF CURRICULUM** (1) Road outline (2) Road inspection and planning (3) Road design and construction techniques (4) Road maintenance (5) Road management and Construction contract
- 3. QUALIFICATION OF APPLICANT** (1) technical official concerned with road administration or projects, having over 3 years experience (2) between 25 and 40 years of age.
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Construction Bureau, City of Sapporo
- 5. REMARKS**

COLLOQUIUM ON URBAN PUBLIC TRANSPORT

May 12, 1999 - Jul. 4, 1999, 10 participants

都市公共交通コキウム

J-99-03392

- PURPOSE** The purpose of the course is: (1) to obtain the wide views of urban transportation problems and deepen understanding of necessity of improvement of urban environment, and (2) to acquire the expertise and views of public transportation such as railway systems and bus services.
- MAIN FEATURES OF CURRICULUM** Lecture: (1) Environmental problems including measures for pollution produced by urban transportation. (2 days) (2) Urban public transportation planning process. (3) Future subjects and measures for implementation of the project (3 days) (4) Project implementation process from planning to the completion (1 day) (5) Introduction and support of privatization (1 day) (6) Present Conditions of public transportation (1 day) Observation: (1) Maintenance and operation of public transportation including local cities. (1 day) (2) Present conditions of the regional public transportation and report making. Country Report: (1) Discussions based on the country report previously presented by the participants (1 day)
- QUALIFICATION OF APPLICANT** (1) Occupation: technical administrative officers, researchers, and officers in charge of urban public transportation (2) Career: more than 3 years (3) Age: less than 38 years old (4) Education: university graduates or the equivalents (5) Others: sufficient command of spoken and written English
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Transport Policy Bureau, Ministry of Transport
- REMARKS**

ROLLING STOCK MAINTENANCE AND MANAGEMENT

Aug. 24, 1999 - Oct. 30, 1999, 8 participants

鉄道車両管理

J-99-03332

- PURPOSE** The purpose of the course is to contribute to the development of railway and modernization of rolling stocks management in the developing countries through providing a wide range of knowledge and techniques about maintenance, management and manufacturing of the rolling stock in Japan as well as introducing various kinds of Japanese railway traffic systems to the participants.
- MAIN FEATURES OF CURRICULUM** This course consists of lectures, observations and exercises under cooperation with JR Group and rolling stock industries: (1) Outline of railway in Japan (2) An introduction to rolling stocks (3) Rolling stock maintenance (4) Operation planning (5) Security system and accident prevention (6) Manufacturing of rolling stocks and related parts (7) Various types of railroad traffic systems
- QUALIFICATION OF APPLICANT** (1) having been engaged in rolling stock engineering for more than two years with more than seven years of practical experience in the field of railway engineering (preferably having experience in E.M.U. or E.L. rolling stock engineering) (2) under 40 years of age (3) university/college or equivalent technical school graduate
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Railway Bureau, Ministry of Transport (3) Japan Railway Group (JR) (4) Japan Overseas Rolling Stock Association (JORSA) (5) Japan Association of Rolling Stock Industries (JARI)
- REMARKS** This course is designed mainly for EL or EMU types of rolling stock.

RAILWAY SIGNAL, TELECOMMUNICATION AND INFORMATION SYSTEM ENGINEERING

Oct. 5, 1999 - Dec. 18, 1999, 7 participants

鉄道情報システム

J-99-03315

- PURPOSE** The purpose of the course is to provide the participants with the knowledge of how to plan the installation of railway signals and telecommunications equipment through lectures and observation, and to introduce them to the workshops with recent manufacturing techniques, thereby cultivating leading signal engineers who can contribute to safe train operations.
- MAIN FEATURES OF CURRICULUM** This course mainly consists of lectures by railway companies and signal manufacturers, so as to provide information from both users' and manufacturers' sides. The main topics in the course are as follows. (1) management (a) signal engineering in general (b) railway telecommunications in general (c) planning & development (d) maintenance (2) basics of electrical signal (a) switch point (b) track circuit (c) blocking system (d) interlocking (3) safety system and others (a) Relay Interlocking and Electronic Interlocking (b) ATS (Automatic Train Stop) and ATC (Automatic Train Control) (c) CTC (Centralized Traffic Control) (d) electronic token block system (e) railway traffic control system (f) dispatcher information system (g) railway telecommunication
- QUALIFICATION OF APPLICANT** (1) railway signal engineering official with more than five years of practical experience (preferably in charge of electrical signal engineering) (2) presently engaged or expected to be engaged in the near future, in planning and administration work in the field of electrical signal engineering (3) university/college graduate or equivalent (4) not more than 40 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Railway Bureau, Ministry of Transport (3) Japan Railway Group (JR) (4) Japan Association of Signal Industries (5) Signal Manufacturers
- REMARKS**

TANKER SAFETY AND OPERATION

Jan. 24, 2000 - Apr. 15, 2000, 10 participants

タンカー安全実務

J-99-03373

- PURPOSE** The purpose of the course is to contribute to securing safety of transport by tankers and preserve the global environment through learning technology concerning management, handling loading and unloading of cargo oil peculiar to tankers as well as prevention of marine contamination and measures in case of emergency etc., thus contributing to the improvement of the level of seamen training in the countries concerned, to learn expertise concerning business peculiar to tankers (points to notice in living and working, danger and toxicity of cargo oil, measures for gas and static electricity while sailing) and understand its uniqueness, to learn safe handling of cargo oil through practical training using simulators, and to learn proper measures at the outbreak of disasters.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) Theory of loading dangerous cargo, static electricity, theory of the use of special-purpose ship etc. (2) Handling of liquefied gas (3) Business related to oil terminals (4) Handling of crude oil (5) Emergency drill
- QUALIFICATION OF APPLICANT** (1) Instructors or personnel in charge of guidance in tanker safety at seamen training institutes or shipping companies etc. (2) Age: 25 to 40 years old
- TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Marine Technical College, Ministry of Transport (3) Maritime Disaster Prevention Center
- REMARKS**

SEMINAR ON COASTAL SHIPPING

Aug. 17, 1999 - Oct. 9, 1999, 8 participants

内航海運

J-99-03372

1. **PURPOSE** Purpose of the course is to provide participants with; (1) basic knowledge for improvement and development of coastal shipping (passengers and freight) (2) general administration of coastal shipping in Japan (3) basic knowledge of security control and management system, and (4) knowledge on roles of organizations related to the coastal shipping.
2. **MAIN FEATURES OF CURRICULUM** The following subjects will be covered in this course; (1) Present situations of coastal shipping (passengers and freight) in Japan (2) Roles of coastal shipping in domestic transportation (3) Measures for security and administration system (4) Systems and activities of coastal shipping-related organization (5) Problems of coastal shipping (6) Present conditions of Modal Shift in Japan (7) Observation of institutions and organizations related to coastal shipping (8) presentation of country report.
3. **QUALIFICATION OF APPLICANT** Applicants should be; (1) presently engaged in administrative or managerial work related to coastal shipping with more than 3 years of experiences (2) university graduates or the equivalent, and (3) over 30 years of age.
4. **TRAINING INSTITUTIONS** (1) Tokyo International Center, JICA (2) Maritime Transport Bureau, Ministry of Transport
5. **REMARKS**

AIRPORT ENGINEERING COURSE

Oct. 5, 1999 - Nov. 28, 1999, 10 participants

空港工学コース

J-99-03408

1. **PURPOSE** The seminar is designed to contribute to upgrading technical knowledge and skill on airport engineering for engineers who mainly work in the areas of airport planning, airport construction, and maintenance of airport facilities.
2. **MAIN FEATURES OF CURRICULUM** In this seminar, the emphasis is put on introduction of Japanese situation and systems and basic theories on airport planning and management. The major subjects are; (1) civil aviation in general (2) airports in general (3) airport planning (4) design and construction of airports (5) maintenance of airports
3. **QUALIFICATION OF APPLICANT** (1) university graduate specialized in civil engineering or architecture or equivalent (2) currently employed by their government or by public authorities for civil aviation as airport engineer or be newly-appointed personnel who will manage airport civil engineering matters (3) have more than five years of occupational experience in the fields of airport civil engineering such as in airport planning, airport construction, or maintenance (4) under 40 years of age
4. **TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Civil Aviation Bureau, Ministry of Transport
5. **REMARKS**

SEMINAR ON FUTURE NAVIGATION SYSTEMS (FANS) TECHNOLOGY

not executed in FY 99

将来航空航法システム (FANS) 技術セミナー

1. **PURPOSE** Toward 2010, ICAO (International Civil Aviation Organization) is promoting worldwide construction of the new system (CNS Systems) based on the FANS (Future Air Navigation System) concept. The purpose of this course is to contribute to the aviation safety in Asian and Pacific countries with striving for promotion of the new CNS Systems by providing participants with fundamental knowledge on FANS concept, including global coordinated plan and air navigation plan in Asian and Pacific region.
2. **MAIN FEATURES OF CURRICULUM** Consist of lectures, discussions and observations. (1) Review of the problems in current system (2) FANS related activities in ICAO (3) Overview of the FANS (4) Guidelines for introduction of the new system (5) Examples of introduction of the new system (6) Observation of relevant facilities.
3. **QUALIFICATION OF APPLICANT** (1) have more than 5 years' occupational experience in the field of current air navigation and air traffic control system (2) experienced in designing the air navigation and air traffic control system (3) under 40 years of age
4. **TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Civil Aviation Bureau, Ministry of Transport (3) Japan Radio Air Navigation Systems Association
5. **REMARKS** This seminar is conducted alternately with "Seminar on Air Traffic Control" every other year. This year (Japanese fiscal year 1998), "Seminar on Future Air Navigation Systems (FANS) Technology" is conducted.

GLOBAL SEISMOLOGICAL OBSERVATION

Oct. 25, 1999 - Dec. 18, 1999, 10 participants

グローバル地震観測

J-99-03276

1. **PURPOSE** This course is designed to introduce up-to-date technologies and knowledge in the field of global seismological observation to the participants who are expected to play important roles in a global monitoring network on nuclear tests.
2. **MAIN FEATURES OF CURRICULUM** This course consists of lectures, practices and field studies. Subjects are: (1) introduction to seismology and nuclear politics (2) global seismic network (3) instrumentation and observation practice (4) hypocenter location (5) data processing (6) analysis of teleseismic record (7) source mechanism (8) world seismicity (9) practice of discrimination of nuclear explosion (10) study tour
3. **QUALIFICATION OF APPLICANT** (1) University graduates or equivalent, with at least three years' professional experience in the field of seismology (2) Well-versed in basic mathematics such as differentiation and integration (3) Under thirty-five (35) years of age
4. **TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) International Institute of Seismology and Earthquake Engineering (IISEE), Building Research Institute, Ministry of Construction
5. **REMARKS**

**SEMINAR ON PUBLIC WORKS
ADMINISTRATION IN REGIONAL GOVERNMENT**

Aug. 31, 1999 - Oct. 30, 1999, 5 participants

地域土木行政セミナー

J-99-03290

- 1. PURPOSE** In developing countries, "sustainable development" is called for public works projects. Spread of technologies and promotion of competent people for sustainable development is a pressing need. This course is designed for the middle level engineers in civil works in developing countries. The purpose of this course is to introduce legislative systems, budgeting, execution systems, construction flow, environmental concerns, construction technologies and other topics by lectures, seminars and on-the-spot observation studies, and thereby to contribute to development of national land in developing countries.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, seminars, and observations. (Lecture) legislative systems, budget systems, execution systems, role allotment of the national and local governments, planning and construction flow concerning public works, and harmonization of the public works and environmental protection. (Seminar) Opinion exchanges between the lecturers and the participants. (Observation) Observation of different kinds of public works facilities and construction sites.
- 3. QUALIFICATION OF APPLICANT** (1) middle level technical officials who are engaged in public works administration with more than five years of experience in this field (2) under 40 years of age (3) university graduates or equivalent.
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Department of Public Works, Hokkaido Government
- 5. REMARKS**

**DISASTER MITIGATION AND RESTORATION
SYSTEM FOR INFRASTRUCTURE**

Oct. 4, 1999 - Dec. 18, 1999, 8 participants

インフラ防災・復旧システム

J-99-03301

- 1. PURPOSE** The purpose of this course is to provide civil engineers who are engaged in infrastructure maintenance with comprehensive knowledge and techniques on the restoration from disasters and reconstruction methods, and thereby to contribute to the establishment of the restoration system in developing countries.
- 2. MAIN FEATURES OF CURRICULUM** This course includes lectures and practices on (1) the outline of the great Hanshin earthquake (2) mechanism of earthquake disaster (3) aseismatic technology (4) predicting earthquakes (5) mechanisms of ordinary disasters in rivers and roads (6) disaster prevention plan (7) disaster-prevention-city plan (8) activities at the initial stage and rescue system (9) evacuation measures (10) protection of lifeline (11) communication at the time of disasters (12) disaster prevention (13) disaster rescue method and its application (14) administrative work of reconstruction for restoration, and (15) group research (disaster restoration plan)
- 3. QUALIFICATION OF APPLICANT** (1) technical executive officials who are engaged in civil engineering (2) have more than 7 years' experience (3) between 30 and 39 years of age (4) university graduate and equivalent (5) civil engineer
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Kinki Regional construction bureau, MOC (3) Japan Construction Training Center Foundation (JCIC)
- 5. REMARKS** A compulsory intensive Japanese language course for one week will be conducted prior to the technical training.

**SOCIAL INFRASTRUCTURE DEVELOPMENT
AND PLANNING**

Aug. 9, 1999 - Oct. 17, 1999, 8 participants

社会資本整備計画

J-99-03326

- 1. PURPOSE** This course offers to those who belong to the government or government affiliated organizations of developing countries an opportunity to acquire the contemporary knowledge and techniques concerning the roles of infrastructure, methods and process of survey, analysis, and planning, through lectures, observations and group studies.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and group studies. It covers very broad technical fields; roads, railways, ports, water supply, sewage system, dams, and telecommunication in order for participants to obtain wide knowledge and technique to prepare comprehensive plans for the infrastructure. The main themes are: (1) introduction and social scheme of infrastructure development (a) development and economic effect of infrastructure in Japan, cultural climate and social infrastructure, Japanese overseas technical cooperation in infrastructure development (2) regional/urban planning (a) regional development, city planning, water supply system, sewage system, garbage management (3) highway, transport, telecommunication planning (a) road network, urban transport, railways (4) river/port planning (a) river improvement and management (water resources, flood control), port and harbour (5) case study (group discussion) on infrastructure development plans
- 3. QUALIFICATION OF APPLICANT** (1) university graduates or those who have equivalent educational qualifications in the field of civil engineering, (2) civil engineers with at least five years' experience in planning infrastructure development (roads, railways, ports, water supply and sewage systems, dams, etc) (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Engineering Affairs Management Section, Minister's Secretariat, Ministry of Construction (MOC) (3) International Affairs Division, Economic Affairs Bureau, MOC (4) Planning Department, Kinki Regional Construction Bureau, MOC (5) Japan Construction Training Center Foundation (JCIC)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

NATURAL DISASTER MITIGATION

Nov. 1, 1999 - Mar. 1, 2000, 5 participants

自然災害防災研究

J-99-03423

- 1. PURPOSE** The course is designed to introduce research methodology for research and mitigation of the natural disaster in the developing countries to researchers, scientists, and engineers in the field of mitigation of natural disaster.
- 2. MAIN FEATURES OF CURRICULUM** The course consists of practice (research) (75%), lecture, observation, presentation, on the research methodology for the mitigation of natural disasters such as earthquake, landslide, rainfall related to disasters, typhoon, river disaster, snowslide and so on.
- 3. QUALIFICATION OF APPLICANT** (1) be researchers, scientists, or engineers with more than three years' occupational experience of research for the mitigation of natural disaster. (2) be more than 25 years and less than 40 years old. (3) be university graduates in the field of science, engineering and other relevant fields or equivalent with a fundamental knowledge of science and technology.
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Research Institute for Earth Science and Disaster Prevention (NIED), Science and Technology Agency, Prime Minister's Office
- 5. REMARKS** An intensive Japanese language class will be conducted prior to the technical training for one week.

URBAN GREENERY AND PARK ADMINISTRATION

Aug. 23, 1999 - Nov. 12, 1999, 6 participants

都市緑化行政

J-99-03365

- 1. PURPOSE** The course is intended for administrators in participating countries who are responsible for promoting projects to increase greenery and park construction in the cities. It will include study of governmental policies and technical issues related to increasing urban greenery, preserving existing green spaces, city parks, natural parks and recreational facilities. Basic knowledge and experience necessary for the participants to respond, in an informed manner, to policy proposals and decisions will also be covered. The overall aim of the course is to upgrade the technical abilities of the leading governmental administrators and thus enabling them to contribute to the improvement of the living environment in developing countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of Japanese experience and basic theories of greenery in city planning and park administration. The main themes are: (1) creation of green space (a) policies of urban design with flowers and greenery, planning and design of planting, planning and policies of parks and green spaces (2) preservation and conservation of green spaces (a) national parks, Japanese gardens
- 3. QUALIFICATION OF APPLICANT** (1) supervisory administrators responsible for over-all urban greenery and park development with practical experience of at least seven years (2) under 40 years of age (3) university/college graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka International House Foundation (3) Public Works Bureau, Osaka Municipal Government
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

PLANNING FOR THE DEVELOPMENT OF URBAN ENVIRONMENTAL FACILITIES (RURAL CORE CITY)

Aug. 3, 1999 - Nov. 3, 1999, 8 participants

都市環境施設整備計画(地方中核都市)

J-99-03362

- 1. PURPOSE** The course is designed to train urban planning officers and engineers to be leaders in the field of urban facilities planning with the view of care for local residents and environmental consideration. This is accomplished through special training programs which teach techniques for the planning of roads, water works, public space, etc.
- 2. MAIN FEATURES OF CURRICULUM** Common subject; City planning projects of Japan, Urban Planning system, Land use, urban facilities, land readjustment, urban amenities, topics of urban environmental facilities Specialized subjects; Urban facilities road system, City plan for public garden, Sewerage, Refuse disposal plant, River improvement and conservation, Urban redevelopment project, Observation of urban environmental facilities Summarized subject; urban environmental facilities planning (practice)
- 3. QUALIFICATION OF APPLICANT** (1) to be engineer or administrative officer engaged in planning for urban facilities with more than two years experiences (2) to be over 25 and under 45 years of age (3) to be a university graduate or the equivalent, (4) to be proficient in spoken and written English, (5) to be in good health, (6) not to be serving in the military
- 4. TRAINING INSTITUTIONS** (1) Northern Regions Center (NRC), (2) Obihiro City, (3) Hokkaido University
- 5. REMARKS**

PRACTICAL LAND READJUSTMENT FOR URBAN DEVELOPMENT

Jan. 10, 2000 - Mar. 31, 2000, 10 participants

都市開発における土地区画整理事業実務

J-99-03385

- 1. PURPOSE** To encourage urban development in developing countries with well trained persons having comprehensive and practical knowledge for implementation of land readjustment project.
- 2. MAIN FEATURES OF CURRICULUM** The following major subject will be taught by lectures, experience etc. in the course. (1) city planning (city planning system, land use planning, city planning facilities, urban development projects) (2) land readjustment (land readjustment act, framework of land readjustment, procedures of project implementation, land readjustment project survey, land readjustment design, implementation plan, land evaluation, repotting, building removal, construction plan, construction management, financial plan)
- 3. QUALIFICATION OF APPLICANT** (1) officials of national/ local government or authorities concerned who are presently engaged in urban development projects (2) university graduate or equivalents (3) between '25' and '45' years of age.
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC) (2) Nagoya Center for Urban Advancement
- 5. REMARKS** Japanese language course available (25 hours)

TECHNOLOGY FOR PREVENTION OF PREMATURE DETERIORATION OF CONCRETE STRUCTURES

Jan. 10, 2000 - Jun. 30, 2000, 8 participants

コンクリート構造物耐久性向上技術

J-99-03270

- 1. PURPOSE** The purpose of this course is to provide knowledge and information on prevention of premature deterioration of concrete structures in order to disseminate the technology in this field and to improve the durability of concrete structures in participating countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips: (1) method of corrosion investigation of existing ferroconcrete structures (2) basic engineering technique of concrete (material examination, mixing examination, etc.) (3) basic corrosion engineering technique (4) chemical analysis technology on quality of concrete (5) study on improvement of quality of concrete, material, and construction technique by using concrete material in respective countries (6) making a guideline about corrosion prevention of structures and improvement of durability
- 3. QUALIFICATION OF APPLICANT** (1) technical officials in charge of construction of concrete structures or engineers who are engaged in research on concrete materials (2) have more than 5 years' experience (3) between 27 and 40 years of age (4) university graduates
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) General Building Research Corporation of Japan
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (25 hours).

CONSTRUCTION SAFETY MANAGEMENT

Oct. 18, 1999 - Dec. 5, 1999, 10 participants

建設安全管理

J-99-03377

- 1. PURPOSE** The course aims to upgrade participants' planning capacity in construction safety management through fundamental concepts, frameworks of relevant laws and regulations, and planning methods.
- 2. MAIN FEATURES OF CURRICULUM** The following topics will be introduced through lectures, practices, observations and case studies. (1) Outline of government policies on construction safety and health, and construction labour inspection system (2) Laws and relevant regulations regarding construction safety management (3) Analytical method to investigate causes of construction accidents (4) Planning methods for national construction accident prevention policy (5) Concrete measures for construction accident prevention (6) Construction safety and health activities at construction firms and organizations
- 3. QUALIFICATION OF APPLICANT** (1) Technical officer or researcher currently engaged in construction safety management in a governmental organization. (2) At least five years occupational experience (3) Technical college or university graduate with a major in engineering (4) Age between 30 and 50
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Japan Construction Safety and Health Association (JCSHA)
- 5. REMARKS** An intensive Japanese language course will be conducted prior to the technical training for one week (25 hours)
- 6. OTHER**

GLOBAL MAPPING

Oct. 4, 1999 - Dec. 19, 1999, 5 participants

環境地図作成技術

J-99-03405

- 1. PURPOSE** This course is designed for technical staff of section head level in national surveying and mapping agencies or organizations. It is aimed at giving them a better understanding of the importance of environmental map development, which is indispensable for global environmental conservation as well as at enhancing their technical skill necessary for environmental map (global map) preparation, thus to contribute to the sustainable development in harmony with the environment.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, practices and discussions and observation. Main subjects of the curriculum are as follows: (1) Outline of Global Environment, (2) Outline of Global Mapping, Quality Control (QC), (3) Geographical Information Processing Technology, (4) Application of Geographical Information System (GIS), Remote Sensing, (5) Survey Law.
- 3. QUALIFICATION OF APPLICANT** (1) A section head or an equivalent of a national institute related to surveying and mapping with at least 7 years' and less than 18 years' occupational experience (2) University graduate or equivalent (3) Ages between 29 years and 40 years
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Geographical Survey Institute (GSI), Ministry of Construction
- 5. REMARKS**

RAPID MAIL SERVICE

Oct. 17, 1999 - Nov. 7, 1999, 7 participants

急送郵便業務

J-99-03395

- 1. PURPOSE** The present course aims to effect the transfer of technology used in rapid mail service operations to overseas managers of such operations and thus improve the quality of mail service between Japan and these countries.
- 2. MAIN FEATURES OF CURRICULUM** (1) Explanation of Japan's rapid mail service and related areas (2) Observation (Osaka international mail office, Osaka International Mail Center, Tokyo international mail office, other locations) (3) Discussion with personnel from the mail service field (4) Formulation of improvement plans for participating countries
- 3. QUALIFICATION OF APPLICANT** Applicants should: (1) be managers in the rapid mail operations department of their country's mail service authority and have at least five years' experience (2) have a university degree or an equivalent level of specialist knowledge (3) be between 25 and 45 years of age
- 4. TRAINING INSTITUTIONS** (1) JICA Osaka International Centre (2) International Postal Research Center
- 5. REMARKS** The present course is offered for the first time in fiscal year 1998 to replace the discontinued course in Postal Operation Management for Island Regions.

DIGITAL RADIO COMMUNICATION ENGINEERING

May 10, 1999 - Aug. 7, 1999, 7 participants

デジタル無線通信技術

J-99-03242

- 1. PURPOSE** To introduce the basic and practical knowledge on digital radio communication engineering.
- 2. MAIN FEATURES OF CURRICULUM** (1) Digital Radio Technology; Digital Radio, Satellite Communication, Rural Area Communications, Mobile Communication, Practical Exercise of 5G and 11G Microwave Method, Practical Exercise of Radio Network Design, Practical Exercise of Satellite Communication Technology (2) Digital Transmission Technology; Principle of Digital Transmission, Digital Multiplex Hierarchy, Analogue to Digital Conversion, Synchronized Multiplexing, Practical Exercise of Digital Transmission (3) ISDN Technology; Outline, User Network Interface, Using Method, Practical Exercise (4) Administration Techniques; Planning of Network Construction (5) Field Trip; NTT Show Room, Network Center, etc., Factories Relative Telecommunications (6) Observation Tour (KYOTO, HIROSHIMA) (7) New Technology; Multi-Media Service Technology, Wireless Local Loops, PHS (8) Others; Country Report Presentation
- 3. QUALIFICATION OF APPLICANT** (1) university graduates specializing in telecommunications or electrical engineering, or those who have equivalent technical knowledge in this field (2) under 40 years of age (3) currently working for telecommunication administrations or common career organizations (except broadcasting stations), with at least three '3' years of practical experience on their own radio system
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Suzuka Training Institute, NTT
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

**INTERNATIONAL OPTICAL FIBER SUBMARINE
CABLE SYSTEM ENGINEERING**

Jan. 11, 2000 - Mar. 4, 2000, 7 participants

国際光海底ケーブル通信技術

J-99-03243

- 1. PURPOSE** The purpose of this course is to enable participants to acquire general knowledge of international optical fiber submarine cable system.
- 2. MAIN FEATURES OF CURRICULUM** The course mainly consists of lectures, discussions and observations. The main items covered in this course are as follows: (1) optical fiber communication (2) international optical fiber submarine cable system (3) planning of international optical fiber submarine cable system (4) maintenance (5) associated subjects (6) observation
- 3. QUALIFICATION OF APPLICANT** (1) university graduates in telecommunications and/or electrical/electronic engineering, or equivalent (2) persons with fundamental knowledge of optical fiber system and digital communications (such as digital transmission principles of PCM, multiplexing, synchronization, etc.) (3) engaged in the field of international telecommunication services, and also currently engaged in or expected to be engaged in international optical fiber submarine cable system (4) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Kokusai Den shin Denwa Co., Ltd. (KDD) (3) KDD Engineering and Consulting, Inc. (KEC)
- 5. REMARKS**

TELECOMMUNICATION STANDARDIZATION

Jan. 24, 2000 - Mar. 12, 2000, 8 participants

電気通信標準化技術

J-99-03244

- 1. PURPOSE** The purpose of this course is to introduce the participants to fundamental knowledge about the telecommunications standardization activities, by introducing Japanese experience and know-how such as the standardization structure, organization, up-to date international ISDN services and technology.
- 2. MAIN FEATURES OF CURRICULUM** This course aims to present Japanese experience in telecommunications standardization, and covers; (1) administration (2) international standardization activities (especially in ITU) (3) standardization activities in Japan (4) previous trends of standardization activities (5) comprehensive study
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (telecommunications technology) (2) official engaged in the field of telecommunications (3) under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC) (2) Communications Policy Bureau, Ministry of Posts and Telecommunications (MPT)
- 5. REMARKS**

**INTERNATIONAL TELEPHONE COMMUNICATION (NETWORK
MANAGEMENT AND OPERATION) ENGINEERING II**

Jan. 11, 2000 - Mar. 4, 2000, 11 participants

国際電話通信技術 II

J-99-03335

- 1. PURPOSE** The purpose of the course is to contribute to the development of international telecommunications in developing countries through providing the participants who are engaged in designing and maintenance of the international telephone switching system with the knowledge and skills related to the international telephone communications such as telephone switching designing, maintenance, cable planning, network control and operation as well as introducing them to current technologies and services of the international telephone communication engineering.
- 2. MAIN FEATURES OF CURRICULUM** The outlines of the course are: (1) network planning theory (2) telephone/ISDN services and network construction (3) digital switching techniques (4) introduction to the other related techniques and new services, and (5) observations and practices
- 3. QUALIFICATION OF APPLICANT** (1) university graduate in telecommunications and/or electrical engineering or equivalent (2) have basic knowledge of computer and switching system technology, and currently engaged in or expected to be engaged in the field of establishment and maintenance of international telephone switching network (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Kokusai Den shin Denwa Co., Ltd. (KDD) (3) KDD Engineering and Consulting Inc. (KEC)
- 5. REMARKS**

**TELECOMMUNICATION OUTSIDE PLANT
MAINTENANCE TECHNIQUE**

Jan. 10, 2000 - Mar. 18, 2000, 10 participants

通信線路保全技術

J-99-03391

- 1. PURPOSE** participants in this training course will learn maintenance technology and management systems for telecommunication outside plants through lecture and exercises based on NTT's know-how. Improving the participants' skills will contribute to more effective use of existing outside plants and will secure good quality services: (1) Participants will understand new telecommunication outside plant technologies and obtain skills in maintaining outside plants effectively in their own countries (2) Participants will develop their skills in analyzing problems which deteriorate outside plant (3) Participants will understand the systematic methods for maintaining outside plants to ensure the highest reliability.
- 2. MAIN FEATURES OF CURRICULUM** (1) New technologies for telecommunications outside plants. (lecture 5 days) (2) Maintenance management for telecommunications outside plants. (lecture 4 days, practice 2 days) (3) Operation, monitoring and emergency measures for telecommunications. (lecture 5 days, practice 1 day) (4) Skills for maintaining plants and detecting and repairing faults (5) Actions to be taken to improve the service quality. (lecture 2 days, practice 2 days) (6) Observation of outside plants using the new technology. (2 days)
- 3. QUALIFICATION OF APPLICANT** (1) Occupation: supervising engineer of telecommunications outside plant maintenance (2) Business career: having worked for 5 to 15 years (3) Age: 28 to 40 years old (4) Academic background: a bachelor degree or equivalent is desirable.
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu Branch, Nippon Telegraph and Telephone Corporation (NTT)
- 5. REMARKS**

OISCA FARMERS DEVELOPMENT

Jan. 18, 2000 - Dec. 17, 2000, 18 participants

オイスカ農業者育成

J-99-03331

- 1. PURPOSE** To provide with theoretical and practical knowledge and techniques in the fields of crop production and agricultural machinery mainly through practical studies so that they can serve as agricultural leaders in their countries.
- 2. MAIN FEATURES OF CURRICULUM** The emphasis is put on lectures, practical training and field studies. The course is generally conducted in Japanese. The main themes are; (1) rice cultivation (2) vegetable cultivation (3) fruit cultivation (4) land improvement (5) land survey (6) investigations and trials (7) agricultural machinery (8) Japanese language
- 3. QUALIFICATION OF APPLICANT** (1) agricultural staff or those who are engaged in agriculture as progressive farmers with occupational experience of more than two years in their specialties (2) between 20 and 30 years of age (3) graduate of GCE 'O' Level (10 years education) or equivalent
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) OISCA Nishi-Nippon Training Centre (3) OISCA Chubu-Nippon Training Centre
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted in parallel with the technical training and lectures at OISCA Training Centers for three months (378 hours).

FARMING TECHNOLOGY IN SLOPING AREAS FOR ENVIRONMENTAL CONSERVATION

Aug. 16, 1999 - Oct. 9, 1999, 5 participants

傾斜地域環境保全型農業

J-99-03215

- 1. PURPOSE** Due to the rapid population growth and high demand for food, poorer farmers with less capacity cultivate the marginal lands in hilly area. It causes serious soil erosion and other environmental problems. The purpose of this course is to provide the agricultural extension officers with the appropriate agricultural technology in Hiroshima Prefecture which has various hilly regions, and thus to improve a practical capability of participants.
- 2. MAIN FEATURES OF CURRICULUM** The course consists of lectures, practices, and observation as well as discussion and report presentation. The course covers the following issues: (1) agriculture and environment (2) actual conditions in Hiroshima Prefecture (weather, topography, geological features, soil, farming, farm village) (3) outline of cultivation and management techniques suitable to sloped land (understanding the outline of farming techniques in sloped areas such as cultivation and pest control for paddy rice, fruit trees, vegetable and flowers) (4) farming techniques in sloping areas for environmental conservation (to acquire the basic skill such as cultivation of paddy rice, fruit trees, vegetable, flowers, fertilizer application, pest control, biotechnology)
- 3. QUALIFICATION OF APPLICANT** (1) engaged in agricultural experiments, agricultural extension work, or agricultural administration in national/local governments, or relevant public organizations (2) occupational experience of more than three years in the field of agriculture (3) university graduate or equivalent (4) under 40 years of age (5) those who have good command of English
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Hiroshima International Centre (3) Hiroshima Prefectural Agriculture Research Center (HIPARC)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

HORTICULTURE IN PROTECTED ENVIRONMENT

Sep. 14, 1999 - Dec. 12, 1999, 5 participants

施設園芸技術

J-99-03269

- 1. PURPOSE** Provide knowledge and information on plant production in protected environments, such as computer controlled greenhouses, in order to increase the production of specific cash crops in participating countries. The course introduces simple facilities and proper techniques which now draw much attention.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips: (1) outline of horticulture institution (2) basics of cultivation technique (3) basics of computer technique (4) information on botanical organisms (5) economy and management of horticulture
- 3. QUALIFICATION OF APPLICANT** (1) university graduates or the equivalent (2) technicians or educators involved in government-sponsored research or education in the field of agricultural engineering or horticulture in a protected environment (3) under 40 years of age (4) more than 3 years' experience
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) College of agriculture, Osaka Prefecture University
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

RICE CULTIVATION (LATIN AMERICAN, OCEANIAN AND ASIAN COUNTRIES)

Feb. 21, 2000 - Oct. 20, 2000, 9 participants

稲作(中南米・大洋州・アジア諸国)

J-99-03281

- 1. PURPOSE** The purpose of the course is to introduce practical knowledge and techniques of rice production to the participants who are engaged in agricultural extension or training of farmers.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, practices, experiments and study tours. It mainly covers: (1) lecture (a) rice agronomy (b) rice physiology (c) plant protection (d) soil and fertilizer (e) rice breeding (f) agricultural extension (g) farm economy (h) farm machinery (i) land improvement (2) practice and experiment (a) field experiment on specific subjects (b) laboratory experiments (c) field practices (3) study tour (a) farm household survey (b) agricultural research stations (c) agricultural cooperatives (d) extension offices (e) industries related to agriculture
- 3. QUALIFICATION OF APPLICANT** (1) technical official presently in charge of extension service of rice or training on rice (2) university graduate or equivalent (3) over 26 and under 35 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TIBC), JICA
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted along with the technical training for two weeks (25 hours).
- 6. OTHER** Next focused area is MIDDLE and SOUTH AMERICAN COUNTRIES, and ASIAN COUNTRIES in 2000.

INTEGRATED AGRICULTURAL AND RURAL DEVELOPMENT THROUGH THE PARTICIPATION OF LOCAL FARMERS

Jun. 22, 1999 - Aug. 1, 1999, 10 participants

農民参加による農業農村開発

J-99-03287

- 1. PURPOSE** Activation of rural areas is indispensable to achieve stabilization and improvement of agricultural production, thus to eliminate poverty in developing countries. This course is designed to train competent persons among those who will shoulder the development of rural areas aimed at improvement of rural communities, by incorporating methods for the advancement of communities and people, as well as knowledge and technologies related to general consolidation of rural areas, including improvement of circulation systems, reinforcement of farmers' organizations and utilization of the land and water resources.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, case studies on the concerned areas, on-the-spot training in rural districts, and observation studies at related facilities and general consolidated districts: (1) community development (introduction of cases for community development planning methods to establish organizations, promotion of participation of women in the development, agriculture and rural development projects with farmers' participation) (2) Rural development (water management, distribution planning, community environment development plan, domiciliation environment etc.) (3) improvement of Agricultural Production (farm readjustment, land readjustment, agricultural management development plan, etc.) (4) maintenance and management methods (management of desolate lands and energy management for rural districts).
- 3. QUALIFICATION OF APPLICANT** (1) an administrator of local government with more than ten years of practical experience who is presently concerned with agriculture and rural developments (2) university graduate or equivalent (3) under fifty years of age.
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Japan Agricultural Land Development Agency
- 5. REMARKS**

SEED PRODUCTION OF UPLAND CROPS

Apr. 5, 1999 - Jul. 19, 1999, 7 participants

畑作物の種苗生産

J-99-03246

- 1. PURPOSE** The purpose of this course is to provide technical officials and technicians with advanced and scientific knowledge and techniques required for sound seed production and applied cultivation method on upland crops such as potato, beans and maize through lectures, experiments and practices. It also aims to contribute to the improvement of demand and supply situation of foods and the diversification of dietary habits in participating countries.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly covers the following themes, and the emphasis is put on technical experience and practice. (1) apical meristem culture (2) fundamentals of breeding (3) plant propagation in net house (4) elimination of diseased plants (5) diagnosis of disease (6) production of serum for disease detection (7) crop cultivation (8) seed production (9) propagation and extension of disease-free seeds (10) storage and usage of genetic resources
- 3. QUALIFICATION OF APPLICANT** (1) leading technical administrator and research worker engaged in seed production and related works of upland crops with more than five years experience (2) university graduate or equivalent (3) between 27 and 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Obihiro (HICO), JICA (2) Tokachi Station, National Center for Seeds and Seedlings, Ministry of Agriculture, Forestry and Fisheries (3) Tokachi Agricultural Experiment Station, Hokkaido (4) Upland Agriculture Research Center, Hokkaido National Agriculture Experiment Station, MAFF
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for seven days.

AGRICULTURE-RELATED INFORMATION PROCESSING

Jan. 17, 2000 - Apr. 14, 2000, 8 participants

農業分野における情報処理技術

J-99-03300

- 1. PURPOSE** This course will provide training on agriculture-related information network systems including computer programming focused on Agriculture Meteorology so that contribute the human development in the field of information processing in Agriculture
- 2. MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course: (1) Outline of Agriculture related information processing (2) Introduction to Agriculture information network system (3) introduction to computer programming (Access, Excel, etc.)
- 3. QUALIFICATION OF APPLICANT** (1) engaged in agricultural administration or agricultural extension services, with more than 3 years' experience (2) university graduate or equivalent, with an interest in computers, (3) between 25 and 40 years of age. (4) to be proficient in spoken and written English (5) to be in good health. (6) not to be serving in the military
- 4. TRAINING INSTITUTIONS** (1) Northern Regions Center (NRC) (2) Fujitsu Higashi-Hokkaido Systems Engineering, Ltd. (3) Obihiro University of Agriculture and Veterinary Medicine
- 5. REMARKS**

UPLAND FARMING MANAGEMENT

Oct. 18, 1999 - Dec. 17, 1999, 10 participants

畑作管理

J-99-03349

- 1. PURPOSE** The purpose of the course is to support the improvement and stabilization of upland farming management in developing countries by introducing advanced and systematic upland farming management of Tokachi are famous as its large-scale upland farming in Japan
- 2. MAIN FEATURES OF CURRICULUM** (1) Guidance about agriculture in Tokachi, Hokkaido (2) Cultivation techniques and information 1 (Experiment and Extension) (3) Cultivation techniques and information 2 (Cultivation techniques, Harvesting, Processing and Distribution of agricultural products, etc.) (4) Agricultural Cooperatives, mutual-aid system, Agricultural Machinery (5) Activities of Farmers in Tokachi Area
- 3. QUALIFICATION OF APPLICANT** The ideal applicant will: (1) be involved in upland farming management with more than 3 years of experience (2) be a university graduate or the equivalent, and (3) be between 25 and 40 years of age (4) to be proficient in spoken and written English (5) to be in good health (6) not to be serving in the military
- 4. TRAINING INSTITUTIONS** (1) Northern Regional Center (NRC) (2) Agricultural Technology Center, City of Obihiro
- 5. REMARKS**

**CROPS CULTIVATION IN SUB-TROPICAL AREA
(FRUIT TREE)**

Apr. 8, 1999 - Sep. 19, 1999, 5 participants

亜熱帯地域作物栽培(果樹)

J-99-03382

- 1. PURPOSE** The purpose of this course is to introduce the participants to extensive knowledge and techniques necessary for breeding method and improving the productivity of vegetable through lectures, experiments, practices and observation tours.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual work in the laboratory and field. Each participant is to take one of the following subjects for their individual work. (1) Fruit tree breeding (Pineapple, Papaya, Citrus Tankan etc.) (2) Sub-tropical fruit crops cultivation (Mango, Papaya etc.) (3) Fruit tree cultivation (Loquat, Citrus Tankan, Citrus Unshiu Marcovitch etc.)
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in research or extension service in the field of fruit tree cultivation (2) university graduate or equivalent (3) under 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC) (2) Okinawa Prefectural Agricultural Experiment Station
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks

**SEMINAR ON ENVIRONMENTALLY SUSTAINABLE AGRO-FORESTRY
THROUGH A SYMBIOTIC SYSTEM OF HUMAN & NATURAL RESOURCES**

10 participants

循環システムによる環境保全型持続的農林業セミナー J-99-03428

- 1. PURPOSE** The details of this course are under planning
- 2. MAIN FEATURES OF CURRICULUM** The details of this course are under planning
- 3. QUALIFICATION OF APPLICANT** The details of this course are under planning
- 4. TRAINING INSTITUTIONS** The details of this course are under planning
- 5. REMARKS**

**JICA-NGO PARTNERSHIP TRAINING COURSE FOR
PARTICIPATORY RURAL DEVELOPMENT (ASIAN COUNTRIES)**

Jun. 29, 1999 - Aug. 1, 1999, 10 participants

NGOとの連携による参加型村落開発(アジア)

J-99-03386

- 1. PURPOSE** This training course is the first JICA-NGO partnership training course focusing on linkage of JICA and NGOs in community development. This course, intended for leaders of national NGOs in charge of project planning and designing, aims to facilitate the participants in acquiring ideas and skills for more effective implementation of rural development projects, and to contribute to the improvement of community welfare in their own country. At the same time, as one means to realize the goals above, the course will provide the participants with opportunities of discussion and case-studies with Japanese NGOs and ODA (JICA) officials in order to seek further effective linkage among local government, ODA(JICA), Japanese/International NGOs, local NGOs and the community.
- 2. MAIN FEATURES OF CURRICULUM** The course is discussion-oriented by participatory training methodology. (1) Analyzing participants' experiences in "rural development" (2) Analyzing experiences of rural development in Japan and other Asian countries - Exposure to Japanese rural villages (3) Concept and reality of "Participatory Rural Development (PRD)" - What is "Participatory Rural Development"? - Concrete Approach for PRD - Roles and partnerships among ODA (JICA), Japanese and National NGOs, Local Government, and community - Formulation of Action Plan (4) Discussions with JICA and Japanese NGOs
- 3. QUALIFICATION OF APPLICANT** Applicants should; (1) be serving in a leadership position of national/local NGOs engaging in participatory rural development projects in developing countries (2) be between 30 and 45 years of age (3) have at least five (5) years of field experience working in rural development projects (5) have fluent and sufficient command of written and spoken English in order to lead and facilitate discussions *capability of speaking English is essential to participate the course* In the light of the objectives of this course, those who meet the following conditions are preferable as a participant: - recommended by Japanese NGOs which has a partnership with nominee's organization - belonging to an organization which currently has partnership with JICA projects - recommended by JICA office.
- 4. TRAINING INSTITUTIONS** (1) JICA Osaka International Centre (2) Kansai NGO Council
- 5. REMARKS** Staff of JICA and Japanese NGO may join the course

**AUTOMATION OF AGRICULTURAL MACHINERY
(AGRI-MATION)**

Jun. 21, 1999 - Oct. 4, 1999, 7 participants

農業機械自動化技術

J-99-03261

- 1. PURPOSE** The purpose of this course is to provide agricultural engineers with an understanding of the principles and mechanism of farm machinery, to be able to develop, improve and repair farm machinery in their respective countries. Moreover, participants will acquire knowledge of fundamental technology for the agri-mation of farm machinery, which will aid computer-assisted research and development of agricultural machinery.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly covers the following themes: (1) farm machinery theory and practice (2) training in agri-mation based on an understanding of the improvements necessary in farming (3) computer programming (C-language) (4) training in relay control; programmable control; microcomputer (Z80) use; sensor use; pneumatic control; etc.
- 3. QUALIFICATION OF APPLICANT** (1) researcher, educational instructor and engineer engaged in improvement, development and research activities of farm machinery (excluding paddy farming) (2) have enough knowledge of operating computers (3) more than five years experience in the field of farm machinery (excluding paddy farming) (4) university graduate or equivalent (5) between 25 and 45 years of age (6) be in good health and able to undergo the training (7) not be serving military
- 4. TRAINING INSTITUTIONS** (1) Northern Regions Center (NRC) (2) Obihiro City Industrial Technology Center
- 5. REMARKS**

FOOD PROCESSING AND PRESERVATION TECHNOLOGY

Jan. 3, 2000 - Mar. 17, 2000, 7 participants

食品加工・保全技術

J-99-03309

- PURPOSE** Appropriate processing and preservation technology is very useful to prevent the deterioration of agricultural raw products and processed foods. The course provides the participants with the basic knowledge and skills of food processing and preservation technology, in order to develop the food industry as well as to increase farmers' income by producing value-added agricultural products.
- MAIN FEATURES OF CURRICULUM** The course consists of lectures, laboratory practices and observation as well as discussion and report presentations. It covers the following issues: (1) food processing technology of agricultural raw foods (2) food preservation technology of agricultural raw products and processed foods (3) quality control including evaluation, analysis, and packaging of food stuff (4) technology for environmental conservation (5) field study at food processing factories.
- QUALIFICATION OF APPLICANT** (1) senior technical staff engaged in research and development of food processing and preservation, or quality control of processed foods in the national/local government, or related public organizations (2) more than 3 years experience in the field (3) university graduate or equivalent (4) under 45 years of age
- TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) Hiroshima International Centre (3) Hiroshima Prefectural Food Technology Research Center
- REMARKS** The compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours (1 week). The course mainly deals with following food materials: rice, wheat, beans, orange, grape, cabbage, and chineseleaf, etc.

FORAGE PRODUCTION AND UTILIZATION TECHNOLOGY FOR RUMINANT ANIMALS

Mar. 20, 2000 - Aug. 20, 2000, 6 participants

飼料生産・利用技術

J-99-03247

- PURPOSE** The purpose of the course is to transfer advanced technology on forage production and utilization for cattle, through lectures and excursions. Participants will also acquire skills for improving forage situations while maintaining sustainability through practicals of various aspects of forage production and utilization including soil science, animal nutrition, etc.
- MAIN FEATURES OF CURRICULUM** The course covers various aspects of forage production and utilization technology. The major subjects are as follows: (1) soil science (2) soil analysis (3) pasture establishment and management (4) forage preservation (5) forage analysis (6) feed resources (7) seed production, cleaning and processing (8) breeding of pasture species (9) ruminants nutrition (10) biometrics (11) basic personal computer operation.
- QUALIFICATION OF APPLICANT** (1) be nominated by their government (2) university graduate or equivalent academic background (3) currently engaged in the field of extension and/or research on forage production and utilization at government institutions with at least 5 years of experience in the job (4) over 26 years and under 40 years of age (5) proficient in spoken and written English (6) be in good health to undergo the training course. Pregnancy is regarded as a disqualifying condition (7) not be serving in the military
- TRAINING INSTITUTIONS** (1) Nihonmatsu Training Centre, JICA (2) National Livestock Breeding Center, Ministry of Agriculture Forestry and Fisheries (MAFF)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three (3) weeks.

DIAGNOSTIC TECHNOLOGY FOR DISEASE OF FOOD ANIMALS

Aug. 30, 1999 - Mar. 2, 2000, 6 participants

食用動物疾病の診断技術

J-99-03364

- PURPOSE** In the interest of food hygiene, hygienic management to ensure the safety of animals (livestock and poultry) as a food source has become an urgent priority worldwide. As a result, conventional systems for hygienic testing of livestock and poultry are being fundamentally revised and new technology developed. In the present course, Japan's latest hygienic management technology for food animals will be introduced to participants from developing countries with the aim of raising technical standards in these countries.
- MAIN FEATURES OF CURRICULUM** The course will focus on basic training and especially on practical training. (1) Basic training: parasite testing technology, virus diagnostic technology, pathological testing technology, immunology. Serological testing technology, bacterial testing technology, theory and practice of clinical diagnostic technology (2) Applied training: field observation of livestock and poultry hygienic testing to gain an overall understanding; understanding of field conditions for basic operations (3) General training: (a) lecture on hygiene management theory including HACCP (hazard analysis critical control points) (b) observation of farms and food processing factories in view of the latest theory that ensuring the safety of food animals is a continuous task which must be enforced from farmyard to dinner table (c) elaboration of a comprehensive hygiene management system.
- QUALIFICATION OF APPLICANT** Applicants should: (1) be technicians with at least 3 years' experience and currently active in research or routine operations in the field (2) be qualified as veterinary surgeons or livestock or poultry inspectors (3) be no more than 35 years old
- TRAINING INSTITUTIONS** (1) JICA Osaka International Centre (OSIC) (2) College of Agriculture, Osaka Prefecture University
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one month.
- OTHER** The present course is offered for the first time in fiscal year 1998 on the basis of a revision of the content of the discontinued course in Laboratory Diagnosis of Poultry Diseases, which was conducted five times in total.

ADVANCED STUDIES ON PROTOZOAN DISEASES

Oct. 12, 1999 - Sep. 11, 2000, 10 participants

上級原虫病研究

J-99-03248

- PURPOSE** The purpose of this course is to promote human resources in the research field of protozoan diseases in participating countries by improving the skills and the competence of participants who are primarily responsible to lay the foundation for the development of control measures against the diseases in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course mainly covers the following themes. After lectures of common subjects, all participants are attached to one of the most fitted research laboratory such as the following fields in accordance with the purpose and speciality of each participant. (1) research field of applied molecular immunology (2) research field of Hemoprotozoan and related infections (3) research field of African Trypanosomosis (4) research field of protective immune responses against Coccidiosis (5) research field of molecular vector-arthropodology (6) research field of Pathophysiology of animal and cells infected with protozoan parasites
- QUALIFICATION OF APPLICANT** (1) Bachelor of Science or Master of Science Degree in Biology, Zoology or of a related field, or a graduate of Veterinary Medicine or Medical Science (2) Currently employed as a permanent member of either a private or public (including teaching) institution, and/or research laboratory of an agency (3) More than three (3) years of working experience at the above institution (4) Be under forty-five (45) years of age
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Obihiro (HICO), JICA (2) Research Center for Protozoan Molecular Immunology, Obihiro University of Agriculture and Veterinary Medicine
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks. (100 hours)

DIAGNOSES AND CONTROL OF RABIES AND OTHER VIRAL ZOOSES

Jan. 10, 2000 - Mar. 20, 2000, 6 participants

狂犬病などのウイルス性人畜共通伝染病の診断法と予防法 J-99-03288

- PURPOSE** This course is designed for veterinarians in Asian and African regions that are stricken by urban-rabies characteristically stricken. The purpose of this course is to introduce technologies concerning diagnosis and control of rabies and other viral zoonoses to the regions and to improve and promote the measures to counter such problems in the regions.
- MAIN FEATURES OF CURRICULUM** This course consists of lectures, practices, and observations of related institutions, aiming at an effective technical guidance from both the theoretical and practicable viewpoints (1) lectures (a) general introduction to viral zoonoses (b) details of viral zoonoses and international epidemiology (c) clinical, epidemiological diagnosis, laboratory diagnosis, vaccination, immunological technique and quarantine; and (2) practice (a) animal inoculation of rabies virus, tissue culture and virological diagnosis.
- QUALIFICATION OF APPLICANT** (1) technical officer or research worker with more than three years' experience, who is presently concerned with research or any other activities in this field (2) qualified as a veterinarian, (3) under 35 years of age.
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Graduate School of Veterinary Medicine, Hokkaido University
- REMARKS**

CLINICAL TECHNOLOGY FOR VETERINARY DIAGNOSIS

Aug. 10, 1999 - Nov. 15, 1999, 6 participants

獣医技術

J-99-03291

- PURPOSE** This course is designed to help veterinarians from developing countries to acquire knowledge and improve technical standards with emphasis on preventive health care, techniques for the diagnosis and treatment of animal diseases, guidance in food sanitation and hygiene and measures for the control of rabies and other virulent infectious diseases.
- MAIN FEATURES OF CURRICULUM** This course consists of lectures, practices and observations. (1) livestock feeding management (2) internal medicine for animals (3) animal surgery (4) animal reproductive organs (5) prevention and extermination of mastitis in cattle (6) clinical pathology (7) food and environmental sanitation (8) animal protection and management, and prevention of rabies.
- QUALIFICATION OF APPLICANT** (1) clinical veterinarians or veterinarians who work for central or local government (2) have more than five years' experience in this field (3) university graduate with a degree of veterinary medicine or equivalent (4) under 35 years of age
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Hokkaido Veterinary Medical Association
- REMARKS**

RESEARCH ON VETERINARY TECHNOLOGY

Mar. 27, 2000 - Oct. 8, 2000, 5 participants

獣医技術研究

J-99-03431

- PURPOSE** The targets of the course are veterinarians who are presently engaging in the research activities. The course is conducted with a view to nurture the researchers who can play leading role in development of the animal health technology which can contribute to promote the productivity of animal industry in their respective countries.
- MAIN FEATURES OF CURRICULUM** i) General lectures on animal health technology and research methodology (14 days) ii) Field trips to the institutes and animal husbandry (10 days) iii) Individual research training at the laboratories (5 months)
- QUALIFICATION OF APPLICANT** i) Presently engaging in the research activities on animal health ii) with 5 years of experience in relative field iii) over 25 years old and under 40 years years old iv) graduated from university or with equivalent knowledge v) with veterinary license
- TRAINING INSTITUTIONS** National Institute of Animal Health, Ministry of Agriculture, Forestry and Fisheries
- REMARKS** The course is organized on the basis of the training course on "Advanced Technology for Veterinary Diagnosis" which was conducted from 1992 to 1997.

PRESERVATION TECHNIQUES OF MEAT AND MEAT PRODUCTS

Feb. 14, 2000 - Aug. 6, 2000, 5 participants

食肉及び食肉加工品の保蔵技術

J-99-03298

- PURPOSE** The purpose of this course is to provide lectures and practices (i.e., scientific overview and hygienic handling, techniques of meat processing and preservation), and thereby to contribute to improvement of meat products in quality.
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course; (1) methods of livestock slaughtering and carcass grading, biochemistry of post-mortal changes in flesh (2) acquire knowledge of levels of hygiene and types of additives in the stage of processing (3) acquire processing and preservation techniques; and (4) have become knowledgeable of packaging materials used for meat products, and the special characteristics of those materials.
- QUALIFICATION OF APPLICANT** (1) technologist of the food processing factory or scientist of the food institution who is presently involved in the planning of food processing (2) university graduates or the equivalent (3) between 25 and 40 years of age.
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Obihiro (HICO), JICA (2) Northern Regions Center (NRC) (3) Hokkaido Tokachi Area Regional Food Processing Technology Center
- REMARKS** A compulsory intensive Japanese course will be conducted prior to the technical training for four weeks (100 hours).

REFORESTATION PROMOTION LEADER

Aug. 31, 1999 - Nov. 21, 1999, 10 participants

森林造成指導者

J-99-03245

- PURPOSE** The purpose of this course is to upgrade the planning ability of participants who are responsible for the promotion of reforestation in degraded forest land in each country, by introducing policies, techniques and countermeasures in Japan as well as discussing the problems which participating countries confront.
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course; (1) outline of forestry and wood industry in Japan (2) forestry and forest products administration, systems and organizations in Japan (3) forestry techniques in Japan (4) forestry techniques development and extension in Japan (5) observation tours in several forestry regions (6) presentation and discussion on forestry in participating countries
- QUALIFICATION OF APPLICANT** (1) be personnel in positions responsible for planning work in the central and local governmental forestry organizations (not be researcher of public organizations or instructor or professor of colleges/universities) (2) not more than 45 years of age (3) forestry universities/colleges graduates or equivalent with occupational experience of more than eight years in the field of forestry administration
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Overseas Forestry Consultants Association (JOFCA) (3) Forestry Agency
- REMARKS**

NATURAL FOREST MANAGEMENT AND REGIONAL FORESTRY BY COMMUNITY PARTICIPATION

Aug. 16, 1999 - Oct. 26, 1999, 7 participants

天然林経営と住民参加による地域林業

J-99-03296

- PURPOSE** This course is designed for participants to acquire Japanese knowledge and techniques that improve natural forest quality and through accelerating natural regeneration, etc. The goal of this course is providing the skill and knowledge necessary to formulate appropriate forest management policies in their own countries
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course; (1) Japanese forest and forest management systems (2) Natural forest management knowledge and techniques (Basic knowledge of natural forest, Natural forest management) (3) Denuded land restoration techniques (4) Forest management by community participants (General concepts of forest management by community participants, Promoting afforestation, The relationship between forests and sea, Activities of forest owner's cooperation, Management by forestry groups) (5) Observation concerning above Lectures (1) to (4)
- QUALIFICATION OF APPLICANT** (1) to be engaged in related to forestry management and has more than five years' experience (2) to be university graduate in forestry, or equivalent (3) to be under forty years of age. (4) to be proficient in spoken and written English (5) to be in good health. Pregnancy is regarded as a disqualifying for much field activities in this course (6) not to be serving in the military
- TRAINING INSTITUTIONS** (1) Japan Overseas Forestry Consultant Association (2) Hokkaido Forestry Bureau Obihiro Regional Forest Office (3) Hokkaido Government
- REMARKS** A compulsory intensive Japanese course will be conducted prior to the technical training for two weeks (28 hours)

SUSTAINABLE MANAGEMENT OF MANGROVE ECOSYSTEMS

Aug. 26, 1999 - Nov. 7, 1999, 6 participants

持続可能なマングローブ生態系管理技術

J-99-03262

- PURPOSE** The purpose of this course is for participants to acquire managerial technique for sustainable utilization of mangrove ecosystem by studying the characteristics of the ecosystem and by designing proper management plans. In this way, this course aims to contribute to the environmental conservation of the world.
- MAIN FEATURES OF CURRICULUM** (1) understanding of mangrove ecosystems (2) effective utilization of mangrove ecosystems in the respect of resource production (3) survey of mangrove forest (4) re-production technology of mangrove ecosystems (5) extension method of techniques and making a technical report
- QUALIFICATION OF APPLICANT** (1) be university graduate or equivalent, and be working presently in forest or mangrove field more than three years (2) be involved with mangrove management as a leader or a potential leader (3) not be more than 40 years old
- TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) International Society for Mangrove Ecosystems (ISME)
- REMARKS**

APPLICATION OF SYMBIOTIC MICROORGANISMS IN TROPICAL AGRICULTURE AND FORESTRY

Aug. 30, 1999 - Dec. 8, 1999, 5 participants

熱帯農林業における共生微生物の利用技術

J-99-03267

- PURPOSE** The purpose of this course is to provide practical knowledge on identification, manipulation and inoculation techniques of microorganisms (especially of symbiotic), whose effective use can increase agricultural and/or forestry production in the tropics. The course also focuses on how laboratory instruments are used in this field, in order to contribute to sustainable development in the tropics through sound utilization of natural products.
- MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, practices and observation trips; (1) function of symbiotic microorganisms in natural ecosystem (2) identification of symbiotic microorganisms (3) microorganism culture method (4) microorganism immobilizing technique (5) microorganism inoculation technique (6) carbonization technique and charcoal utilization
- QUALIFICATION OF APPLICANT** (1) university graduates (preferably in agriculture, forestry or biology) or equivalent on higher qualification, and have been engaged in agricultural, forestry on microbiological research on education for over three years (2) under 40 years of age (3) university graduates
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OIC), JICA (2) Biological Environment Institute, Kansai Environmental Engineering Center Co., Ltd.
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (45 hours).

FISHERY TECHNOLOGY AND ENGINEERING

5 participants

漁業生産管理技術

J-99-03407

1. **PURPOSE** The details of this course are under planning
2. **MAIN FEATURES OF CURRICULUM** The details of this course are under planning
3. **QUALIFICATION OF APPLICANT** The details of this course are under planning
4. **TRAINING INSTITUTIONS** The details of this course are under planning
5. **REMARKS**

SEMINAR ON FISHERY RESOURCE MANAGEMENT

Nov. 4, 1999 - Dec. 5, 1999, 10 participants

水産資源管理セミナー

J-99-03272

1. **PURPOSE** The purpose of this seminar is to introduce various fishery resource management schemes, both traditional and modern, as well as knowledge on environmental protection and coastal community development. The seminar is designed for persons currently involved in fishery resource management.
2. **MAIN FEATURES OF CURRICULUM** This seminar is comprised of a series of lectures and discussions. The lectures will cover introduction of fisheries resource management schemes and their evaluation from economic, biological, mathematical, political, sociological and anthropological viewpoints. In the discussions, participants will present their experiences in fishery resource management and discuss effective fishery resource management schemes based on knowledge gained during the seminar. The main lecture subjects are: (1) basic theory of resource management and examples of their application (2) stock assessment (3) modern fishery resource management schemes (4) traditional resource management schemes operating in local communities (5) stock enhancement (6) Fishery Law and regulations
3. **QUALIFICATION OF APPLICANT** (1) government official who is presently in charge of formulation or implementation of fishery resource management scheme with more than three years' occupational experience (2) an university graduate or equivalent (3) between 30 and 45 years of age
4. **TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIFTC), JICA
5. **REMARKS**

MANAGEMENT OF FISHING PORT AND MARKETING SYSTEM

Jan. 17, 2000 - Feb. 27, 2000, 10 participants

漁港及び流通市場運営セミナー

J-99-03273

1. **PURPOSE** The purpose of this seminar is to provide comprehensive knowledge on the establishment of fish collection, distribution and marketing system laying emphasis on planning and maintenance of fishing port and other facilities as the core of the system.
2. **MAIN FEATURES OF CURRICULUM** In this seminar, emphasis will be placed on introducing Japanese fish collection, distribution and marketing systems and the functions of the fishing port and other facilities in these systems. A detailed knowledge of civil engineering associated with fishing port design and construction is not required. The main subjects are: (1) formulation of fishing port construction project (2) planning, management and administration of the fishing port (3) planning, management and administration of fish market and related facilities (4) fish marketing system (5) fishermen's organization (6) fishery statistics.
3. **QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) government official engaged in planning and management of fishing port facilities and fish distribution system with more than three years' occupational experience (3) between 30 and 45 years of age
4. **TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIFTC), JICA
5. **REMARKS**

SUSTAINABLE USE OF MARINE MICROORGANISMS AND MARINE NATURAL CHEMICALS

Oct. 4, 1999 - Jul. 27, 2000, 5 participants

海洋微生物・海洋天然化学物質利用技術

J-99-03343

1. **PURPOSE** The purpose of this course is to contribute to upgrading knowledge and techniques of researchers in the field of sustainable utilization of marine microorganisms and natural substances existing in Oceania and Southeast Asia.
2. **MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lectures and laboratory work concerning marine biotechnology. The curriculum consists of the following subject: (1) Isolation and cultivation of marine microorganisms (2) Natural products chemistry of marine organisms and microorganisms (3) Biofouling and marine biotechnology (4) Biochemistry and biotechnology on proteinacious adhesion substances.
3. **QUALIFICATION OF APPLICANT** (1) University graduates in the field of organic chemistry, micro biology, biological chemistry, or molecular biology. Master's or doctoral degree is preferable (2) Researchers, technical administrators belonging to national research institute or universities (3) under 40 years of age
4. **TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) Marine Biotechnology Institute Co., Ltd.
5. **REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks.

SEMINAR ON INTEGRATED INSHORE RESOURCE MANAGEMENT IN TROPICAL SEA

Nov. 4, 1999 - Dec. 3, 1999, 12 participants

熱帯沿岸資源管理

J-99-03426

- PURPOSE** Tropical inshore resources provide opportunities for generating employment and income for a variety of industry sectors including; fisheries, mariculture and tourism. The fragile nature of coastal ecosystems requires a wise and harmonious approach to development if industries are to be established on sustainable basis. This course is designed for persons involved in development of inshore tropical sea areas to discuss, review and observe integrated inshore development activities. Upon successful completion of the program participants are expected to carry out the following: (1) Formulate integrated coastal development strategies and plans for coastal fisheries, mariculture, resource enhancement and marine tourism (2) Assist in developing legislation associated with developing and sustaining inshore tropical areas, (3) Negotiate disputes associated with marine user conflicts and (4) Establish a framework for integrated management of coastal marine resources by private and public sector groups.
- MAIN FEATURES OF CURRICULUM** The subjects covered in the course are; fisheries cooperatives, fishing aggregating devices, recreational fishing and other marine leisure activities, management of sedentary resources, stock enhancement, mariculture, Eco-tourism, marine parks, craft industries, environmental degradation and the environmental study. The course includes lectures, case studies, discussion groups, moderated reporting sessions and field trip. Based on knowledge gathered during the program each participant will prepare a study report that describes how integrated development can be applied in a specific region in their home country.
- QUALIFICATION OF APPLICANT** (1) person presently engaged in fisheries, tourism or environment protection in coastal area as high ranking government official (2) university graduate or equivalent (3) under 55 years of age
- TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Okinawa Prefectural Government
- REMARKS** participants are advised to bring technical background information from their home country that help them prepare the study report.

SEMINAR ON STANDARDIZATION AND QUALITY SYSTEM FOR ASEAN COUNTRIES

Feb. 14, 2000 - Mar. 17, 2000, 6 participants

ASEAN標準化・品質システム

J-99-03417

- PURPOSE** This course is designed to upgrade the skills of participants from ASEAN countries who are expected to transfer such methods as quality system based on ISO (International Organization for Standardization) 9000 Series, and TQM (Total Quality Management) which encourages quality improvement activities in their respective countries. Through such methods, the course aims to activate market economy as well as to promote international trade.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is placed mainly on introduction of Japanese experience through practical lectures including case studies, various discussions, and factory visits. The main themes are: (1) philosophy of TQM (2) motivation (3) TQM methodology-adoption of SQC (Statistical Quality Control), QC (Quality Control) story, etc. (4) evaluation of TQM implementation (5) model course programing.
- QUALIFICATION OF APPLICANT** (1) having occupational experience of at least 3 years in this field, and be engaged in the job of the same subject presently (2) between the age of 30 and 45 (3) university graduates
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Japanese Standards Association.
- REMARKS**

DEVELOPMENT OF NEW MATERIALS AND ENVIRONMENT PROTECTION PROCESS

Aug. 9, 1999 - Jun. 4, 2000, 6 participants

新材料開発及び環境保全プロセス

J-99-03422

- PURPOSE** The objective of this training course is to assist the participants to attain fundamental aspects and technologies of the researches on the new materials development and/or environmental protection process. The researchers of Tohoku National Industrial Research Institute (TNIRI) help the participants to become technical experts on the job training. Participants are expected to master research and technical methods and to play a leading role to solve the technological problems on their own countries.
- MAIN FEATURES OF CURRICULUM** After a brief orientation, participants are assigned to laboratories and pursue the individual research works under the guidance of TNIRI's researchers for 9 months. TNIRI will offer the following research programs for the technical training: (1) Selective separation process of harmful ions, (2) Technologies for trace metal ion analysis, (3) Development of functional materials based on rare earth metals, (4) Development of inorganic functional materials, (5) New chemical process by supercritical fluids, (6) Development of highly tough metallic materials, (7) Corrosion and surface physics of metallic materials
- QUALIFICATION OF APPLICANT** (1) University graduates in the fields of chemistry, physics, metallurgy, material science or other related technologies with research experience of more than three years. Those who have Master's or doctoral degree are preferable. (2) Between 25 to 40 years of age.
- TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) Tohoku National Industrial Research Institute (TNIRI), Agency of Industrial Science and Technology, Ministry of International Trade and Industry
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks.

ENTERPRISE NETWORKING FOR REGIONAL DEVELOPMENT

Sep. 28, 1999 - Nov. 16, 1999, 10 participants

企業ネットワークによる中小企業振興

J-99-03419

- PURPOSE** The training will help the participants formulate the strategies to organize enterprise networking systems in local communities of developing countries. The participants will be introduced to: (1) the significance of local industries in national economic development in Japan (2) the methods of promoting local industries as a core of regional development and (3) the applicability of the concept of enterprise networking in participating countries.
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course: (1) concept of local industries (2) development of local industries in Japan (3) various methods of creating enterprise networking (4) role of local government in promoting enterprise networking (5) role of private sector initiatives in maintaining and developing enterprise networking and (6) training materials which will emphasize field trips by which the participants will have ample opportunity to observe existing enterprise networking in metal processing and textile industries in Niigata Prefecture, Japan
- QUALIFICATION OF APPLICANT** (1) currently working on the planning or implementation of local or regional industrial development projects and policy or those who are actively engaged in management of economic organization of public character, and preferably over 30 and under 40 years of age (2) university graduate or equivalent
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) International University of Japan (IUJ), (3) International Association of Niigata Prefecture.
- REMARKS**

RESEARCH ON MEASUREMENT TECHNOLOGY AND STANDARD

Oct. 4, 1999 - Jul. 30, 2000, 5 participants

計測技術研究

J-99-03313

- PURPOSE** This course is aimed at upgrading the measuring techniques of researchers and technicians of metrological laboratory in developing countries through intensive lectures, laboratory work, and study trips so as to contribute to the establishment of measurement standard in those countries.
- MAIN FEATURES OF CURRICULUM** participants are expected to gain fundamental knowledge of measurement as well as broad knowledge of the legal metrology system. Furthermore, the following will also be gained depending on the theme participants select: (1) "measurement techniques": ability to accomplish research (2) "measurement standard": ability to accomplish calibration of measurement standard. The course is comprised of a common programme for all participants and individual research training. (1) common programme: (a) lectures (4 weeks; outline of National Research Laboratory of Metrology, legal metrology system, fundamentals of metrology, measurement control, etc.) (b) study trips (two 1 week trips, total of 2 weeks) (2) individual training: (8.25 months; participants are to choose one theme out of six themes offered.)
- QUALIFICATION OF APPLICANT** (1) Researcher presently engaged in technical research work at governmental or semi-governmental organization with 3 years or more of experience (2) university graduates or equivalent (3) over 25 and under 40 years of age.
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Research Laboratory of Metrology (NRLM), Agency of Industrial Science and Technology, Ministry of The International Trade and Industry
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

INORGANIC MATERIALS AND TECHNOLOGY FOR ELECTRONICS INDUSTRY

Aug. 30, 1999 - Dec. 12, 1999, 5 participants

エレクトロニクス工業のための無機材料工学

J-99-03268

- PURPOSE** The purpose of this course is to provide knowledge and information on inorganic materials and technology, which is the basis of electronic manufacturing industries.
- MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips: (1) outline of inorganic materials and technology (2) inorganic materials process (3) materials analysis and characterization (4) evaluation of materials (5) data processing experiments (6) specialized training
- QUALIFICATION OF APPLICANT** (1) technical officers or researchers in the field of inorganic materials (2) have more than 3 years' experience (3) between 25 and 35 years of age (4) have a master's degree or the equivalent
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka Municipal Technical Research Institute
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (45 hours).

INTELLECTUAL PROPERTY FOR APEC ECONOMIES

Sep. 21, 1999 - Nov. 17, 1999, 20 participants

APEC工業所有権

J-99-03344

- PURPOSE** Since countries in APEC region have been getting advanced in development of Industrial Property System comparing to other developing countries in these years, demands for higher level technical supports for policy or legislation reform planning and reinforcement of examination system on Industrial Property have also been increased. Taking these circumstances into account, this course is designed to provide the participants who are engaged in policy planning in this field in APEC region countries with knowledge and skills for harmonious establishment and effective operation of Industrial Property.
- MAIN FEATURES OF CURRICULUM** The following themes will be covered in the course; (1) comparative theory of Industrial Property System (2) international protection and present status of Industrial Property (3) well-known trade marks and correspondence to the illegal commodities (4) roles of patent information and its application (5) exercise of privilege (6) economic value of Industrial Property (7) infringement cases of Industrial Property.
- QUALIFICATION OF APPLICANT** (1) engaged in policy planning in the field of Industrial Property with more than 5 years experience (2) university graduates or equivalent (3) over 30 but under 55 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) General Administration Department, Japanese Patent Office (3) Japan Institute of Invention and Innovation (JII)
- REMARKS** This course is organized for APEC Economies.

FUNCTIONAL ORGANIC MATERIALS TECHNOLOGY

Aug. 9, 1999 - Dec. 5, 1999, 6 participants

機能性有機材料工学

J-99-03406

- PURPOSE** The participants of this course, who are researchers and engineers engaged in research on the synthesis of functional organic materials and the development of their applications and uses, will be introduced to techniques of synthesis, analysis through lectures, practices and observations. It is hoped that they will contribute to the development of knowledge and technologies in the relevant field in their countries.
- MAIN FEATURES OF CURRICULUM** (1) instrumental analysis (lecture, practice) (2) textile processing and dyeing techniques (lecture) (3) detergent-cleaning techniques (lecture, practice) (4) environmental pollution control techniques (lecture, practice) (5) factory observation
- QUALIFICATION OF APPLICANT** (1) holding bachelor's degree in organic chemistry, or organic industrial chemistry (especially, synthesis and application of color-stuff chemistry, dyes, detergents or organic chemicals' intermediates) or the equivalent (2) between 25 and 40 years of age (3) more than three 3 of experience of manufacture, application or research in organic chemical technology
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka Municipal Technical Research Institute (OMTRI)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks.

**MECHANICAL SPARE PARTS FOR PLANT MAINTENANCE
(DESIGNING, MANUFACTURING, TESTING AND MANAGEMENT)**

May 24, 1999 - Oct. 23, 1999, 7 participants

プラント用機械保全部品

J-99-03277

- 1. PURPOSE** This training course is set up for plant maintenance managers or engineers in charge of spare parts control, procurement or manufacture of the parts. The purpose of the course is to enable participants to: (1) make out the plannings, designs or documents necessary to order spare parts for the domestic manufacturer (2) develop their ability to instruct and control the quality, cost or delivery for the domestic parts manufacturer (3) develop their ability to improve parts for prolonging useful life or reclaim broken or damaged parts
- 2. MAIN FEATURES OF CURRICULUM** participants will acquire the knowledge and techniques required for the domestic production or reclamation of spare parts. The main themes are: (1) basic subjects on machine parts and unit design techniques (2) systematizing inventory control of spare parts for repairs (3) analyzing the causes of machine parts breakdown (4) choosing proper materials as well as improving the materials by heat treatment or surface processing (5) improving parts design for longer life (6) preparation of technical specification for ordering spare parts and/or basic knowledge required for instructing parts manufacturers (7) techniques on reclaiming broken or damaged spare parts (8) applying computer to design and control of spare parts
- 3. QUALIFICATION OF APPLICANT** (1) have 5 to 15 years' occupational experience in the field of maintenance engineering (2) in charge of spare parts making, purchasing and controlling of spare parts (3) university graduate or the equivalent in mechanical engineering (4) between 27 and 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association (3) Fukuoka Industrial Technology Center
- 5. REMARKS** A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

**ENERGY CONSERVATION AND RECYCLING TECHNOLOGY IN
STEELMAKING (ARC FURNACE AND CONTINUOUS CASTING CONTROL)**

Oct. 18, 1999 - Feb. 7, 2000, 8 participants

製鋼における省エネルギーとリサイクル技術

J-99-03312

- 1. PURPOSE** To provide with comprehensive knowledge of controlling arc furnace and continuous casting operations, with consideration of energy conservation and recycling.
- 2. MAIN FEATURES OF CURRICULUM** The emphasis is put on lectures and observations. The main themes are: (1) steel material (2) electric arc furnace equipment and control units (3) electrical steel making and its control (4) continuous casting operation and computerized control (5) secondary refining technology (6) quality control (7) use of scrap materials (8) energy conservation (9) recycling technology
- 3. QUALIFICATION OF APPLICANT** (1) university graduate in metallurgical or mechanical engineering or equivalent (2) currently engaged in the field of electrical steel making for more than three '3' years; preferably at steel making plants and not be academic researchers or technicians (3) under '35' years of age.
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Aichi Steel Works, Ltd. (3) Daido Steel Co., Ltd. (4) Chubu Steel Plate Co., Ltd. (5) Topy Industries Ltd. (6) other public institutions and private enterprises
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (50 hours).

HIGH PERFORMANCE POLYMER TECHNOLOGY

Apr. 19, 1999 - Aug. 1, 1999, 6 participants

高性能高分子工学

J-99-03400

- 1. PURPOSE** The course aims to introduce to the participants knowledge and techniques concerning manufacture and quality control of polymer materials, and to foster competent specialists who are able to test and evaluate polymer materials, based on broad and profound knowledge and experience in their specialized field.
- 2. MAIN FEATURES OF CURRICULUM** In this course the emphasis is put on laboratory experiments. The main themes are: (1) properties of polymer materials and their manufacture (2) evaluation and testing techniques of polymer materials (3) molding techniques (4) application techniques of functional polymer materials
- 3. QUALIFICATION OF APPLICANT** (1) university/college graduate in chemistry or chemical engineering, or equivalent (2) at least 3 years of experience in polymer technology (3) between 25 and 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Center (OSIC), JICA (2) Osaka Municipal Technical Research Institute (OMTRI)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

NON-DESTRUCTIVE INSPECTION TECHNIQUE

Feb. 21, 2000 - Jun. 25, 2000, 8 participants

非破壊検査技術

J-99-03357

- 1. PURPOSE** The purpose of the course is to provide the indispensable principle and techniques of non destructive inspection method for quality assurance of industrial products, e.g. non destructive testing of castings, forgings, rolled steel products or weldments, so as to develop their own industry.
- 2. MAIN FEATURES OF CURRICULUM** In this course, theory of non destructive inspection techniques, the selection of proper inspection method according to the proposed use as well as the knowledge and skills of evaluating inspection results will be studied through lectures, practice and field trips. It mainly covers: (1) radiographic examination (2) ultrasonic test (3) magnetic particle examination (4) penetration test (5) eddy current examination
- 3. QUALIFICATION OF APPLICANT** (1) university graduate in engineering (2) engineer of governmental inspecting organization or related organization (3) experience of welding structures and castings, or will be engaged in inspection work including non-destructive inspection (4) between 25 years and 40 years old of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association (3) Kyushu Institute of Technology (4) Fukuoka Industrial Technology Center
- 5. REMARKS** (1) A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

PLANT MAINTENANCE ENGINEERING (LATIN AMERICA)

May 5, 1999 - Sep. 29, 1999, 7 participants

プラントメンテナンス技術(ラテンアメリカ)

J-99-03235

- 1. PURPOSE** The purpose of this course is to enhance the capability of maintenance managers or engineers of continuous process plants who intend to introduce a preventive maintenance system in a plant, or have already introduced the system but have problems in carrying out the system smoothly.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the introduction of basic subjects of computerized maintenance management and techniques, as well as practical maintenance technology and effective maintenance management on the factory floor through plant visits. The course covers: (1) computers and their applications (2) maintenance of automatic control systems (3) metal fatigue and fractography (4) equipment inspection techniques (5) non-destructive testing (6) tribology and abrasion resistance (7) lubrication techniques (8) heat treatment and hard facing
- 3. QUALIFICATION OF APPLICANT** (1) engineer or manager with more than five years' occupational experience in the field of plant maintenance work (2) presently in charge of maintenance work in continuous process plants, such as iron and steel, oil refinery or chemical, cement plant, automotive plant, etc. (3) university graduate or equivalent (4) 45 years of age or less
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association (3) Kyushu Institute of Technology (4) Nippon Steel Corporation
- 5. REMARKS** A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

TECHNIQUE D'ENTRETIEN: AUTOBUS ET CAMION

Jan. 11, 2000 - Mar. 24, 2000, 9 participants

バス・トラック整備(仏語)

J-99-03279

- 1. PURPOSE** Ce cours est destiné aux mécaniciens travaillant * l'entretien des autobus et des camions poids-lourd. Il vise à leur fournir les connaissances fondamentales sur le mécanisme et le fonctionnement des véhicules diesel par les cours théorique et les travaux pratiques, ainsi que les techniques de réparation et d'entretien.
- 2. MAIN FEATURES OF CURRICULUM** Le présent cours se caractérise par l'acquisition des techniques d'entretien efficaces à travers les cours théoriques et les travaux pratiques pour chaque matière. A la fin de ce stage, les participants auront acquis les connaissances fondamentales sur les théories, les techniques de réparation et d'entretien ci-dessous concernant les autobus et les camions: moteur diesel et équipement périphérique, boîte de vitesses pompe d'injection distributrice, freinage essieux avant et arrière et différentiel, équipement électrique
- 3. QUALIFICATION OF APPLICANT** (1) possesseurs de plus de trois ans d'expérience dans le domaine de l'entretien et de la réparation des véhicules diesel (2) âgés de plus de 25 ans et de moins de 35 ans (3) dotés d'une connaissance suffisante de la langue française
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) La Société de Construction Automobile de Hino (Hino Motors Limited)
- 5. REMARKS** Le cours s'effectuera en français ou par traduction du japonais en français.

ENTRETIEN ET REPARATION DE L'EQUIPEMENT DE CONSTRUCTION

Sep. 14, 1999 - Dec. 12, 1999, 8 participants

建設機械整備(仏語)

J-99-03280

- 1. PURPOSE** Le cours est destiné au personnel technique ayant les services d'entretien et de gestion des machines de construction dans les pays participants et vise à leur fournir les informations récentes de notre pays sur la spécialité concernée pour contribuer, finalement au développement technique des pays respectifs par l'assimilation technique.
- 2. MAIN FEATURES OF CURRICULUM** Le présent cours se caractérise par le déroulement du stage de quelques constructeurs d'équipements de construction. Cela facilitera l'acquisition de connaissances sur l'entretien et la réparation des équipements de construction ainsi que la gestion de l'atelier de l'entretien. Gestion théorique de l'équipement de construction, heure-homme standard de réparation, coût de possession de l'équipement de construction, gestion de l'atelier, carburant et lubrifiant, inspection des pièces, soudure. Pratique moteur, système d'embrayage, convertisseur de couple, boîte de vitesses, bulldozer, chargeur, excavateur hydraulique, compacteur
- 3. QUALIFICATION OF APPLICANT** (1) * présent engagés plus en possession de plus de trois ans d'expérience dans le domaine de l'entretien d'équipement de construction (2) âgés de plus de 25 ans et de moins de 35 ans (3) dotés d'une connaissance suffisante de la langue française
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA ou Centre de Formation Internationale de Hachioji (2) Division de l'Équipement de Construction, Ministère de la Construction (3) Japan Construction Mechanization Association (JCMA) ou Association Japonaise de Mécanisation de Construction
- 5. REMARKS** Le cours s'effectuera en français ou par traduction du japonais en français.

MACHINE CONTROL IN HIGH-TECH INDUSTRIES

Oct. 25, 1999 - Mar. 19, 2000, 6 participants

ハイテク産業における機械制御

J-99-03414

- 1. PURPOSE** The core equipment in the high-tech industries are the automatized production equipment of high reliability, high speed and high accuracy which comprehensively integrate technologies in terms of mechanicals, electricals, electronics, information, etc. and the progress in those related fields is extremely remarkable. The purpose of this course is to render the participants engaged in this field the comprehensive knowledge and skills in the above-mentioned fields respectively.
- 2. MAIN FEATURES OF CURRICULUM** The training programme consists of lectures, practice and study tours on machine control in high-tech industries. The emphasis is put on providing participants with practical and applicable skills and knowledge as well as Japanese experience. The subjects covered in the course are (1) control theory (2) computer aided engineering (3) microcomputer (4) sensor and actuator (5) power electronics (6) hydraulics and pneumatics (7) industrial machines such as robot, CNC machine tool, construction machinery and factory automation, and (8) study tours.
- 3. QUALIFICATION OF APPLICANT** (1) currently engaged in the field of machine control at industries and training schools, with three years or more of experience (2) be a university graduate or equivalent in this field (3) between 25 and 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-Cooperative Association (KITA)
- 5. REMARKS** A compulsory 24-hour Japanese language course will be conducted prior to the technical training.

RESEARCH AND APPLICATION OF USEFUL MICROORGANISM

May 17, 1999 - Mar. 31, 2000, 5 participants

有用微生物の研究と応用

J-99-03338

- 1. PURPOSE** The purpose of this course is to instruct a researcher the basic knowledge and techniques of biotechnology on themes relating to useful microorganisms. Each participant will be expected to learn research methods through laboratory work and contribute to microorganism-related industries.
- 2. MAIN FEATURES OF CURRICULUM** The participants will select one subject among seven subjects prepared for individual research training and engage in laboratory work under a instructor. Observation tours to relating research institutes and fermented companies will be conducted occasionally.
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in research work in the field of biotechnology with more than three years occupational experience (2) Be a researcher with Master's degree (3) not more than 35 years of age.
- 4. TRAINING INSTITUTIONS** (1) Chugoku International Centre (CIC), JICA (2) National Research Institute of Brewing
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

TECHNOLOGY FOR G. H. G. S. EMISSION MITIGATION

Jan. 17, 2000 - Mar. 6, 2000, 10 participants

地球温暖化防止技術

J-99-03376

- 1. PURPOSE** As Japan is a party to the United Nations Framework Convention on Climate Change, the purpose of the course is to prepare a manual on the discharge and absorption of greenhouse-effect gases; provide the scientific and technological information required to formulate and execute a national action plan to counter global warming; and provide training in technologies for controlling global warming.
- 2. MAIN FEATURES OF CURRICULUM** (1) Japan's global restoration plan and its comprehensive policies to promote measures related to energy and the environment (Lecture, 1 day) (2) Energy-saving technologies and other environmentally sound technologies (Lecture, 2 days) (3) Industrial and consumer applications of energy-saving technologies (Field work, 3 days) (4) Research on carbon dioxide treatment technologies; new energy and power generation; and energy-saving technologies for high-energy-consuming industries (Lecture, 1 day; Field work, 4 days) (5) Development of innovative environmental technologies (Lecture, 4 days; Field work, 6 days) Improving photosynthesis efficiency with carbon dioxide fixation technology; technologies for manufacturing useful substances through chemical reactions, such as methanol from carbon dioxide; efficient hydrogen manufacturing technology using photosynthetic bacteria and other microbes; reduction of carbon dioxide by optical catalyst (artificial photosynthesis); carbon dioxide fixation through catalytic hydrogenation and its effective application, etc.
- 3. QUALIFICATION OF APPLICANT** (1) governmental engineer in charge of energy conservation and other environmental issues for more than ten '10' years (2) university graduate or possess equivalent professional experiences in this field (3) less than forty-five '45' years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NIIC), JICA (2) International Center for Environmental Technology Transfer
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

ELECTRIC POWER SYSTEM MANAGEMENT

Sep. 7, 1999 - Oct. 22, 1999, 6 participants

電力系統技術

J-99-03396

- 1. PURPOSE** Although electric power supply system in developing countries such as ASEAN and Latin America is gradually getting large, its reliability is so low that electric outages occur frequently. This course provides the information and the knowledge on efficient and reliable power supply system as well as operation of them through introduction of Japan's current technology to meet their requirements on improving power system reliability in their countries.
- 2. MAIN FEATURES OF CURRICULUM** During technical training for 5 weeks, this course provides the general information on Japan's electric power industry for the first week at Japan Electric Power Information Center in Tokyo, and then technical information on electric power system for 4 weeks at Tohoku EPSCO in Sendai. The course consists of lectures, site observations and practices using simulator. The following subjects will be covered, (1) Outline of Electric Power Industry in Japan (2) Planning & Analysis Method on Electric Power System (3) Construction, Maintenance & Operation on Transmission & Transforming Facilities (4) General Assignments on Power System Operation (5) Operation & Protection on Electric Power System.
- 3. QUALIFICATION OF APPLICANT** (1) Electrical engineers who are currently in charge of transmission, transformation and/or power systems at electric power companies or related organizations, with between 5 and 20 years of work experience (2) University graduates or equivalent (3) Between 27 and 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) Tohoku Electric Power Co., Inc. (3) Japan Electric Power Information Center, Inc.
- 5. REMARKS**

SMALL SCALE HYDROPOWER ENGINEERING

Oct. 18, 1999 - Dec. 13, 1999, 8 participants

小水力発電技術

J-99-03432

- 1. PURPOSE** This course is designed to provide useful information on small scale hydropower engineering method. Though urban areas in developing countries enjoy power supply system; mountaneous areas and islands are left as the place with little supply of electric power. This situation raises necessity to introduce not large scale power plants but small scale hydropower resource. In addition, this type of power generating system is focused on with environmental protection. This course provides technical information on maintenance system by resident's participation as well as technical issues for construction of the system.
- 2. MAIN FEATURES OF CURRICULUM** (1) Methods of planning small scale hydropower plant (2) Methods of reseach of demands for small scale hydropower (3) Maintenance by resident's participation (4) Introduction of mechanical appliances for small scale hydropower generation
- 3. QUALIFICATION OF APPLICANT** (1) administrators or engineers in power generation field (2) person with more than 3 (three) years of working experience related to above (1). (3) university graduate or equivalent between 26 and 45 years of age.
- 4. TRAINING INSTITUTIONS** CHUBU ELECTRIC COMPANY
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

COAL CONVERSION AND UTILIZATION TECHNOLOGY

Sep. 7, 1999 - Sep. 5, 2000, 5 participants

石炭転換・利用技術

J-99-03289

- PURPOSE** Coal is one of the most important energy sources, and the dependence on coal is expected to rise extremely high in the future in developing countries in the Pacific Rim region in particular. This course is to teach basics of all kinds of coal conversion processes through experiments, to make trainees understand the importance of energy and environmental problems, and thereby to contribute to the improvement of coal conversion techniques in consideration of environment circumstances of the Pacific RIM.
- MAIN FEATURES OF CURRICULUM** This course is separated 3 different courses of liquefaction, justification, confusion and ash utilization of coal, to learn basics of coal, methods of reaction experiments and all kinds of analysis through experiments.
- QUALIFICATION OF APPLICANT** (1) research worker in the central or a local government with more than three years but less than 10 years of experience, (2) university graduate or equivalent, (3) between 25 and 35 years of age.
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Hokkaido National Industrial Research Institute
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 4 weeks.

SOLAR POWER GENERATION AND ITS APPLICATION SYSTEM (OCEANIAN COUNTRIES)

Sep. 13, 1999 - Dec. 9, 1999, 5 participants

太陽光発電及び利用の技術システム(大洋州諸国) J-99-03266

- PURPOSE** The purpose of this course is to provide the knowledge and information on solar power generation and its application system (electrification in isolated islands, power resources of medical facilities, storage pump etc.), in order to solve the disharmony between development and environment in participating countries, especially in Oceanic countries.
- MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions and observation trips: (1) lecture; basis of, (a) semiconductor engineering (b) ray engineering (c) battery engineering (d) electrical engineering (e) environmental engineering (2) lecture; (a) manufacturing technique (b) preservation of regional environment (3) observation of private institution applying solar power technique system (4) design of the solar power generation system of minimum electric power in the specified study
- QUALIFICATION OF APPLICANT** (1) technical officials who are engaged in work in the field of electricity and/or energy (2) have more than 3 years' experience (3) between 25 and 45 years of age (4) university graduate majoring in science or engineering
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Faculty of Engineering, Osaka City University
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks. (50 hours)

(PRIVATE SECTOR) BUSINESS MANAGEMENT IN THE PACIFIC BASIN COOPERATION

Jun. 8, 1999 - Jul. 19, 1999, 28 participants

太平洋民間協力

J-99-03327

- PURPOSE** The participants will be exposed to the Pacific basin cooperation in the private sector through which they are expected to understand necessity for the trade and investment liberalization and facilitation, and the economic and technical cooperation. The intensive exposure will, in a middle and long range perspective, help them express and act in a positive and constructive manner, toward the realization of the goal (the trade and investment liberalization and facilitation) in collaboration with such international non-governmental organizations as PBEC, PECC, etc. through their respective channels.
- MAIN FEATURES OF CURRICULUM** The following issues are dealt with in this training course, in a manner of interactively presenting them, to the extent that the participants will recognize necessity for the trade and investment liberalization and facilitation, and the economic and technical cooperation: (1) the prevailing situation and issues related to the trade and investment in the Pacific region (2) the characteristics of the Japanese market (3) development and environment (4) development of small and medium sized enterprises in Japan, and their present situation.
- QUALIFICATION OF APPLICANT** (1) those engaged in the middle level management either in the privately or the publicly owned corporations (however, not including the government officials) (2) those qualified at the university level education, (3) those who have more than three years of practical business experience, and (4) those under 45 years of age.
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Member Committee, Pacific Basin Economic Committee, (3) The Tokyo Chamber of Commerce and Industry
- REMARKS**

CORPORATE MANAGEMENT FOR ASIAN REGION

Jul. 5, 1999 - Jul. 25, 1999, 12 participants

アジア企業経営

J-99-03330

- PURPOSE** The aim of the course is to contribute to economic growth and business expansion among private enterprises in Asia and the Pacific region by familiarizing managerial staff with key factors in Japan's economic growth, and with the phenomenon of Japanese-style business management which underpinned it. Through lectures, discussions and study visits, course participants will learn how Japanese industry, with its worldwide reputation for high-quality products, attained its present position, and about the production systems it employs.
- MAIN FEATURES OF CURRICULUM** Major subjects (1) present situation and future prospects of Asian and Pacific economies (2) development of the Japanese economy (3) product quality and business management methods in Japan (a) market research and product planning (b) manufacturing strategy and supporting industry (c) sales strategy and aftersale service (d) Factory management characteristics (4) presentation of country reports (5) discussion (6) final presentation
- QUALIFICATION OF APPLICANT** Applicants should: (1) be either an executive of a private enterprise nominated by a business organization such as Chamber of Commerce and Industry, or a government official engaged in formulation of industry promotion policies, (2) have a sufficient command of written and spoken English, (3) be between 30 and 50 years of age
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Pacific Resource Exchange Center (PREX)
- REMARKS** After returning home countries, participants are requested: (1) to give, in the participants' countries, presentation on the knowledge and skills gained through the seminar (2) to submit a report to the Osaka International Centre, JICA through a JICA office or diplomatic mission of Japan in the participants' countries within one (1) year after the course. This report is to include to what extent the acquired knowledge and skills have been utilized in the workplace of the participants.