# 2019 Course Information TRAINING FOR OCEAN OBSERVATION AND HYDROGRAPHIC SURVEYING







Ministry of Oceans and Fisheries Korea Hydrographic and Oceanographic Agency

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# People, Peace, Prosperity

# KOICA Korea International Cooperation Agency

Korea International Cooperation Agency (KOICA) was established as a government-funded agency dedicated to grant aid programs in April 1991. KOICA strives to combat poverty and support sustainable socio-economic growth of developing countries. By doing so, we aim to promote friendly and cooperative relationship with them.



#### DEVELOPMENT COOPERATION AGENCY OF THE KOREAN GOVERNMENT

KOICA is an organization responsible for 26% of the entire ODA (Official Development Assistance) in Korea based on the 2018 business plan, and is Korea's leading agency responsible for approximately 60% of grant aid. The scale of aid from KOICA, which was about 17.4 billion KRW in 1991, increased significantly to 800 billion KRW in 2018. This followed the admission to the Development Assistance Committee (DAC), along with the ODA contribution diplomacy policies of the Korean government which aims to make contributions to the international community.





#### KOICA Fellowship Program, CIAT

Like its acronym that sounds like "seed" in Korean, CIAT hopes to spread seeds of hope across developing countries. CIAT is a cooperation program where policy-makers, public servants and experts from developing countries are invited to Korea for technical training and knowledge sharing. CIAT has established partnerships with a multitude of





public organizations, research institutes, universities and others in Korea to offer quality training programs. Such efforts have resulted in a high level of satisfaction among participants. After returning to their home countries, CIAT participants play a role in spreading Korea's commitment and goodwill towards their society.

# FOR APPLICANTS

## **PROGRAM OVERVIEW**

**TITLE:** Training for Ocean Observation and Hydrographic Surveying **DURATION**: June 9 (Sun) - 29 (Sat), 2019

**GOAL**: To learn the latest cartographic technology with an aim to enhance the hydrographic capacity and improve the safety of navigation of the participating countries

<b>ARGET</b>	Working-level government employees from national hydrographic offices or related national agencies involved in nautical cartography and hydrography
OBJECTIVES	<ol> <li>To learn the latest technology in Electronic Navigational Chart (ENC) production</li> <li>To learn about S-10X product specifications</li> <li>To enhance the ENC production capacity of the participating countries</li> <li>To strengthen cooperation in the oceanographic and hydrographic fields among the participating countries</li> </ol>
ACTIVITIES	Invitational Training
OUTPUT	Action Plan

(Selecting a good Action Plan and implementing on-site program)

Accomplishing the program's goals through capacity building and contributing to sustainable socio-economic development of developing countries

GROUP

# **COURSE OVERVIEW**

#### **1. OBJECTIVES**

- 1) To learn the latest technology in Electronic Navigational Chart (ENC) production
- 2) To learn about S-10X product specifications
- 3) To enhance the ENC production capacity of the participating countries
- 4) To strengthen cooperation in the oceanographic and hydrographic fields among the participating countries

#### 2. COURSE DURATION

- June 9 (Sun) - 29 (Sat), 2019 (including participants' arrival and departure dates) \* Training Duration: June 10 (Mon) - 28 (Fri), 2019

#### 3. LANGUAGE: English

#### 4. LOCATION

MANDATORY

- 1) Training: Korea Hydrographic and Oceanographic Agency (KHOA, Busan)
- 2) Accommodations: Hotels in Busan, Gyeongju, and Seoul

#### 5. PARTICIPANTS: 17 persons

#### ELIGIBILITY REQUIREMENTS

- 1. Be nominated by their government
- 2. Be in good health both physically and mentally, enough to take the course
- 3. Has a willingness to show a high level of participation and commitment throughout the course and contribute to the capacity building of their organization after the completion of the program
- 4. Has not participated in the same or similar KOICA Fellowship Program for the past three years, unless otherwise specified (provided, however, that a key person for the course of the intensive performance management program, for example, may participate in the same or similar KOICA Fellowship Program, subject to pre-discussion with KOICA.)
  - 5. (Original place of employment) Hydrographic Office or related government agency
  - 6. (Position) Be a government employee in a working-level position
  - 7. (Relevant work experience) Required to have more than 3 years of work experience in nautical cartography
  - 8. (Language ability) Sufficient proficiency in written and spoken English to actively participate in seminars and write an Action Plan
- 9. Working knowledge of computers and Power Point software
  10. Working knowledge of S-57 and related software
  11. This is a 3-week course to support the capacity building of ENCs and related international standards. Participants can gain hands-on experience through various practices in computer data processing method together with in-depth theoretical knowledge. It is aimed at junior staff with 3 5 years of relevant work experience with applied knowledge of ENCs and S-10X product specifications.

This course is targeted at participants meeting the above qualifications, and thus ineligible participants, if any, may have difficulty understanding the course.

#### 6. CURRICULUM

MAIN LECTURES & DISCUSSIONS	STUDY VISIT
Module 1. General Hydrography	
<ul> <li>Introduction to KHOA's activities</li> <li>Ocean observation at KHOA</li> <li>Hydrographic surveying at KHOA</li> <li>Ocean forecasting and marine spatial data</li> </ul>	<ul> <li>KHOA</li> <li>Tidal Station, Busan</li> <li>Korea Hydrography and Research Association</li> </ul>

#### Module 2. Basic Concept of the Production of ENCs

- $\cdot$  Overview of ENCs and S-57
- $\cdot$  S-57 Appendices and how to use them
- · ENC features and attributes
- · Types of relationship between features

#### Module 3. Practical training on the production and management of ENCs

- $\cdot$  S/W for ENC production
- $\cdot$  Practical training on ENC production
- $\cdot$  Practical training on updating ENCs
- $\cdot$  Theory of ENC validation checks
- $\cdot$  Practical training on ENC validation checks

#### Module 4. The Future of ENCs

- $\cdot$  Introduction to S-100
- $\cdot$  S-100 based products and services
- $\cdot$  SMART Navigation (Korean e-Navigation) project

#### Module 5. Country Report and Action Learning / Plan

- $\cdot$  Presentation of Country Reports
- $\cdot$  Action Plan Building
- $\cdot$  Presentation and Evaluation of the Action Plan

#### **Extracurricular Activities**

- · Seoul City Tour (<u>www.visitseoul.net</u>)
- $\cdot$  Cultural sightseeing in Gyeongju

**7. TRAINING INSTITUTE**: Korea Hydrographic and Oceanographic Agency (www.khoa.go.kr)

KHOA is under the Ministry of Oceans and Fisheries and it was initiated as the Hydrographic Division of the ROK Navy in 1949. KHOA began its work with producing nautical charts for Korean jurisdictional sea area based on hydrographic survey data for the safety of navigation and KHOA also provides ocean forecast information based on ocean observation data. Recently we started providing marine geospatial information to the public and we are taking part in the development of S-100 product specifications.

In order to effectively manage the territorial waters of Korea and to collect long-term and continuous ocean observation data, we run the Korea Ocean Observation Network (KOON). In KOON there are 50 tidal stations, three ocean stations, 32 ocean buoys, 44 HF-radars and three offshore Ocean Research Stations. On the Research Stations, we observe ocean and atmospheric data and conduct manned and unmanned research.

We conduct high-resolution survey on the coast to identify dangerous objects such as rocks. The survey includes airborne LiDAR and hyperspectral imagery. In addition, we perform basic and high-resolution survey to produce fair sheets, tidal channel charts and seafloor sediment charts.

KHOA produces 390 paper charts and 1249 Electronic Navigational Chart (ENC) cells. We also collect and integrate marine information and service it as marine spatial data so that the public can easily use it.

## HOW TO APPLY

#### APPLICATION DEADLINE: April 30, 2019

#### Step 1. CHECK OUT COURSE INFORMATION

- Applicants must check Program Overview and Course Overview details to see if the course they apply for is relevant to their work and they meet the qualifications for selecting participants.

#### Step 2. FILL OUT AND SUBMIT AN APPLICATION.

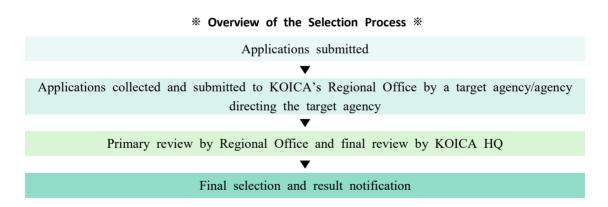
- After filling out an application, applicants must submit it no later than the deadline.

#### \* Instructions for filling out an application \*

- 1) Fill in all entries in the application form, including email address and medical records, **accurately and without omission** (The selection process of qualified applicants will start based on the information provided).
- Applicants are required to fill out an application clearly and legibly. (The course application result or follow-up activities after completion of the course will be notified to the email address an applicant gives in the application.)
- Make sure to submit all the documents required for application. (eg. passport, medical reports, etc.)

#### Step 3. SELECTION RESULT NOTIFICATION

- KOICA headquarters will notify finally selected candidates to their email addresses.



#### < Information for Successful Candidates >

- Successful candidates are required to submit Country Report no later than the deadline (For details, see the next page).

# FOR PARTICIPANTS

## **PARTICIPANTS' MAJOR ACTIVITIES**

All participants are requested to establish and present an Action Plan towards the end of the program. The Action Plan is one of the crucial program activities to which KOICA gives top priority. It is intended, firstly, to help program participants to come up with alternatives and solutions to the current issues and major challenges which participants' country/government/ organizations are facing and, secondly, to plan what action participants should take in order to solve those challenges.

For a successful Action Plan, **the first step is to prepare a Country Report.** In preparing a Country Report before joining the KOICA training course, participants will have an opportunity to analyze their own countries' current issues and challenges as well as circumstances surrounding them. Preparation and presentation of a Country Report is part of the Action Plan building process in which participants will be involved throughout the program.

The second step is to build an Action Plan. With the Country Report in mind, participants are encouraged to develop an Action Plan by incorporating the observations, experiences, and findings from the program, specifically from lectures, discussions, study visits, or local field trip. During the Program Orientation Session, the Action Plan guidelines, including a PPT template for presentation, will be provided to participants with instructions on how to formulate concepts and ideas for composing a practical and feasible Action Plan.

The third step is to implement the Action Plan. After going back to their home country, participants should implement the Action Plan according to its specifics and timeline. Participants are advised to do follow-up activities such as knowledge-sharing workshops or presentations with colleagues.

	STEP 1	STEP 2	STEP 3	
WHO	Participants individually or as a group			
WHEN	Before program	During program	After program	
WHAT	Country Report	Action Plan	Follow-up activities	
ноw	Preparation and presentation	Establishment and presentation	Implementation	
WHY	To analyze each country/organization's current status and problems focusing on the program theme	To provide solutions to the identified problems and issues in the Country Report	To apply participants' Action Plan to work & share knowledge with colleagues	

# [STEP 1] COUNTRY REPORT

#### **1. WHAT IS COUNTRY REPORT?**

A Country Report is a pre-assignment prepared and submitted by participants before the course starts. Participants analyze their own countries' current issues and challenges as well as circumstances surrounding them, and share the findings with other participants and Korean experts in an effort to provide solutions to the identified problems and issues for their own countries.

#### 2. HOW AND WHAT TO PREPARE

Participants are requested to prepare the Country Report individually or as a group and must submit it by the deadline specified below, so that it can be shared by lecturers in advance, before the program starts and also by fellow participants, moderators, discussants and Korean experts during the program in an effort to provide solutions to the identified problems and issues.

By when	31 May, 2019
In what format	Microsoft PowerPoint
To whom	Program Manager Boram JANG / jangbbo89@korea.kr with copy to infokhoa@korea.kr
Which contents	<ul> <li>Chapter 1. Introducing the National Hydrographic Office</li> <li>Chapter 2. Paper chart and ENC status (Chart and ENC Scheme) <ul> <li>(1) Chart production process and status of produced charts</li> <li>(2) Charting software (paper chart and ENC)</li> <li>(3) The number of staff in Charting Division (incl. updating/maintaining chart)</li> <li>(4) Validation tool (S/W) for ENC</li> </ul> </li> <li>Chapter 3. QA &amp; QC for charts and ENC (incl. legality or regulation)</li> <li>Chapter 4. ENC service (current chart/ENC distributors)</li> <li>Chapter 5. Previous experience of participation in nautical cartography capacity</li> </ul>
	building program
	* The topics of Chapters 2 to 4 will be covered in the Action Plan.

#### 3. COUNTRY REPORT PRESENTATION

Each presentation should take no longer than 15 minutes or so, and use an adequate number of slides, or maximum 20 pages, with consideration of time constraints. Each Country Report presentation will be followed by a question and answer session which includes feedback from Korean experts. For more effective presentations, a projector, slide projector, overhead projector or multimedia TV will be available for use.

# [STEP 2] ACTION PLAN

#### 1. WHAT IS ACTION PLAN?

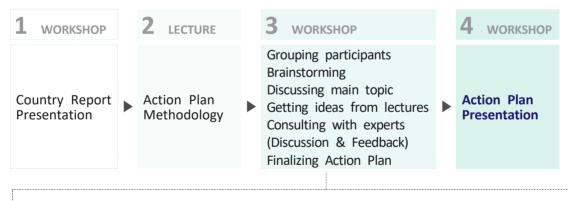
An Action Plan is a plan intended to help program participants provide alternatives and solutions to the issues and problems that are identified in the Country Report. A good Action Plan entails who will do what, when, and how in detail. Since the Action Plan's feasibility is very crucial, participants should thoroughly discuss with their supervisor(s) whether or not the main topic and direction are viable in advance.

Based on the observations and findings from the lectures, discussions, study visits, and a local field trip in Korea, participants will be asked to create an Action Plan in accordance with the Action Plan Guidelines to be provided. A session for developing and building the Action Plan will be held and the Action Plan guidelines will be provided to participants with instructions on how to formulate concepts and ideas for composing a practical and feasible Action Plan.

#### \* Note \*

- 1) Participants joining a second or third year course without attending the previous course or courses are required to review and understand the Action Plans by other participants in such course or courses in advance.
- 2) Participants may improve or develop the previous year's Action Plan, or build another Action Plan with a new topic.

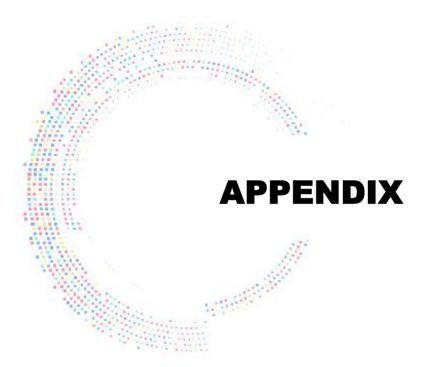
#### 2. ACTION PLAN BUILDING PROCESS



Applying knowledge acquired through lectures, study visits and discussions and working on measures to solve the issues or problems identified in the Country Report from various angles
Building specific solutions as well as implementation plan together with a moderator during an Action Plan workshop

# [STEP 3] FOLLOW-UP ACTIVITY

ACTION PLAN & PILOT PROJECT	Sharing the implementation status of the Action Plan with the training institute and KOICA (See Appendix: Contact) (An exemplary Action Plan is selected and financed by the training institute as a pilot project for implementation of the Action Plan)
KNOWLEDGE SHARING ACTIVITIES	Promoting knowledge sharing activities such as workshop and presentation to share knowledge acquired during the program and the Action Plan
ESSAY COMPETITION	Joining an essay competition held late in the year
Koica Club Activities	Taking part in an array of activities including joining KOICA Clubs in each country and community service after completion of the program
ONLINE NETWORKING	<text></text>



# CONTACT

<b>T</b>	+82-1899-4519 (CIAT Program HOT Line) http://www.koica.go.kr http://www.facebook.com/koica.icc	
(OICA	Program Manager <b>Mr. Heung Sik PARK</b> +82-51-862-7881 hspark@koica.go.kr	CIAT Fellowship Program pilot project follow-up activities
	Program Coordinator <b>Ms. Hoomi LEE</b> +82-31-740-3623 hoomi@koworks.org	Arrival/departure-related issues
Training Institute	Program Manager <b>Ms. Boram JANG</b> +82-51-400-4343 jangbbo89@korea.kr http://www.khoa.go.kr	Course contents - Curriculum, lecture, lecturer, Country Report & Action Plan

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To ensure that you receive appropriate help to safely get to the KOICA International Cooperation Center (ICC), two KOICA Counters are in service at each Terminal. At the KOICA Counter, KOICA staff will arrange your ride to the KOICA ICC.

#### AT INCHEON INTERNATIONAL AIRPORT TERMINAL 1 (IIAT 1)



Location Next to Gate 1 (Counter No. 9-10)

Contact Info Ms. Jin-Young YOON Tel. : 82-32-743-5904

AT INCHEON INTERNATIONAL AIRPORT TERMINAL 2 (IIAT 2)



Location In front of Gate 4 (Close to Arrival Gate B)

Contact Info Ms. Seung-Young YAU Tel. : 82-32-743-5905