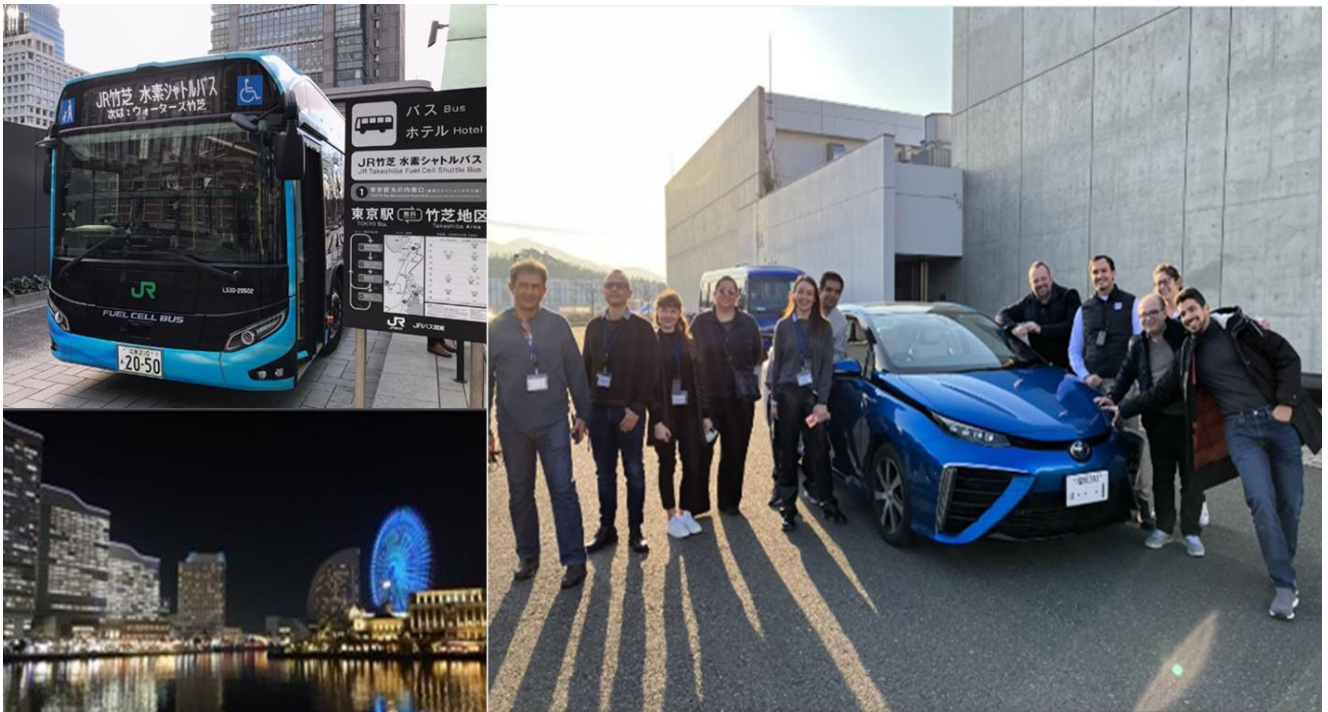




Knowledge Co-Creation Program (Group and Region Focus)

# Promotion of Hydrogen Energy Use

-Energy Policy Toward Hydrogen-Based CO2 Free Society-



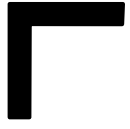
Course Number: **202208425J001**

Course Period: **January 21 - February 1, 2024**

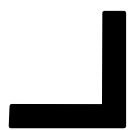


NOTE: Adobe Acrobat Reader DC and Google Chrome are recommended as PDF viewer. JAWS and NVDA are recommended as screen reader.  
NOTE: If there are any difficulties in reading this document, please contact JICA Office in your country or JICA Center in Japan.  
NOTE: Depending on the circumstances, some or all of the program periods may be changed or cancelled after the application has been accepted.

水素エネルギー利用の推進～CO2フリー社会に向けたエネルギー政策～



**How can we promote**  
**Hydrogen**  
**Supply and**  
**Utilization?**



# Outline



This program is the training course designed for government officials engaged in policy making and project development to promote the supply and utilization of renewable energy, including hydrogen, in the energy transition phase to a carbon neutral society.



The training will be held in Japan, with classroom lectures, discussions, and presentations face-to-face.



All sessions are carried out in English.

The period is from January 21 to February 1, 2024.

Course Capacity: 13 participants



## **JICA Knowledge Co-Creation Program (KCCP)**

The Japanese Cabinet released the Development Cooperation Charter in February 2015, stated 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 foundation of mutual learning process.

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# For What?

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## Background

Since the beginning of 2020, many countries have been accelerating their efforts to promote the utilization of hydrogen. European countries aim to achieve carbon neutrality by 2050 and other countries have announced their hydrogen strategies one after another. Hydrogen is considered the ultimate clean energy, but due to cost and some issues in its supply chain (production, storage, transportation, and utilization), medium- to long-term efforts are needed to expand utilization of hydrogen.

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## Objectives

This program offers opportunities to enhance policy-making and implementation capabilities necessary to promote the use of hydrogen energy in each country.

# To Whom?

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## Job Areas and Organizations

This program is designed for officials in ministries, some power or oil&gas companies etc. who are deeply involved in policy making and/or project development for promoting hydrogen as alternative fuel.

Applying organizations with the best intention to utilize the opportunity of this program will be highly valued in the selection.

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## Targeted Countries

Argentina  
Brazil  
Chile  
Colombia  
Uruguay  
Egypt  
Namibia  
Azerbaijan  
Uzbekistan  
Laos

Participants who have successfully completed the program will be awarded a certificate by JICA.

# When?

# Where?

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## Face-to-Face Program

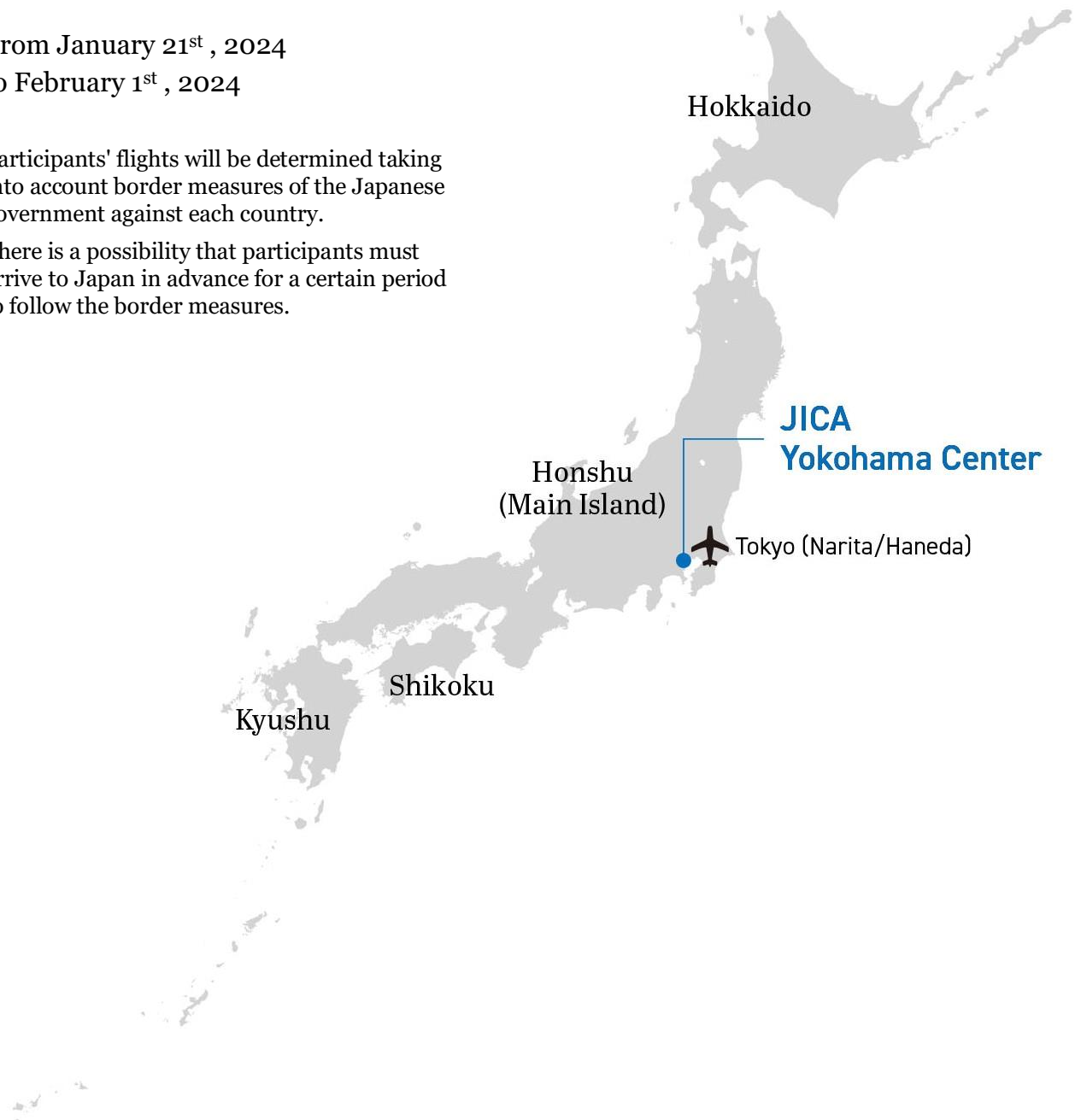


From January 21<sup>st</sup>, 2024  
to February 1<sup>st</sup>, 2024

Participants' flights will be determined taking into account border measures of the Japanese government against each country.

There is a possibility that participants must arrive to Japan in advance for a certain period to follow the border measures.

This course is carried out face-to-face, organized by JICA Yokohama Center.



# How?

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## How to Learn

- Workshop
- Discussions
- Presentations
- Field Visit



Listen



Interact



Discuss



Present



Watch

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## Language

English

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## Commitment to the SDGs





## Program contents (tentative)

1 <sup>st</sup> week	
Presentation	Job Report presentation ✓ to know each other and each country's challenge which eventually leads to broader view of one's own country
Lecture	Current Topics in Hydrogen Energy ✓ to have common basics for the course
Lecture	Japan's Hydrogen Strategy ✓ to understand Japan's strategy and have relative perspective on participant's own country's strategy
Lecture	Methanation Business ✓ methanation business and technology as a key driver for smooth transition to decarbonized society
Site Visit (TBC)	Ammonia Cofiring, Hydrogen Research Field ✓ state-of-the-art hydrogen technology from demand/supply side
Site visit (TBC)	Methanation Plant

2 <sup>nd</sup> week	
Lecture	Hydrogen Trade Business and its Carrier ✓ global supply chain of hydrogen
Lecture	Hydrogen Mobility Business ✓ to understand business in mobility as a key demand sector
Lecture / Discussion	Future outlook of the hydrogen sector, role of public organizations, funds, etc. ✓ interactive session on how to incorporate and promote hydrogen in economy
Site visit (TBC)	Hydrogen Carrier Demonstration Plant
Site visit (TBC)	Transportation Bureau (FCV)
Presentation	Action Plan presentation

\*Site visit activities shown in the table will be changed depending on their availability.

\*lectures related to business matters are planned to be delivered by private investors.

## Management Members

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Sub Course Leader / P-to-X, and Geothermal projects Senior Advisor

**Mr. SUGIOKA Manabu**

Japan International Cooperation Agency (JICA)



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**Mr. KUNIKATA Kentaro**

Japan International Cooperation Agency (JICA)



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**Ms. HAMAGUCHI Misaki**

Yokohama Center

Japan International Cooperation Agency (JICA)



# Eligibility and Procedures

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## 1. Expectations to the Applying Organizations

- (1) This course is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Applying organizations are expected to use the program for those specific purposes.
- (2) In this connection, applying organizations are expected to nominate the most qualified candidates to address the said issues or problems, carefully referring to the qualifications described below.
- (3) This course is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the course to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.
- (4) Lecturers in the training course are experts in policy-making and project development of hydrogen in Japan. Please make use of the training to interact with them through participant's active engagement in Q&A or discussions.

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## 2. Nominee Qualifications

Applying organizations are expected to select nominees who meet the following qualifications.

### (1) Essential Qualifications

#### 1) Target Organization:

Departments specialized in policy making on hydrogen in relevant ministries or engaged in hydrogen project development in public power or oil&gas companies etc.

#### 2) Target personnel:

<Position>

Applicants in charge of policy making and/or project development of hydrogen at target organizations mentioned above.

<Experience>

Applicants are engaged in policy making or project development in energy sector

including hydrogen energy for more than 5 years.

#### <Education Background>

Applicants must have bachelor degrees or equivalent in relevant fields such as energy policy/engineering economy, law, business.

#### <Language>

Have a competent command of spoken and written English (This training includes active participation in discussions, which requires high competence of English ability.).

#### <Health>

Be in good health and suitable to participate in the program in Japan. To reduce the risk of worsening symptoms associated with respiratory tract infection, please be honest to declare in the Medical History (QUESTIONNAIRE ON MEDICAL STATUS RESTRICTION of the application form) if you have been a patient of following illnesses; Hypertension / Diabetes / Cardiovascular illness / Heart failure / Chronic respiratory illness.

Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus. Because live vaccines administered to a pregnant woman pose a theoretical risk to the fetus; therefore, live, attenuated virus and live bacterial vaccines generally are contraindicated during pregnancy.

## (2) Recommended Qualifications

### 1) Gender Equality and Women's Empowerment:

Women are encouraged to apply for the program. JICA is committed to promoting gender equality and women's empowerment, and provides equal opportunities for all applicants regardless of their sexual orientation or gender identity.

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## 3. Required Documents for Application

### (1) Application Form:

The Application Form is available at the JICA overseas office (or the Embassy of Japan)

\* If you have any difficulties/disabilities which require assistance, please specify necessary assistances in the QUESTIONNAIRE ON MEDICAL STATUS RESTRICTION (1-I) of the application form. Information will be reviewed and used for reasonable accommodation.

### (2) Photocopy of Passport:

You should submit it 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.

\*The following information should be included in the photocopy:

Name, Date of Birth, Nationality, Sex, Passport Number and Expiry Date



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## 4. Procedures for Application and Selection

### (1) Submission of the Application Documents

Closing date for applications:

**Please confirm the local deadline with the JICA overseas office (or the Embassy of Japan).**

(All required material must arrive at JICA Yokohama **by November 17<sup>th</sup>, 2023**)

### (2) Selection

Primary screening is conducted at the JICA overseas office (or the embassy of Japan) after receiving official documents from your government. JICA Center will consult with concerned departments in Japan in the process of final selection. Applying organizations with the best intentions to utilize the opportunity will be highly valued.

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

### (3) Notice of Acceptance

The JICA overseas office (or the Embassy of Japan) will notify the results **by December 1<sup>st</sup>, 2023.**

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## 5. Conditions for Participation

The participants of KCCP are required

- (1) to strictly observe the course schedule,
- (2) not to change the air ticket (and flight class and flight schedule arranged by JICA) and lodging by the participants themselves,
- (3) to understand that leaving Japan during the course period (to return to home country, etc.) is not allowed (except for programs longer than one year),
- (4) not to bring or invite any family members (except for programs longer than one year),
- (5) to carry out such instructions and abide by such conditions as may be stipulated by both the nominating Government and the Japanese Government in respect of the course,
- (6) to observe the rules and regulations of the program implementing partners to provide



- the program or establishments,
- (7) not to engage in political activities, or any form of employment for profit,
  - (8) to discontinue the program, should the participants violate the Japanese laws or JICA's regulations, or the participants commit illegal or immoral conduct, or get critical illness or serious injury and be considered unable to continue the course. The participants shall be responsible for paying any cost for treatment of the said health conditions except for the medical care stipulated in (3) of "3.Expenses", "Administrative Arrangements",
  - (9) to return the total amount or a part of the expenditure for the KCCP depending on the severity of such violation, should the participants violate the laws and ordinances,
  - (10) not to drive a car or motorbike, regardless of an international driving license possessed,
  - (11) to observe the rules and regulations at the place of the participants' accommodation,  
and
  - (12) to refund allowances or other benefits paid by JICA in the case of a change in schedule.

# Administrative Arrangements

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## 1. Organizer (JICA Center in Japan)

- (1) **Center:** JICA Yokohama Center (JICA YOKOHAMA)
  - (2) **Program Officer:** Ms. HAMAGUCHI Misaki ([yicctt1@jica.go.jp](mailto:yicctt1@jica.go.jp))
- 

## 2. Expenses

The following expenses in Japan will be provided by JICA

- (1) Allowances for meals, living expenses, outfits, and shipping and stopover.
- (2) Expenses for study tours (basically in the form of train tickets).
- (3) Medical care for participants who become ill after arriving in Japan (the costs related to pre-existing illness, pregnancy, or dental treatment **are not included**).
- (4) Expenses for program implementation, including materials.
- (5) For more details, please see “III. ALLOWANCES” of the brochure for participants titled “KENSU-IN GUIDE BOOK,” which will be given before departure for Japan.

\*Link to JICA HP (English/French/Spanish/Russian):

[https://www.jica.go.jp/english/our\\_work/types\\_of\\_assistance/tech/accept](https://www.jica.go.jp/english/our_work/types_of_assistance/tech/accept)

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## 3. Travel to Japan

### (1) Air Ticket:

In principle, JICA will arrange a classround-trip ticket between an international airport designated by JICA and Japan.

### (2) Travel Insurance:

Coverages is from time of arrival up to departure in Japan. Thus traveling time outside Japan (include damaged baggage during the arrival flight to Japan) will not be covered.

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## 4. Accommodation in Japan

Basically, JICA will arrange accommodation(s) for participants in Japan



JICA Knowledge Co-Creation Program (Group and Region Focus)

**Promotion of Hydrogen Energy Use -Energy Policy Toward Hydrogen Based CO2 Free Society-**  
Course No. 202208425J001

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## 5. Belongings

Please bring your Laptop and Smartphone. They are necessary for taking online lectures and communicating with JICA during the program

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## 6. Pre-departure Orientation

A pre-departure orientation will be held at respective country's JICA office (or the Japanese Embassy), to provide Participants with details on travel to Japan, conditions of the course, and other matters.

Part I: Knowledge Co-Creation Program and Life in Japan	
English ver.	<a href="https://www.youtube.com/watch?v=SLurfKugrEw">https://www.youtube.com/watch?v=SLurfKugrEw</a>
Part II: Introduction of JICA Centers in Japan	
JICA Yokohama	<a href="https://www.jica.go.jp/yokohama/english/office/index.html">https://www.jica.go.jp/yokohama/english/office/index.html</a>

If the link of these youtube URLs has expired, please access the URL below and search the necessary information from the key word.

<https://www.youtube.com/user/JICAChannel02>

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## 7. Reference

### PDF: KENSHU-IN GUIDE BOOK

For more detailed terms and conditions

[https://www.jica.go.jp/english/our\\_work/types\\_of\\_assistance/tech/acceptance/training/c8h0vm000011i07-att/guide\\_en.pdf](https://www.jica.go.jp/english/our_work/types_of_assistance/tech/acceptance/training/c8h0vm000011i07-att/guide_en.pdf)



### Video: JICA Predeparture Briefing

For more information on life in Japan and KCCP

<https://www.youtube.com/watch?v=SLurfKugrEw>





**Website: JICA**

English/French/Spanish/Russian

[https://www.jica.go.jp/english/our\\_work/types\\_of\\_assistance/tech/acceptance/training/index.html](https://www.jica.go.jp/english/our_work/types_of_assistance/tech/acceptance/training/index.html)



JICA Knowledge Co-Creation Program (Group and Region Focus)

**Promotion of Hydrogen Energy Use -Energy Policy Toward Hydrogen Based CO2 Free Society-  
Course No. 202208425J001**

# Other Information

## 1. Job Report Presentation and Action Plan

### (1) Job Report Presentation:

Participants will have a presentation of his/her Job Report up to 10 minutes on the first day of the training in Japan in order to share knowledge and background with other participants as well as instructors. Participants will send powerpoint presentation to the Program Officer (Ms. HAMAGUCHI Misaki ([yicctt1@jica.go.jp](mailto:yicctt1@jica.go.jp))) before your departure from your home country.

### (2) Action Plan:

Participants are required to make an Action Plan at the end of the training to express your idea and plan that you carry out after your return, reflecting the knowledge and method you acquire in the training. Each person will have 15 minutes for presentation (details to be explained during the course).

2. Participants who have successfully completed the program will be awarded a certificate by JICA. It requires 70% or more of training participation. If you do not create an action plan and submit a questionnaire, you will not be awarded a certificate.



# Annex

## Job Report

Name of Training Course	PROMOTION OF HYDROGEN ENERGY USE -ENERGY POLICY TOWARDS HYDROGEN-BASED CO2 FREE SOCIETY
Name of Applicant	
Name of Country	
E-mail	

### 1. Energy Situation and challenges in your country (up to 1 page)

- Policy frameworks for hydrogen and carbon neutrality.
- Outline of nationally determined commitment.
- Electricity supply (outline of share of generation and future plan)
- Enactment and enforcement situation of hydrogen energy-related law and/or regulation
- Issues and challenges for promotion of hydrogen energy

### 2. Your organization and main tasks (up to 1page)

(1) Main tasks of the organization

(2) Organization chart:

Please draw a chart of your organization including the department (section) names with the number of staffs in it and mark where you are positioned.

(The chart should be attached and not be counted in this page limit.) Please describe a duty of each department (section) briefly.

(3) Brief description of your assignments

(4) Challenges in your job

### 3. Expected impact of the program on your challenges

(1) Your purpose of participating in this course

(2) Subjects of the course which you are interested in the most

(3) How do you expect to apply skills and knowledge that you will gain during the course to tackle challenges in your home country?

### 4. What type of renewable energy have you applied in your country? Please fill in the installed capacity and annual generated energy for each generation facility.

	Installed capacity (MW)	Annual generated energy (GWh)
Hydrogen energy		
Hydropower		
Wind-power generation		
Geothermal power generation		
Solar power		
Biomass power generation		



# For Your Reference

## JICA and Capacity Development

Technical cooperation is people-to-people cooperation that supports partner countries in enhancing their comprehensive capacities to address development challenges by their own efforts. Instead of applying Japanese technology per se to partner countries, JICA's technical cooperation provides solutions that best fit their needs by working with people living there. In the process, consideration is given to factors such as their regional characteristics, historical background, and languages. JICA does not limit its technical cooperation to human resources development; it offers multi-tiered assistance that also involves organizational strengthening, policy formulation, and institution building.

Implementation methods of JICA's technical cooperation can be divided into two approaches. One is overseas cooperation by dispatching experts and volunteers in various development sectors to partner countries; the other is domestic cooperation by inviting participants from developing countries to Japan. The latter method is the Knowledge Co-Creation Program, formerly called Training Program, and it is one of the core programs carried out in Japan. By inviting officials from partner countries and with cooperation from domestic partners, the Knowledge Co-Creation Program provides technical knowledge and practical solutions for development issues in participating countries.

The Knowledge Co-Creation Program (Group & Region Focus) has long occupied an important place in JICA operations. About 400 pre-organized courses 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 is being customized by the different target organizations to address the specific needs, such as policy-making organizations, service provision organizations, as well as research and academic institutions.

## Japanese Development Experience

Japan, as the first non-Western nation to become a developed country, built itself into a country that is peaceful, prosperous and democratic while preserving its tradition. Japan will serve as one of the best examples for our partner countries to follow in their own development.

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 a process of adoption and adaptation, of course, has been accompanied by countless failures and errors behind the success stories.

Through Japan's progressive adaptation and application of systems, methods and technologies from the West in a way that is suited to its own circumstances, Japan has developed a storehouse of knowledge not found elsewhere from unique systems of organization, administration and personnel management to such social systems as the livelihood improvement approach and governmental organization. It is not easy to apply such experiences to other countries where the circumstances differ, but the experiences can provide ideas and clues useful when devising measures to solve problems.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit, 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.



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



## **Correspondence**

For enquiries and further information, please contact the JICA office or Embassy of Japan.

**Further, address correspondence to:**

### **JICA Yokohama Center (JICA Yokohama)**

Address: 3-1, Shinko 2-chome, Naka-ku, Yokohama City, Kanagawa Prefecture 231-0001, Japan

TEL: +81-45-663-3221

("81" is the country code for Japan, and "45" is the local area code)