COLLOQUIUM ON URBAN PUBLIC TRANSPORT

May.15,2001 - Jul 8,2001, 10participants

都市公共交通コロキウム J-01-03392

1.PURPOSE The purpose of the course is (1) to obtain broad knowledge in the area of urban transportation, including environmental considerations, and (2) to deepen understanding of various urban public transportation systmes through discussions of issues and measures for solutions.

2.MAIN FEATURES OF CURRICULUM Lecture. (1) Urban public transportation planning process, (2) Environmental problems including measures for pollution produced by urban transportation, (3) Issues and solutions regarding implementation of the projects, (4) Project implementation process from planning to the completion, (5) Privatizations and support policies, (6) Management of public transportation. Observation (1) Operation and maintenance of public transportation at regional cities; (2) Present state of regional public transportation and report writing. Country Report: Discussions based on the country report prepared by the participants in advance.

3.QUALIFICATION OF APPLICANT (1) Occupation: currently engaged in the field of urban public transportation (such as bus system, subway and urban railway) as the technical administrative officers, (2) Career. more than 3 years, (3) Age: less than 38 years, (4) Education: university graduate or the equivalent (5) Others: sufficient command of spoken and written English

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Ministry of Land Infrastructure and Transport

5.REMARKS

RAILWAY MANAGEMENT

May 8,2001 - Jun.16,2001, 9participants

鉄道経営計画 J-01-00667

1.PURPOSE The purpose of this course is to share a wide range of knowledge about how railway management has been improved in Japan with participants in charge of railway management in developing countries.

2.MAIN FEATURES OF CURRICULUM This course consists of lectures, observation of railway enterprises and field trips mainly focusing on the following area· (1) outline of Japanese railway (its history, Japanese National Railway Reform, Related law, fare and charge, and subsidies and aids) (2) Railway management (JR Group companies, private railway companies and third sectors)

3.QUALIFICATION OF APPLICANT (1) be in a supervising position in charge of planning and/or management of railway business (a person who belongs to the enterprises managing only urban transport services such as subways or LRT is not qualified (2) have more than five years of practical experience after graduation from university (3) university graduates or equivalents (4) under 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Railway Bureau, Mlit

5.REMARKS

ROLLING STOCK MAINTENANCE AND MANAGEMENT

Aug 21,2001 - Oct.27,2001, 8participants

鉄道車両管理 J-01-03332

1.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.

2.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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Railway Bureau, MLIT

5.REMARKS This course is designed mainly for EL or EMU types of rolling stock.

RAILWAY SIGNAL, TELECOMM.& INFO. SYSTEM ENGINEERING

Oct.2,2001 - Dec.15,2001, 7participants

鉄道情報システム J-01-03315

1.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.

2.MAIN FEATURES OF CURRICULUM This course mainly consists of lectures by railway companies and signal manufactures, 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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Railway Bureau, MLIT

5.REMARKS

MARITIME SEARCH AND RESCUE OPERATION AND MARITIME DISASTER PREVENTION

Aug.6,2001 - Nov.18,2001, 7participants

救難防災 J-01-00343

1.PURPOSE The purpose of this course is to provide the participants with an administrative concept and actual ways of managing maritime search and rescue and maritime disaster prevention through lectures, practices and observations The training will contribute to further promotion of the friendship and cooperation between the participating countries and Japan.

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. The main themes are: lectures: (1) organization and function of JCG, (2) international maritime search and rescue activities under the International Convention on Maritime Search and Rescue, 1979, (3) maritime search and rescue systems in Japan, (4) maritime search and rescue operations, (5) case studies of maritime search and rescue operations, (6) method on rescue of capsized and a grounded ship, (7) Global Maritime Distress and Safety System (GMDSS), (8) information collection system of JCG, (9) prevention of marine pollution system, (10) JCG's activities on Maritime Disaster Prevention, (11) outline of Maritime Disaster Prevention Centre, (12) current international framework against Oil Spill Incident, (13) case studies on maritime disasters, (14) safety measures for maritime traffic, Practice. (1) experimental sail on a JCG's fire fighting vessel or craft, (2) work on maritime disaster prevention in Disaster Prevention Training Center, (3) experimental sail on a JCG's patrol vessel or craft, (4) experimental fly in a JCG's aircraft, observation and study tour (1) training of Special Rescue Team and patrol vessels with improved rescue capability of JCG

3.QUALIFICATION OF APPLICANT (1) university graduates or equivalents with occupational experience of more than five years in the field of marine disaster prevention and, search and rescue operation (2) Presently Engaged In The Above-mentioned Field (3) Under 40 Years Of Age

4.training Institutions (1)Hyogo International Centre(2) Japan Coast Guard

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 8 days

SEMINAR ON PORT ADMINISTRATION AND MANAGEMENT

Oct 23,2001 - Dec 2,2001, 8participants

港湾管理運営セミナー（上級） J-01-00684

1.PURPOSE The seminar is designed to contribute to cultivating the human resources development of port administrators and managers who are expected to play an important role in port development in participating countries so as to improve port administration and management systems in respective countries

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on case study at one of the six biggest ports in Japan, report presentation and discussion The main themes are; (1) present situation of ports and harbours in Japan (a) port development policy (b) system and organization of port administration and management (c) labour problems (2) technical knowledge on port management and operation services (3) ports and harbours in participating countries

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent (2) currently engaged in the port administrative works and/or management with more than eight years of occupational experience in the field of ports and harbours (3) between 30 and 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Ports & Harbours Bureau,MLIT

5.REMARKS

MARINE TECHNIQUE(ENGINEER)

Jul.10,2001 - Dec.16,2001, 5participants

航海技術（機関士） J-01-00380

1.PURPOSE The aim of the course is to hand over to the participants the marine technique and experience which Japan has long accumulated, and by so doing to make them conscious of the status quo of a higher marine technology and management. Furthermore, the participants, through their own training, are to acquire the knowledge and techniques concerning the seamen's training methods, and after return to their respective countries, are expected to spread their fruits so gained among their successors.

2.MAIN FEATURES OF CURRICULUM This course consists of common subjects for all participants, seminar at laboratory (optional subjects), on board practice and observation tours. I Common subjects (12 weeks) (1) boiler (2) steam turbine engine (3) diesel engine and gas turbine (4) propeller and shafting (5) auxiliary machinery (6) electrical engineering and electronics (7) automatic control (8) instrumentation (9) fuel oil and lubricant (10) basic knowledge for engineer (11) computer (12) marine propulsion system (13) engine room simulator training (14) maritime laws and international conventions (15) ship's survey inspection (16) safety management (17) practice on board (17) visiting factories. II. Seminar in laboratory (optional subjects) (2 weeks) (1) steam plant (boiler or steam turbine) (2) internal combustion engine (3) electrical engineering and electronics (4) auxiliary machinery (5) automatic control (6) instrumentation (7) computer (8) engine room simulator (9) propulsion

3.QUALIFICATION OF APPLICANT (1) in possession of the certificate of Third or higher Grade Maritime Officer (Engineer) with more than one year of seatime, or those who have the equivalent knowledge and experience engaged in official affairs or education for maritime with more than one year (2) Ages: 25 to 35 years old (3) presumed to contribute to fostering mercantile officials or instructors who will play a leading role in this field in their respective countries

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hyogo International Centre(2) Ministry of Transport, Marine Technical College

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 10 days.

MARINE TECHNIQUE(NAVIGATOR)

Jul.10,2001 - Dec 16,2001, 5participants

航海技術（航海士） J-01-00379

1.PURPOSE The aim of the course is to hand over to the participants the marine technique and experience which Japan has long accumulated, and by doing so to make them conscious of the status quo of higher marine technology and management. Furthermore, the participants, through their own training, are to acquire the knowledge and techniques concerning seamen's training methods, and after return to their respective countries, are expected to spread their fruits so gained among their successors

2.MAIN FEATURES OF CURRICULUM This course consists of common subjects for all participants, seminar at laboratory (optional subjects), on-board practice and observation tours. I. Common Subjects (10 weeks) (1) terrestrial navigation and electronic aids to navigation (2) nautical instruments (3) ship's equipment and maintenance (4) ship maneuverability and marine disasters (5) cargo handling (6) safety management (7) watch keeping (8) naval architecture (9) marine meteorology (10) navigational regulations (11) maritime law (12) ship engineering (13) computer and information science (14) computer practice (15) environmental science (16) maritime economics (17) bridge simulator training (18) RADAR-ARPA simulator training (19) practice on board (20) visiting factories II. Seminar in laboratory (optional subjects) (4 weeks) (1) simulator training (2) nautical instruments (3) aids to navigation system (4) navigational regulations (5) maritime law (6) loading calculation and judgment for the safety of ship (7) computer science and its use

3.QUALIFICATION OF APPLICANT (1) in possession of the certificate or Third or higher Grade Maritime Officer (Navigator) with more than one year of seatime, or those who have the equivalent knowledge and experience engaged in official affairs or education for maritime with more than one year (2) Ages: 25 and 35 years old (3) presumed to contribute to fostering mercantile officials or instructors who will play a leading role in this field in their respective countries

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hyogo International Centre(2) Ministry of Transport, Marine Technical College

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 10 days.

AIDS TO MARINE NAVIGATION II

Aug 16,2001 - Oct 20,2001, 7participants

航路標識 II J-01-00148

1.PURPOSE The purpose of the training course is to provide participants with the comprehensive and latest theory, knowledge and techniques of systems of aids to marine navigation in Japan, thus contributing to the improvement of the managerial and technological level of aids to navigation in each participating country, and to promote cooperative relations among the participating countries and Japan in carrying out their duties of providing aids to marine navigation

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on introduction of Japanese system and basic knowledge and techniques. The following themes will be covered in the course. (1) administration of aids to marine navigation and related activities in Japan (2) systems of aids to marine navigation (3) aids to marine navigation: theories and system engineering (4) observations (maritime transportation in Tokyo Bay, Vessel Traffic Service Center etc.) (5) practice (visual aids equipment, power sources, aids to navigation office)

3.QUALIFICATION OF APPLICANT (1) technical college graduates or the equivalent with sufficient knowledge in the field of engineering (civil, mechanical, electrical and/or electronics engineering) (2) engaged in the field of system planning, operation and/or maintenance of aids to navigation (3) under 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Aids To Navigation Departemnt,Japan Coast Guard

5.REMARKS

COASTAL SHIPPING

May 15,2001 - Jul.1,2001, 8participants

内航海運 J-01-03372

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) between 30 and 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Maritime Transport Bureau, MLIT

5.REMARKS

CONTAINER TERMINAL DEVELOPMENT

Jan.8,2002 - Mar.3,2002, 15participants

コンテナ埠頭整備計画 J-01-00331

1.PURPOSE The purpose of this training course is to help participants understand the background of containerization and methods of planning, construction, maintenance and management of container terminals as well as the containerization policy currently applied in Japan, and thus to help each of the participants figure out the future prospects for containerization in their respective countries.

2.MAIN FEATURES OF CURRICULUM This course mainly consists of lectures, intensive study at Kobe Port (one of the leading ports in Japan) and group work. Participants will be divided into several groups to study a subject which is chosen by them (such as engineering, computers, etc.) and to make presentations at the end of the course. The following are the major subjects to be covered in the course. (1) containerization and development of container terminals (2) method of planning container terminals (3) management and maintenance of container terminals

3.QUALIFICATION OF APPLICANT (1) presently engaged in or will be engaged in container terminal planning and/or container terminal management (2) university graduate or equivalent with more than five years of occupational experience in the field of ports and harbours (3) over 30 but under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Ports & Harbours Bureau,MLIT

5.REMARKS

PORT AND HARBOUR ENGNEERING

May.15,2001 - Sep 6,2001, 15participants

港湾工学 J-01-00635

1.PURPOSE The course is designed to contribute to cultivating the human resources development of port engineers who are expected to play an important role in port development in participating countries so as to improve the technology in solving various technical problems in port development.

2.MAIN FEATURES OF CURRICULUM This course consists of lectures, exercises, observations, intensive field study at the Onahama Port and discussions. It covers· (1) basic theories of port and harbour engineering (2) advanced technology for port development (3) port development in Japan (4) the concept of port planning (5) discussions on port development in participant's home country

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent (2) presently engaged in port and harbour-related civil engineering with more than three years of occupational experience (3) under 35 years of age (Though applicants over 35 may be accepted)

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre

5.REMARKS

SEMINAR ON AIRPORT ENGINEERING

Oct.9,2001 - Dec 2,2001, 10participants

空港技術セミナー J-01-03408

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.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Civil Aviation Bureau, Min. of Transport

5.REMARKS

SEMINAR ON AIR TRAFFIC MANAGEMENT

Oct.16,2001 - Dec 1,2001, 10participants

航空交通管理セミナー J-01-00400

1.PURPOSE (1) understand the administrative system of civil aviation in Japan, (2)understand the development and present situation of Air Traffic Services in Japan, and (3)understand the development and present situation of Air Traffic Contorol Services in Japan.

2.MAIN FEATURES OF CURRICULUM Civil Avation and Transportation, Air Traffic Services at Present and in the Future, Air Traffic Control Services in Japan.

3.QUALIFICATION OF APPLICANT Applicants should (1)be nominated by their government in accordance with the procedure mentioned in IV below,(2)be university graduates or have an equivalent academic background, (3)be currently employed by their government or by public authorities (military personnel in service excluded), (4)be an Air Traffic Controller or have no less than(3)years experience in the field of Air Traffic Control (An Air Traffic Controller who is expected to be engaged in the management of Air Traffic Control(ATC) or Air Traffic Services(ATS) in the future is preferable) (5)have a sufficient command of spoken and written English,(6)be under forty-five(45)years of age,(7)not be serving in the military, and (8)be in good health, both physically and mentally, to undergo the training. As the schedule of this course includes many field works(trips)that would be too demanding for pregnant women, pregnancy is regarded as a disqualifying condition for participation in this training course

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2)Civil Aviation Bureau, Ministry of Land, Infrastructure and Transport

5.REMARKS

SEMINAR ON AVIATION SECURITY

Jan 22,2002 - Feb 23,2002, 14participants

航空保安セミナー J-01-00318

1.PURPOSE The purpose of this seminar is to provide participants with fundamental knowledge of aviation security practiced in Japan, which includes ICAO specifications. Participants will also have the opportunity to exchange views in the field of aviation security among other participants and Japanese lecturers, thus contributing to investigating applicable methods to improve aviation security in participating countries.

2.MAIN FEATURES OF CURRICULUM In this seminar, the emphasis is put on introduction of Japanese systems as an example. The following major subjects will be covered in the seminar. (1) civil aviation in Japan (2) airport management and security guard (3) countermeasures for aviation security (4) security control systems (5) presentation and discussion by participants (6) observation of airports and aviation facilities to: (a) deepen the fundamental knowledge of international measures for aviation security, (b) acquire the fundamental knowledge of countermeasures for aviation security and of security control system practiced in Japan as a reference, (c) deepen the fundamental technical knowledge of security equipment, and (d) identify the problems of aviation security in each participating countries, and thus contributing to considering the improvement for such problems.

3.QUALIFICATION OF APPLICANT (1) university graduates or the equivalent (2) currently employed by their governments or other public authorities for civil aviation (It is desirable to be in the leading positions of administrative and/or policy-planning sections for aviation security) (3) have not less than five years of occupational experience in the field of aviation security (4) under 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Civil Aviation Bureau, Min. of Transport

5.REMARKS

SEMINAR ON FUTURE AIR NAVIGATION SYSTEMS(FANS) TECHNOLOGY

no executed in FY 2001

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.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Civil Aviation Bureau, Min. of Transport

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

COMPREHENSIVE URBAN TRANSPORTATION PLANNNING AND PROJECT

Sep 25,2001 - Dec 9,2001, 20participants

総合都市交通計画・プロジェクト J-01-00581

1.PURPOSE This course aims to provide the participants with the theory and techniques of comprehensive urban transportation planning, as well as the necessary techniques for the implementation of urban transportation project.

2.MAIN FEATURES OF CURRICULUM (1) Study trip for the purpose of observing and understanding the present conditions of urban transport planning, introduction and operation in Japan (15 days) (2) Lectures on comprehensive urban transport project such as planning, operation and management. (25 days) (3) Discussion on the traffic problems in each country, and country report presentation.

3.QUALIFICATION OF APPLICANT Applicants for this course should, (1) be currently engaged in urban planning, urban transportation planning or urban transportation faculty planning, (2) be university graduates or have equivalent abilities with at least 3 years of experience in their profession, and (3) be under 40 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) City and Regional Development Bureau, MLIT

5.REMARKS

GLOBAL SEISMOLOGICAL OBSERVATION II

Oct 22,2001 - Dec.16,2001,10participants

グローバル地震観測II J-01-03504

1.PURPOSE This course is designed to introduce up-to-date technologies and khowledge in the field of global seismological observation to participants who are expected to play important roles in a global monitoring network for nuclear tests.

2.MAIN FEATURES OF CURRICULUM This course consists of lectures, practices and field studies The subjects are as follows 1)Introduction to seismology and nuclear politics 2)Global seismic network 3)Instrumentation and observation practice 4)Hypocenter location 5)Data processing 6)Analysist of teleseismic record 7)Source mechanism 8)World seismicity 9)Practice of discrimination of nuclear explosion

3.QUALIFICATION OF APPLICANT 1)University graduates or equivalent with professional experience of more than three years in the field of seismology 2)At Least three years professional experience in the field of seismology 3)Well-versed in basic mathematics such as differentiation and integration 4)Under thierty-five years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Building Research Institute, MLIT

5.REMARKS

VOLCANOLOGY AND SABO ENGINEERING

Mar 19,2002 - Sep 16,2002, 7participants

火山学・砂防工学 J-01-00630

1.PURPOSE The purpose of the course is to introduce participants to basic and modern concepts of volcanology and mitigation of volcanic disasters through lectures, exercises and field studies For this purpose, the first half of the course is allotted to the common course and the second half is divided into two topics; volcanology and volcanic sabo engineering (volcanic disaster prevention engineering)

2.MAIN FEATURES OF CURRICULUM This course consists of three parts; (1) common subjects for all participants (2) training for sub-groups (3) individual training at university/research institute/technical center. For the second part, participants will be divided into the volcanology group and volcanic sabo engineering group. Volcanology group studies. (2) (a) up-to-date physical and geological concept of volcanism (b) theory of seismology, geodesy, geomagnetism, geotherm and geochemistry with the aid of exercises (c) methods of volcano monitoring, data analysis and interpretation emphasizing eruption forecasting Volcanic sabo engineering group studies (a) basic theories necessary for study and planning of erosion and sediment control engineering (b) mechanism and structure of debrismud flows (c) engineering technology and administrative countermeasures against volcanic disaster in the second part of training

3.QUALIFICATION OF APPLICANT (1) be currently engaged in the Volcanic Observation and/or the Disaster Prevention (Sabo works) and be scheduled to engage in the same after completion of the course, (2) have a sufficient command of spoken and written English, (3 be in good health, both physically and mentally, to undergo the training. (As training over a long period may pose risks to pregnant women, pregnancy is regarded as a disqualifying condition for participation in this training course), and (4) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) River Bureau, MLIT

5.REMARKS (1) Country Reports will be highly utilized both for the selection of participants and for the country report presentation (2) All the participants of this course are requested to bring Volcanological or Volcanic Sabo Engineering data necessary for the theme of studies during their individual programmes. (3) An intensive Japanese language course will be conducted for one week prior to the technical training.

METEOROLOGY II

Aug 20,2001 - Dec 22,2001, 9participants

気象学II J-01-00187

1.PURPOSE The purpose of this course is to provide participants with general and practical fundamentals applicable to various areas of operational meteorological services, through lectures, exercises, study tours and technical visits thus motivating participants to gain the comprehensive knowledge to be future leaders in their respective national meteorological services.

2.MAIN FEATURES OF CURRICULUM This course mainly consists of lectures with appropriate exercises and study visits. The themes of lecture/exercises are, (1) theoretical basics and technologies for operational meteorological services (2) personal computers in meteorological services (3) meteorological satellite data (4) short, medium and long range forecasting methods including numerical weather prediction (5) selected topics from research activities at Japan Meteorological Agency

3.QUALIFICATION OF APPLICANT (1) presently engaged in meteorological services for their governments or government-related public organizations (preferably having experience engaged in forecast) (2) university graduate or equivalent (WMO Classes I or II) with more than three years of occupational experience in the field of operational/practical meteorological services (3) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japan Meteorological Agency

5.REMARKS

SEISMOLOGY AND EARTHQUAKE ENGINEERING

Aug 27,2001 - Jul 21,2002, 20participants

地震・耐震工学 J-01-00634

1.PURPOSE The purpose of the course is to contribute to upgrade the knowledge and technique of the participants in the field of seismology, earthquake engineering and earthquake disaster prevention measures through lectures (including colloquiums, exercises, practical training, field trips) and individual studies, so as to nurture researchers and engineers capable of playing an important role in these fields

2.MAIN FEATURES OF CURRICULUM During the first five months, participants will be divided into two groups, Seismology sub-course and Earthquake Engineering sub-course according to their request on the application, and then if they take interest in earthquake disaster mitigation technology, they can participate in another sub course called "Earthquake Disaster Prevention" for about two months This course consists of, common subjects for all participants, individual subjects for each group, and individual training in the laboratory The outline of the subjects on the training course are as follows. (1) Subject in common. general seismology and earthquake engineering, strong ground motion, mathematics, basic computer programming, etc. (2) Seismology group. computer, elasticity, data processing, seismic surface waves, interpretation of seismograms, seismicity and plate tectonics, study trip, three months' individual study, etc (3) Earthquake engineering group: soil mechanics and dynamics, structural analysis and dynamics, earthquake resistant design of building structure, study trip, three months' individual study, etc (4) Earthquake Disaster Prevention Measures sub-course. Besides above mentioned subjects, they will learn subjects related to earthquake disaster prevention, such as urban disaster mitigation, earthquake damage assessment, seismic diagnosis and so on

3.QUALIFICATION OF APPLICANT (1) University graduate or equivalent with at least three years' professional experience (2) Well versed in basic mathematics such as differentiation and integration (3) Under 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Building Research Institute, MLIT

5.REMARKS (1) Those participants who have passed the examination on more than five subjects and submitted their individual study report are granted a Diploma of IISEE. (2) An intensive Japanese language class will be conducted prior to the technical training for one week

SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

no executed in FY 2001

地震工学セミナー

1.PURPOSE The purpose of the seminar is to update the knowledge and expertise of engineers and seismologists who have previously participated in "The Group Training Course in Seismology and Earthquake Engineering" or equivalent. We focus the topics on real time seismology and its application to earthquake disaster mitigation.

2.MAIN FEATURES OF CURRICULUM The course consists of lectures, discussions, observation and field tours The subject is the real time seismology, which has been developed and applied for earthquake disaster reduction in the last decade The curriculum involves real time processing of seismic data for determination of earthquake hypocenter, magnitude, and source mechanism, damage evaluation immediately after a big quake, and quick countermeasure for reduction of earthquake disaster and so forth

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent with professional experience in the field of seismology for more than five years, and be engaged in the research on seismology or seismological observation, (2) over 30 and under 50 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Building Research Institute, MLIT

5.REMARKS This course is conducted every other year in principle. A certain subject is selected out of Seismology or Earthquake Engineering for each time.

COMPREHENSIVE BRIDGE ENGINEERING

Oct 2,2001 - Dec 9,2001, 14participants

橋梁総合コース J-01-00690

1.PURPOSE The purpose of the course is to provide opportunities to learn the general techniques of bridge engineering, used in Japan (including planning, design and construction of bridges) so that the participants will be able to improve the technology in bridge engineering and to contribute to the development of their countries.

2.MAIN FEATURES OF CURRICULUM In this course, the following major subjects will be covered through lectures, discussions and observation trips (1) roads and bridges in Japan (2) design and construction of substructures (3) design and construction of concrete bridges (4) fundamental bridge design theory (5) design and construction of steel bridges (6) maintenance and repair of bridges

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent with occupational experience of more than five years (2) presently engaged in bridge and highway construction (3) not more than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Road Bureau, MLIT

5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the Country Report presentation

SEMINAR ON PRACTICAL APPLICATION OF CONSTRUCTION TECHNOLOGY

May 8,2001 - Jun 23,2001, 9participants

建設技術活用・応用セミナー J-01-00637

1.PURPOSE The purpose of the seminar is to provide participants with the latest work methods, new materials and inspection methods so that participants will be able to contribute to improvement of construction work in their respective countries.

2.MAIN FEATURES OF CURRICULUM The seminar will NOT cover all the field of construction. It covers the following major subjects: (1) outline of advanced construction technology (2) advanced work methods in civil engineering works (3) application of new materials (4) advanced inspection methods

3.QUALIFICATION OF APPLICANT (1) university graduates of civil engineering or related courses, or equivalent (2) have more than seven years of actual experience in construction works (3) not more than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japan Construction Training Center Foundation

5.REMARKS This seminar does not cover the field of building construction

CONSTRUCTION MANAGEMENT (CIVIL WORKS)

Jul.30,2001 - Nov 8,2001, 9participants

建設施行監理 J-01-00708

1.PURPOSE The aim of the course is to help senior administrative engineers of governmental organizations to gain broader views on construction engineering by introducing the latest techniques and information related to construction engineering, thus to contribute to the development of human resources in this field of participating countries

2.MAIN FEATURES OF CURRICULUM This course consists of lectures and observations. The main themes are. (1) general information on public works in Japan and overseas construction (2) fundamental studies (a) geotechnical engineering, concrete, asphalt, steel and new materials, introduction of construction machinery, etc. (3) execution planning and management (a) work planning, process planning, introduction to construction management, machinery control, safety control, counter measures for environmental protection, cost estimation, geotechnical analysis, etc. (4) construction techniques (a) earthwork, concrete work, shield work, paving work, improvement work, foundation work, tunnel construction, bridge construction (steel and concrete), road maintenance, dam construction, Sabo etc.

3.QUALIFICATION OF APPLICANT 1) university/college graduate in civil engineering or equivalent (2) under 40 years of age (3) more than five years experience in planning, design, execution and project management of civil engineering works

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japan Construction Mechanization Association

5.REMARKS compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

NATIONAL AND REGIONAL DEVELOPMENT POLICY

Sep.9,2001 - Oct 21,2001, 10participants

国土・地域開発政策 J-01-00643

1.PURPOSE The purpose of the course is to provide participants with the latest theoretical and practical knowledge of regional development policy through lectures, discussions and observation trips, thereby contributing to regional development in the participating countries

2.MAIN FEATURES OF CURRICULUM In this Course, the emphasis is put on introduction of Japanese experience and discussions based on report presentation by participants. The Course deals with planning, policy formulation and implementation of regional development The major subjects are; (1) outline of regional development policy (2) specific study for regional development policy (3) Computer Simulation Practice (4) Observation Tour (5) discussions based on country reports and study reports

3.QUALIFICATION OF APPLICANT (1) engaged in planning or implementation of national or regional development projects and policies for more than 3 years (2) university graduates or equivalents (3) under 50 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Ministry of Land, Infrastructure and Transport"

5.REMARKS

NATURAL DISASTER MITIGATION

Oct.29,2001 - Feb.24,2002, 5participants

自然災害防災研究 J-01-03423

1.PURPOSE This 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 research practice(70%), lecture, observation, presentation, on the research for the mitigation of natural disasters such as earthquake, landslide,m rainfall related to disasters, typhoon, river disaster, snowslide and so on

3.QUALIFICATION OF APPLICANT (1)Have a bachelor' degree, a university diploma, or a qualification equal to the said degree, and be capable of carrying out basic research in the field of natural disaster mitigation. (2)At present engaged in research work in the field of natural disaster mitigation, and have occupational experience of more than three years in the said field. (3)Over twenty-five and under forty years of age. (4)Have a sufficient command of spoken and written English so as to be able to conduct research training

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Nat research Inst for Earth Sci.& Desaster Prevent

5.REMARKS

DISASTER MITIGATION AND RESTORATION SYSTEM FOR INFRASTRUCTURE (FOR CIVIL ENGINEER)

May.7,2001 - Jul.19,2001, 8participants

社会基盤施設の災害に対する危機管理 J-01-03521

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 restration from disasteers 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 earthquake (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 reserch (disaster restoration plan)

3.QUALIFICATION OF APPLICANT (1) technical executive officials who are engaged in civil engineering (2) have more than 10 years' experience (3) between 30 and 39 years of age (4) university graduate and equivarent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japan Construction Training Center Foundation (3) River Bureau,MLIT (4) Polocy Bureau, MLIT (5) Kinki Regional Development Bureau, MLIT

5.REMARKS A compulsory intensive Japanese langage course for one week will be conducted prior to the technical training

ENVIRONMENTAL ASSESSMENT IN INFRASTRUCTURE DEV'T(FOR CIVIL ENGINEER)

May.7,2001 - Jul 21,2001, 8participants

社会資本関連環境影響評価 J-01-00574

1.PURPOSE To contribute to harmony of development and environmental preservation in participating countries by training civil engineers in the techniques required in environmental assessment, assessment of effects on environment, measures for environmental preservation, etc. for minimizing the effects of infrastructure development on environment, maintaining favorable environment for the people, and for preserving nature.

2.MAIN FEATURES OF CURRICULUM This course consists of lectures, observations, group studies, and study tours as follows: (1) regional plans (2) environmental plans (3) environmental assessment (4) environmental projections (5) environmental preservation measures (6) assessment of effects on environment * Under the word "Environment", this course deals with water quality, noise, vibration, air quality, animals and vegetation

3.QUALIFICATION OF APPLICANT (1) university graduate in civil engineering or equivalent (2) five or more years of experience in infrastructure development administration(road, rivers, ports, dams, etc) (3) under 40 years old in age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japan Construction Training Center Foundation (3) Minister's Secretariat, MLIT (4) Polocy Bureau, MLIT (5) Kinki Regional Development Bureau, MLIT

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

SOCIAL INFRASTRUCTURE DEV'T &PLANNING (FOR CIVIL ENGINEER) II

Aug.13,2001 - Oct 21,2001, 8participants

社会資本整備計画 II J-01-03530

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, 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.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japan Construction Training Center Foundation (3) Minister's Secretariat, MLIT (4) Polocy Bureau, MLIT (5) Kinki Regional Development Bureau, MLIT

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week

THE ADVANCED COURSE OF PRACTICAL CONSTRUCTION MANAGEMENT(FOR CIVIL ENGINEER)

Aug 27,2001 - Nov 9,2001, 9participants

総合建設プロジェクトマネジメント J-01-00633

1.PURPOSE The purpose of this course is to help senior administrative engineers of public corporations and private enterprises to master comprehensive techniques, practical knowledge and application techniques in project planning, construction management, and quality control with a view to upgrading the ability of leading construction managers in developing countries, thus contributing to the qualitative improvement of construction technology and civil engineering works in their respective countries.

2.MAIN FEATURES OF CURRICULUM The course will be conducted in the form of lectures, observations of construction sites, case studies, group work, discussions, and practical training. Emphasis will be put on case studies. The main themes are: (1) introduction of management and organization of construction projects (2) construction planning (3) construction management and methods (4) construction project management (group study)

3.QUALIFICATION OF APPLICANT (1) university graduate or those who have undergone higher education in the field of civil engineering or have equivalent educational qualifications (2) at least five years of experience as construction managers (3) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japan Construction Training Center Foundation (3) Minister's Secretariat, MLIT (4) Polocy Bureau, MLIT (5) Kinki Regional Development Bureau, MLIT

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

SEMINAR ON PUBLIC WORKS ADMINISTRATION IN REGIONAL GOVERNMENT II

Sep.25,2001 - Nov 9,2001, 5participants

地域土木行政セミナー II J-01-03512

1.PURPOSE This course is designed to contribute to the future national land development of developing countries by introducing legal system concerning public enterprises in Japan, history of Hokkaido development, public civil engineering administration, planning and construction flow of all kinds of civil engineering facilities, and measures for harmonization with the environmental protection to engineers from those countries
Through the course, the participants are expected to; (1)understand the current situation of public works administration in Japan (2) get the information of regional development planning (3)get the information of the development history of infrastructure in Hokkaido (4)get the knowledge of civil engineering projects, such as road, river, dam, airport, harbor and erosion control (5)understand of the public works administrative processes from planning to construction and completion (6)acquire knowledge of the consulting company's function and scope of work

2.MAIN FEATURES OF CURRICULUM The following major subjects will be covered in the course (1) Lecture (a)current situation of public works administration in Japan (b)regional development planning (c)development history of infrastructure in Hokkaido (d)civil engineering projects, such as road, river, dam, airport, harbor and erosion control (e)processes of grasping regional request to the public works etc (2)Practical exercise (a)planning of the project and its budget integration (b)consulting work (3)Observation tours (a)civil engineering projects, such as road, river, dam, airport, harbor and erosion control in Hokkaido and other part of Japan

3.QUALIFICATION OF APPLICANT (1) be university graduates or persons who have equivalent technical qualifications in this field, and have more than five (5) years of practical experience; (2) be senior technical officers in charge of public works administration in central government or in government's affiliated organization; (3) be proficient in spoken and written English. (4) be under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre,Sapporo(2) Department of Public Works,Hokkaido Government

5.REMARKS

CONSTRUCTION TECHNOLOGY IN UNDERGROUND

Oct 9,2001 - Dec 2,2001, 12participants

地下空間における建設技術 J-01-03467

1.PURPOSE The utilization and development of underground space is essential for the improvement of infrastructures. The purpose of this course is to introduce participants to new knowledge concerning construction technology in underground which contains planning, design and construction methods of excavation, earth retaining, tunnel construction, foundations and some other related subjects in recent geotechnical and geoenvironmental engineerings. NOTE. This course is designed for researchers or senior officials engaged in construction technology. It is not recommended for administrative staff who do not have a fundamental knowledge of geotechnical engineering.

2.MAIN FEATURES OF CURRICULUM In this course, the following major subjects will be covered through lectures, practices, discussions and observation trips: (1) Soil and rock mechanics necessary for underground construction (2) Geotechnical exploration and laboratory tests for soil and rock (3) Design method of underground structures (4) Construction methods in underground (5) Related topics in recent geotechnical and geoenvironmental engineering

3.QUALIFICATION OF APPLICANT (1) Researcher or senior official in charge of geotechnical construction, administration or geotechnical construction projects, and have more than five years of practical experience in central or local government, or government related organization (2) Under 45 years of age (3) university graduate or equivalent, and have knowledge of geotechnical engineering

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Economic Affairs Bureau, MLIT

5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the Country Report presentation

EXECUTIVE'S SEMINAR ON PUBLIC WORKS AND MANAGEMENT

Oct.15,2001 - Oct 26,2001, 8participants

土木技術マネジメント幹部セミナー J-01-00587

1.PURPOSE This seminar is intended for executive engineers in leading posts to plan and promote public works research and development in Asian countries. The purpose of this seminar is (i) to introduce up-to-date information and technology on purblic works research and development including the comprehensive construction management to the participants with a view to develop their planning and administration abilities on public works, (ii) to promote and strengthen human network among Asian countries through attending the seminar and conference.

2.MAIN FEATURES OF CURRICULUM This seminar is consist of Country report presentation, lectures, participation in the conference, discussion in the field of public works, and field trips

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent in the field of public works engineering (2) directors responsible for research and development of public works in government institutions

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Public Works Reseach Institute, MLIT

5.REMARKS

SEMINAR ON DISASTER MANAGEMENT

Jan 22,2002 - Feb 22,2002,14participants

防災行政管理者セミナー J-01-00695

1.PURPOSE The purpose of the seminar is to: (1) provide the latest administrative knowledge of disaster prevention as a total system of prediction, evacuation, recovery and disaster reduction (2) show the variety of the activities and organizations involved in disaster prevention administration, and to give a brief outline of the individual activities and demonstrate how these are organized in the Japanese disaster prevention administrative system (3) exchange ideas and experiences concerning natural disaster prevention, and to discuss international cooperation for natural disaster reduction.

2.MAIN FEATURES OF CURRICULUM In this seminar, the emphasis is put on introduction of basic theory and exchange of ideas and experiences through discussions, observations and practices. The main themes are; (1) policy formation, enforcement and implementation of disaster countermeasures in Japan (2) international cooperation for natural disaster prevention and reduction (3) implementation of disaster countermeasures of local government in Japan

3.QUALIFICATION OF APPLICANT (1) presently engaged in government agencies responsible for disaster prevention (2) not more than 45 years of age (3) university graduate or equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hyogo International Centre(2) Asian Disaster Reduction Center

5.REMARKS

RIVER AND DAM ENGINEERING II

Aug 13,2001 - Nov 23,2001,10participants

河川及びダム工学II J-01-00169

1.PURPOSE This course is aimed at introducing the latest information and technology in the field of river and dam engineering to the participants presently engaged in flood control or water resources development project.

2.MAIN FEATURES OF CURRICULUM (1) Participants will be divided into two groups, the river group and the dam group. The course consists of three parts' one and half months of common subjects for both groups, one month of specialized subjects designed for each group, three weeks' on site survey and field trips and one week of individual research training in the laboratories. (2) specialized subjects for the river group are as follows (a) river dynamics (b) comprehensive flood loss prevention (c) channel planning/design water level (d) embankment, revetment, groynes (e) sediment hydraulics/exercise (f) sabo planning (g) land slide prevention planning (h) design of sabo facilities/exercise (i) river management (j) flood control and drainage (k) naturally diverse construction method (3) specialized subjects for the dam group are as follows: (a) outline of dam planning (b) geological investigation for dam construction (c) foundation treatment (d) design and construction of dam/exercise (e) design of spillway and gate/exercise (f) earthquake resistant design of dams (g) safety management of dams (h) operation and management of reservoirs (i) multipurpose dam law (j) case studies of dam designing (k) execution of dams.

3.QUALIFICATION OF APPLICANT (1) presently engaged in flood control works or water resources development projects (2) university graduate or equivalent with basic knowledge in civil engineering (3) occupational experience of more than five years in the field of flood control works or water resources developments projects (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) River Bureau, MLIT (3) Public Works Reseach Institute,MLIT

5.REMARKS (1) An intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

IRRIGATION WATER RESOURCES IN ARID AND SEMI-ARID REGION AND EIA FOR SUSTAINABLE DEVELOPMENT

Jul.16,2001 - Nov 23,2001, 9participants

乾燥地水資源の開発と環境評価　　J-01-00620

1.PURPOSE This course is intended for the core engineers engaged in the development of water resources in those developing countries situated in arid and semi-arid areas, with the concrete aim of enhancing the practical capabilities through the good command of technical know how combined with thorough understanding of the basic knowledge required for the development to which due environmental consideration must be given. Through the present course, participants are expected, (1) to acquire comprehensive knowledge and technologies indispensable for the development of water resources in arid areas to be able to analyze, make full use of the data and literature of hydrology and handle the behavioral analysis of surface/ground water and run-off analysis, and to design excellent facilities for water storage and supply, (2) to acquire knowledge and technologies required for the effective utilization of water resources, such as planned water use, deliberate hydrologic management, and irrigation and drainage systems, (3) to acquire knowledge and technologies required for the environment impact assessment to appraise the deterioration of soil fertility, inhibition of salt injury, water quality change, degradation degree of hydrologic facilities and structures and forest resources, and (4) to ultimately master expertise required for the settlement on the basic plan for water resources development giving due consideration to environmental conditions including knowledge and technology of monitoring.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on observation, report presentation, lectures which introduce Japanese experience of agricultural practice and usage of water resources in arid and semi arid areas, and discussion by participants. The technical training consists of collective courses in the first half of the term and individual course in the second half of the term, respectively For each subject, lectures comprising theoretical explanations will be given in the first place, and then practical training and observation sessions will be given to deepen the understanding of the theoretical study In the collective training performed in the first half of the term, eight subjects will be studied, data/information processing, crops suitable for arid areas, plant nutrition (fertilization), management of field water, water storage and supply facilities and facilities management, soil/water quality assessment, underground water and run-off analyses, soil control, preservation of greens and vegetation assessment In the second half of the term, after choosing the subjects to which he/she may have a special cling or concern, each participant will study separately within a group of 2-3 persons at each lecturer's lab. Following subjects will be opened, (1) Crops suitable for arid areas and plant nutrition (fertilization), (2) Management of field water, (3) Facilities for water storage and supply, facilities management, (4) Soil/water quality assessment, (5) Soil control, (6) Preservation of greens, assessment of vegetation

3.QUALIFICATION OF APPLICANT (1) presently engaged in either research, engineering, or educational activity and have more than two years of occupational experience in the field (2) university graduate or equivalent (3) not more than 40years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chugoku International Centre(2) Tottori University

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours) The course has been held 10 times so far, and it is the last course

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

Aug 20,2001 - Oct 31,2001, 8participants

都市環境施設整備計画（地方中核都市）　　J-01-03362

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, u 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.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) City of Obihiro (3) Hokkaido Development Bureau

5.REMARKS

PRACTICAL LAND READJUSTMENT FOR URBAN DEVELOPMENT

Jan.7,2002 - Mar 25,2002, 10participants

都市開発における土地区画整理事業実務　　J-01-03385

1.PURPOSE To encourage urban development in developing countries with well trained persons having comprehensive and practical knowledge for implementation of land readjustment project. By the end of the training course, participants are expected to deepen their understanding of. (1) The Japanese city planning system; (2) The preparation of an implementation plan for Land Readjustment Project, (3) Land evaluation method and replotting design, and (4) Basic procedures for implementing the 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.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Nagoya Urban Institute

5.REMARKS Japanese language course available (25 hours)

COMPREHENSIVE CITY PLANNING

Aug.26,2001 - Oct.28,2001, 10participants

都市計画総合　　J-01-00689

1.PURPOSE The purpose of this course is to introduce city planners who are directly engaged in city planning to fundamental knowledge and technique of city planning experienced in Japan These include information on the city planning systems, urban development works and the direction of future policy in Japan, which are useful for comparative studies. The participants will also be suggested to find a way how to deal with the problems of their own towns and cities by exchanging their views and experiences on the occasion of presentation of the Country Report prepared by participants.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on introduction of Japanese systems and situations as follows: (1) city planning methods and urban development projects (2) planning and provision of urban transport (3) present housing situation (4) environmental aspects of urban development and urban transport (5) "kukaku-seiri" (Japanese method of urban land readjustment) applicable both to built-up and suburban areas (6) social, economic and institutional aspects of city planning

3.QUALIFICATION OF APPLICANT (1) be university graduates or the equivalents with the occupational experience of more than three (3) years, (2) be administrative officers who are currently engaged in city planning, (3) be under forty (40) years of age in principle, (4) have a sufficient command of spoken and written English, (5) be nominated by their government in accordance with the procedures mentioned in IV below, (6) not be serving in the military, and (7) be in good health, both physically and mentally, to undergo the training. As the schedule of this course includes many field works (trips) that would be too demanding for pregnant women, pregnancy is regarded as a disqualifying condition for participation in this training course.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) City and Regional Development Bureau, MLIT

5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the Country Report presentation.
The course has started from last year in consequence of our reviewing "City Planning II" course which had been conducted ten times.

URBAN DEVELOPMENT (FOCUSED ON LAND READJUSTMENT MEASURES)

May 8,2001 - Jul.1,2001, 10participants

都市整備 J-01-00325

1.PURPOSE The purpose of the course is to introduce participants through lectures and observations to land readjustment methods (KUKAKU-SEIRI) and projects carried out in Japan with specific objectives and their background; at the same time, to provide participants with opportunities to exchange their views and experiences on urban development, so as to contribute to the acquisition of practical knowledge for their purposes

2.MAIN FEATURES OF CURRICULUM In this course, the following major subjects will be covered through lectures, discussions, practices and observation trips. (1) Japanese systems and methods of kukaku-seiri (Japanese method of urban land readjustment) applicable both to built-up and suburban areas (2) Japanese systems and methods of new town development (3) Japanese systems and methods of urban renewal (4) social background and problems which lead to the abovementioned urban development activities (5) policies and methods of urban development in each participating country

3.QUALIFICATION OF APPLICANT (1) be university graduates or equivalents with occupational experience of more than 3 years, (2) be presently engaged in planning and/or implementation of urban development and redevelopment, (3) be under forty (40) years of age, (4) be nominated by their government in accordance with the procedures mentioned in IV below, (5) have a sufficient command of spoken and written English, (6) be in good health, both physically and mentally, to undergo the training, and (7) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) City and Regional Development Bureau, MLIT

5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the country report presentation.

URBAN GREENERY AND PARK ADMINISTRATION

Aug 20,2001 - Nov.9,2001, 6participants

都市緑化行政 J-01-03365

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(2) 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.

TECHNOLOGY FOR PREVENTION FROM PREMATURE DETERIORATION OF CONCRETE STRUCTURES

Jan 7,2002 - Jun 28,2002, 8participants

コンクリート構造物耐久性向上技術 J-01-03465

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.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) General Building Research Corporation

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (25 hours)

OCCUPATIONAL SAFETY MANAGEMENT IN CONSTRUCTION INDUSTRY

Oct.1,2001 - Nov.18,2001, 10participants

建設業における労働安全管理 J-01-03377

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 industrial accidents (4) Planning methods for national industrial accident prevention policy (5) Concrete measures for industrial accident prevention (6) Construction safety and health activities at construction firms and organizations

3.QUALIFICATION OF APPLICANT (1) Administration, inspector or researcher in the governmental office currently working on industrial safety and health programme for construction industry or be staff of semi-governmental or related organization promoting and undertaking construction industrial accident prevention programme. (2) At least five years occupational experience (3) Technical college or university graduate with a major in engineering (4) Age between 30 and 50 (5) sufficient command of English: more than 500 points of TOEFL scores or its equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Japan Construction Safety and Health Association

5.REMARKS An intensive Japanese language course will be conducted prior to the technical training for one week (25 hours)

BUILDING ADMINISTRATION AND TECHNOLOGY

May.15,2001 - Jul.1,2001, 12participants

建築行政 J-01-00711

1.PURPOSE The course provides participants with the introduction of Japanese building administration features and construction technologies through lectures, observations and discussions. Participants are expected to; (1) acquire a comprehensive view of Japanese building administration and construction technology including development process, (2) acquire a cross-cultural perspective of building administration and technologies through presentation, (3) acquire knowledge necessary to establish an internationally recognized new building administration such as performance-based building code, and (4) acquire knowledge necessary to apply such new building administration as efficiency standardization, etc.

2.MAIN FEATURES OF CURRICULUM In this course, the following major subjects will be covered through lectures, discussions, practices and observation trips (1) Outline of Japanese building administration and the situation of building & housing in Japan (2) Outline of Japanese Building Standard Law and related building codes including fire safety, housing quality assurance, etc. (3) Japanese construction technology for housing, high-rise building etc. and other matters such as quality control, computer aided design (4) County report and Study report (5) Observation trip to western part of Japan

3.QUALIFICATION OF APPLICANT Applicants should be: (1) be officials and/or researchers of a government or related governmental organization and be expected to have a leading position in building administration and technology, (2) be university graduates or equivalents with occupational experience of more than five (5) years and with the general knowledge in the broad field of building or architectural engineering such as building administration, architectural designing and structural engineering, (3) be under forty-five (45) years of age, (4) be nominated by their government in accordance with the procedures mentioned in IV below, (5) have a sufficient command of spoken and written English, (6) be in good health, both physically and mentally, to undergo the training, (7) not be serving in the military, and (8) not have participated in any JICA training courses in Japan for the past five (5) years

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Housing Bureau, MLIT

5.REMARKS Due to the regulations of JICA, we reviewed the course on "Architectural Engineering" last year, after our 20th implementation. From this year, we start a new course of " Building Administration" which mainly focuses on Japanese Building Standard Law and other related codes.

HOUSING POLICYII

no executed in FY 2001

住宅政策 II

1.PURPOSE The purpose of the course is to provide participants with examples and experiences of Japanese housing policies and administration as well as to contribute to the development of human living conditions in their countries.

2.MAIN FEATURES OF CURRICULUM The course mainly consists of lectures, discussions, and observations, to cover the following themes: (1) outline of housing policies in Japan (2) general knowledge of housing administration, such as knowledge related to financial systems, new town development and urban renewal plans.

3.QUALIFICATION OF APPLICANT (1) a mid-career official in charge or expected to take charge of housing policy at the central or local government level or at a related governmental organization (2) an university graduate or the equivalent (3) over 30 but under 40 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Housing Bureau, MLIT

5.REMARKS This course is conducted alternately with "Seminar on Improvement of Housing and Living environment "every other year. This year (Japanese fiscal year 1998), "Housing policy" course is conducted.

SEMINAR ON IMPROVEMENT OF HOUSING AND LIVING ENVIRONMENTS

Oct 25,2001 - Dec 9,2001, 15participants

住宅・住環境改善セミナー J-01-00584

1.PURPOSE Through the course program, participants are expected to, (1) understand the Japanese system of housing and living environment projects, and practical measures to solve the problems, (2) share and understand the current problems of each participating country and seek the feasible solutions through the exchange of information among the participants, and (3) comprehend the development programs related to housing and living environment implemented in Japan

2.MAIN FEATURES OF CURRICULUM In this course, the following major subjects will be covered through lectures, discussions, practices and observation trips. (1) Various systems related to housing in Japan (2) Various systems related to town planning in Japan (3) Housing problems in developing countries (4) Practice and discussion (Country Report presentation and discussion, Practice of the Project Cycle Management method) (5) Field study

3.QUALIFICATION OF APPLICANT (1) be nominated by their government in accordance with the procedures in IV below, (2) have experience in implementing various development projects on housing and living environment at the central or local government, or at the governmental organizations, and also be expected to play a leading role in the field, (3) have an excellent command of spoken and written English as the seminar is discussion- oriented, (4) be university graduates or the equivalents, (5) be between thirty (30) and forty-five (45) years of age, (6) not be serving in the military, (7) not have participated in JICA training course in Japan in past five (5) years, and (8) be in good health, both physically and mentally, to undergo the training As the schedule of this course includes many field works (trips) that would be too demanding for pregnant women, pregnancy is regarded as a disqualifying condition for participation in this training course

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Housing Bureau, MLIT

5.REMARKS

OCEANOGRAPHY AND DATA PROCESSING

Nov 13,2001 - Mar.10,2002, 8participants

海洋調査・データ処理 J-01-00615

1.PURPOSE Purpose of the course is to provide the participants with, (1) skills of effective oceanography survey and preannouncement computational skills based on the result of the survey, (2) technique to enforce and supervise environmental preservation, and (3) data processing and numerical simulation techniques by using a computer.

2.MAIN FEATURES OF CURRICULUM The following subjects will be covered in the course. (1) Lecture and practice on; (a) Ocean ecology (b) Oceanography (c) Ocean survey (d) Coastal survey (e) Remote sensing (f) Numerical analysis (g) Data processing (2) Presentation on country report (3) Field Trip

3.QUALIFICATION OF APPLICANT Applicants should be, (1) surveyors presently in charge of Coastal Oceanography or Data Processing with more than 5 years of experiences, (2) have basic knowledge of computer (3) university graduates or the equivalent, and (4) be under 40 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre

5.REMARKS This course is conducted alternately with "Nautical Charting" in every other year This year (Japanese Fiscal Year 1998), this course will be conducted

PLANNING AND MANAGEMENT OF NATIONAL MAPPING AND SURVEYING

Oct.1,2001 - Jul.28,2002, 8participants

国家測量事業計画・管理 J-01-00692

1.PURPOSE This course was formulated to support developing countries in the field of mapping and surveying to promote national mapping and surveying projects which are indispensable for infrastructure development. The course is designed to give necessary information to managers or planners of national mapping and surveying projects for successful implementation of the project. Those information include tips on overall planning and management of national mapping and surveying project, efficient and effective promotion of the project, new technologies such as GPS and GIS, and so on. The course will also satisfy the increasing demands of the society, which are triggered by the rapid growth of economic and social development. The participants are expected to fully utilize their new knowledge in the promotion of national mapping and surveying project in their respective countries.

2.MAIN FEATURES OF CURRICULUM The training course will be given in the form of lectures and practices. The participants will learn good practices of survey administration and project management, namely, laws and regulations, project planning and management, education and dissemination of information. The participants will also acquire knowledge on the effective way of utilizing new surveying technologies, such as GPS, GIS, digital photogrammetry, and remote sensing Information on universal trends in the field of geographic information will also be given in the course of training. In addition, the participants will tackle one's own theme for an individual technical study. Results of the studies are to be disseminated at the technical report presentation meeting Beside classroom lectures and practices, the participants will have opportunities to visit relevant institutions and facilities throughout Japan that will help in grasping geographic and topographic situation in Japan.

3.QUALIFICATION OF APPLICANT The course participants must: (1) Be employed by national surveying and mapping organizations as technical/official in management levels (Head or Deputy Head of a division), or be engaged in equivalent work, with more than 7 years' job experience; (2) Be college/university graduates or their equivalents; and (3) Be 29 to 44 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Geographical Survey Institute, MLIT

5.REMARKS An intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

GLOBAL MAPPING : APPLICATION OF GIS FOR SUSTAINABLE DEVELOPMENT

Oct.1,2001 - Dec 16,2001, 5participants

地球環境地図作成技術；持続可能な開発のための地理情報システム J-01-03405

1.PURPOSE This course is designed for technical staff of section head level in national surveying and mapping organizations It is aimed at giving them a better understanding of the importance of global map development, which is indispensable for global environmental conservation, as well as at enhancing their technical skill necessary for the 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, discussions and observation. Main subjects of the curriculum are as follows (1) Outline of Global Mapping (2) Geographical Information System (GIS) (3) Remote Sensing Technology (RS) (4) ISO Standardization (5) Global Warming (6) Global Meteorology (7) Acid Rain (8) Environment and Law (9) Environment and Agriculture (10) Digital Data Set Format for Global Map

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' occupational experience (2) University graduate or equivalent (3) Ages between 29 years and 40 years

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Geographical Survey Institute, Mlit

5.REMARKS

HYDROGRAPHIC SURVEY(INTERNATIONALLY ACCREDITED CATEGORY B COURSE) II

Apr 3,2001 - Nov.11,2001, 10participants

水路測量（国際認定B級） II J-01-00713

1.PURPOSE Now under planning

2.MAIN FEATURES OF CURRICULUM Now under planning

3.QUALIFICATION OF APPLICANT Now under planning

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Hydrographic Department, Japan Coast Guard

5.REMARKS

NETWORK INTEGRATION

Jan 8,2002 - Feb.16,2002,10participants

ネットワークインテグレーション J-01-03531

1.PURPOSE Now under planning

2.MAIN FEATURES OF CURRICULUM Now under planning

3.QUALIFICATION OF APPLICANT Now under planning

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Nippon Telegraph and Telephone East Co. (NTT EAST)

5.REMARKS

RADIO FREQUENCY MONITORING II

Sep.27,2001 - Nov.17,2001, 9participants

電波監視 II J-01-00180

1.PURPOSE The purpose of this training course is to: (1) provide fundamental knowledge of radio frequency monitoring. (2) provide fundamental knowledge of radio regulatory schemes in Japan (3) provide knowledge of monitoring equipment utilized in Japan.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on introduction of basic theory of radio monitoring and the system and techniques in Japan. The main themes of the course are, (1) outline of radio regulatory administration and legal system for radio regulations (2) practice of radio planning and monitoring

3.QUALIFICATION OF APPLICANT (1) person with practical experience in the field of radio regulatory administration (radio frequency monitoring, frequency management, etc.) (2) under 40 years of age (3) college graduate or equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) MPHP

5.REMARKS

RAPID MAIL SERVICE

Oct.15,2001 - Nov 3,2001, 7participants

急送郵便業務 J-01-03395

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 participanting 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.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Postal Services Agency

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.

SEMINAR ON POSTAL SERVICE MANAGEMENT

Feb.14,2002 - Feb 26,2002,12participants

郵便事業経営セミナー J-01-00702

1.PURPOSE The purposes of this seminar are to provide the participants with the knowledge of current situations of postal services in Japan, and opportunities to examine and exchange views on the problems common among the participating countries through lectures, discussions and observations. Through the seminar, participants are expected to: (1) have an important understanding of present situations and problems of postal services in the participating countries, (2) be familiar with planning for development and better utilization of postal infrastructures, and for improvement of quality of postal services in a rapidly changing socioeconomic conditions, and (3) be able to discuss measures to be taken to cope with evolving needs from customers

2.MAIN FEATURES OF CURRICULUM (1) Lecture: New postal services which are expected to have more demands in near future, such as the night redelivering service, collect on delivery mail service, electric mail service and postal commemorative service are to be included in the curriculum. In addition, technical support for the development of software for the customer control and quality control systems will be emphasized, for the purpose of increasing postal revenue. (2) Observation: Several observations of small-medium sized post offices are prepared with the opportunity of studying modern equipment and facilities.

3.QUALIFICATION OF APPLICANT (1) be nominated by their government, (2) be director generals or, at least, officials who are higher than directors for general affairs in the central governmental organizations, or be director generals or deputy director generals in regional postal bureaus, (3) have a sufficient command of spoken and written English, (4) be in good health, both physically and mentally, to undergo the training, and (5) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Postal Services Agency

5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the Country Report presentation.

EXECUTIVE'S SEMINAR ON POSTAL SAVINGS SERVICES

Mar.3,2002 - Mar.17,2002, 8participants

郵便貯金国際幹部セミナー J-01-00403

1.PURPOSE The purposes of the seminar are. (1) to seek solutions to common problems in the participating postal administrations or national savings organizations, after providing know-how on the Japanese postal savings services and Japanese financial environments through a series of lectures and visits to related facilities. (2) to promote further mutual understanding and closer cooperation among all the participating countries and Japan in the financial field through discussions and presentations Through the seminar, participants are expected: (1) to deepen the understanding of Japanese postal savings services and recognize the current situations of participating countries' postal savings services, and (2) to study and discuss overall aspects of each country's postal savings services, thus to find problems and the cue of their solutions

2.MAIN FEATURES OF CURRICULUM In this seminar, the emphasis is put on introduction of Japanese situations and exchange of views. 1. Lectures (1) General Introduction of Japanese Postal Savings (2) Japan's Financial System and Public Sector Financing (3) Management of Japanese Postal Savings Services (4) Asset and Liability Management of Japanese Postal Savings Services (5) Fund Management (6) Mechanization of Postal Savings Services (7) Sales Promotion Activities (8) Product Development (9) International Business 2. Country Report Session Each participant is requested to make a presentation on the current status of the Postal Savings Services or Remittance Services in his/her own country, followed by participation in discussions on how to solve the problems of each country 3. Study Visits (1) Postal Savings Business Center (2) Ordinary Post Office (3) Special Post Office (4) Postal College (5) Private Enterprise (6) ATM Manufacturer

3.QUALIFICATION OF APPLICANT (1) be nominated by their government, (2) be directors or high-rank officials of any organization from 1. to 4 : 1. Postal Savings Organization, 2. Postal Money Order / Postal Giro Organization; 3. Organization which plans to introduce Postal Savings Services, Postal Money Order Service or Postal Giro Services; 4. Organization which controls financial system or monetary policy, (3) have a sufficient command of spoken and written English, (4) be under fifty (50) years of age, (5) be in good health, both physically and mentally, to undergo the training, and (6) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Postal Savings Bureau,MHLW

5.REMARKS

EXECTIVE'S SEMINAR ON INFORMATION COMMUNICATION TECHNOLOHY

Oct.14,2001 - Oct 28,2001, 10participants

ＩＣＴ（情報通信技術）幹部セミナー　　J-01-00651

1.PURPOSE Now under planning
2.MAIN FEATURES OF CURRICULUM Now under planning
3.QUALIFICATION OF APPLICANT Now under planning
4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Int'l Affairs Dpt,MPHP
5.REMARKS

INTEGRATED SERVICES DIGITAL NETWORK BASIC ENGINEERING

Jan 8,2002 - Feb.16,2002, 9participants

ＩＳＤＮ基礎技術　　J-01-00500

1.PURPOSE The purpose of the course is to provide engineers in the field of telecommunications with practical knowledge and techniques on the ISDN (Integrated Services Digital Network) basic technology, user-network interface, and peripheral technology necessary for introduction of ISDN services
2.MAIN FEATURES OF CURRICULUM This course is designed for participants to understand the following: (1) outline of ISDN, network configuration, ISDN numbering plan, etc. (2) layer 1, 2, 3, circuit switching, packet switching, etc. (3) ISDN terminal, standardization trend, B ISDN (ATM), etc. The major subjects are; (a) outline of ISDN, (b) user-network interface, (c) ISDN network, (d) ISDN service and trend, (e) ISDN terminal equipment, (f) ISDN implementation plan, (g) practical study of terminal and analysis of protocol
3.QUALIFICATION OF APPLICANT (1) be nominated by their government, (2) be university graduates specialized in telecommunications and/or electrical engineering or those who have equivalent technical knowledge in this field, (3) be under 40 years of age, (4) be working for telecommunication administrations or common carrier organizations with at least 3 years of practical experience in their own switching systems, (5) have fundamental knowledge of ISDN, (6) have fundamental knowledge of Digital Communication, (7) have a sufficient command of spoken and written English, (8) be in good health, both physically and mentally, to undergo the training, and (9) not be serving in the military.
4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NTT EAST
5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the Country Report presentation.

DIGITAL TELECOMMUNICATION NETWORK PLANNING AND DESIGNING

Sep.25,2001 - Nov.17,2001, 9participants

ディジタル通信網計画設計　　J-01-00508

1.PURPOSE The purpose of the course is to provide engineers in the field of telecommunications with practical knowledge and techniques on the outline of systems, fundamental network design, and network planning.
2.MAIN FEATURES OF CURRICULUM The curriculum comprises of three major components; (1) fundamental telecommunication network design (2) outline of various systems, and (3) telecommunication network planning. Case-study method is employed to obtain more concrete understanding of network planning. Observation trips to relevant factories and telecommunication facilities are planned to augment the training
3.QUALIFICATION OF APPLICANT (1)Must be an engineer, (2)University/college graduate in telecommunication, electrical engineering or electronics, or equivalent, (3)Working in telecommunication common carrier organizations with minimum experience of 3 years, (4)Currently engaged in network planning or so scheduled, (5)Expected to continue working for network planning after participating in the course, (6)Between 25 and 45 years of age, (7)Since the information is directly conveyed to the participants by talks and discussions, participants must be fluent in both writing and conversation in English.
4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NTT EAST
5.REMARKS

MULTIMEDIA COMMUNICATIONS ENGINEERING

Aug 28,2001 - Oct.20,2001, 10participants

マルチメディア通信技術　　J-01-00710

1.PURPOSE Through the course, participants are expected to understand; (1) theory and practice of TCP/IP, Internet Service, Frame relay, ATM (2) concept of packet switching system, protocol, and international public data transmission services (3) significance and background of keyword of data communication network and applications
2.MAIN FEATURES OF CURRICULUM (1) Internet (Lecture: 5.0days, Practice: 1.0day) (2) Multimedia (Lecture: 5 0days) (3) Switching System (OSI / IN / FR / Internet) (Lecture: 4 0days, Practice: 1 0day) (4) Transmission System (SDH / Satellite / Optical Fiber) (Lecture 2 5days) (5) Outline of data communications (Lecture: 1 5days) (6) Observation of related institutions
3.QUALIFICATION OF APPLICANT Applicant should. (1) be engineers in telecommunications carriers or administrative officials of telecommunications in the government, (2) be currently engaged in the Internet communications, multimedia communications, and international data communications or so scheduled, (3) have fundamental knowledge and experience of not less than three (3) years in the fields, (4) be under forty (40) years of age, (5) be university graduates who majored in telecommunications or those who have fully equivalent technical knowledge and experiences in the field, (6) have sufficient command of spoken and written English, (7) be in ood health, both physically and mentally, to undergo the training. As training over a long period would be too demanding for pregnancy, it is regarded as a disqualifying condition for participation in this training course. (8) not be serving in the military.
4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) KDDI Eng & Consulting,Inc.
5.REMARKS

RURAL TELECOMMUNICATION PLANNING

Feb 5,2002 - Mar 17,2002, 10participants

ルーラル通信計画 J-01-00703

1.PURPOSE The purpose of the course is to introduce technological information on rural telecommunication systems to the participants so that they can acquire basic knowledge and skill concerning fundamental elements in making plans of actual network in rural areas of their countries.

2.MAIN FEATURES OF CURRICULUM The first part of the curriculum includes lectures on rural telecommunication network designing method, and on various rural telecommunication systems. The second part is a drill practice, which is intended to simulate the rural telecommunication network designing augmented by the application of economic analysis

3.QUALIFICATION OF APPLICANT (1) university graduate specialized in telecommunications or equivalent (2) in charge of network planning or so scheduled (3) under 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) The Itu Association of Japan, Inc.

5.REMARKS

SATELLITE COMMUNICATION ENGINEERING AND APPLICATIONS

May 8,2001 - Jul.14,2001, 10participants

衛星通信応用技術 J-01-00652

1.PURPOSE Through this course, participants are expected to: (1) understand the fundamental technologies in satellite communications, (2) acquire knowledge of various satellite communication systems, INTELSAT, INMARSAT and others, and (3) have basic knowledge of advanced and future technologies/systems relating to telecommunications.

2.MAIN FEATURES OF CURRICULUM The curriculum mainly consists of lectures, discussions and practical exercises on (1) basic and advanced technologies of INTELSAT (2) basic and advanced technology of INMARSAT (3) some features of non-INTELSAT and non-INMARSAT systems (4) other related telecommunications systems (5) planning, administration and management in aspects (6) field practice at an earth station and observation trips to relevant facilities. Participants are required to take exams at the beginning and the end of the course.

3.QUALIFICATION OF APPLICANT Applicants should: (1) be university graduates specialized in telecommunications and/or electrical/electronic engineering or those who have fully the equivalent technical knowledge and experiences in the field of satellite communication engineering, (2) have not participated in any JICA group training course on satellite communication engineering in the past five (5) years, (3) have fundamental knowledge and experience of not less than three (3) years in satellite communication engineering, (4) be currently engaged in the field of satellite communication services (especially international ones), (5) have a sufficient command of spoken and written English, (6) be under forty (40) years of age, (7) be in good health, both physically and mentally, to undergo the training. As the course lasts for a long period and may affect unfavorably for a pregnancy, it is regarded as a disqualifying condition for participation to this training course, and (8) not be serving in the military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) KDDI Eng & Consulting,Inc.

5.REMARKS

FIBER OPTICS OUTSIDE PLANT ENGINEERING

Jan.7,2002 - Mar 10,2002, 10participants

光線路技術 J-01-00333

1.PURPOSE To train participants to be able to operate and maintain optical fiber transmission systems introduced or proposed in each country. The course outlines the basic theory of the optical fiber cable, optical devices, etc., and planning, designing and construction of the system. The training includes sufficient practical training in the transmission field.

2.MAIN FEATURES OF CURRICULUM Lectures, practical exercises, discussions and observation tour. The main themes are: (1) Optical Fiber Line Technology; theory, characteristics, structure, design, cable construction technology (2) Digital Transmission Technology; principle, digital multiplex hierarchy, analog to digital conversion, synchronized multiplexing (3) Optical Fiber Transmission Technology; optical source and detector, line code, system design (4) Other Outside Plant Technology; maintenance technology, practical exercise of civil engineering, metallic line cable technology and design (5) Other Technology; digital exchange system, ISDN service, wireless local loops, PHS (6) Administration Techniques (7) Field Trip

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent in telecommunication or electrical engineering (2) working for telecommunication administrations or telecommunication common carrier organizations for at least 5 years (3) having a knowledge of the basic concepts on the digital transmission engineering (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hyogo International Centre(2) Training Institute, NTT WEST

5.REMARKS A compulsory intensive Japanese language course will be conducted along with the technical training for 25 hours.

INTERNATIONAL OPTICAL FIBER SUBMARINE CABLE SYSTEM ENGINEERING II

Jan 22,2002 - Mar 9,2002, 8participants

国際光海底ケーブル通信技術 II J-01-03478

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.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) KDDI Eng. & Consulting,Inc.

5.REMARKS

INTERNATIONAL TELECOMMUNICATION SERVICES

Jan.15,2002 - Mar.9,2002, 10participants

国際通信業務サービス J-01-00650

1.PURPOSE This course is designed to renew and upgrade participants' knowledge and skill in administration and management of international telecommunication services through the study of both conventional and the latest telecommunication technologies and various services

2.MAIN FEATURES OF CURRICULUM The curriculum mainly features lectures, discussions and practical exercises on (1) management and public relations activities (2) system and technologies (3) service and operation. Observation trips to relevant facilities are integrated to augment the programme. Participants are required to make a presentation on their future perspectives at the end of the course.

3.QUALIFICATION OF APPLICANT (1) university graduates or equivalents with occupational experience of more than five years in the field of international telecommunication services (2) presently engaged in administrative and managerial work of international telegraph or telephone services (3) under 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) KDDI Eng. & Consulting,Inc.

5.REMARKS

INTERNATIONAL ISDN TELECOMMUNICATON ENGINEERING AND APPLICATIONS

Aug 28,2001 - Oct 20,2001, 10participants

国際通信総合サービスディジタル網応用技術 J-01-00674

1.PURPOSE Through the course, participants are expected to have knowledge of· (1) outline of ISDN network and services (2) network configuration for international ISDN. (3) international digital transmissions, such as digital satellite systems and optical fiber systems. (4) international applications of Signaling System No.7. (5) international switching systems for ISDN (6) operation and maintenance of international ISDN. (7) ISDN User-Network Interface (UNI) and protocols

2.MAIN FEATURES OF CURRICULUM (1) Lectures a Overview of ISDN :New Technology Trend, Outline of International ISDN, Broad Band ISDN b Review of Digital Technology: Digital Transmission, Digital Switching c. Network Planning: ISDN Network Plan d. ISDN Technology and Services· ISDN Layer Specification, User-Network Interface, Signaling System No.7, ISDN Terminals, International ISDN Services, ISDN Operation & Maintenance, Switching System, Digital Satellite Communication System,Optical Fiber Transmission System, OSI (Open Systems Interconnection), SDH (Synchronous Digital Hierarchy), and ATM (2) Observation Tour KDDI Network Management Centre, KDDI Yamaguchi Satellite Earth Station, KDDI Oyama International Telecommunication Centre, Fujitsu, NEC (Nippon Electric Corporation), etc.

3.QUALIFICATION OF APPLICANT (1) engineer engaged in the field of international telecommunication (2) person with a fundamental knowledge of digital communications (such as digital transmission principles of PCM, multiplexing, synchronization and digital switching) (3) between 26 and 42 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) KDDI Eng & Consulting,Inc.

5.REMARKS

INT'L TEL. COMMUNICATION.(NETWORK MANAGEMENT&OPERATION) ENGINEERING II

May 29,2001 - Jul 14,2001, 10participants

国際電話通信技術 II J-01-03335

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. Through the course, participants are expected (1) to understand the system network management, such as real time monitoring and traffic data analysis, (2) to understand international applications of Signaling System No.7, (3) to understand systematic planning of digital switching system, (4) to understand related technologies such as, ATM, IN, and (5) to learn the know-how to develop and provide new services realized by digital network

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) be nominated by their government in accordance with the procedures mentioned in IV-1 below, (2) be university graduates who majored in telecommunications and/or electrical/electronic engineering or those who have the equivalent technical knowledge in the field of international telecommunications, (3) be engaged in the field of international telecommunication services or so scheduled, (4) be under forty (40) years of age, (5) have a sufficient command of spoken and written English, (6) be in good health, both physically and mentally, to undergo the training As training over a long period would be too demanding for pregnant woman, pregnancy is regarded as a disqualifying condition for participation in this training course. (7) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) KDDI Eng. & Consulting,Inc.

5.REMARKS

TELECOMMUNICATION OUTSIDE PLANT ENGINEERING TECHNIQUES

Aug 6,2001 - Dec.1,2001, 9participants

通信線路技術者育成 J-01-00616

1.PURPOSE The principal purposes of this training course are: (1) to provide engineers with knowledge of telecommunication line engineering to improve their leadership (2) to help participants to understand line techniques, line operation, maintenance systems so that they can manage to solve their problems (3) to promote international understanding through group activities and joining local communities

2.MAIN FEATURES OF CURRICULUM The course is conducted in the form of lectures, discussions and practice, emphasizing on the job training. Visits to related factories and industries are also arranged The training subjects covered in the course are; (1) basic knowledge on outside equipment (2) construction (3) maintenance engineering (4) design engineering (5) construction and maintenance of communication equipment and devices (6) basic knowledge on inside plant (7) safety and quality control

3.QUALIFICATION OF APPLICANT (1) telecommunication engineer or supervisor with three years' practical experience in outside plant systems of telephone (2) university graduate or equivalent (3) 35 years of age or less

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Nippon Telegraph and Telephone West Corporation

5.REMARKS A compulsory 75 hour-Japanese language course will be conducted prior to the technical training.

TELECOMMUNICATION OUTSIDE PLANT MAINTENANCE TECHINIQUE

Jan.14,2002 - Mar.15,2002, 10participants

通信線路保全技術　　J-01-03391

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 id desirable.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Nippon Telegraph and Telephone West Corporation

5.REMARKS A compulsory 25 hour-Japanese language course will be conducted prior to the technical training.

NETWORK BASIC ENGINEERING COURSE

May.15,2001 - Jun 28,2001, 12participants

通信網基本技術（交換技術者）　　J-01-00592

1.PURPOSE The purpose of the course is to introduce the configuration, maintenance and series of procedures from traffic forecasting to plant design of digital switching systems

2.MAIN FEATURES OF CURRICULUM In this course, major technical aspects related to a telecommunications network will be discussed The main focus, however, will be placed upon switching technology. The course curriculum covers (1) digital switching system, using D70 system as an example (2) outline of such peripheral technology as transmission, radio communication, outside plant, common channel signalling, ISDN, etc. (3) traffic management, equipment estimation, maintenance management, economic comparison, etc. (4) practical exercise on D70 system.

3.QUALIFICATION OF APPLICANT (1) university graduates specializing in telecommunications and/or electrical engineering or equivalent (2) under 40 years of age (3) working for common career organizations with at least five years of practical experience on their own switching systems

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NTT EAST

5.REMARKS

TRAINING COURSE ON TELECOMMUNICATION NETWORK PLANNING PRACTICE

Sep.25,2001 - Dec.15,2001, 8participants

通信網計画設計者養成　　J-01-00608

1.PURPOSE The purpose of the course is to provide engineers in the field of telecommunications with practical knowledge and techniques on the outline of systems, fundamental network design, and network planning.

2.MAIN FEATURES OF CURRICULUM The curriculum comprises of three major components; namely (1) fundamental telecommunication network design (2) outline of various systems, and (3) telecommunication network planning. Case-study method is employed to obtain more concrete understanding of network planning. Observation trips to relevant factories and telecommunication facilities are planned to augment the training (4) Practical Design based on the real data in respective countries.

3.QUALIFICATION OF APPLICANT (1)Must be an engineer, (2)University/college graduate in telecommunication, electrical engineering or electronics, or equivalent, (3)Working in telecommunication common carrier organizations with minimum experience of 3 years, (4)Currently engaged in network planning or so scheduled, (5)Expected to continue working for network planning after participating in the course, (6)Between 25 and 45 years of age, (7)Since the information is directly conveyed to the participants by talks and discussions, participants must be fluent in both writing and conversation in English

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NTT EAST

5.REMARKS

TRANSMISSION TECHNOLOGY FOR TELECOMMUNICATIONS

Sep.17,2001 - Dec 2,2001, 11participants

伝送通信技術　　J-01-00344

1.PURPOSE To introduce the practical knowledge for the designing and administrative techniques on digital transmission system

2.MAIN FEATURES OF CURRICULUM Lectures, practical exercises, discussions and observation tour. The main themes are. (1) digital transmission technology; digital multiplex hierarchy, analogue to digital conversion, synchronized multiplexing, video transmission system (2) optical fiber transmission technology; optical source and detector, line code, system design, transmission standard, transmission quality (3) optical fiber line technology, optical fiber transmission theory, characteristics of optical fiber, structure of optical fiber (4) microwave communication system; digital microwave communication, satellite communication, microwave network construction (5) relational technology; digital switching systems engineering, ISDN service, communication quality (6) planning design; transmission network, transmission line facility, digital radio-relay system, optical fiber cable (7) study tour & field trip

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent in telecommunication or electrical engineering (2) working for telecommunication administrations or common carrier organization for at least five years (3) having a knowledge of the basic concepts on the digital transmission engineering (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hyogo International Centre(2) Training Institute, NTT WEST

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (25 hours)

TELECOMMUNICATIONS POLICY AND REGULATIONS

May 27,2001 - Jun 15,2001, 8participants

電気通信政策 J-01-03481

1.PURPOSE The purpose of this course is to introduce the background, process, present situation and policy of the privatization of telecommunications service in Japan in order to contribute to the formulation of policy and regulations related to the privatization in each participating country. Through the course, participants are expected: (1) to confirm the importance of deregulation, especially privatization and competition, in telecommunications sector for economic development, and (2) to deepen and increase knowledge listed below; a. experiences and trends of deregulation, b. preparation for creating competitive telecommunications market, c. role of the administrator under competitive environment. d. importance of universal access/service, and e. business strategy of telecommunications carriers under competitive environment.

2.MAIN FEATURES OF CURRICULUM (1) Deregulation trends in telecommunications sector (2) Deregulation and Development in the Japanese telecommunications sector (3) Managing privatization and new common carriers (4) Managing national resources and human resources development (5) Telecommunications development in rural areas (6) Competition in the telecommunications service markets (7) Visits to R&D facilities (8) Country Report Presentation (9) Discussion for effective regulation

3.QUALIFICATION OF APPLICANT (1) be in charge of policy making in telecommunication services (directors or equivalent), (2) have several years of experience in the Government in charge of telecommunication, (3) be thirty (30) - fifty (50) years of age, (4) be university graduates or the equivalents, (5) have a sufficient command of communication in English, for example; to explain their situation of telecommunications policy and industry, to discuss telecommunications regulations with other participants, (6) be in good health, both physically and mentally, to undergo the training, and (7) not be serving in any form of military services

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Research Institute of Telecom. and Economics

5.REMARKS

TELECOMMUNICATIONS STANDARDIZATION

Jan.21,2002 - Feb 24,2002, 8participants

電気通信標準化 J-01-03479

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.JICA CENTER / TRAINING INSTITUTIONS (1)Hachioji International Training Centre(2) Comm policy Bureau, MPHP

5.REMARKS

TELEVISION PROGRAMME PRODUCTION (BASIC)

Jul.3,2001 - Sep.14,2001,10participants

テレビジョン番組制作の基礎 J-01-00715

1.PURPOSE In order to contribute to the further development of broadcasting in developing countries, this course is established to introduce the situation of Japan's broadcasting, as well as the basics of television broadcasting methods that NHK(Japan Broadcasting Corporation) has developed in its long history of television broadcasting, to producers and directors belonging to a public or private broadcaster/ broadcasting station in developing countries. This course will also contribute to the long lasting friendly relationship between Japan and the rest of the world.

2.MAIN FEATURES OF CURRICULUM (1)Lectures. The current situation of Japan's Broadcasting, NHK's Broadcasting system, The Situation at the Broadcasting Site, Planning / Structuring / Directing / Shooting / Lighting / Sound / Sound Effect, Emergency Broadcasting (Accidents, Incidents, Disaster, etc.), Watching the NHK Prize Winning Programmes and discuss the structure and the production methods (2)Programme Production. The participants are being divided into 3 groups, and will make a short programme according to the theme decided by the participants. The programme will be produced by using the studio. After the completion, all the participants and the instructors will evaluate the programmes (3)Observations· The newest equipment and devices used in broadcasting stations, NHK Science & Technical Research Laboratories, Private Manufacturing Companies, NHK Local Stations in Hiroshima or Nagasaki., Elementary Schools using audiovisual Education (Programmes shown by Television and other audiovisual devices).

3.QUALIFICATION OF APPLICANT Applicants should. (1) be serving in a broadcaster / broadcasting corporation as a programme producer or programme director, (2) have practical experience of more then 2 years and less than 7 years in TV programme production (planing, structuring, script writing) (3) be between 22 to 30 years of age, (4) be university / college graduates or have an equivalent educational background, (5) have sufficient command of spoken or English (6) be in good health both physically and mentally, to carry out the programmes. Since there will be many field works, the course will be too demanding for pregnant women

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NHK Communications Training Institute

5.REMARKS Each participants are requested to bring a programme directed by him/herself

TELEVISION ENGINEERING II

Jun 26,2001 - Sep.14,2001,10participants

テレビジョン放送技術II J-01-00577

1.PURPOSE The purpose of the course is to systematically introduce knowledge of television broadcasting technology to participants who are engaged in the field of television broadcasting in participating countries. The training covers the technology of color television cameras, VTRs, studio equipment, transmission and reception.

2.MAIN FEATURES OF CURRICULUM Lectures cover such topics as (1) color TV fundamentals and operation and maintenance of broadcasting equipment (2) programme production techniques (3) application of digital techniques (4) measurement and adjustment of broadcasting equipment and (5) recent technical development. Lectures are supplemented by practices. Field training in small groups are organized to enhance the programme.

3.QUALIFICATION OF APPLICANT (1) engineers serving in a broadcasting organization with practical experience of three to five years in TV engineering (2) university/college graduates or equivalents in electronic engineering

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NHK Communications Training Institute

5.REMARKS To enable the instructors to give precise information concerning the course, participants are requested to bring the following items; (1)The detailed information/data concerning television engineering of your country, (2)Curriculum Vitae of your work (MUST write the details of each posts)

AUDIO BROADCASTING ENGINEERING II

Jan 8,2002 - Mar 15,2002, 10participants

音声放送技術 II　　J-01-00609

1.PURPOSE The purpose of the course is to provide audio broadcasting engineers with theoretical and practical knowledge of the intermediate level of audio technique, and MW and FM transmitting, through lectures, exercises and practices.

2.MAIN FEATURES OF CURRICULUM Lectures and practices are provided upon (1) audio technique, (2) theory and practice of MW broadcasting, and (3) theory and practice of FM broadcasting. Field practice and observation trips to relevant broadcasting facilities are organized to enhance the curriculum.

3.QUALIFICATION OF APPLICANT (1) person in a technical line who has practical experience in the field of audio broadcasting enough (more than three years) to undergo this training course (2) between 25 and 35 years of age (3) college graduate or equivalent in audio broadcasting (4) to continue working in the above mentioned field after returning to home countries.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NHK Communications Training Institute

5.REMARKS To enable the instructors to give precise information concerning the course, participants are requested to bring the following items; (1)The detailed information/data concerning television engineering of your country, (2)Curriculum Vitae of your work (MUST write the details of each posts)

ADVANCED TELEVISION PROGRAMME PRODUCTION

Jan 8,2002 - Mar.15,2002, 10participants

上級テレビジョン番組制作　　J-01-00716

1.PURPOSE The aim of this course is the promotion of leadership which is an urgent theme throughout the world, to senior producers or directors who are in the managing role. In order to acheve this goal, there will be introductions on the situation of the Japanese Media, which consists of both digital and analog broadcasting, as well as the comparison of the NHK's traditional programme production method and the new production method of the digital era. This will enable the participants to have an opportunity to find the best method and technology matching their countries situation In this way, this course will contribute to the further development of broadcasting in developing countries

2.MAIN FEATURES OF CURRICULUM Lectures: (1) To learn the world of digitalization, and to understand the current trend of the world and Japan (mainly NHK). (2) To understand that the "Proposition system" has a very important role in programme production. (3) To study the planning techniques by observing the programme concerning the atomic bomb produced by NHK Hiroshima as an example. (4) To learn about live broadcasting, studio programme, emergency programmes, low cost programme, broadcasting and human rights/copy rights, personnel promotion measures and personnel training system. Programme production· The participants will be devided into 3 groups and produce a appx 20 minutes documentary programme . After the completion, all the participants will observe the programmes and make lively discussions concerning the contents, structure, planning, etc . Observation The newest equipment and devices used in broadcasting stations, NHK Science & Technical Research Laboratories, Private Manufacturing Companies, NHK Local Stations in Hiroshima or Nagasaki , Elementary Schools using audiovisual Education (Programmes shown by Television and other audiovisual devices)

3.QUALIFICATION OF APPLICANT Applicants should (1) be serving in a broadcaster / broadcasting corporation as a programme producer or programme director, (2) have practical experience of more then 10 years and less than 15 years in TV programme production (planing, structuring, script writing) (3) be under 45 years of age, (4) be university / college graduates or have an equivalent educational background, (5) have sufficient command of spoken or English (6) be in good health both physically and mentally, to carry out the programmes Since there will be many field works, the course will be too demanding for pregnant women

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) NHK Communications Training Institute

5.REMARKS

APEC • ATC AGRICULTURAL FINANCE

Aug 27,2001 - Sep 19,2001,10participants

ＡＰＥＣ・ＡＴＣ農業金融研修　　J-01-03488

1.PURPOSE The purpose of the course is to promote agricultural policy and to complete supporting system of agriculture for agricultural finance and trusting service which is to strengthen agricultural production system in participants' countries by providing executive officers, staffs of central banks and agricultural finance agencies engaged in agricultural finance in APEC member developing countries with various understanding concerning the state of agriculture and agricultural finance in Japan and others.

2.MAIN FEATURES OF CURRICULUM The following major subjects will be covered in the course. (1) Agriculture in Japan (2) Outline of Agricultural Finance System (3) Agricultural Cooperative System (4) System of trusting services (5) Condition at farm household in Japan

3.QUALIFICATION OF APPLICANT (1) presently be officers who are engaged in agricultural finance in national governments, central banks or agricultural financial institution, with over 5 years of experience (2) university graduate or equivalent with occupational experience of more than three years in their specialities (3) between 27 and 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Assoc.for Int. Cooperation of Agric. and Forestry

5.REMARKS

MANAGEMENT OF NATURAL RESOURCES AND AGRICULTURAL PRODUCTION BY GIS(GEOGRAPHIC INFOMATION SYSTEM)

Aug 6,2001 - Sep 14,2001, 5participants

ＧＩＳ（地理情報システム）による天然資源・農業生産物の管理 J-01-03491

1.PURPOSE This training course provides basic knowledges and techniques of GIS (Geographic Information System) to researcher, administrative officers or staff in charge of extension of agricultural techniques and aims to contribute to the development of techniques or system of natural resources or agriculutural products of each country

2.MAIN FEATURES OF CURRICULUM (1) To understand basic theory and techniques of GIS (Geographic Information System). (2) To understand management method of natural resources or agiriculutural products by GIS. (3) To gain techniques to design and develop management system natural resources or agriculutural products by GIS.

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent with occupational experience (2) researcher, administrative officers or staff in charge of extension of agricultural techniques with more than 3 years experience of practical experience (3) between 25 to 35 years of age. (4) Person who have already gained basic techniques of GIS is regarded as over qualification.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Nagoya Univ. Int'l Agric. Research Cooperation C.

5.REMARKS

OISCA FARMERS' DEVELOPMENT

Jan 22,2002 - Dec 21,2002,18participants

オイスカ農業者育成 J-01-03331

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 specialities (2) between 20 and 30 years of age (3) graduate of GCE 'O' Level (10 years education) or equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) OISCA

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 (300 hours).

CROPS CULTIVATION IN SUB-TROPICAL AREA(FRUIT TREES)

Apr.12,2001 - Sep 23,2001, 5participants

亜熱帯地域作物栽培（果樹） J-01-03382

1.PURPOSE This course is designed to introduce the participants to extensive knowledge and techniques necessary for breeding method and improving the productivityof fruit tree cultivation in Sub-tropical area.

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 (2) Sub tropical fruit crops cultivation (3) Fruit tree clutivation

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.JICA CENTER / TRAINING INSTITUTIONS (1)Okinawa International Centre(2) Okinawa Prefec, Agricultural Experiment Station

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks

RICE RESEARCH TECHNIQUES

Feb 4,2002 - Nov 29,2002, 6participants

稲研究 J-01-00291

1.PURPOSE The course is designed to introduce useful knowledge and new techniques in the field of rice to the participants and to enable them to master research methods

2.MAIN FEATURES OF CURRICULUM This course consists of three major components-lecture, experiment and field practice, and study tour. Knowledge and techniques of rice cultivation and method of research work are obtained. Above all, individual experiments are regarded as the utmost importance.

3.QUALIFICATION OF APPLICANT (1) presently engaged in the research work or education in the field of rice (2) university graduate or equivalent with occupational experience of more than three years in their specialities (3) between 25 and 37 years of age, and non Ph. D. holder

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (50 hours).

RICE CULTIVATION (MIDDLE EASTERN AND AFRICAN COUNTRIES)

Feb 18,2002 - Nov.2,2002, 9participants

稲作（中近東・アフリカ諸国） J-01-03506

1.PURPOSE To train the extensionist who can manage effectively extension activity on rice cultivation, through the training course refering basic theory and practical techniques on Japanese standard rice cultivation method, extension of rice cultivation technology, and improvement of farm management.

2.MAIN FEATURES OF CURRICULUM Lecture 25%, Practice 26%, Experiment 27%, Study Tour 22%Through the training program, participants are expected to obtain:1. knowledge and techniques of standard rice cultivation in Japan,2. related technologies to attain a stable and high rice yield,3. knowledge and techniques to improve extension activities,4. knowledge and techniques to improve rice farm economy

3.QUALIFICATION OF APPLICANT (1) be nominated by their government in accordance with the procedures, (2) be technical officials presently in charge of extension, training, or instruction related to rice with more than 2 years experience, (3) be university graduates or equivalent, (4) be proficient in spoken and written English, (5) be under fourty (40) years of age, (6) be in good health, both physically and mentally, to undergo the training (Pregnancy is regarded as a disqualifying condition for participation in this training course.), and (7) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (50 hours).

IMPLEMENTAL TECHNOLOGY FOR HORTICULTURE IN PROTECTED ENVIRONMENT

Aug 27,2001 - Dec 2,2001, 5participants

実践施設園芸技術 J-01-00681

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.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(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)

PLANT GENETIC RESOURCES

May 7,2001 - Nov 2,2001, 6participants

植物遺伝資源 J-01-00275

1.PURPOSE This course is designed to contribute to upgrading knowledge and skill of the junior researchers in the field of plant genetic resources, so as to train participants to be capable of playing important roles in collection and preservation of plant genetic resources in their own countries.

2.MAIN FEATURES OF CURRICULUM This course consists of common subjects for all participants and individual training (5 months) in the laboratory. Each participant is to take one of the following subjects for their individual research, (1) Genetic diversity of PGR based on DNA and protein analysis (2) Understanding population genetic diversity of crop relatives in situ (3) Wild and weedy crop gene pools and their relationship to the cultigen (4) Evaluation of plant germplasms by isozyme analysis (5) Evaluation of genetic resources in breeding for quality improvement (6) Application of molecular techniques for plant breeding (7) Detection and classification of seed-borne microorganisms (8) Gene bank management and operations

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent non Ph. D holder (2) presently engaged in research work in the field of plant genetic resources with more than three years' experience (3) over 25 and under 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) National Institute of Agricultural Resources,MAFF

5.REMARKS (1) A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours)

PROTECTION OF PLANT BREEDERS' RIGHTS

Oct 1,2001 - Nov.30,2001, 9participants

植物育成者権保護 J-01-03493

1.PURPOSE The purpose of the course is to contribute the establishment of the systems in order to protect the plant breeder's right in each country and its operation by giving participants the knowledge and information on the component of the systems, methods of procedure and detail examination techniques

2.MAIN FEATURES OF CURRICULUM Through the training programme, participants are expected, (1) to understand the systems for the protection of the plant breeder's right and identify problems and its tasks by analyzing the state of the systems in their home countries (2) to understand procedures, methods and structure of organizations for efficient administrating of examinations (3) to understand how to work out the method for making the standard of examinations and also understand the examination techniques. This course consists of lectures, practices, experiments and study tours It mainly covers: (1) background of plant breeder's right systems (2) outline of the systems in Japan (3) methods of examination procedure (4) techniques for the plant cultivation test

3.QUALIFICATION OF APPLICANT

(1) presently be public management executives engaged in the plant breeder's right and seedling administration or technical officer, researcher dealing with plant & seedling (2) university graduate or equivalent with occupational experience of more than five years in their specialities (3) between 30 and 50 years of age (4) be guaranteed the continuous engagement in the administration of seedling and plant breeder's right

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) National Center for Seeds and Seedings

5.REMARKS

PLANT QUARANTINE (DISINFESTATION OF FRUIT FLIES)

Apr 12,2001 - Sep 9,2001, 5participants

植物検疫（ミバエ類殺虫技術） J-01-00407

1.PURPOSE The course is designed to introduce the advanced technique required for disinfestation of fruit flies to the participants who are engaged in plant quarantine It is also hoped that this course will ultimately contribute to the promotion of fruit and vegetable exportation. The method of fruits fly eradication and the applicability of the method in each country will be also introduced and examined in the course.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on lectures, workshop practice and field trips The main features are (1) plant quarantine in Japan (2) morphology and taxonomy of fruit flies (3) physiology and ecology of fruit flies (4) artificial rearing of fruit flies (5) disinfestation method of fruit flies (outline) (6) disinfestation test by vapor heat treatment and cold treatment (7) injury test of fruit by vapor heat treatment and cold treatment (8) eradication of fruit flies

3.QUALIFICATION OF APPLICANT (1) being presently engaged in the disinfestation programme of fruit flies or will be engaged in it as a technical expert (2) university graduate or equivalent (3) having experience in plant quarantine works and having sufficient knowledge about pests such as fruit flies (4) being under 41 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Okinawa International Centre(2) Naha Plant Protection Station,Min of Agriculture (3) Fruit-fly Eradication Project Office

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for six weeks (150 hours).

INTEGRATED PEST MANAGEMENT FOR PLANT PROTECTION

May 28,2001 - Sep.9,2001, 7participants

植物保護のための総合防除 J-01-00503

1.PURPOSE The course is designed to upgrade knowledge and skill of the participants in the field of plant protection, so as to train technical officials capable of playing practical roles in this field.

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 Lecture. (1) Basic concept and biological control insects (2) Basic concept and its application to plant disease control (3) Basic concept and utilization of genetic management in plant protection (4) Chemical and mechanical management in pest and disease controls (5) Safety guidelines for usage of agrochemicals (6) Integrated control of plant diseases (7) Insecticide and pest control (8) Integrated control of weed (9) Japanese agriculture in the present and future Practice: Individual studies in laboratory of plant pathology, entomology, genetics, agrochemical science Field trip· Tsukuba, Hyougo, Hiroshima

3.QUALIFICATION OF APPLICANT (1) technical official presently in charge of plant protection in government, local body or college with three years or more experience in this field, (2) university graduates (3) above 25 and under 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hyogo International Centre(2) Faculty of Agriculture, Kobe University

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 8 days (40 hours)

DISTRIBUTION OF FISHERIES PRODUCTS

Aug 20,2001 - Nov 2,2001, 7participants

生鮮食料品流通（水産物） J-01-00661

1.PURPOSE To contribute to the modernization of distribution of the fisheries products in participating countries where various deteriorations of products occur due to inefficiency of distribution system, participants will study the distribution from fishing ports to retail market mainly focusing on the function of wholesale market that takes an important role to keep stable supply and to stabilize price of fisheries products.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on introduction of Japanese experience and basic theories of distribution of fisheries products The main themes are. (1) lectures (a) wholesale market (b) fishing port (c) retail (d) consumer (2) practical training (a) wholesale market (3) field training and observation (a) retail market and large scale retail store (b) fishing port

3.QUALIFICATION OF APPLICANT (1) administrator in charge of implementation of modernization measures for fisheries products distribution or wholesale market, with practical experience of at least five years (5) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) The Osaka Municipal Central Wholesale Market

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

SOIL DIAGNOSIS AND ENVIRONMENTAL CONSERVATION

May 21,2001 - Aug.18,2001, 7participants

土壌診断環境保全 J-01-00595

1.PURPOSE The course is designed for technical officers who are in charge of soil improvement by providing basic and practical knowledge related to soil diagnosis, soil improvement and agricultural environment management to achieve higher food production, and to contribute to environmental friendly agriculture.

2.MAIN FEATURES OF CURRICULUM (1) outline of agriculture in Japan (2) general concepts and methods of soil diagnosis a) outline of soil diagnosis b) soil analysis method for chemical properties c) soil analysis method for Physical properties (3) general concepts and methods of suitable management for sustainable agriculture a) analysis of water quality b) analysis of heavy metals in soil

3.QUALIFICATION OF APPLICANT (1) presently engaged in soil diagnosis, which can contribute for environment-friendly agriculture production and have more than 2 years experiences (2) university graduates or equivalent (3) over 25 and under 40 years of age (4) be in good health (5) not be serving military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) City of Obihiro (3) Obihiro Univ. of Agricult & Veterinary Medicine

5.REMARKS

EFFECTIVE UTILIZATION OF TROPICAL AGRICULTURE AND FORESTRY RESOURCES

Apr.12,2001 - Nov.18,2001, 5participants

熱帯農林資源の有効利用 J-01-00326

1.PURPOSE The purpose of the course is to introduce participants to the concept, research methodologies and techniques concerning cultivation system of tropical agricultural production and effective production and utilization of biological resources in the tropics.

2.MAIN FEATURES OF CURRICULUM The course consists of lectures, discussions, indoor experiment, field practices, and observation tours. Participants will be given a series of lectures on agriculture and forestry in Japan, resource plants in the tropics, agricultural statistics, crop agronomy, and other general subjects before proceeding to subcourses of their own choice and to the optional programs for more detailed study. The subcourses offered for the current fiscal year are: (1) livestock production covering animal husbandry, animal nutrition, animal environment, and other subjects pertaining to the production, care, and marketing of livestock; (2) forestry including, among other subjects, forest management and engineering, stand structure and mensuration, remote sensing, and silvicultural operation; and (3) agricultural science with emphasis on crop agronomy, soilless cultivation, protected cultivation, tissue culture, and plant virus diseases.

3.QUALIFICATION OF APPLICANT (1) have more than three years of laboratory research experience in the field of tropical agriculture or forestry resources (2) presently engaged inresearch work (3) university graduates or equivalent (4) under 36 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Okinawa International Centre(2) Faculty of Agriculture, University of The Ryukyus

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for six weeks (135 hours).

AGRICULTURAL & RURAL DEVELOPMENT WITH ENVIRONMENTAL CONSERVATION

Sep 10,2001 - Nov 28,2001, 12participants

農業・農村開発環境保全II　　J-01-03474

1.PURPOSE The purpose of the training course is to provide improvement of planning and implementation techniques of engineers for agricultural and rural development projects mainly composed of irrigation and drainage, and agricultural land development. This training course is the general course that focuses on the introduction of agricultural and rural development under the consideration with environmental aspects.

2.MAIN FEATURES OF CURRICULUM This course mainly covers the following themes. (1) environmental considerations in survey, planning, design and implementation of agricultural and rural development projects (2) conservation technology for agricultural and rural development (3) framework of agricultural and rural development projects and environmental management and policies in Japan

3.QUALIFICATION OF APPLICANT (1) presently engaged in agricultural engineering (irrigation and drainage or rural development of agriculture) and have more than seven years of occupational experience in the field of the irrigation and drainage or rural development of agriculture (2) under 45 years of age (3) university graduate or equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Japanese Institute of Irrigation and Drainage

5.REMARKS

AGRICULTURAL INFORMATION SYSTEM TECHNIQUES

Jan.7,2002 - Apr.12,2002, 8participants

農業情報システム　　J-01-03520

1.PURPOSE This course provides training on agriculture related informants network systems including computer programing 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 on the course; (1) outline of agricultural related information processing (2) introduction to agriculture information network system (3) introduction of computer programming

3.QUALIFICATION OF APPLICANT (1) technician, administrator or, researcher who is engaged in agricultural extension with between 3 and 8 years of practical experience (2) university graduates or the equivalent (3) between 25 and 40 years of age (4) be in good health and able to undergo the training (5) not be serving military (6) person who uses computer application of spread sheets in dairy works.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Fujitsu Higashi-hokkaido Systems Eng. Limited

5.REMARKS

INTRODUCTORY GENE MANIPULATION FOR AGRICULTURE

Aug 13,2001 - Dec.16,2001, 8participants

農業生産のための遺伝子操作技術　　J-01-00576

1.PURPOSE In the developing countries, the application of biotechnological methods to the plant agricultural sector is expected to be a solution to the many problems currently faced in this area. Through lectures and laboratory practice, course participants will learn the basics of gene manipulation technique and study agrobacterium-based technology for selective breeding of plant cells.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on laboratory experiments The main themes are: (1) culture of microorganisms (2) nucleic acid extraction and separation techniques (3) protein purification and antibody production (4) electrophoresis techniques of nucleic acid and proteins (5) transformation methods (6) DNA enzyme treatment techniques (7) detection and identification techniques for transformed products (8) DNA amplification by the PCR method (9) sequence analyses of nucleic acid and protein

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent (except those who hold a Ph.D. in genetic engineering) (2) researchers engaged in the field of agricultural products, and employees of governmental organizations in agricultural research (3) have experience of the handing and culture of microorganisms (4) under 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(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.

STATISTICAL INFO. SYSTEM FOR AGRICULTURE

Jul.2,2001 - Sep.16,2001, 8participants

農業統計情報システム　　J-01-00568

1.PURPOSE The purpose of the course is to provide information on systematized methodology by using the computer to be adopted for such statistical operation like survey design and compilation of statistical information on agriculture.

2.MAIN FEATURES OF CURRICULUM The following major subjects will be covered in the course. (1) agricultural statistics (a) role (b) contents and methodology (2) agricultural census (3) sample survey (a) theory and methods (b) design of annual sample survey (sample census) of agricultural holdings (c) design of basic survey of livestock (d) design of crop survey (area survey, production survey) (4) method of computer use (a) programming (b) personal computer operation (5) remote sensing technology

3.QUALIFICATION OF APPLICANT (1) government official engaged in planning and administration of agricultural statistics (excluding forestry and fishery statistics) (2) university graduate or equivalent (3) not more than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS

AGRICULTURAL EXTENSION PLANNING AND MANAGEMENT

May 7,2001 - Jul 21,2001, 10participants

農業普及企画管理者 J-01-00648

1.PURPOSE The participants, as agricultural extension leaders, are expected to plan and implement the training program for agricultural extension workers in their own countries. Through the training programme, participants are expected; (1) to acquire knowledge on the process in which present agricultural improvement & extension programs in Japan have been established through learning about the programs in Japan and their background in order to understand the factors of extension work (2) to compare the agricultural improvement & extension programs in their own countries with those in Japan through understanding the status quo of administration & management of the programs in Japan and point out the advantages and disadvantages of agricultural extension programs in their own countries (3) as a leader of agricultural extension services, to be able to make suggestions on the necessary measures to train extension workers in their own countries through understanding how extension programs in Japan are being proceeded (main extension methods and how to establish extension activities) (4) to understand how to educate and train extension workers who will take leadership in agricultural improvement & extension programs and to be able to apply the methods in their own countries

2.MAIN FEATURES OF CURRICULUM The following subjects are included through lectures, discussions and observation tours (1) Background of Extension Programs (2) Outline of Agricultural Improvement & Extension Programs (3) How to Proceed Extension Activities (4) Education & Training of Extension Staff (5) Application of the Training in their own countries

3.QUALIFICATION OF APPLICANT Applicants should: (1) be agricultural extension workers or subject-matter specialists (SMS) who are engaged in training of extension workers, and have more than 5 years of occupational experience in this field (2) be under 50 years of age (3) be university graduates or have equivalent academic background (4) have a sufficient command of spoken and written English.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Japan Agricultural Development & Extension Assoc.

5.REMARKS

THE ROLE OF AGRICULTURAL COOPERATIVES PLAYED IN ACTIVATION OF RURAL ECONOMY

Apr 30,2001 - Jul.1,2001, 13participants

農村経済活性化に果たす農協の役割 J-01-00656

1.PURPOSE This training course aims to help upgrade the capacity and abilities of middle-cadre government officers engaged in cooperative development by imparting them necessary knowledge and information on the role and functions of agricultural cooperative for the revitalization of rural community.

2.MAIN FEATURES OF CURRICULUM This course consists mainly of lecture/discussion with more than 30% of its program being allocated to field trip. Main topics to be dealt with are; (1) ways to strengthen agricultural cooperative as well as to step up agricultural production through promoting formation of various members' voluntary groups including farm management group (2) cooperative activities for improvement of better living of member farmers and their families (3) method of performing democratic control, operation and management of agricultural cooperatives; and (4) method of formulating the long term perspective plans being drafted by agricultural cooperatives.

3.QUALIFICATION OF APPLICANT (1) university or professional school graduates who are now engaged in the offices of cooperative service (2) expected to work in the cooperative movement for more than five (5) years after their participation in the course (3) under forty-five (45) years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hachioji International Training Centre(2) The Inst for The Dev't of Agricult'l Coop. in Asia

5.REMARKS

EMPOWERMENT OF RURAL WOMEN

Sep.3,2001 - Nov.10,2001, 10participants

農村女性能力向上 J-01-00625

1.PURPOSE Introduce the methods to support activities of women who are in charge of the women's issue in governments and Subject Matter Specialist by giving instances, thus contribute to the regional development in which the role of women in each country is specified

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on lectures, practice and field trips. The main themes are; (1) the current situation of rural policy, (2) methods to promote the rural development, (3) examples of regional development in which women's role is specified, (4) training of leaders for the efficient development by empowering women who are playing a central role in rural region

3.QUALIFICATION OF APPLICANT (1) Subject Matter Specialist engage in home living improvement and rural development, person in charge of women's issue in government, which are engaged in the improvement of rural living standards of farm household by developing women's abilities through planning and execution of instruction and training, through the training program how to know the various methods about efforts to raise the status of rural women, participants are expected to be able to understand the importance of participatory development processes include the focus of WID and gender issue, (2) university graduate or equivalent, (3) from 25 to 45 years old.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Rural Women Enpowerment & Life Improvement Assoc.

5.REMARKS

INTEGRATED AGRI.& RURAL DEV'T THROUGH THE PARTICIPATION OF LOCAL FARMERS II

Jun.19,2001 - Jul 29,2001, 9participants

農民参加による農業農村開発II J-01-03511

1.PURPOSE This is designed for central and local government staff 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.
Through the training course, participants are expected to obtain from the viewpoint of local resource utilization, comprehensive development methods to contribute to appropriate and sustainable agriculture and rural development, and knowledge and technology necessary for the promotion and establishment of a plan for sustainable agriculture and rural development that matches the actual circumstances of the locality.

2.MAIN FEATURES OF CURRICULUM This seminar covers the following topics: (1)Lectures (a)Agriculture in Hokkaido (b)Agricultural and Rural Development project (c)Improvement of Rural Area (d)Support System Extended to Farmers, etc (2)Observation (a)Extension center (b)Agricultural cooperation (c)Farmers organizations (d)land improvement (5) Presentation (a)Country Report (b)Final Report

3.QUALIFICATION OF APPLICANT (1) be engaged in the field of irrigation and drainage or agricultural and rural development and have more than ten(10) years of experience; (2) be university graduates or equivalent; (3) under fifty (50) years of age; (4) be proficient in spoken and written English.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Sapporo(2) Japan Green Resources Corporation(JGRC)

5.REMARKS

UPLAND FARMING MANAGEMENT

Jun.11,2001 - Aug 18,2001,10participants

畑作管理 J-01-03349

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 its equivalent (3) be between 25 and 40 years of age (4) to be proficient in spoken and written English (5) be in good health (6) not be serving in military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) City of Obihiro

5.REMARKS

SEED PRODUCTION OF UPLAND CROPS II

May 7,2001 - Aug.19,2001, 7participants

畑作物の種苗生産II J-01-03502

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 wheat through lectures, experiment of demand and supply situation of foods and the diversification of dietary habits in respective countries.

2.MAIN FEATURES OF CURRICULUM This course mainly covers the following themes and the emphasis is put on technical experiences and practices in field. (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) a leading technical administrator and research worker engaged in seed production and related woks of upland crops with more than 5 years of practical experience (2) university graduates or the equivalent (3) between 27 and 45 years of age (4) be in good health and able to undergo the training (5) not be serving military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) National Center for Seeds & Seedlings Tokachi

5.REMARKS

VEGETABLE CULTIVATION TECHNOLOGY FOR EXTENSION

Feb.11,2002 - Nov.22,2002, 9participants

野菜栽培技術 J-01-00631

1.PURPOSE The purpose of this course is to grow practical technicians who can contribute to establish new vegetable cultivation techniques for their country by learning general technologies of vegetable production in Japan.

2.MAIN FEATURES OF CURRICULUM This course consists of lectures, experiments, practices and observations in study tour. Their proportion are set 1:3:1. Participants will learn the knowledge of vegetable cultivation by lectures, get its technology by experiments and practices and understand practical condition by observations. In addition, individual experiments will be conducted by the participants, in order to apply the gotten technology for their countries and to develope the ability of analyzing its result and making report. The main items are: (1) Vegetable Cultivation in General, (2) Vegetable Cultivation Technology such as Vegetable breeding and seed technology, Raising seedling, Soil fertility and diagnosis, Insects and diseases control, Cultivation method of vegetable, Cultivation of major vegetables, and Field trial method and (3) Sustainable Agriculture Technology in Vegetable.

3.QUALIFICATION OF APPLICANT Applicants should be: (1) presently engaging in vegetable production field such as extension officer, training instructor or researchers, (2) university graduates or diploma holders with the occupational experience of more than 3 years in their specialty, (3) no doctorate holder and (4) between 25 and 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS An intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours)

IRRIGATION,DRAINAGE AND RURAL DEVELOPMENT COURSE

Feb.11,2002 - Nov 22,2002, 11participants

かんがい排水・農村開発 J-01-00682

1.PURPOSE The purpose of this course is to introduce systematically scientific knowledge and technology of the irrigation and drainage schemes to irrigation and drainage engineers who are engaged in agricultural development works

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on practices. The main practices are; (1) soil mechanics (2) hydraulics (3) concrete (4) irrigation water requirement (5) survey

3.QUALIFICATION OF APPLICANT (1) presently engaged in practical works in irrigation and drainage (2) university graduate or equivalent with occupational experience of more than five years in their field (3) between 25 and 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (60 hours).

AGRICULTURAL LAND AND WATER RESOURCES DEVELOPMENT II

May 21,2001 - Jul 29,2001, 12participants

農地水資源開発 II　　J-01-00159

1.PURPOSE The purposes of this course are to provide senior engineers in the field of agricultural land and water resources development with the opportunity to learn about advanced technology in Japan and to increase their capability to make plans for agricultural and rural development projects (including planning, designing, and execution)

2.MAIN FEATURES OF CURRICULUM This course covers the following themes. (1) concept and ideas of agricultural land and water resources development (2) engineering aspects of agricultural land and water resources development (3) agricultural and rural development projects (a) method of planning and implementation (b) design criteria and standard for irrigation and drainage facilities (4) current situation and prospect of agricultural land and water resources development in the world (5) utilization of computer technology for agricultural land and water resources development

3.QUALIFICATION OF APPLICANT (1) presently engaged either in the task of agricultural land and water resources development or irrigation and drainage and have more than seven (7) years of occupational experience in this field (2) under 45 years of age (3) university graduate or equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Japanese Institute of Irrigation and Drainage (3) Agricultural Structure Improvement Bureau, M.A.F.F

5.REMARKS

AGRICULTURAL IMPROVEMENT IN UPLAND CROPS AREA

May 28,2001 - Aug 23,2001, 5participants

畑地帯における農業開発　　J-01-00605

1.PURPOSE This course is designed for specialists and civil engineers engaged in agricultural and rural improvement projects. The participants will be expected to learn civil engineering methods (e.g. planning and implementation techniques) related to the improvement of agricultural production infrastructure, through the study of relevant projects, such as the construction of dams for agriculture, irrigation and drainage systems, etc. This course is also designed to deepen knowledge of agricultural and rural improvement projects aimed at maintaining a stable food supply, based on case studies of past projects

2.MAIN FEATURES OF CURRICULUM This course will emphasize field observations in the Obihiro-Tokachi area (Hokkaido, Japan), which is regarded as one of the major sites of large-scale upland and dairy farming operations in Japan. It mainly covers the following subjects: (1) general systems of project implementation and civil engineering related to agricultural production infrastructure improvement projects, (2) civil engineering technology for agriculture and on irrigation and drainage systems, (3) methods of improving the living environment in rural areas

3.QUALIFICATION OF APPLICANT (1) be technical engineers with expertise in agricultural improvement projects, especially in irrigation and drainage systems for upland farming (2) have more than three years of practical experience (3) be at least 25 and no more than 45 years of age (4) be a university graduate or its equivalent (5) be in good health (6) not be serving in military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Northern Regions Center

5.REMARKS

AGRICULTURAL MACHINERY MANAGEMENT UTILIZING MICRO-COMPUTER

Apr.23,2001 - Oct.27,2001, 10participants

電算機利用農業機械管理　　J-01-03448

1.PURPOSE This course is designed for leading agricultural engineers in the field of agricultural machinery management to acquire the following knowledge and skills: (1) better understanding of agricultural machinery performance (2) selection of agricultural machinery appropriate to the operation area, soil quality and variety of crops (3) improvement of managerial ability, i e. cost analysis, etc. (4) practical knowledge on agricultural machinery maintenance and repair (5) ability to instruct others in workshop management (Notice: the agricultural machinery in this course is especially for rice cultivation.)

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on the workshop practice and lectures at agricultural machinery companies. The main themes are: (1) principal agricultural machinery (a) fundamentals of mechanical engineering (b) principles and structure of agricultural components (c) disassembling, reassembling and maintenance (d) field operation (2) agricultural machinery management (a) farm mechanization planning, machine sélection, cost analysis, mechanized farming system, working management, etc.

3.QUALIFICATION OF APPLICANT (1) leading agricultural engineer with at least 3 years' experience in the field of agricultural machinery management and/or instruction in their respective organizations (2) over 28 and under 40 years of age (3) university graduate or equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japan International Cooperation Center

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

FARM MACHINERY TESTING FOR FARM MECHANIZATION

Mar.18,2002 - Jun 23,2002, 8participants

農業機械化のための農業機械評価試験　　J-01-03473

1.PURPOSE The purpose of this course is to systematically introduce the knowledge and techniques required for the testing and evaluation of farm machinery

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on the actual testing and evaluating methodology of farm machinery. The actual testing practices are conducted under the authorized testing cord The main themes are: (1) testing and evaluation of farm machines to determine the performance characteristics, rate of work, durability, safety, ease of operation (2) testing and evaluation method in laboratory and field (3) accurate utilization of testing and measuring instruments (4) data acquisition, data processing and data analyzing by micro-computer (5) farm machinery testing system and administration (6) farm mechanization features (7) study tour to university, research institutes and farm machinery manufacturing companies

3.QUALIFICATION OF APPLICANT (1) university graduate in agricultural engineering or mechanical engineering (2) test engineer or qualified engineer in testing of farm machinery with experience of more than three years (3) between 25 and 50 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Bio-oriented Tech. Research Advance. Institution

5.REMARKS (1) A compulsory intensive Japanese language course is conducted prior to the technical training for 10 days (30 hours). (2) During training period, the participants are to join in the annual meeting of Japanese Society of Agricultural Machinery.

APPLICATION OF AUTOMATION TECHNOLOGY TO FARM MACHINES

Jun 11,2001 - Sep 30,2001, 7participants

畑作機械開発手法 J-01-03450

1.PURPOSE The purpose of this course is to provide agricultural engineers with an understanding of the principles and mechanism of farm (except paddy farming; so throughout) 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 agrimation 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 agrimation 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) be university graduate or its equivalent (5) between 25 and 45 years of age (6) be in good health and able to undergo the training (7) not be serving in military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Obihiro City Industrial Technology Center (3) Hokkaido Industrial Research Institute

5.REMARKS

FOOD PROCESSING AND PRESERVATION TECHNOLOGY II

Jan.15,2002 - Mar 25,2002, 7participants

食品加工・保全技術II J-01-03527

1.PURPOSE This course, intended for the researchers of food related subjects and engineers engaged in food processing, aims to provide proper food processing technologies as well as preservation technologies to protect foodstuffs from deterioration.

2.MAIN FEATURES OF CURRICULUM

3.QUALIFICATION OF APPLICANT

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chugoku International Centre(2) Hiroshima International Center (3) Hiroshima Pref. Food Tech. Research Center

5.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.

POST-HARVEST RICE PROCESSING

Aug.20,2001 - Nov.16,2001, 9participants

米の収穫後処理技術 J-01-00514

1.PURPOSE The purpose of the course is to contribute to the planning, guidance and extension of technical improvement in this field in the government and public organizations of each country It also aims to contribute to the improvement in effective processing technology and to prevent quantitative and qualitative losses by giving participants the knowledge and information on post-harvest rice processing in Japan, such as harvesting, drying, husking, grading, inspection, storage, milling, utilization of by-products, etc.

2.MAIN FEATURES OF CURRICULUM The following major,subjects will be covered in the course. (1) rice production and marketing (2) characteristics of rice (indica and japonica subspecies) (3) harvesting, threshing and drying-machinery operation (4) storage-facility control and management (5) milling-machinery/equipment operation (6) quality control and inspection-system and testing equipment (7) utilization of by-products (husks, bran and brokens)

3.QUALIFICATION OF APPLICANT (1) be senior technical administrator in government or public organizations engaged in planning and promoting the improvement of all post-harvest rice processes (not to be researcher, instructor or professor at college or university/ not be Ph.D. holder) (2) be under 45 years of age (3) be university graduate or the equivalent

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Japan Grain Inspection Association

5.REMARKS

OPERATION AND MANAGEMENT OF IRRIGATION CANAL SYSTEM

Jun 25,2001 - Nov.16,2001, 8participants

かんがい用水システム運営管理 J-01-03500

1.PURPOSE The specially-offered training course on Operation and Management of Irrigation Canal System is designed for irrigation engineers, particularlly for those working for improving water use with existing irrigation facilities, so that they could enhance their knowledge and capabilities in operating and managing canal systems from the view point of efficient and equitable utilization of water resources for sustainable agricultural development in recipient countries. By the end of the training period, the participants are expected 1 to acquire basic knowledge and technology for planning or implementation of efficient irrigation water management; 2 to acquire function and operation skills of each hydraulic structure on main and secondary canals; 3 to understand appropriate methods of efficient and equitable distribution of irrigation water, i e controlling interrelated hydraulic structures under a canal system, and, 4.to acquire the concept of participatory irrigation management by farmers for sustainable development in agriculture.

2.MAIN FEATURES OF CURRICULUM The participants will be provided various practical information and knowledge through lectures, practices,and field trips and so on in order to achieve the course objectives. 1) Basic Technologies on Irrigation Water Management (46 units) to acquire basic knowledge and technology for planning or implementation of efficient irrigation water management 2)Operation and Management of Water Resources and Canal Systems(46 units) 1. to acquire function and operation skills of each hydraulic structure on main and secondary canals 2. to understand appropriate methods of efficient and equitable distribution of irrigation water, i e. controlling interrelated hydraulic structures under a canal. 3) Canal System Management (30 units): to acquire the concept of participatory irrigation management by farmers for sustainable development in agriculture. 4). Technical Report (36 units) : To deepen technical knowledge in a field related to water management

3.QUALIFICATION OF APPLICANT (1)be nominated by their government in accordance with the procedures mentioned in IV below: (2)be presently engaged in the task of irrigation water managenment and in priciple have more than 5 years of occupational experience in this field, (3)be 40 years of age or under, (4)be university graduates or have the equivalent academic background, (5)have a sufficient command of spoken and written English for the training, (6)be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course, and (7)not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS

AGRICULTURAL MACHANIZATION FOR SUSTAINABLE FARMING SYSTEM

Feb.18,2002 - Nov.10,2002, 12participants

持続型機械化営農システム J-01-03499

1.PURPOSE Through the training program, participants are expected 1.to deepen their knowledge on characteristics of mechanization and systems of mechanizations in Japan's rice production, 2.to master the mechanisms and operation of small farm machinery in Japan, 3 to be able to make a mechanization plan and its evaluation, and 4 to be able to carry out field performance tests of farm machinery and analyze the results before its introduction to their countries

2.MAIN FEATURES OF CURRICULUM The following major subjects will be covered in the course: 1)Farm mechanization; Effective introduction of machinery (planning, inspection and selection), its utilization, systematic mechanized farming concerned with rice production and maintenance techniques for farm machinery. 2)Farm machinery; Structure, operation and evaluation methods of farm machinery 3)Subjects related to mechanization; Rice cultivation, land improvement and cooperative use of farm machinery in Japan, etc. .

3.QUALIFICATION OF APPLICANT Applicants should (1)be a government officer (administrative officer, agricultural engineer, agronomist) in charge of farm mechanization with occupational experience of more than three years, (2)be a university graduate or have the equivalent academic background, (3)be not less than twenty-five (25) and not more than forty-five (45) years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)

5.REMARKS

BREEDING AND ARTIFICIAL INSEMINATION TECHNOLOGY FOR CATTLE

Apr.23,2001 - Aug.12,2001, 8participants

牛育種・人工授精技術 J-01-00714

1.PURPOSE The purpose of this course is to provide participants with basic knowledge and practical techniques coupled with the latest information on cattle breeding, know how of AI and its administration system and thus to assist them in designing their own systems in their respective countries

2.MAIN FEATURES OF CURRICULUM The course will consist mainly of lectures and practical training in which the NLBC staff and visiting professionals will give expertise and instruction on ths respective subjects. This will be supplemented by observation trips to the related agencies and institutions. The major subjects are as follows; (1) Outline of livestock industry (2) Cattle breeding (3) Artificial insemination and reproductive physiology (4) Reproduction management ObEmbryo transfer technology

3.QUALIFICATION OF APPLICANT

4.JICA CENTER / TRAINING INSTITUTIONS (1)Nihonmatsu Training Centre (NTC)(2) National Livestock Breeding Center

5.REMARKS

EMBRYO TRANSFER TECHNOLOGY FOR CATTLE

Aug.6,2001 - Dec.2,2001, 8participants

牛受精卵移植技術 J-01-00582

1.PURPOSE The purpose of the course is to provide the latest ET (embryo transfer) technique in Japan for livestock breeding personnel in countries faced with such necessities, and ultimately to contribute to the progress of animal industry by the application and improvement of the techniques under their respective countries' condition. The course provides basic theory and practical use of ET as well as its administration.

2.MAIN FEATURES OF CURRICULUM The course will consist mainly of lectures and practical training, in which the NLBC staft and visiting professionals will give expertise and instruction on the respective subjects. This will be supplemented by observation trips to the related agencies and institutions. The subjects are as follows: (1) Outline of livestock industry (2) Reproductive physiology (3) Embryo transfer technology (4) Cryopreservation of embryos (5) Embryo transfer technology applications (6) ET-related technologies

3.QUALIFICATION OF APPLICANT (1) be nominated by their government (2) hold veterinarian's license, or artificial inseminator's license, and have sufficient experience and knowledge about artificial insemination technique. In this course, a non-surgical method is applied for practice drills in recovery and transplantion of embryo. This method requires applicants to have enough knowledge of, and have at least three years practical experience in AI or ET. (3) university graduate or equivalent academic background (4) over 27 and under 40 years of age, in principle (5) proficient in spoken and written English (6) be in good health to undergo the training course. Pregrancy is regarded as a disqualifying condition (7) not be serving in the military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Nihonmatsu Training Centre (NTC)(2) National Livestock Breeding Center

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 3 weeks.

SWINE PRODUCTION AND BREEDING TECHNOLOGY

Aug.6,2001 - Dec.2,2001, 6participants

豚育種・生産技術 J-01-00588

1.PURPOSE The purpose of the course is to transfer the latest technology and knowledge of swine production and breeding technology in Japan to participating countries facing such necessities. It is designed to train leading technologists who can promote swine breeding, and ultimately contribute to the progress of animal industry.

2.MAIN FEATURES OF CURRICULUM The course covers the whole range of swine production and breeding technology. The subjects are as follows: (1) new technology of swine breeding (2) feeding and management technology (3) disease and health control measures (4) artificial insemination technology using frozen semen (5) embryo transfer technology (6) meat analysis by scanning scope

3.QUALIFICATION OF APPLICANT (1) be nominated by their government (2) university graduate or equivalent academic background (3) have more than three years' occupational experience in the field of swine breeding at government institutes or universities (4) proficient in spoken and written English (5) under 40 years of age (6) be in good health to undergo the training course. Pregrancy is regarded as a disqualifying condition (7) not be serving in the military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Nihonmatsu Training Centre (NTC)(2) National Livestock Breeding Center

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 3 weeks.

FORAGE CROPS PRODUCTION AND UTILIZATION

Mar 25,2002 - Aug 25,2002, 6participants

飼料作物生産・利用技術 J-01-03475

1.PURPOSE The purpose of this course is to provide improved technologies relating to forage crops production and utilization, to participants from developing countries where sustainability in livestock farming is at stake. It is generally recognized that the improvement of the forage crops might cause not only the improvement of productivity itself but also that in fertility. This course provides knowledge on advanced technology through lectures and excursions to public and private institute and advanced farmers. Also, participants are expected to acquire skills for improving forage crops production situation while maintaining sustainability and giving attention to environment through practical on various aspects of forage crops production, processing and utilization including soil science, pastureland management, feed analysis and animal nutrition.

2.MAIN FEATURES OF CURRICULUM The course covers various aspects of forage crops production and utilization. The major subjects are as follows; (1) Outline of livestock industry (2) Statistics for breeding and experiment (3) Soil science (4) Animal nutrition (5) Forage crops production and utilization technology (6) Feeding and management (7) Seed production

3.QUALIFICATION OF APPLICANT (1) be nominated by their government (2) be employed by a public organization which is doing administration, research and/or extension works on forage and pasture production and/or management (3)have working experience in forage production and pasture management for at least 3 years (4) over 26 years and under 40 years of age (5) university graduate or equivalent academic background (6) be in good health to undergo the training course Pregnancy is regarded as a disqualifying condition (7) not be serving in the militaly (8) proficient in spoken and written English

4.JICA CENTER / TRAINING INSTITUTIONS (1)Nihonmatsu Training Centre (NTC)(2) National Livestock Breeding Center

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for three (3) weeks.

POULTRY PRODUCTION AND BREEDING TECHNOLOGY

Jan 7,2002 - Apr 28,2002, 9participants

鶏育種・生産技術 J-01-00061

1.PURPOSE Although the course is named "Poultry Production and Breeding Technology", it should be noted that in Japan, "poultry industry" is almost a synonym of "chicken industry". Thus the course is designed to provide the participants with knowledge and technology on chicken. The purpose of the course is to transfer basic and practical knowledge and technique on chicken to the personnel engaged in the chicken industry in their own countries. It should be particularly emphasized that the course will train practical technicians engaged in directly instructing farmers, not researchers or administrators.

2.MAIN FEATURES OF CURRICULUM In this Course, participants are expected to be able to acquire knowledge and technique in the following items. (1) Outline of livestock industry (2) Poultry breeding and reproduction (3) Feed and production technology (4) Hygiene and feeding management (5) Farm management and marketing

3.QUALIFICATION OF APPLICANT (1) be nominated by their government (2) presently in charge of poultry relating activities, with more than three years' experience in this field (3) university graduate or equivalent academic background (4) proficient in spoken and written English (5) under 40 years of age (6) be in good health to undergo the training course. Pregrancy is regarded as a disqualifying condition (7) not be serving in the military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Nihonmatsu Training Centre (NTC)(2) National Livestock Breeding Center

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 3 weeks.

DAIRY FARMING & RELATED TECHNIQUES

Aug.6,2001 - Nov.1,2001, 7participants

酪農振興・検査技術 J-01-00334

1.PURPOSE The course is designed to train dairy specialists and technicians to be leaders in their fields, by providing basic, practical knowledge about the technique essential to strengthening dairy farming such as livestock health inspection techniques, sanitary methods and inspection techniques for maintaining meat and milk quality, etc., and to contribute to international relationships and the promotion of science.

2.MAIN FEATURES OF CURRICULUM This course consists of common subjects for all participants and elective specialized subjects. The followings are main items in common subjects. (1) feeding, management and reproduction in dairy cattle (2) diseases and their prevention in dairy cattle (3) improvement of sanitary conditions for housing and equipment (4) processing of meat and dairy products, and inspection techniques. Participants will be divided into two groups to cover one of the following subjects: (1) quality tests and sanitary inspection techniques in meat and milk products (2) animal husbandry techniques

3.QUALIFICATION OF APPLICANT (1) engaged in fields related to animal husbandry (2) university graduate or equivalent (3) over 25 and under 40 years of age (4) be in good health (5) not be serving in military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Obihiro Univ. of Agricult. & Veterinary Medicine

5.REMARKS

VETERINATY TECHNOLOGY FOR FARM ANIMALS

Aug 20,2001 - Nov 25,2001, 6participants

産業動物の獣医技術 J-01-03513

1.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.
Through the training program, participants are expected; (1)to understand standard technical techniques including diagnosis and treatment of prevalent animal (mainly cattle) diseases (internal medicine, surgery, reproduction), (2)to understand techniques of herd health and prevention of infectious diseases, (3)to understand food hygiene and sanitation including meat inspection, handling, guidance and supervision, (4)to learn methods of creating organizational structures including those for veterinary as well as other administrative, academic, research, clinical and agricultural organizations and institutions

2.MAIN FEATURES OF CURRICULUM This course covers the following topics. (1)Lecture (a)Dairy and livestock farming in Hokkaido (b)Outline of veterinary system (c)Livestock raising and management (d)Internal medicine for animals, etc (2)Practice (a)Dairy herd medical examination techniques and nutritional management guidance (b)Diagnosis of diseases, clinical examination and treatment (c)Surgical diagnosis, clinical examination and treatment of animals (d) Reproductive diagnosis, clinical examination and treatment of animals (3)Field Trip (a) Dairy farms near Sapporo (b)Horse breeding farms (c)Livestock clinics (d)Meat inspection office, etc

3.QUALIFICATION OF APPLICANT (1) be clinical veterinarians or veterinarians who work for central or local government and have more than five(5) years of experience in this field; (2) be university graduates with a degree of veterinary medicine or equivalent; (3) be under thirty-five (35) years of age; (4) have a sufficient command of written and spoken English

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Sapporo(2) Hokkaido Veterinary Medical Association

5.REMARKS

RESEARCH ON VETERINARY TECHNOLOGY

Mar 25,2002 - Oct 6,2002, 6participants

獣医技術研究 J-01-03431

1.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

2.MAIN FEATURES OF CURRICULUM (1) General lectures on animal health technology and research methodology (14 days) (2) Field trips to the institutes and animal husbandry (10 days) (3) Individual research training at the laboratories (5 months)

3.QUALIFICATION OF APPLICANT (1) Presently engaging in the research activities on animal health (2) with 5 years of experience in relative field (3) over 25 years old and under 40 years years old (4) graduated from university or with equivalent knowledge (5) with veterinary license

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) National Institute of Animal Health (NIAH)

5.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.

ADVANCED STUDIES ON PROTOZOAN DISEASES

Oct 22,2001 - Sep 8,2002, 10participants

上級原虫病研究 J-01-03476

1.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.

2.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 specialty 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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Obihiro Univ. of Agri. & Vet. Med ,Research Center

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

DIGANOSTIC TECHNOLOGY FOR DISEASE OF FOOD ANIMALS

Sep.10,2001 - Mar.2,2002, 6participants

食用動物疾病の診断技術 J-01-03364

1.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.

2.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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) College of Agriculture,Osaka Prefecture University

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one month. 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.

UTILIZATION AND PRESERVATION TECHNIQUES FOR AGRICULTURAL AND ANIMAL PRODUCTS

Jan 28,2002 - Jul 6,2002, 5participants

農畜産物の利用とその保蔵技術 J-01-03518

1.PURPOSE This course is subject to learn the method to provide safe agricultural or stock farm products physically, chemically and microbiologically.

2.MAIN FEATURES OF CURRICULUM (1) production of agricultural or stock farm products (2) analytic method of agricultural or stock farm products (3) processing and storage of agricultural or stock farm products (4) package and distribution of agricultural or stock farm products

3.QUALIFICATION OF APPLICANT (1) person who have basic knowledge on food science and a certain level of food analysis with more than 3 years of practical experience (2) university graduates or the equivalent (3) between 25 and 40 years of age (4) be in good health and able to undergo the training, especially not to have a skin disease (because participants have many chance to deal with food.) (5) not be serving military

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Northern Regions Center

5.REMARKS In this course, participants have to deal with and eat pork.

SEMINAR ON COASTAL FISHERIES MANAGEMENT

Jul 5,2001 - Aug 5,2001, 10participants

沿岸漁業の管理行政 J-01-00664

1.PURPOSE Marine resources are often managed as common property resource and this creates excessive competition among fishers and leads to resources depletion. Above all, coastal fisheries are very difficult to manage due to the complex situation where too many fishermen catch a large variety of fish species using many types of fishing gear. In Japan, over several centuries, coastal fisheries villages have developed their own community based management system suitable to its natural and social environment. These circumstances can provide the best learning opportunity for the participants who are involved in the legislation and institutional building for coastal fisheries management in their countries The programme will enhance the capability of participants involved in policy and planning of coastal and inland fisheries management through application of a holistic and participatory approach, using Japanese lessons.

2.MAIN FEATURES OF CURRICULUM The programme is one-month duration and includes Japanese case studies on coastal fisheries management including legal, institutional and anthropological analysis. The situation and problems in participants' countries will also be analyzed. As an output from this program, all participants are requested to formulate a project plan for their coastal fisheries management.

3.QUALIFICATION OF APPLICANT (1) director or government official at an equivalent level in charge of development planning in the fisheries sector and with more than five years' occupational experience (2) university graduate or equivalent (3) under 50 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre

5.REMARKS

SUSTAINABLE MANAGEMENT OF MANGROVE ECOSYSTEMS

Jun.14,2001 - Sep.9,2001, 6participants

持続可能なマングローブ生態系管理技術 J-01-00662

1.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.

2.MAIN FEATURES OF CURRICULUM (1) Ecology (2) Silviculture (3) aquaculture (4) Management plan and strategy (5) Public awareness (6) Report making (7) Field and labolatory work

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Okinawa International Centre(2) Int'l Society for Mangrove Ecosystems(ISME)

5.REMARKS

PRACTICAL CASE STUDIES ON SUSTAINABLE FOREST MANAGEMENT

Aug.13,2001 - Nov.3,2001, 12participants

持続可能な森林経営の実践活動促進 J-01-00699

1.PURPOSE Through the training program, participants are expected to acquire the technology and knowledge in the following items. 1. Forest resource monitoring by using the criteria and indicators for sustainable forest managemanet. 2. Practical planning of national forest by using participatory method.

2.MAIN FEATURES OF CURRICULUM (1) Introduction (2) Criteria and indicators of SFM (3)Forest resource monitoring (4) National forest program (5) Participatory method (6) Practical Forestry (7) Extension activities (8)Summary and evaluation

3.QUALIFICATION OF APPLICANT (1) technical staff in charge of forest management in the governmental organizations and have more than five years of experience (2) university graduate or equivalent (3) not more than 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hachioji International Training Centre(2) Forest Training Institute of The Forestry Agency

5.REMARKS A compulsory intensive Japanese language will be conducted prior to the technical training for two weeks

FOREST RESEARCH

Aug 13,2001 - Nov 18,2001, 5participants

森林研究 J-01-00501

1.PURPOSE The course is designed to upgrade knowledge and skill of the participants in the field of forest environment and forest biology research, so as to train researchers capable of playing important roles in this field.

2.MAIN FEATURES OF CURRICULUM This course comprises three sub-courses; "Forest", "Forestry" and "Forest Products". Each sub-course is conducted every three years. This year (Japanese Fiscal Year 2000), the sub-course "Forest Products" will be conducted. This course consists of common subjects for all participants (about one week) and individual research work in the laboratory (about 2 months). Each participant is to take one of the 20 subjects in the field of (1) Microbial Treatment of Wood (2) Chemical Conversion of Wood Components (3) Chemical Processing of Wood (4) Wood Improvement (5) Wood Characteristics (6) Wood Processing (7) Timber Engineering

3.QUALIFICATION OF APPLICANT (1) University/college graduate or equivalent (2) Research scientist of forest research organizations or universities with at least 5 years of occupational experience (3) Under 40 years of age. Note. This training course is not designed for administrators, but for research scientists.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Forestry and Forest Products Research Institute

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one weeks (25 hours).

FOREST MANAGEMENT

Aug 28,2001 - Nov.18,2001, 17participants

森林造成 J-01-00657

1.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.

2.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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre, Obihiro(2) Japan Overseas Forestry Consultants Association (3) Forestry Agency

5.REMARKS

FOREST SOILS

Jun 28,2001 - Nov 4,2001, 6participants

森林土壌 J-01-00335

1.PURPOSE The course is designed to introduce the knowledge on forest soils and the method of the forest soil survey in Japan to those who are presently engaged in practice and research work in forestry in governmental organizations.

2.MAIN FEATURES OF CURRICULUM In this course, the following are the major subjects. (1) forest soil science (a) general description of forest soils (b) formulation, classification and distribution of forest soils (c) vegetation, productivity and water conservation with forest soils (d) soils and fertilizers for forestry nursery (e) forest soils in Okinawa (2) investigation into forest soils (a) methods of forest soil investigations (sampling and analysis) (b) soil mapping and utilization on forest maps (c) field research and investigations

3.QUALIFICATION OF APPLICANT (1) working in a forestry research organization or university with more than five years of occupational experience in forest soil research (2) university graduate or equivalent (3) 40 years of age or younger

4.JICA CENTER / TRAINING INSTITUTIONS (1)Okinawa International Centre(2) Faculty of Agriculture, University of The Ryukyus (3) Japan Forest Technical Association

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (45 hours).

SUSTAINABLE FOREST MANAGEMENT IN CONSERVATION AREA

Jan.14,2002 - Mar.10,2002, 7participants

森林保護地域等の管理・経営 J-01-00627

1.PURPOSE Though the training program, Participants are expected to acquire the technology and knowledge in the following items (1) Condition of forestry and forest policy in Japan (2) Methods of conservation and sustainable use for preserved forest in Japan (3) Methods of conservation and sustainable use for preserved forest in developing countries

2.MAIN FEATURES OF CURRICULUM This course is designed to balance lecture and practice, and the main themes are: (1) Condition of forestry and forest policy in Japan (2) Methods of conservation and sustainable use for preserved forest in Japan (3) Methods of conservation and sustainable use for preserved forest in developing countries

3.QUALIFICATION OF APPLICANT (1) Technical staff in charge of forest management in the governmental organizations and have more than three years of experience (2) University graduate or equivalent (3) Not more than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hachioji International Training Centre(2) Forest Training Institute of the Forestry Agency

5.REMARKS

APPLICATION OF SYMBIOTIC MICROORGANISMS IN TROPICAL AGRICULTURE AND FORESTY

Jul 23,2001 - Oct 26,2001, 5participants

熱帯農林業における共生微生物の利用技術 J-01-03452

1.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.

2.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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Kansai Environmental Engineering Center Co.,Ltd (3) Biological Environment Institue

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (45 hours).

FRESHWATER AQUACULTURE

Feb.19,2002 - Jun 16,2002, 6participants

淡水養殖 J-01-00610

1.PURPOSE Capture fisheries are now fully exploited and further increase in production must come from aquaculture if future demand for fish is to be met. Since fresh water aquaculture does not necessarily require complex techniques and large investment, it can be widely beneficial to any gender including highland facing protein shortage. Correctly used, it can be environment friendly and preserve biodiversity. In spite of its small production, Japanese aquaculture has made significant advances in bio and environment related technology. This course is designed to upgrade technical capability necessary for the development of sustainable aquaculutre.

2.MAIN FEATURES OF CURRICULUM The program is four months duration and includes lectures, discussion groups, observation tours, study trips, report making as well as practical work in the laboratory and at field stations in Japan The main topics covered are Aquaculture development strategy, Fish pathology, Seed production, and Fish nutrition, considering more emphasis on the conservation of environment and on the safety of fish for human food.

3.QUALIFICATION OF APPLICANT (1) engaged in the strategic planning on inland aquaculture (2) more than 3 years experience on practice, research or technical development in inland aquaculture (3) university graduate (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2)Nippon Veterinary & Animal Science University

5.REMARKS A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to the technical training.

SUSTAINABLE USE OF MARINE MICROORGANISMS & MARINE NATURAL CHEM

Oct 15,2001 - Jul 29,2002, 5participants

海洋微生物・海洋天然化学物質利用技術 J-01-03343

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.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(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.

FISHERIES DEVELOPMENT AND ENVIRONMENT

Jan 8,2002 - Feb 24,2002,10participants

環境と水産開発 J-01-00518

1.PURPOSE Some of the most important aspects of fishery development are environmental issues. Oceans, lakes and rivers are the basis of the production and their pollution can be fatal to industry and society. On the other hand, fisheries can be the cause of pollution by toxic waste dumping, medicines and feed for aquaculture. Japan has suffered from several serious pollution cases of which Minamata is the most serious. This Japanese experience is very valuable to the countries which have a risk of environmental hazard. The purpose of this course is to widen the understanding on factors that affects the fishery environment and to enhance the strategic planning and management capabilities of senior personnel in government and industry.

2.MAIN FEATURES OF CURRICULUM The programme is one-month duration and includes lectures, study trips, work shops and group discussions. The topics covered are Marine resources management, Coastal area management, Sustainable aquaculture, Biodiversity, Coral reef, Mangrove, Tree planting, case study on Minamata. As a output of this course, all participants are requested to formulate a project plan for environmental freiendly fisheries development in their home country.

3.QUALIFICATION OF APPLICANT (1) director or government official at an equivalent level in charge of development planning in the fisheries sector and with more than five years' occupational experience (2) university graduate or equivalent (3) under 50 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre

5.REMARKS

SEMINAR FOR WOMEN'S ACTIVITIES IN FISHING VILLAGES

Nov.1,2001 - Dec 16,2001, 7participants

漁村における女性指導者養成 J-01-03480

1.PURPOSE The purpose of the seminar is to contribute to women's empowerment as well as gender oriented development of fishing communities by a introducing gender concept in rural development and methods to support women's activities in fishing villages to central/local government staff, fisheries community leaders and NGOs staff.

2.MAIN FEATURES OF CURRICULUM The seminar consists of lectures, discussion, observation trips and report writing. The course covers the following issues: (1) current situation of Japanese fishing villages and women's role, (2) women's empowerment (3) improvement of living standards in fishing villages (income generation, environment, resource management, health, etc.) As an output of the seminar, all participants are requested to formulate an action plan for support of women's activities in their home country.

3.QUALIFICATION OF APPLICANT (1) central/local government staff, fisheries community leader or NGO staff (2) engaged in the support of women's activities in fishing village with more than three years' occupational experience (3) under 50 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre

5.REMARKS

FISH PATHOLOGY AND ENVIRONMENTAL MANAGEMENT OF AQUACULTURE

Aug.20,2001 - Nov 25,2001, 5participants

魚類防疫・環境管理　　J-01-00351

1.PURPOSE This course is designed for those who belong to institutions of education and research, to understand the importance of environment control and practical techniques of preventing epizootics, which is important theme in aquaculture.

2.MAIN FEATURES OF CURRICULUM The emphasis is placed on the ecology of aquaculture, and the practical techniques for preventing epizootics in fish. The curriculum is composed of lecture and technical training. The subjects covered in the course are: (1) coastal oceanography (2) environmental microbiology; (3) planktonology; (4) fish pathology; (5) prevention of epizootics in fish.

3.QUALIFICATION OF APPLICANT (1) presently engaged in either in research or educational activities in aquaculture, with more than three years of occupational experience; (2) university graduate or the equivalent; (3) less than 40 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) National Fisheries University

5.REMARKS A compulsory 50-hour Japanese language course will be conducted prior to the technical training

FISHERIES ORIENTED RESOURCE MANAGEMENT

Jul 9,2001 - Dec.3,2001, 7participants

資源管理型漁業　　J-01-00336

1.PURPOSE The purpose of the course is to enable the participants who belong to fisheries research institutes (university) and fisheries offices to understand the basic theory and techniques for the fisheries oriented resource management. After this course, it is expected of them to plan a suitable system for the sustainable fishery resource exploitation in their respective countries.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on understanding the idea of the fisheries oriented resource management, not on learning a certain specialized field or a technique in fisheries. It mainly covers: (1) theory of fisheries oriented resource management (2) method of researching marine ecosystem and aquatic community (3) method of preparing artificial reefs (4) method of seed stocking (5) making his/her own fisheries oriented resource management plan for his/her country

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent and be experienced in business over five years (2) presently engaged in either research or educational activity in fisheries (3) not more than 40 years old

4.JICA CENTER / TRAINING INSTITUTIONS (1)Shikoku Branch Office(2) Usa Marine Biological Institute, Kochi University

5.REMARKS Japanese lessons(60 hours)

COASTAL FISHING TECHNIQUE FOR SUSTAINABLE RESOURCE USE

Feb 26,2002 - Jun 23,2002, 5participants

持続可能な沿岸漁業　　J-01-00679

1.PURPOSE The code of conducts for responsible fisheries, adopted by the Twenty-eighth Session of the FAO Conference on 31 October 1995, sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity This program is for sustainable resource use course will prepare participants for work to strengthen the technical basis of sustainable fishing by modification of existing fishing gear, methods and practices and/or introduction of new conservation oriented fishing practices.

2.MAIN FEATURES OF CURRICULUM The program is four months duration and includes lectures, discussion groups, observation tours, study trips, report making as well as sea-going fishing operations The participants have practical training in the construction and operation of fishing gear based on Japan's coastal fishing experience. The programme puts emphasis on selectivity to minimize waste, discards, catch of non-target species and sizes. It also addresses fishery resources management, habitat disturbance, care of the catch and energy optimization.

3.QUALIFICATION OF APPLICANT (1) engaged in training or extension service for coastal fishing tecniques (2) more than 3 years experience in fishing gear design and operataion (3) senior high school graduate or equivalent (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) Faculty of Fisheries,Kagoshima University (3) School of Fisheries Sciences, Kitasato University (4) Fisheries & Aquaculture International Co ,Ltd

5.REMARKS A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to practical training.

MECHANICAL MAINTENANCE FOR SMALL SCALE FISHERIES

Jan 8,2002 - May 12,2002, 8participants

小型漁船の機関保守　　J-01-00277

1.PURPOSE One of the most important factors for increasing the safety and profitability of fishing operations, is the reliable performance of fishing boats and mechanical systems for catching and storage of fish and fisheries products. Although there has been a significant increase in the number and type of modern high technology boats in coastal fishing communities in developing countries, there has been a little effort placed on providing adequate training for boat operators in maintenance and repair. Consequently, it is often the case, many boats and refrigeration systems break down and remain idle because of a lack of skill to repair and maintain them Training in mechanical repair and maintenance is both an important and urgent task to sustain coastal fishing communities

2.MAIN FEATURES OF CURRICULUM This is a "Training of trainers" type programme. The core of the programme is high-level practice at Japan's leading manufacturing companies of diesel engines, outboard motors, refrigeration, FRP, fish finder & GPS and hydraulic machinery.

3.QUALIFICATION OF APPLICANT (1) engaged in training or extension service as instructor or assistant instructor for maintenance and repair of machines used in coastal fishing boats, refrigeration plants or hydraulic workshops. (2) more than 3 years experience in maintenance and repair (3) senior high school graduate (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) Yammar Diesel Engine Co..ltd (3) Yamaha Motors Co., Ltd.

5.REMARKS A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to practical training.

BASIC THEORY OF OCEAN MECHANICAL ENGINEERING FOR FISHERIES

Mar 25,2002 - Jun 21,2002, 5participants

水産業振興のための海洋機械工学の基礎 J-01-03407

1.PURPOSE This course is designed for the members of government and private sector who are currently engaged in the management of ocean technology and marine/seafood engineering, and aims at upgrading the participants' capability of technology and engineering management for their respective countries.

2.MAIN FEATURES OF CURRICULUM (1) Operation and air pollution of marine engine (2) Ocean energy and applications of heat transfer system (3) Management of refrigerating machine (4) Structural integrity and sustainable technology (5) Design and manufacturing of ocean machinery (6) Mitigation technology in offshore environment (7) Intelligent control for fishery machinery (8) Fishery science and technology

3.QUALIFICATION OF APPLICANT (1) University graduates (2) Basic Knowledge on fishery management and technology (3) English, TOEFL 550 or equivalent (4) Age; up to 40 years old, but over 30 years old

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chugoku International Centre(2) National Fisheries University

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours)

MARINE AQUACULTURE

Jun 26,2001 - Nov 4,2001, 6participants

海水養殖 J-01-00594

1.PURPOSE Marine capture fisheries are now fully exploited and further increase in production must come from aquaculture if future demand for fish is to be met. Japan is a pioneer in marine aquaculture and has developed businesses of seaweed, finfish and shellfish Food safety of cultured fish, water/soil contamination, fish disease are areas of primary concern for Japan's aquaculture industries The programme will enhance the management capability of participants engaged in the technical development of sustainable aquacultue practices in the marine and brackish sectors.

2.MAIN FEATURES OF CURRICULUM The program is four months duration. Program content includes lectures, discussion groups, study trips, observation tours, report making as well as "hands-on" practical training in fish pathology, seed production, and fish nutrition in the laboratory and at field stations around Japan Aquaculture development strategies with emphasis on conservation of environment and food safety is a focus of the program

3.QUALIFICATION OF APPLICANT (1) engaged in the strategic planning on marine aquaculture (2) more than 3 years experience on practice, research or technical development in marine aquaculture (3) university graduate (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) Tokyo University of Fisheries (3) Nippon Veterinary & Animal Science University (4)

5.REMARKS A two-week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to the technical training

INTEGRATED INSHORE RESOURCE MANAGEMENT IN TROPICAL ISLAND COUNTRIES

Sep 27,2001 - Nov.7,2001, 12participants

島嶼国沿岸資源管理 J-01-03426

1.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.

2.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.

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) Okinawa Prefectural Government

5.REMARKS participants are advised to bring technical background information from their home country that help them prepare the study report.

DEVELOPMENT FRAMEWORK FOR ARTISANAL FISHERIES

Jul 31,2001 - Nov 4,2001, 10participants

零細漁業振興 J-01-00520

1.PURPOSE Sustainable economic activities are a key element of poverty alleviation and improving the socio-economic conditions of artisanal fishery communities is the most important but difficult challenge governments face. In Japan, over several centuries, fishing villages have been carrying out various businesses such as fishing, marketing, processing, aquaculture and financing. Non profitable activities, including fishery management, technology extension, infrastructure construction have also been developed. Fisheries are a unique industry being based on marine & freshwater bodies. Production is uncontrollable due to the dependence on nature, fish commodity is highly perishable and fishermen are not always ready to be organized Japan's experience overcoming these difficulties can be lessons for developing countries to formulate and implement a coherent artisanal fisheries development plan The program will enhance the planning and implementing capacity of persons involved with the organization and management for the artisanal fisheries development.

2.MAIN FEATURES OF CURRICULUM The curriculum is based on around Japan's successful development of coastal fishing villages. The topics covered are Project planning, Income generating activities, Institutional building, Fisheries infrastructure, Fishery management The applicability of these key elements of the program is studied in relation to participants' home country situation. Also covered in the programme are poverty, the marine environment and gender issues The programme is three-month duration and includes lectures, discussion groups, seminars, observation tours and study trips to various field stations in Japan As a output of this course, all participants are requested to formulate a project plan for artisanal fisheries development in their home country.

3.QUALIFICATION OF APPLICANT (1) director or government official at an equivalent level in charge of development planning in the fisheries sector and with more than five years' occupational experience (2) university graduate or equivalent (3) under 50 years of age (4) more than 3 years work experience in fisheries cooperatives and coastal fisheries may be considered

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre

5.REMARKS A week compulsory intensive Japanese language course (total 20 hours) will be conducted prior to practical training.

HANDLING AND PRIMARY PROCESSING OF FISHERY PRODUCTS

May 29,2001 - Sep 2,2001, 8participants

漁獲物処理 J-01-00515

1.PURPOSE Under the fishery resources depletion and food shortage, discards and spoilage of fish are major concern for fisheries. At the same time, fishers income does not always increase even when large catches occur due to collapse of market prices and are often constrained by a lack of value added processing opportunities. In Japan, a wide variety of fish species are prepared into various dishes or processed into various products and the annual per capita fish consumption exceeds 70kg This is achieved through efficient fish distribution system and 15,000 fish processing plants ranging from traditional cottage industry to modern mass production facilities. These circumstances can provide the best training opportunity for the participants who are engaged in upgrading fish handling and processing technology in their countries The programme will develop work place skills to improve and broaden the resource utilization base and to reduce waste in fisheries.

2.MAIN FEATURES OF CURRICULUM The programme is three months duration and includes hands-on practice, visits to selected fish processing and handling companies, lectures, practical laboratory work and report making. The main topics covered are Measuring and maintaining freshness, Post-mortem changes, Chilling and Freezing techniques, Smoking, Drying, Salting, Canning, and Surimi processing and food hygiene.

3.QUALIFICATION OF APPLICANT (1) engaged in either production or technical development on handling and processing of fish and marine products and having more than three years' occupational experience in this field (2) high school graduate or equivalent (3) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) Tokyo University of Fisheries

5.REMARKS A two-week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to the technical training.

QUALITY ASSURANCE OF MARINE FOOD

Sep 4,2001 - Dec.16,2001, 8participants

水産食品品質保証 J-01-00517

1.PURPOSE To supply safe food is basic responsibility of fisheries. However, fish is a highly perishable commodity and easily contaminated. Accidents resulting from food poisoning affect both human life and the viability of industry. In mass food processing, contamination of products may impact large numbers of the population. In Japan, about 15,000 fish processing factories, ranging from traditional small scale to high-tech large scale, produce various commodities To assure quality and to export the products, inspection systems, good management practices and quality control including HACCP have been developed and implemented. These circumstances can provide the best training opportunity for the participants. The programme will enhance the management capability of participants responsible for developing regulations, operational systems and inspection practices for marine food quality assurance.

2.MAIN FEATURES OF CURRICULUM The program is three-month's duration and includes lectures, practical tests and analysis and study trips to various processing plants and factories in Japan. Project plan to improve quality assurance system of home country is completed as a training output. The topics covered are as follows 1) Scientific factors in quality assurance: Post-mortem change, Fish proteins, Fats and oils of marine organisms, Water activation, Food poisoning bacteria, Chemical preservation and food additives 2) Quality assurance of fish processing: Post-harvest treatment, Chilling and freezing, Salting, drying and smoking, Canning and Retort pouch processing, Surimi processing, Feeding and transportation of live fish 3) Tests and analysis. Freshness assessment, Bacteriological examination, Chemical analysis (additives, heavy metal, marine toxins) 4) Design of processing plant layout 5) Sanitary control at markteing and processing facilities 6) Quality assurance management: HACCP, Laws and regulations, Inspection and monitoring system

3.QUALIFICATION OF APPLICANT (1) be supervisory administrators responsible for quality assurance management of marine food (2) be university graduate or equivalent (3) have a sufficient command of spoken and written English (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) School of Fisheries Sciences, Kitasato University

5.REMARKS A week compulsory intensive Japanese language course (total 20 hours) will be conducted prior to technical training.

SAFETY AND ENVIRONMENT MANAGEMENT FOR OFFSHORE PETROLEUM DEVELOPMENT

Oct.9,2001 - Nov.4,2001, 10participants

海洋石油開発に係る安全と環境の管理技術 J-01-03495

1.PURPOSE The purpose of the course is to exchange the information on the technology and plans of the labor safety and the prevention of ocean pollution among the technical officers who are engaged in the offshore petroleum development in the participating oil producing countries, for the improvement of the safety and environment management in this field.

2.MAIN FEATURES OF CURRICULUM The following major subjects will be covered in this course, mainly by means of lectures: (1) environmental management system (2) environmental impact assessment (3) risk management system (4) risk analysis (5) oil well explosion (6) waste processing after drilling (7) oil spill contingency

3.QUALIFICATION OF APPLICANT (1) be nominated by their government, (2) be technical officials presently in charge of safety and environment management for petroleum development in central government, with at least more than two (2) years of professional experience in this field, (3) be under thirty-five (35) years of age, (4) be university graduates or possess the equivalent technical qualification in this field, (5) have a sufficient command of spoken and written English, (6) be in good health, both physically and mentally, to undergo the training, (7) not be serving in any form of military services.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Agency for Nuclear and Industrial Safety, METI

5.REMARKS Country Report will be highly utilized both for the selection of participants and for the country report presentation.

SUSTAINABLE MINERAL DEVELOPMENT

Jul.30,2001 - Nov 22,2001,20participants

環境調和型鉱業開発 J-01-00602

1.PURPOSE The purpose of the course is to enable the participants: (1) to deepen the knowledge of mining and environmental technology for sustainable mineral development through lectures, practices and field trips, and (2) to enhance the knowledge and technology necessary for their mining business and environmental issues after going back to their respective countries.

2.MAIN FEATURES OF CURRICULUM This course consists of lectures, practices and field trips. Participants will be divided into three groups in the following fields: (1) Exploration (2) Mining (3) Mineral processing and Metallurgy.

3.QUALIFICATION OF APPLICANT (1) university/college graduates or equivalent who have basic knowledge of mineral mining (2) mining geologist, mining engineer, milling engineer, metallurgist or other engineer concerned with mining industry who are presently employed at government institutions or private companies in the field of mining development (3) have more than five years of practical experience (4) be proficient in spoken and written English (5) under approximately 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tohoku Branch Office(2) International Institute for Mining Technology

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks.

DEVELOPMENT OF NEW MATERIALS AND ENVIRONMENT PROTECTION PROCESS

Aug 6,2001 - Jun 2,2002, 6participants

新材料開発及び環境保全プロセス J-01-03422

1.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

2.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

3.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.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tohoku Branch Office(2) Tohoku National Industrial Research Institute

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks

COAL MINE TECHNOLOGY

May 14,2001 - Aug 12,2001,12participants

石炭鉱山技術 J-01-00601

1.PURPOSE The course is designed to introduce practical technology and knowledge in the field of coal mine technology (mainly for underground mines) to the articipants, who are safe or production engineers at coal mines so that they can play important roles in contrib uting to the expansion and development of the coal mine industries

2.MAIN FEATURES OF CURRICULUM This course consists of (1) safety (2) production (3) on site training at coal mine (4) theoretical studies.

3.QUALIFICATION OF APPLICANT (1) mining engineers (safety, production) presently engaged in the field of coal mine (2) university graduate or equivalent with basic knowledge of coal mine with occupational experience of more than three years (3) more than 30 years and less than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) National Institute for Resources and Environment,M

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for a week (20 hours).

INTELLECTUAL PROPERTY FOR APEC ECONOMIES

Aug.28,2001 - Oct.28,2001, 20participants

ＡＰＥＣ工業所有権 J-01-03344

1.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.

2.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.

3.QUALIFICATION OF APPLICANT (1) be a government official with more than 3 years of experience in administration or examination in the field of IPR system: administrative official whose duties include intellectual property administration; or examiner in an IPR office, who is responsible for the examination of patents, utility models, industrial designs and trademarks; (2) be aged between twenty-five (25) and fifty (50); (3) be a university graduate, or has an equivalent educational background; (4) have a sufficient command of spoken and written English; (5) be both physically and mentally healthy (As training over a long period may pose risks to pregnant women, pregnancy is regarded as a disqualifying condition for participation in this training course); and (6) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japan Institute of Invention & Innovation (3) Patent Office

5.REMARKS This course is organized for APEC Economies.

SEMINAR ON STANDARDIZATION AND QUALITY SYSTEM FOR ASEAN COUNTRIES

Feb.11,2002 - Mar 15,2002, 8participants

ＡＳＥＡＮ標準化・品質システム J-01-03417

1.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.

2.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.

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Japanese Standards Association

5.REMARKS

SEMINAR ON INDUSTRIAL STATISTICS (FOR ASEAN COUNTRIES)

Oct 2,2001 - Nov 3,2001, 12participants

産業統計セミナー（アセアン諸国） J-01-03472

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.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Research and Statistics Dept , MITI

5.REMARKS

IMPLEMENTATION OF CONFORMITY ASSESSMENT FOR INDUSTRY

Nov 6,2001 - Dec.22,2001,10participants

適合性評価実践（工業分野） J-01-00623

1.PURPOSE The purpose of this course is to introduce to participants working in certification bodies, testing laboratories or inspection agencies, the certification system in Japan which has contributed greatly to quality assurance in the industrial field in Japan, as well as encouraging participants' interest in quality.

2.MAIN FEATURES OF CURRICULUM The main themes of this course are; (1) philosophy of the certification system (2) Japanese certification systems, particularly the JIS (Japanese Industrial Standards) Marking System (3) voluntary and compulsory certification systems (4) international movements related to certification systems (5) assessment procedures for assuring conformity with concerned standards (6) practical inspection procedures (7) promotion of quality products in each participating country

3.QUALIFICATION OF APPLICANT (1) currently engaged in the work relating to certification, inspection, and testing, (2) be between twenty-five (25) and forty-five (45) years of age, (3) be college or university graduates, or have an equivalent educational background, (4) continue working in the field of certification, inspection, and testing after returning home, (5) have a sufficient command of spoken and written English, (6) be in good health, both physically and mentally, to undergo the training, and (7) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japanese Standards Association

5.REMARKS This course mainly covers manufacturing fields such as the mechanical, electrical and electronic, and textile industries It does not cover such fields as the agricultural, forestry, food, pharmaceutical, and service industries, etc.

LEGAL METROLOGY

Jul 9,2001 - Dec 9,2001, 6participants

法定計量 J-01-00513

1.PURPOSE This course is organized for government officers working as senior verification officers responsible for verification and inspection of measuring equipment in the field of legal metrology. It will serve as a good opportunity to upgrade the level of legal metrology technology and to understand the state-of-the-art legal metrology system and the operational method available in Japan.

2.MAIN FEATURES OF CURRICULUM This course consists of common subjects for all participants as follows. (1) technical training (16 weeks) (a) legal metrology in general (i) measuring instrument industry in Japan (ii) outline of measurement administration in regional districts (iii) international measurement term and system of units (iv) measurement administration system (v) legal metrology of Japan and abroad (vi) metric convention (b) technical subjects (i) mass standards, temperature standards, length standards (ii) statistic theory (quality control), automatic control theory (iii) regulation of legal metrology, electronic type measuring instruments (iv) present situation of measurement of importing goods (v) international society and roles of measurement, thermophysical measurement, etc. (vi) length measuring meter and inspection, glass thermometer and inspection, taxi meter driving inspection, etc. (vii) inspection of verification standards (viii) verification of weighing instrument, water meter, gas meter, watt-hour meter (ix) periodical inspection, on-the-spot inspection (c) specialized institutes (i) Japan Electric Meters Inspection Corporation (JEMIC) (ii) Japan Quality Assurance Organization (JQA) (2) observation tour (1 week) (3) factory observation training (1 week)

3.QUALIFICATION OF APPLICANT (1) Currently engaged in the practical work of verification/inspection or its supervision in the field of legal metrology at governmental or semi-governmental institute with at least three years' occupational experience in this field. Researchers are excluded. (2) University graduate or equivalent. (3) Between 30 and 45 years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) National Research Laboratry of Metrology, METI (3) Japanese Conference on Administrative Guidance

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

BIOINDUSTRIES

May.14,2001 - Jul 9,2001, 10participants

バイオインダストリー J-01-00357

1.PURPOSE The course aims at providing with recent and practical knowledge on bioindustry

2.MAIN FEATURES OF CURRICULUM The course mainly covers (1) Outline of Biotechnology, (2) Fundamental Biotechnology; Plant Cell Engineering, Recombinant DNA, Bioreactor, Cell Fusion, Biotechnology-Supporting Technology, Human and Animal Cell Engineering, Physiologically Active Substances of Plants (3) Application of New-Technology; Biopharmaceuticals, Diagnostics, Industrial Enzymes, Molecular Biology Research, Food Industries, Chemical Industry, Bioremediation (4) Future Perspective of Biotechnology; Biosensing, Marine Biotechnology, Protein Engineering, Primates (5) Administrative Policy, Safety and Intellectual Proprietary rights of Products; New Policy for Biochemical Industry, Safety of Products, Patents

3.QUALIFICATION OF APPLICANT (1) expert presently engaged in biotechnology or related technology at industry, research/educational institutes with more than five years of experience (2) university graduate or equivalent (3) between 30 to 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Japan Bioindustry Association

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

FUNCTIONAL ORGANIC MATERIALS TECHNOLOGY

Aug 6,2001 - Dec.2,2001, 6participants

機能性有機材料工学 J-01-03406

1.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.

2.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

3.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

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Osaka Municipal Technical Research Inst

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks.

HIGH PERFORMANCE POLYMER TECHNOLOGY

Apr.23,2001 - Aug.5,2001, 6participants

高性能高分子工学 J-01-03400

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.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Osaka Municipal Technical Research Inst.

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

CATALYTIC SCIENCE

May 21,2001 - Nov.22,2001, 8participants

触媒科学研究 J-01-00337

1.PURPOSE The purpose of the course is to enable participants to understand both basic and practical aspects of catalysis on four main themes such as heterogeneous catalysis, homogeneous catalysis, surface science and electrocatalysis. It is aimed to help and encourage the participants through laboratory courses in one of these themes to engage themselves in catalytic research field in future.

2.MAIN FEATURES OF CURRICULUM This course mainly consists of individual research work at following laboratory Each participant is to take one subjects for their individual research (1) Laboratory of Active Surface Structure and Properties (2) Laboratory of Surface Reaction Dynamics (3) Laboratory of Interfacial Spectorochemistry (4) Laboratory of Catalytic Reaction Chemistry (5) Laboratory of Advanced Catalyst Design (6) Laboratory of Advanced Material Design (7) Laboratory of Catalysis in Organic Synthesis (8) Laboratory of Molecular Assemblies

3.QUALIFICATION OF APPLICANT (1) engaged in catalytic science, surface science, metal complex chemistry, electrochemistry, organic chemistry, inorganic chemistry, synthetic chemistry or related fields (biochemistry, material chemistry, applied chemistry, industrial chemistry, etc.); (2) have a master's degree or the equivalent with scientific experience of more than two years after university graduation; (3) between twenty-five (25) and forty (40) years of age.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Hokkaido International Centre,Sapporo(2) Hokkaido University,Catalysis Research Center

5.REMARKS

INDUSTRIAL BIOTECHNOLOGY

Aug 6,2001 - Jun 2,2002, 5participants

生命工学研究 J-01-00285

1.PURPOSE The course is designed for researchers presently engaged in biotechnology in their countries. Through laboratory work, basic knowledge and techniques in biotechnology and bioscience will be acquired and the ability to carry out research activities considered to be necessary for the industrial development in their own countries will be cultivated

2.MAIN FEATURES OF CURRICULUM This course consists of individual training (9 months) in the laboratories. Each participant is to choose one out of the following nine subjects for their individual research after 1-week General Orientation and 2-week Japanese Language Training (1) Development of useful enzymes using genom information (2) Studies of the regulatory mechanism of glycolytic(fermentation) gene expression in yeast (3) Selection of high affinity RNA molecules(aptamers) that bind to complex targets and their application viral diagnosis (4) Basic and applied studies on environmental stress responce in organisms (5) Production of functional lipids from microorganism (6) Affinity purification and analysis of cisplatin-DNA binding proteins (7) Development of biodegradable plastics nd composting for organic wastes (8) Chemoenzymatic synthesis of polymer containing sugars and nucleosides (9) Molecular and cellular biological studies on the novel mammalian peptide hormone gene

3.QUALIFICATION OF APPLICANT (1) Researcher presently engaged in research work in the field have of biotechnology, (2) have occupational experience of more than three years in the said field after graduation of master's course or heve occupational expenence of more than five years after graduation of bachelor's course. Administrative officers are not qualified for this course (3) between 25 and 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Nat'l Institute of Bioscience & Humantechnology,M

5.REMARKS A compulsory intensive Japanese language course is to be conducted prior to the technical training for two weeks (50 hours).

ENVIRONMENTAL MANAGEMENT TECHNOLOGY IN PETROCHEMICAL INDUSTRIES

Jun 11,2001 - Aug 6,2001, 10participants

石油化学工業における環境管理技術 J-01-03442

1.PURPOSE The purpose of this course is to introduce state-of-the-art technology currently being used for environmental management. In particular, this course focuses on Pollutant Release and Transfer Resister, Responsible Care, Life Cycle Assessment, Recycling, Environmental Expenditure Accounting, (with one section on safety included) in the petrochemical and other chemical industries. Participants will learn the theory and methods for keeping harmony between the economy and the environment, with the goal of contributing to the promotion of petrochemical industries and environmental conservation in developing countries.

2.MAIN FEATURES OF CURRICULUM The main content of this course includes an outline of environmental administration in Japan, environmental conservation measures taken by the country of Japan, case studies on Yokkaichi City, environmental monitoring system, safety regulations applicable to industrial complexes, air pollution control law, water pollution control law, waste disposal and public cleansing law, an introduction of the pollution control manager system, agreement on pollution control, environmental impact assessment, environmental management (including a session on safety) in companies in the petrochemical industry, trends in state-of-the-art technology in the petrochemical industry (Pollutant Release and Transfer Resister, Responsible Care, Life Cycle Assessment, Cleaner Production, Volatile Organic Compounds, Risk Assessment, Environmental Expenditure Accounting), and composition and presentation of a country/job report and an action report .

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.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(?) Int'l Center for Environmental Tech. Transfer

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours)

PROCESSING AND CHARACTERIZATION OF INORGANIC MATERIALS AND METALS

Aug 27,2001 - Dec 9,2001, 5participants

無機・金属材料 J-01-03454

1.PURPOSE The purpose of this course is to impart sufficient knowledge, skills and experience in synthesis, processing and characterization of inorganic materials and metals to promote technical development in the fields of electronics and other industries.

2.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 metals (2) Outline of processing of inorganic materials and metals (3) Synthesis and processing methods of inorganic materials and metals (4) Outline of instrumental analysis for inorganic materials and metals (5) Instrumental analysis methods of inorganic materials and metals (7) Specialized training

3.QUALIFICATION OF APPLICANT (1) have a master's degree or the equivalent and have majored in inorganic materials science/engineering or metallic materials science/engineering (2) be between 25 and 40 years of age (3) have 3 years or more of experience in inorganic materials technology or metallic materials technology

4.JICA CENTER / TRAINING INSTITUTIONS (1)Osaka International Centre(2) Osaka Municipal Technical Research Inst.

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

STEEL PROPERTIES AND ITS APPLICATIONS

May.28,2001 - Oct 6,2001, 8participants

鋼材の加工と加工特性 J-01-03447

1.PURPOSE The purpose of this training course is to provide participants with indispensable knowledge and techniques in the usage of steel, the selection of fabrication methods and conditions appropriate to the properties of each type of steel.

2.MAIN FEATURES OF CURRICULUM Participants will understand steel properties and its applications through acquiring knowledge of production methods, processes, property evaluation, testing and inspection methods of steel materials. The subjects covered in the course are: (1) fundamental properties of steel (2) steel production and properties (3) techniques of testing and inspection (4) casting, forging and welded structures, and (5) quality control.

3.QUALIFICATION OF APPLICANT (1) Engineers presently engaging in occupation in the field of production, application or inspection of steel products with at least five years' occupational experience in these fields (2) university graduate or equivalent in metallurgy or mechanical engineering (3) 37 years of age or less

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

HEAT TREATMENT AND METAL FINISHING TECHNOLOGY FOR IMPROVING METAL PROPERTY

Aug.27,2001 - Dec.17,2001, 6participants

材料性質改善処理技術 J-01-03446

1.PURPOSE The course is designed to: (1) acquire knowledge and techniques on effective usage of materials (2) improve quality of materials and products in participating countries, and (3) lead their industries to minimize problems

2.MAIN FEATURES OF CURRICULUM (1) Basic Knowledge; substrate materials, sintered material, composite amd new other materials, corrosion behavior and protection (2) Surface Finishing Technology; electroplating, electroless plating, electroforming, anodizing, galvanizing, metal plating on plastic substrate and other materials, physical vapor deposition [PVD] and chemical vapour deposition [CVD] with or without aid of plasma, plasma nitriding and carburization, chemical conversion treatment, Preparation of printed circuit board and electric parts by electroplating and electroless plating, Surface finishing technology for autos and other transport vehicle, etching process for electric lead frames (3) Related Technology; measurement of surface properties, resource and recycling of materials in surface technology, waste water treatment, equipment for the processes environmental treatment (4) Other Related Items; enameling and painting process, quality control method, Rectifier, required jigs, technical observation and training practice of main important processes, electroplating bath and chemicals, environmentally harmonic process.

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent (2) presently engaged in research institutes on industries and qualified in their respective fields (3) occupational experience of more than two years (4) under 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Aichi Industrial Research Association

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

MACHINE CONTROL IN HIGH-TECH INDUSTRIES

Oct 29,2001 - Mar.28,2002, 6participants

ハイテク産業における機械制御 J-01-03414

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 cpmprehensive 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 enphasis 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) be interested in studying the machine control and mechatronics and have more than 4 years of occupational experience in the field of process industries and assembly industries such as production and maintenance. (As this course has a wide coverage of technologies pertaining to machine control, applicants who have limited interest in acquiring knowledge of their own specialities in narrow scale of electrical and electronic aspects only will not be accepted.) (2) be a university graduate or equivalent in this field (3) be under 35 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to the technical training

PLANT MAINTENANCE ENGINEERING-GLOBAL ENVIRONMENT & PLANT MAINTENANCE(ASIAN COUNTRIES)

Apr 2,2001 - Aug 27,2001, 7participants

プラントメンテナンス技術ー地球環境と設備保全（アジア)J-01-03449

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) nondestructive 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.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

MANUFACTURE AND REPAIR OF MECHANICAL SPARE PARTS FOR PLANT

Apr 23,2001 - Sep.23,2001, 7participants

プラント用機械予備品の製作と補修 J-01-03505

1.PURPOSE In order to improve the productivity in developing countries, this training course is designed for mechanical engineers to provide skills and knowledge required for designing, ordering, manufacturing, testing and managing mechanical spare parts.

2.MAIN FEATURES OF CURRICULUM The curriculum consists of lectures, practices and plant visits. (1) Maintenance (2) Management (3) Inspection Technology (4) Manufacturing Technology (5) Relevant Technology (6) Quality Control (7) Plant visits

3.QUALIFICATION OF APPLICANT Applicants should· (1) be a mechanical engineer with substantial leadership, who is in charge of production control, inventory control and manufacture of machine parts, or teaching profession of mechanical engineering in vocational training, (2) have a universtiy degree in mechanical engineering or the equivalent (Those who have graduated in other faculties and taken Dr. degree of mechanical engineering are not acceptable.), (3) have sufficient command of spoken and written English, and (4) be between 28 to 40 years old.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 10-hour Japanese language course will be conducted prior to the technical training.

INTERNATIONAL MARITIME CONVENTIONS AND SHIP SAFETY INSPECTION

May.8,2001 - Dec.2,2001, 20participants

海事国際条約及び船舶安全検査 J-01-00636

1.PURPOSE The purpose of the course is to provide participants with fundamental and practical knowledge of international maritime conventions and applicable technology and procedures of ship inspection in accordance of the requirements of international standard, and thus contribute to global ship safety and preservation of marine environment.

2.MAIN FEATURES OF CURRICULUM This course consists of (1) Japanese language lesson, (2) Presentation of Country Report and discussion, (3) Technical lectures, (4) Practical training, (5) Presentation of Study Report and discussion, (6) Observation and study trip. The following major subjects will be covered in the technical lectures: SOLAS I (general), SOLAS II (hull structure, subdivision, stability, machinery, electrical equipment, fire safety measures), SOLAS III (lifesaving appliances), SOLAS IV (radio communication), SOLAS V (safety of navigation), SOLAS VI (carriage of cargo), SOLAS VII (carriage of dangerous goods), SOLAS IX (ISM), SOLAS XI (enhanced surveys), SOLAS XII (bulk career safety), MARPOL (marine pollution prevention), ILLC (load lines), TONNAGE (tonnage), COLREG (collision regulations), PSC (port state control), Plan Approval (hull & machinery), Ship Surveys (hull & machinery), and Quality Assurance. The practical training will be implemented on the job of ship inspection procedures.

3.QUALIFICATION OF APPLICANT Applicants should: (1) be an administration official in the field of ship safety (ship safety administration officers, ship inspectors, PSC officers etc.), (2) have a graduate degree in engineering or the equivalent, and have at least one year experience of (1) above, (3) have a sufficient command of spoken and written English, (4) be not more than forty (40) years old

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kanagawa International Fisheries Training Centre(2) Overseas Shipbuilding Cooperation Centre

5.REMARKS This course has been newly established, responding to the needs of many developing countries, where there is an insufficient number of ship inspection officers. In this course, participants are expected (1) to learn appropriate technical knowledge ad understand related requirements of IMO conventions in order to promote ship safety inspection, and (2) to take measure to secure the safety of human life and to preserve the global maritime environment as promoted by IMO

AUTOMOBILE TECHNOLOGY FOR THE IMPROVEMENT OF ENVIRONMENTAL PROBLEM

Jun 18,2001 - Aug 12,2001,12participants

環境改善のための自動車技術 J-01-03441

1.PURPOSE This courses is intended for administrative engineers in leading posts to improve environmental problems caused by automobile. The participants in this course will undergo training of technology to protect environment including emission reduction technology and others. It is noted that the programme of this course in not aimed at offering techniques and know-how in automobile production and repair work.

2.MAIN FEATURES OF CURRICULUM By the end of the course, participants are expected to be able to understand about: 1. the Exhaust Emission Reduction Technology; 2. the Exhaust Emission Test Method; 3 the Automobile Technology with Clean Energy; 4. the Automobile Recycling; and 5. the Environmental Noise Reduction Technology

3.QUALIFICATION OF APPLICANT (1) Administrative engineer presently in leading posts in government institutions with at least three years (occupational) experience in promotionol motorization or automotive industry, and with special concern for environmental matters (2) University graduate in mechanical engineering or related field, such as environmental engineering, traffici engineering or civil engineering (3) Between 25 and 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) Japan Automobile Research Institute

5.REMARKS

HIGH TECHNOLOGY OF METAL WORKS II

Aug 27,2001 - Jan.21,2002, 6participants

金属加工高品質化技術II J-01-00175

1.PURPOSE To provide with techniques and knowledge on metal works engineering; die making and design, precision measurement, metal working and related technologies.

2.MAIN FEATURES OF CURRICULUM This course mainly covers. (1) Materials and Treatment; materials, powder metallurgy, heat treatment, surface modification (2) Cutting/Grinding; cutting mechanism, tools and condition, grinding, machining accuracy (3) Die Design/Making and CAD, CAM (4) Plastic Working; die & punch, press, drawing (5) Non-traditional Machining; electric discharge, laser beam, jet, chemical, electrochemical (6) Precision Measurement, hardness, surface roughness, roundness, contour, 3-D (7) Factory Automation, numerical control, industrial robots, mechatronics, FMS, CIM (8) Other Related Technologies

3.QUALIFICATION OF APPLICANT (1) engineer presently engaged in metal works technology at industries, research institutes or educational institutes with more than two years of experience (2) university graduate or equivalent (3) between 24 and 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) National Industrial Research Institute of Nagoya

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (25 hours).

MAINTENANCE OF CONSTRUCTION MACHINERY II

May 8,2001 - Aug.5,2001, 8participants

建設機械整備 II J-01-00162

1.PURPOSE The purpose of the course is to provide participants with techniques and knowledge on planning and management of maintenance shops as well as maintenance of construction machinery

2.MAIN FEATURES OF CURRICULUM Most part of the course is practical training in factories and workshops, using actual construction machinery. It covers; (1) theoretical aspects of management and maintenance (2) practical maintenance techniques of major components (engine, clutch, torque converter, transmission, power shift transmission, final drive, differential gear, brake, steering, hydraulic system, undercarriage, etc.) (3) practical maintenance/operation techniques of major machines (bulldozer, grader, wheel-loader, hydraulic excavator, crane, compaction machinery, dump truck, etc.)

3.QUALIFICATION OF APPLICANT (1) university graduates in mechanical engineering or equivalents with more than three years of occupational experience (2) under 40 years of age (3) presently engaged in or expected to be engaged in planning and administration work of construction machinery in the near future

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japan Construction Mechanization Association

5.REMARKS Country Reports will be highly utilized both for the selection of participants and for the Country Report presentation

AUTOMATIC CONTROL (GENERAL INTRODUCTION)

Jul.2,2001 - Nov 14,2001, 7participants

自動制御（基礎） J-01-00310

1.PURPOSE This training course is programmed for those who specialized in mechanical engineering, electrical engineering and measurement in the faculty of technology at universities The purpose of the course is to provide participants with basic theory and practice on automatic control, automatic control devices and related technology.

2.MAIN FEATURES OF CURRICULUM The course is conducted in the form of lectures, practice, exercise on simulator and factory observations, in order to enhance participants' basic and practical knowledge of automatic control to prevent malfunction and damage of the whole system in plant. The following subjects are mainly covered in the course: (1) basic of automatic control (2) basic of control theory (3) computer literacy (4) basic lesson and application of micro computers (5) process control (6) digital process control system simulation (7) sequence control, and (8) industrial electric control system

3.QUALIFICATION OF APPLICANT (1) Engineers with more than four years of occupational experience in the field of planning, production and maintenance of plants and machinery (2) presently engaged in automation (or will be engaged in near future) (3) university graduate or equivalent in electrical, control or mechanical engineering (4) 40 years of age or less

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

PLANT MAINTENANCE MANAGEMENT

Jan 7,2002 - May 2,2002, 7participants

生産設備の保全管理 J-01-00629

1.PURPOSE The purpose of this course is to enhance the maintenance management capability of managers and engineers in the maintenance departments of process industries. The course provides participants with training on effective and rationalized utilization of management resources such as workers, materials, equipment, information and funds. The course also aims at technical transfer of concrete maintenance management procedures required for the execution of preventive maintenance.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on the introduction of Japanese experience or the present state of the maintenance management of leading Japanese companies of various industrial fields to enable participants to apply and manage the maintenance function of each corporation in respective countries. The subjects covered in the course are. (1) outline of maintenance and its system (2) management of plants (3) computer literacy (4) management policy and control (5) maintenance of bearing (6) actual samples of corrosion and countermeasures (7) the diagnosis technique of machine (8) non-destructive tests (9) training of repairing techniques (10) improvement methods (11) repairing and change of parts (12) inspection of electric equipment manufacturing and maintenance of electric equipment (13) management and data (14) how-to make inspection plan (15) scheduled time for repairing and repairing plan (16) control of maintenance materials, and management of welding and assembling (17) activities of maintenance in Japanese leading factories.

3.QUALIFICATION OF APPLICANT (1) Those who have more than three years' occupational experience in the field of plant maintenance (2) university graduate or the equivalent in engineering (3) not less than 30 and not more than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to technical training.

MACHINE CONDITION DIAGNOSIS TECHNIQUE

Jun 18,2001 - Oct.14,2001, 8participants

設備診断技術 J-01-00338

1.PURPOSE This training course is set up for maintenance directors, managers and engineers who are responsible for planning, management and supervision of maintenance activities. The purpose of the course is to provide participants with knowledge of machine inspection techniques through practical training of condition based maintenance which is applied to machine condition diagnosis in Japan

2.MAIN FEATURES OF CURRICULUM The training course is programmed to help participants acquire knowledge on inspection techniques including condition diagnosis techniques and condition based maintenance in practice through a series of lectures, practice with simulators and plant observations. The following subjects are covered in the course: (1) introduction to maintenance management and engineering (2) reliability and maintainability engineering (3) fundamental of machine condition diagnosis technique (CDT) (4) vibration and its measurement (5) vibration analyzing instrument (6) diagnosis methods for rotating machines and elements (7) basic concept of condition based maintenance system (CBM) (8) non-destructive testing (9) maintenance management (10) application of computer system to CDT and maintenance control (11) practice of maintenance management and machine diagnosis (12) corrosion diagnosis (13) diagnosis of electrical machines (14) total productive maintenance (TPM)

3.QUALIFICATION OF APPLICANT (1) presently engaged in maintenance work in process industries with more than five years of maintenance experience (2) more than one year of experience in computer operation (3) university graduate or equivalent in engineering (4) under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

RENOVATION OF PROCESS INDUSTRY EQUIPMENT

Feb.11,2002 - Jun 30,2002, 9participants

装置産業設備のリノベーション J-01-03459

1.PURPOSE The purpose of this course is to enhance the capability of engineers by learning the basic knowledge of the utilization of existing equipment and facilities effectively, to find out the capability of the renovation, and to redesign existing equipment. The course also aims at providing the participants with skills in preparing purchase specifications of improved equipment parts.

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is put on providing the participants with the basic techniques and their application as well as project management which will help them to upgrade their required techniques to improve their operation The subjects covered in this course are: (1) basic techniques (a) introduction to renovation of industrial equipment (b) computer literacy (c) techniques improving of equipment (d) sequence control (e) process control (f) introduction to maintenance (g) maintenance management (h) equipment inspection technique (inspection using five sense, machine condition diagnosis technique) (i) rust prevention and corrosion prevention (j) welding processes (k) selection of materials (l) testing of materials (m) selection of motors and electrical control (n) nondistinctive inspection (o) CAD; (2) modification techniques (a) case study of plant design and practice (b) practice in design of heat exchange (c) design of pressure vessels (d) selection of equipment/devices and writing specifications thereof (e) selection of general purpose machines and writing specifications there of (f) plan and design of piping (g) design of conveyor unit (h) case study of equipment renovation (i) in-plant training.

3.QUALIFICATION OF APPLICANT (1) more than five year's experience in plant planning, construction or maintenance in process industries such as chemical, cement, oil refinery, iron and steel plant (2) university graduate or equivalent in mechanical or chemical engineering (3) 40 years of age or less

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

NON-DESTRUCTIVE INSPECTION TECHNIQUE

Feb.18,2002 - Jun.23,2002, 8participants

非破壊検査技 II J-01-03357

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.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS (1)A compulsory 25-hour Japanese language course will be conducted prior to the technical training.

WELDING ENGINEER

Apr.9,2001 - Oct 1,2001, 8participants

溶接技術者研修 J-01-00600

1.PURPOSE In order to bring up well-qualified engineers who are able to manage the welding construction and maintenance, the course provides theoretical and practical knowledge of welding technology.

2.MAIN FEATURES OF CURRICULUM Lecture, practical exercises and factory observations. The main themes are: (1) Welding processes and equipment; Physics of welding arc, gas-shielded metal arc welding, tungsten-inert gas welding, submerged arc welding, resistance welding, electron beam and laser beam welding, gas welding and other welding processes, surfacing, thermal cutting (2) Materials and their behavior during welding; alloys and phase diagrams, structure of the welded joint, cracking phenomena, cast irons, copper, titanium and aluminum (3) Construction and design; strength of materials, design principles of welded structure and behavior (4) Fabrication, applications engineering; quality assurance, welding stresses and distortion, plant facilities, health and safety (5) Fundamental practical operations (6) Observation and practice in industries, research institutes and educational facilities

3.QUALIFICATION OF APPLICANT (1) presently in charge of welding engineering, with three '3' years or more of experience in this field (2) university graduates or the equivalent (3) over twenty-six '26' and under thirty-five '35' years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) The Japan Welding Engineering Society

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (25 hours)

RESEARCH AND APPLICATION OF USEFUL MICROORGANISM

Jun 11,2001 - Apr.26,2002, 5participants

有用微生物の研究と応用 J-01-03338

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 six 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.JICA CENTER / TRAINING INSTITUTIONS (1)Chugoku International Centre(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).

CERAMIC KILN & FIRING TECHNOLOGY

Sep.3,2001 - Feb 25,2002, 8participants

セラミック窯炉及び焼成技術 J-01-00505

1.PURPOSE To provide with knowledge and technology about kiln design, kiln construction, and firing etc. concerning ceramic products which conform to the actual conditions of participating countries.

2.MAIN FEATURES OF CURRICULUM The emphasis is put on lectures, practical training and observations. The main theme are: (1) Introduction of Technical Training; orientation for technical training, observation of factories of the organization concerned, general introduction to kiln and firing (2) Kiln Design and Kiln Construction; fuels and combustion, refractory materials, heat retention and transfer, bricklaying, structure of kiln, kiln design, kiln construction, electric kiln, comprehensive discussion (3) Technology on Firing in the Kiln; theory of firing, loading and kiln furniture, firing technique (kiln atmosphere) (reduction firing), measurement and control over temperature, facilities for firing and maintenance, biscuit and glost firing, inspection and test of products, comprehensive discussion (4) Related Technology; ceramic products, ceramic plant and kilns, ceramic body and glaze, testing method and quality control, observation of factories comprehensive discussion (technical discussion)

3.QUALIFICATION OF APPLICANT (1) university graduate or equivalent with the practical experience of more than three years in production at educational or research institutions related to ceramics (2) expert presently engaged in the field of ceramics (3) between 25 and 39 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Technical Research Laboratory,Mino Yogyo

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (50 hours).

SEMINAR ON EVALUATION OF NATIONAL R&D PROJECTS

Jan.22,2002 - Feb 24,2002,10participants

産業技術に係る研究開発プロジェクト評価セミナー J-01-03483

1.PURPOSE It is significant to feed the results of investigation, analysis and assessment of the ongoing or completed national research and development projects back to the planning division for the effective optimal allocation of national resources. Taking this condition in to consideration, the course aims to provide knowledge and practical skills for the accurate assessment of the target, operation system. Technical outcome and economic effects of the projects to the participants by learning the present condition of research and development assessment in Japan and other advanced countries and their assessment method, as well as, understanding the economic effects produced by the national research and development projects.

2.MAIN FEATURES OF CURRICULUM (1) Introduction of Research and Development (R&D) Project in Japan (2) Outline of economic model for R&D Project (3) Introduction of evaluation for R&D Project (4) Introduction of evaluation methods for R&D Project (5) Examples of the evaluation of R&D Project (6) Exercise for developing and operating the evaluation systems (7) Country report presentation (8) Study visit

3.QUALIFICATION OF APPLICANT (1) be nominated by their government, (2) be governmental officials (division head or section chief) engaged in planning and administration in the evaluation of national research and development project, (3) be university or college graduates, or have equivalent academic background, (4) have more than three (3) years of occupational experience, and be expected to be engaged in this field in the future, (5) be over twenty-five (25) but under thirty-five (35) years of age, (6) have a sufficient command of spoken and written English to participate in the discussion, (7) be in good health, both physically and mentally, to undergo the training. As the schedule of this course includes many field works (trips) that would be too demanding for pregnant women, pregnancy is regarded as a disqualifying condition for participation in this training course and (8) not be serving in the military.

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre

5.REMARKS

INDUSTRIAL POLLUTION CONTROL RESEARCH

Jul.9,2001 - Nov.11,2001, 6participants

産業公害防止 J-01-00363

1.PURPOSE This course is aimed at upgrading knowledge and techniques of scientists and researchers in the field of pollution control engineering, including computer technology, especially understanding knowledge and techniques in their own specialty through exercise and practical training on each subject in the individual research training

2.MAIN FEATURES OF CURRICULUM This course consists of common lectures for all participants (2 weeks) and individual research training in the laboratory. Common lectures are given to provide participants with fundamental knowledge of industrial pollution control. Participants will then choose a certain subject on pollution control technology, out of 18 subjects.

3.QUALIFICATION OF APPLICANT (1) Scientist or researcher in the field of pollution control technology with at least three years' of occupational experience. Administrative officers are not qualified for this course (2) University graduate or equivalent (3) Knowledge of computer programming with FORTRAN or BASIC language in the course of simulation technology (4) Under 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tsukuba International Centre (TBIC)(2) National Institute for Resources and Environment,M

5.REMARKS

ENERGY MANAGEMENT

Jan.14,2002 - May 29,2002, 6participants

エネルギー管理 J-01-00628

1.PURPOSE The purpose of this course is to develop the human resources who can control the energy and promote energy saving

2.MAIN FEATURES OF CURRICULUM In this course, the emphasis is laid on subjects that will help participnats to practically and concretely solve the problems in the field of energy management of their own countries The subjects covered in the course are: (1) understand and acquire the management ability necessary for proceeding the energy management (2) acquire the energy measurement techniques (3) basic automatic control techniques (4) acquire knowledge for selection of appropriate fuel (5) understand the problems of saving energy (thermal and electric energy) and improvement measures (6) understand the concept of equipment plannings and production plannings (7) understand the practical energy management and its latest trend through plant visits to local enterprises

3.QUALIFICATION OF APPLICANT Applicants should : (1) be those who work in private companies or governments (both central and local) with at least 5 years of energy management experience, (2) be graduates of university, who have majored in science, engineering or the equivalent, (3) have sufficient command of spoken and written English, (4) 45 years of age or less

4.JICA CENTER / TRAINING INSTITUTIONS (1)Kyusyu International Centre(2) Kitakyushu Int'l Techno-cooperative Association

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25-hours).

MANAGEMENT AND TECHNICAL STANDARD OF PLANT EQUIPMENT IN ENERGY INDUSTRY

Oct 22,2001 - Dec.17,2001,10participants

エネルギー関連設備の管理と技術基準 J-01-03457

1.PURPOSE This course aims to provide lectures and practices for building inspection and standard formulation system in relation with safe manufacturing, storage, refining and usage of energy related pressure facilities.

2.MAIN FEATURES OF CURRICULUM To gain standard settling methods for enhancing energy output by safe pressure facilities for the sake of establishment of inspection system for those facilities.

3.QUALIFICATION OF APPLICANT (1) Government officer or quasi government officer (2) With more than 3 years' job experience (3) Under 40 years old (4) Holding Bachelor Degree or more

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Aichi Industrial Research Association

5.REMARKS

ENERGY CONSERVATION

May 15,2001 - Jul.5,2001, 13participants

省エネルギー J-01-00315

1.PURPOSE The purpose of the course is to provide participants with information concerning administrative and technical aspects of Japan's energy conservation, so that later they will be able to use this knowledge in future energy conservation efforts in their own respective countries

2.MAIN FEATURES OF CURRICULUM In this course, the following major subjects will be covered through lectures, discussions, group case studies, practice and observation trips (1) Japanese energy conservation policy and present conservation situation in Japan (2) development of energy conservation and new technology in Japan (3) energy conservation situation in major Japanese industries (4) industrial energy conservation technology (5) methods for promoting energy conservation in industry (6) energy consumption measurement and data analysis (7) case study in promotion of energy conservation in a model factory

3.QUALIFICATION OF APPLICANT (1) university/college graduates or equivalents presently employed in government, governmental institutions, or industrial associations (2) currently engaged in work in the energy field for more than 3 years (3) be under 45 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) The Energy Conservation Center Japan

5.REMARKS Country Reports will be highly utilized both for selection of participants and for Comparative Studies.

TECHNOLOGY FOR G.H.G.S EMISSION MITIGATION

Jan 21,2002 - Mar 4,2002, 10participants

地球温暖化防止技術 J-01-03376

1.PURPOSE As Japan is a partly 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 '5' years (2) university graduate or possess equivalent professional experiences in this field (3) less than forty-five '45' years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chubu International Centre(2) Int'l Center for Environmental Tech. Transfer

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

THERMAL-ELECTRIC POWER ENGINEERING

Sep 3,2001 - Nov 24,2001, 10participants

火力発電 J-01-00578

1.PURPOSE The course is intended for engineers playing leading roles in thermal power plants, and aims to contribute to the development of the electric industries of the participating countries Participants will study the power generation systems established in Japan including technologies of planning, construction, operation and maintenance, as well as environmental preservation, of contemporary thermal power plants. Participants are also expected to play active parts in the promotion of international exchanges between their countries and Japan, including but not limited to, a smooth technological transfer in future with electric industries Participants are expected ; (1) to understand the Japanese systems of electric enterprises, (2) to understand effective management and control techniques of coal-burning thermal plants, (3) to understand maintenance measures (mainly for the control of mechanical components) of coal-burning thermal plants, (4) to understand environmental preservation techniques applied to coal-burning thermal plants and (5) to discuss future action programs to improve the domestic situations based on the results of the training

2.MAIN FEATURES OF CURRICULUM The course consists of lectures, observation, practice and discussion. The emphasis is put on introduction of Japanese situation and technical know-how. At the beginning of this program, a lecture on the organization, legislation, status of power supply in Japan will be given for the purpose of understanding the outline of the power supplying system practiced in this country Then lectures and practices on the technologies applied to contemporary thermal power plants in Japan will be given. In this unit, the generic thermal plant technology practiced in Japan will be covered from both electrical and mechanical perspectives. This unit covers following subjects; (1)Effective management and control techniques of coal-burning thermal plants (2)Maintenance measures (mainly for the control of mechanical components) of coal-burning thermal plants (3)Environmental preservation techniques.

3.QUALIFICATION OF APPLICANT (1) Government officials or those equivalent to government officials. (2) Engineers presently in charge of the management, control, and maintenance (mainly for the control of mechanical components) of coal-burning power plants and at the same time playing leading roles in these areas (3) Those having over three year's experience in the occupations mentioned in (2) above. (4) Those who are capable of making good use of the results of the training after returning home (5) Graduates of university/college technical courses or those with equivalent scholastic ability. (6) Those under forty (40) years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Chugoku International Centre(2) Japan Electric Power Information Center,Inc (3) The Chugoku Electric Power Co,Inc

5.REMARKS A compulsory intensive Japanese language course will be conducted prior to the technical training for one weeks (25 hours)

HYDRO-ELECTRIC POWER ENGINEERING (FOR SUSTAINABLE DEVELOPMENT)

Aug.30,2001 - Oct.13,2001, 8participants

環境調和型水力発電 J-01-00647

1.PURPOSE The purpose of the course is to provide the participants with the latest information and knowledge concerning managing and technical aspects of the Japan's hydro-electric power industry so that the participants would be able to play their greater role for further progress, and to take the initiative in the sustainable development of hydropower station projects of hydro-electric power generation in their respective countries

2.MAIN FEATURES OF CURRICULUM The course is formulated to cover both aspects of "electrical/mechanical engineering" and "civil engineering" alternatively This year (Japanese Fiscal 2001), electrical/mechanical engineering matters will be focused mainly. The followings are the major subjects of this year: (1) to study hydro-power stations from the viewpoint of electrical/mechanical engineering. methods of planning, designing, construction, operation, maintenance and environmental measures, and (2) to learn an outline of the Japanese electric power industry.

3.QUALIFICATION OF APPLICANT (1) electrical/mechanical engineers who are presently employed by governmental or private hydro-electric power utilities (2) technical college graduates or equivalents and have more than five and less than ten years of practical experience in the field of hydro-electric power engineering

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japan Electric Power Information Center,Inc (3) Electric Power Development Co ,Ltd.

5.REMARKS

NUCLEAR POWER GENERATION

Sep 25,2001 - Nov 28,2001, 6participants

原子力発電 J-01-00419

1.PURPOSE The purpose of the course is to provide the participants with general introductory information on the administrative and technical aspects of Japan's nuclear power industry, which includes experience gained through planning, design, construction and operation of nuclear power plants, so that the participants will be able to implement the future development plan of nuclear power in their countries.

2.MAIN FEATURES OF CURRICULUM Major subjects in this course are as follows: (1) lectures (a) outline of nuclear power generation in Japan safety regulation and administration for commercial nuclear power plants (b) major system of boiling water reactor and pressurized water reactor (c) construction of nuclear power plant (d) operation and maintenance (2) exercise (a) operation and plant behaviour related to plant start-up, shutdown and accidents, etc. by using a compact simulator (b) maintenance and inspection (non-destructive test)

3.QUALIFICATION OF APPLICANT (1) nuclear, electrical and/or mechanical engineers presently employed at governmental institutions or private companies in the field of electric power generation and have more than three years of occupational experience in this field (2) university graduate or equivalent (3) not more than 40 years of age

4.JICA CENTER / TRAINING INSTITUTIONS (1)Tokyo International Centre(2) Japan Electric Power Information Center,Inc (3) The Japan Atomic Power Company

5.REMARKS