



Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON

REINFORCEMENT OF METEOROLOGICAL SERVICES

課題別研修「気象業務能力向上」

JFY 2016

No. J16-04287 / ID. 1684484

Core Phase in Japan: From Sep. 12, 2016, to Dec. 10, 2016

This information pertains to one of the JICA Knowledge Co-Creation Program (Group & Region Focus) of the Japan International Cooperation Agency (JICA), which shall be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

‘JICA Knowledge Co-Creation Program (KCCP)’ as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet on February 2015, it is clearly pointed out that *“In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together.”* We believe that this ‘Knowledge Co-Creation Program’ will serve as a center of mutual learning process.

I. Concept

Background

The Japan Meteorological Agency (JMA) has conducted meteorological training for more than 40 years to contribute to building capacity in the meteorological services of developing countries. The purpose of the latest course, Reinforcement of Meteorological Services (JFY 2008 –), is to equip participants with basic knowledge and key techniques regarding numerical weather prediction, satellite meteorology and climate information as essentials for the promotion of meteorological services in individual countries.

A variety of natural hazards have frequently manifested themselves in recent years, including typhoons, floods and landslides, and worldwide environmental issues such as the impact of global warming have also emerged. To address these problems, it has become an important challenge for the meteorological authorities of individual countries to compile meteorological and climatological information and provide it to authorities in charge of disaster prevention, communities affected by global climate change and others by utilizing the basic techniques mentioned above. Meteorological and climatological information contributes to disaster prevention and adaptation to climate change.

Purpose

This Knowledge Co-Creation Program is designed for participants from National Meteorological and Hydrological Services (NMHSs), and is intended to provide basic knowledge and key techniques for use in numerical weather prediction, satellite meteorology and climate information for advanced meteorological services. It is also designed to build capacity for the application of these resources to the production and delivery of meteorological and climatological information needed by disaster prevention authorities and other users. Participants are expected to use the results of the Program within meteorological authorities in their respective countries after their return. The Program should also help to improve the operational abilities of attendees' meteorological services based on the transfer and spread of such knowledge and techniques.

Target participants

The program is offered to promising staff members who are expected to lead National Meteorological or Hydrometeorological Services of the Members of the World Meteorological Organization.

Method

The program in Japan provides participants with practical knowledge and experience in leading their NMHSs through a series of lectures, exercises and field visits. Attendees also have the chance to share knowledge and experience with participants from other countries.

II. Description

1. Title (J-No.): Reinforcement of Meteorological Services (J16-04287)

2. Period of program

Duration of whole program:	July 2016 to March 2017
Preliminary Phase:	July 2016 to September 2016
Core Phase in Japan:	September 12 to December 10, 2016
Finalization Phase:	December 2016 to March 2017

3. Target Regions/Countries

Vietnam, Myanmar, Mozambique, Pakistan, Tonga, Samoa, Iran and Brazil

4. Eligible/Target Organizations

The program is offered to National Meteorological or Hydrometeorological Services of the Members of the World Meteorological Organization.

5. Total Number of Participants: 8

6. Language: English

7. Program Objectives

On the course, participants will:

- (1) gain an overview of and understand fundamental components of NMHS services (e.g., information communication, observation and forecasting) and roles in the context of disaster management in their own countries;
- (2) gain an overview of and learn to use key techniques for meteorological services, such as numerical weather prediction (NWP) and satellite meteorology;
- (3) learn to produce several types of meteorological information to meet user requirements based on key techniques such as NWP, radar meteorology and satellite meteorology;
- (4) learn to produce climate information using climate and global environmental data and products, and to brief users on such information;
- (5) develop comprehensive and concrete Action Plans to address issues of their own NMHSs for use in their home countries.

8. Overall Goal

The course is intended to promote activities to reinforce the meteorological services of each country based on the application of meteorological data/products such as numerical weather prediction, satellite images and climate information.

9. Expected Module Output and Contents

The program consists of the components detailed below.

Preliminary Phase in participants' home countries

(July 2016 to September 2016)

Participants complete the required preparations for the program in their respective countries.

Modules	Activities
Questionnaire (ANNEX I) for all applicants	Completion and submission with application form
Country Report* (ANNEX II-I and II-II) for accepted applicants	Formulation and submission on the first day of the Core Phase
Exercises on R programming language (for accepted applicants)	Read through the documents to be sent to accepted applicants, who are encouraged to familiarize themselves with basic commands of R. R can be downloaded at http://www.r-project.org/ .

*Participants will be asked to present a Country Report in English at the beginning of the Core Phase.

Core Phase in Japan

(September 12, 2016 to December 10, 2016)

Participants attend the program implemented in Japan.

Modules	Activities
Enabling overview and use of key techniques such as numerical weather prediction (NWP) and satellite meteorology	<ul style="list-style-type: none"> ● Lectures on the basics of numerical weather prediction and its application ● Lectures outlining satellite meteorology and the application of satellite data
[Weather Forecasting] Enabling the production of several types of meteorological information to meet user requirements based on key techniques such as NWP, radar meteorology and satellite meteorology	<ul style="list-style-type: none"> ● Exercises in satellite data application ● Exercises in operational forecasting ● Lectures on knowledge and techniques needed to produce meteorological information in response to user requirements ● Lectures on radar meteorology ● Exercises in radar maintenance ● Lectures on storm-surge forecasting
[Climatology] Enabling the production of climate information using climate and global environmental data and products, and briefings on climate information for users	<ul style="list-style-type: none"> ● Lectures on climatology and climatological information ● Exercises in the application of climatological and global environmental data and products
Drawing up draft Action Plans to improve the meteorological services of participants' own organizations for use in their home countries	<ul style="list-style-type: none"> ● Creation of Action Plans (presentation versions) ● Presentation of Action Plans and discussion at the end of the Core Phase

Finalization Phase in participants' home countries

(December 2016 to March 2017)

Participants complete their Action Plans (final descriptive versions) in their respective countries. (Details to be announced during the Core Phase).

Expected module output	Activities
Descriptive Report	Completion of Action Plans (final descriptive versions) in respective countries for submission to the JICA office by the end of March 2017 (details to be announced during the Core Phase)

<Program Structure>

Approximate number of days for each subject in the Core Phase:

(1)	General Introduction to Meteorological Services	2 day
(2)	Numerical Weather Prediction (NWP)	
1)	Introduction to NWP	4 days
2)	Introduction to guidance	1 day
3)	Introduction to the Kalman filter method	2 days
4)	Guidance production exercises	6 days
(3)	Introduction to Satellite Meteorology	6 days
(4)	Weather Forecasting	
1)	Radar meteorology	5 days
2)	Exercises in satellite meteorology	6 days
3)	Storm-surge forecasting	1 day
4)	Aviation weather forecasting	1 day
(5)	Climatology	
1)	Climate system	2 day
2)	Global warming	1 day
3)	Climate monitoring	1 day
4)	Long-range forecasting	2 days
5)	Exercises in processing climate data	1 days
(6)	Technical Tour (local meteorological observatories, private meteorological companies, etc.)	15 days

* 1 day = 4 – 6 hours

III. Conditions and Procedures for Application

1. Expectations for Participating Organizations

- (1) The program is designed primarily for National Meteorological and Hydrological Services (NMHSs) aiming to address specific issues or problems identified in their areas of coverage.
- (2) The program is enriched with content and facilitation schemes specially developed in collaboration with the Japan Meteorological Agency (JMA). These special characteristics enable the program to meet the specific requirements of applicant organizations and effectively contribute toward solutions for the issues and problems at hand.
- (3) As the program is designed to help participating organizations develop concrete Action Plans for their issues, participants are expected to complete due preparations before coming to Japan by carrying out the activities of the Preliminary Phase described in Section II-9.
- (4) Participating organizations are also expected to make optimal use of the results achieved by their delegates during the program.

2. Nominee Qualifications

Applicant organizations are expected to select nominees with the qualifications outlined below.

Applicants should:

- (1) be meteorological officials classified as Meteorologists according to the World Meteorological Organization (WMO) personnel categories;
- (2) be presently engaged in meteorological services for their governments or government-related public organizations;
- (3) have a Bachelor of Science and/or an Engineering degree;
- (4) be under 40 years of age;
- (5) have considerable experience of meteorological services;
- (6) have knowledge and experience of using basic PC software (especially Word, Excel and PowerPoint);

(7) have a good command of spoken and written English; and
(8) be of an appropriate level of health, both physically and mentally, to participate in the program in Japan. The course involves a variety of field work trips. Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus.

3. Application Documents

(1) **Application form:** Application forms are available at JICA offices or Japanese Embassies.

(2) **Photocopy of passport:** to be submitted with the application form, if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

*Photocopy should include the followings:

Name, Date of birth, Nationality, Sex, Passport number and Expire date.

(3) **Nominee's English Score Sheet:** to be submitted with the application form, if you have any official documentation of English ability. (e.g., TOEFL, TOEIC, IELTS)

(4) **Questionnaire:** Fill in Annex I of the general information and submit it along with the Application form

4. Application and Selection Procedures

(1) Submission of Application Documents

Closing date for applications to the JICA Center in Japan: **July 16, 2016**

Note: Please check the closing date set by your country's JICA office or Japanese Embassy to ensure that the final submission date in Japan is met.

(2) Selection

After receiving the relevant documentation based on the due administrative procedures of the respective governments, each country's JICA office (or Japanese Embassy) shall conduct screening and send the

documents to the Japan JICA Center in charge of organizing the project. Selections will be made by the JICA Center in consultation with the Japan Meteorological Agency (JMA) based on the submitted documents according to qualifications. Organizations intending to fully leverage the opportunities provided by the program will be favorably regarded in the selection process.

Qualifications of applicants who belong to the military or other military-related organizations and/or who are enlisted in the military will be examined by the Government of Japan on a case-by-case basis, consistent with the Development Cooperation Charter of Japan, taking into consideration their duties, positions in the organization, and other relevant information in a comprehensive manner.

(5) Notification of Acceptance

Notification of the results will be made by each country's JICA office (or Japanese Embassy) to the respective governments by Monday, **August 8, 2016**.

5. Conditions for Attendance

Participants should:

- (1)** observe the schedule of the program;
- (2)** not change program subjects or extend their period of stay in Japan;
- (3)** refrain from bringing family members;
- (4)** return to their home countries at the end of the program in Japan according to the travel schedule designated by JICA;
- (5)** refrain from engaging in political activities or any form of employment for profit or gain in Japan;
- (6)** observe Japanese laws and ordinances. If there is any violation of such, participants may be required to return part or all of the Program expenditure depending on the severity of the violation;
- (7)** observe the rules and regulations of their place of accommodation and refrain from changing the accommodation designated by JICA; and

(8) participate in the whole program, including the preparatory phase prior to the part in Japan. After receiving notification of nominee acceptance, applicant organizations are expected to carry out the procedures described in Section II-9.

IV. Administrative Arrangements

1. Organizer

(1) Name: Economic Infrastructure Development and Environment Division,
JICA Tokyo

(2) Contact: Junko MIMAKI (Ms.) (tictee@jica.go.jp)

2. Implementing Partner

(1) Name: Japan Meteorological Agency (JMA)

Address: 1-3-4 Otemachi, Chiyoda-ku, Tokyo 100-8122, Japan
Tel.: +81-3-3211-4966 Fax: +81-3-3211-2032

(2) Contact: Mr. Akira OKAGAKI (iao-jma@met.kishou.go.jp)

(3) URL: <http://www.jma.go.jp/jma/indexe.html>

(4) Note: The Japan Meteorological Agency (JMA) is the National Meteorological Service of the Government of Japan. The ultimate goals of JMA are: (1) mitigation and prevention of natural disasters, (2) safety of transportation, (3) development and prosperity of industry, and (4) improvement of public welfare.

3. Travel to Japan

(1) Air tickets: The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

(2) Travel insurance: Term of Insurance: From arrival in Japan to departure.
Travel outside Japan is not covered.

4. Accommodation in Japan

JICA will arrange accommodation for participants at the following facility in Japan:

JICA Tokyo International Center (JICA Tokyo)

Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan

Tel.: +81-3-3485-7051 Fax: +81-3-3485-7904

("81" is the country code for Japan, and "3" is the local area code)

If there are no vacancies at JICA Tokyo, JICA will arrange alternative accommodation. Please refer to TIC facility guide at URL below;
<http://www.jica.go.jp/english/contact/domestic/pdf/welcome.pdf>

5. Expenses

The following will be provided for participants by JICA:

(1) Allowances for accommodation, living expenses, outfits and shipping

(2) Coverage of study tour expenses (essentially train tickets)

(3) Free medical care for participants falling ill after arriving in Japan (excluding costs related to pre-existing illness, pregnancy or dental treatment)

(4) Coverage of program implementation expenses, including materials

For more details, see pp. 8 – 16 of the KENSHU-IN Guide Book brochure to be provided to selected attendees before (or at) the pre-departure orientation.

6. Pre-departure Orientation

A pre-departure orientation session for participants will be held at each country's JICA office (or Japanese Embassy) to outline the details of travel to Japan, the conditions of the program and other matters.

V. ANNEX

ANNEX I - All Applicants

Reinforcement of Meteorological Services 2016

Questionnaire

Please submit this sheet **with the Application Form**.

Country	Name
---------	------

1. **Subject(s) of concern (choose from II-9 Program Structure)**

2. **Intended Action Plan theme (see Annex III)**

3. **Experience:** Please provide the following information on your NMHS experience:

	Period (years)	Notes (if necessary)
Administration/management		
General/personnel/finance		
Observation (management)		
Forecasting (management)		
Observation (operation/analysis)		
Surface		
Upper-air		
Radar		
Other ()		
Weather forecasting (operation/analysis)		
Very-short-range forecasting		

Daily forecasting		
One-week forecasting		
NWP		
Use of NWP weather maps (Z500, T850, EPSgrams, etc.)		
Use of NWP guidance (bias correction, etc.)		
Use of graphical tools		
Programming of NWP guidance		
Programming of NWP models		
Climate services		
Climate monitoring		
Climate change projection		
PC experience		
Software (Word Excel PowerPoint)		
Internet/Email		
Programming		
FORTRAN		
C		
R		
Other (Indicate experience in the "Notes" column, e.g., bsh, perl, python.)		

Reinforcement of Meteorological Services
2016

Country Report

1. Country Report

Those informed of their acceptance to the course are requested to prepare and submit a Country Report and completed Annex II-II based on the information outlined below.

Please submit the report and Annex II-II on the first day of the course. It should be typewritten on A4-size paper (MS Word is recommended), and should not exceed 10 pages.

(1) Objective

- 1) To share information on individual participating countries' NMHSs with representatives of JMA and other participants in order to enhance mutual understanding.
- 2) To help participants identify issues faced by their NMHSs to be addressed in the Action Plans that will be developed during the program.

(2) Content

Please cover the following points in the Country Report:

- 1) The meteorological and climatological characteristics of your country
- 2) Major severe weather phenomena and natural disasters in your country, and your organization's activities in relation to such conditions
- 3) Your organization's position within the country's disaster management system
- 4) Organizations such as ministries, disaster risk management agencies, media operators and local governments that directly receive weather warnings/advisories
- 5) Major problems in your country (or organization) in the field covered by the Program (numerical weather prediction (NWP), radar, satellite image analysis, climate-related information, etc.)
- 6) Personal views on further development of your NMHS
Please complete the relevant parts of the Table in Annex II-II with all the necessary information regarding your organization and attach it to the report.
- 7) Examples of weather bulletins such as weather forecasts, warnings and advisories issued by your NMHS
- 8) Flowchart showing how warnings and advisories are disseminated from your NMHS to residents

2. Country Report Presentation

Participants will be asked to make a presentation on their Country Reports lasting about 20 minutes (15 minutes for the presentation itself and 5 minutes for Q and A) at the beginning of the course. Please create a PowerPoint file for your presentation in addition to the above-mentioned MS Word file. Visual aids (graphics, photos, etc.) are encouraged.

ANNEX II-II - Accepted Applicants

Reinforcement of Meteorological Services 2016

Functions of your organization

Country _____

Please attach this sheet to the Country Report to be submitted **at the beginning of the Core Phase**.

Organization (Please attach an organizational chart to the Country Report)	
Office numbers	Headquarters: Local offices: Research institutes: Training institutes:
Staff numbers	Headquarters: National total:
Supervising government ministry	

Observation		
Observation station numbers	Surface	Manned: Automated:
	Upper-air	Radiosonde: Other ()::
	Radar	Conventional: Doppler: (Dual polarization type:)
	Marine	Wave (buoys, etc.): Tide gauge:
	Environment	CO ₂ : O ₃ : Other ()::

Numbers of stations from which Headquarters receives data within three hours	Surface	Manned: Automated:
	Upper-air	Radiosonde: Other ()::
	Radar	Conventional: Doppler: Are radar data composite? (Yes/No) If so, how many sites are used for such compositing? Conventional: Doppler:
Calibration of instruments for surface observation	1. Does the NMHS calibrate observational instruments at the calibration laboratory? (Yes/No) 2. Does the calibration laboratory guarantee the traceability of measurements to international standards (e.g., System International (SI))? (Yes/No)	
Inspection and maintenance	Does the NMHS conduct regular inspections and/or maintenance of the following: 1. Surface observing stations? (Yes/No) 2. Radar stations? (Yes/No) If so, please indicate the relevant periodicity. ()	

Telecommunications	
Domestic communications among Headquarters, local offices and observation stations (multiple answers OK)	1. Telephone 2. Radio 3. Dedicated line (bps) 4. Internet 5. VSAT 6. Short-message service (SMS) 7. Email
Circuit speed of Internet at Headquarters	() bps

Use of NWP for operational forecasting					
In-house NWP		Model	Horizontal resolution/number of vertical layers	Daily number of issuances	Usage (e.g., forecast hours/days)
	e.g.	WRF	10km/50	4	Very-short-range forecast
	1.				
	2.				
	3.				
NWP model output from other centers		Source (e.g., JMA, ECMWF, UKMO)	Route (e.g., Internet, GTS)	Data type (e.g., raw, pictures)	Usage (e.g., forecast hours/days)
	e.g.	JMA	GTS, Internet	Raw, pictures	1-3-day forecast
	1.				
	2.				
	3.				

Use of geostationary satellite data for operational forecasting (Add rows if necessary.)

	Satellite (e.g., Himawari, GOES, Meteosat)	Data collection method (e.g., Internet, satellite broadcast)	Visualization method (e.g., online, SATAID, other software)	Frequency of use in the operation (e.g., always, usually, occasionally, rarely)
e.g.	Himawari-8	Internet, satellite broadcast	Online, SATAID	usually
1				
2				
3				

Issuance of weather forecasts (Add rows if necessary.)

	Forecast ranges (e.g. hours, days)	Daily number of issuances
e.g.	3 days	3
1		
2		
3		

Computers used for forecasting operation and technical development

Number of PCs at Headquarters used for	Operational: (e.g., observational data monitoring, NWP product display) Technical development: OSs (e.g., Windows8, Linux) : ()
--	---

Issuance of warnings/advisories	
Warning/advisory names	1. Flash Flood, 2. Drought, 3. Strong Wind, 4. Tornado, 5. Hailstorm, 6. Thunderstorm, 7. Heavy Snow, 8. Freezing Rain, 9. Dense Fog, 10. Tropical Cyclone, 11. Storm Surge, 12. Heat Wave, 13. Cold Wave, 14. River Flood, 15. Sand and Dust Storm, 16. Avalanche, 17. Forest or Wild Land Fire, 18. Smoke, 19. Others (e.g., Marine warnings) ()
Warning/advisory coverage area	National / Provincial / Municipal / Other (please specify)
Warning/advisory -issuing organization	Headquarters / Local offices / Other ()

Climate services	
Long-range forecasting	Targets (monthly, three-month, seasonal, monsoon onset/activity, El Niño/La Niña) Sources (e.g., GPC Tokyo, RCC Tokyo, WMO El Niño Update)
Climate monitoring	Targets (monsoon, extreme events, monthly/seasonal/annual conditions) Sources (e.g., RCC Tokyo)
Major users of climate services	agriculture and food security / disaster risk reduction / health / water / energy / others ()
Opportunities for interaction with users	Opportunities for interaction with users of climate services (Yes/No) If so, whom? ()

Reinforcement of Meteorological Services 2016

Action Plan

All participants are required to formulate an Action Plan during the Knowledge Co-Creation Program and make a presentation on it at the end of the Core Phase.

Pick one topic from among the issues to be tackled in your Country Report and formulate an Action Plan on it using knowledge gained from the Program. Try to formulate the plan in consideration of using existing human and financial resources in your organization as efficiently and effectively as possible. Try also to discuss the theme you intend to choose with your supervisor.

The Action Plan should include the items shown below.

Contents (recommended)

- a. Theme
- b. Background
- c. Objectives (goals)
- d. Direct and indirect beneficiaries
- e. Action components
- f. Implementation schedule
- g. Responsible agencies and their roles
- h. Strategies and tactics for implementation
- i. Monitoring and evaluation
- j. Budget and resources

Participants are requested to make a presentation version (MS PowerPoint is recommended) of the Action Plan for use and discussion at the end of the Core Phase. The final descriptive version of the Action Plan should be typewritten with double spacing on A4-size paper (MS Word is recommended), be completed in the Finalization Phase in participants' home countries, and be sent to the JICA office by March 2017.

More detailed guidance will be provided to participants after their arrival in Japan.

***For optimal Action Plans, participants are advised to bring necessary documents or organization data from their countries.**

For Your Reference

JICA and Capacity Development

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that “capacity development” is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, Knowledge Co-Creation Programs, JOCV programs, etc.

Within this wide range of programs, Knowledge Co-Creation Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs and are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

Japanese Development Experience

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the “*adopt and adapt*” concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this “*adoption and adaptation*” process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan’s developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of “tacit knowledge,” a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.



CORRESPONDENCE

For enquiries and further information, please contact the JICA office or the Embassy of Japan. Correspondence can also be addressed to:

JICA Tokyo International Center (JICA TOKYO)
Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan
TEL: +81-3-3485-7051 FAX: +81-3-3485-7904