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OUTLOOK AND TRENDS IN MARITIME EDUCATION AND TRAINING SUPPORTED BY OFFICIAL DEVELOPMENT ASSISTANCE (ODA)
— A Contribution to the Maritime Safety and Security sector —

Masaya OMAE*

ABSTRACT
Ensuring maritime safety and security is an essential target for any maritime society, and has been so for many years. The contributions of the government and private firms of Japan to this target have been acclaimed both nationally and internationally. At the same time, however, there is a need to assist developing nations, such as the ASEAN countries and those off the east coast of Africa.

The government of Japan has contributed greatly to this through the efforts of the Japan Coast Guard. However, rising international expectations for support with various subjects related to maritime safety and security is beginning to exceed the capacity for response by this agency alone.

This paper discusses the scope for collaboration by maritime education and training institutions with education and training on subjects, such as vessel operation and maintenance, from the perspective of contributing to the common good.

Keywords: ODA, Maritime Education and Training, Maritime Safety and Security, Public Profile, Public Goods

* Managing Director, Success Project Management Office Co., Ltd., 2-4-24, Shintomi-Cho, Kashiwa, Chiba, 277-0856, Japan. Visiting Professor, International Maritime Research Centre, Graduate School of Maritime Sciences, Kobe University. Email: omaema@nifty.com.
1. INTRODUCTION
1.1 Assistance by Japan with Maritime Education and Training (MET) in Developing Countries

Assistance with maritime education and training (hereinafter referred to as “MET”) in developing countries by the government of Japan has been implemented mainly by the Japan International Cooperation Agency (hereinafter referred to as “JICA”). Such assistance is also provided by the private sector, mainly by the related organizations, such as the All-Japan Seamen’s Union (JSU), the International Mariners Management Association of Japan (IMMAJ) and the leading shipping companies, such as MOL and NYK, so as to secure the highly capable seafarers for their own fleets as stated in their websites. Such activities of both the government and the private sector are thought of as actions that are broadly in line with the shared views of the general public.

1.2 Assistance with Maritime Safety and Security (MSS) in Developing Countries by Japan

In contrast, assistance with maritime safety and security (hereinafter referred to as “MSS”) in the developing countries is said to be an action with a much higher priority in terms of public opinion because of the potential for saving lives at sea, protecting against piracy and armed robbery, preserving the ocean environment and other benefits that contribute to public advantage and convenience.

1.3 Collaboration between MET and MSS

Although the need to secure MSS has been growing, it is doubtful whether the coast guard authorities in the developing countries have the required capabilities. My purpose in this article is to discuss collaboration between MET and MSS on subjects common to both such as vessel operation and maintenance, and to present research activities aimed at sustaining regional maritime capacity.

2. CURRENT POSITION
2.1 Maritime Education and Training (MET)
(1) Government Base

The government of Japan has been giving assistance to MET institutes under the

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Official Development Assistance (hereinafter referred to as “ODA”) program implemented by the JICA since 1985 started in the Philippines\(^4\), mainly in the Association of Southeast Asian Nations (hereinafter referred to as “ASEAN”) countries, such as the Philippines, Vietnam, Malaysia, Indonesia and Thailand. Concurrently, JICA has played an important role, helping to enhance MET capability in other regions, such as Egypt, Turkey, Algeria, Morocco and Panama since 1976 commenced in Egypt\(^5\).

The move to raise the standards of training for seafarers has been led by the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (hereinafter referred to as “STCW”). This convention has developed through phased steps from STCW ‘78\(^6\), ‘95\(^7\) and STCW 2010 (Manila amendment)\(^8\) to secure the minimum standards. These conventions have had a remarkable effect, leading to upgraded training standards, especially in the developing countries where that wished to avoid the stigma of not being on the so-called “White List” of countries with approved education and training. The pressure for listing influenced training managements, both at official and private levels. In 1995, huge efforts were made to enhance the capability of seafarers in response to a major initiative led by the International Maritime Organization (hereinafter referred to as “IMO”).

Such efforts have made the maritime safety culture an essential part of training which has been made mandatory and is reinforced by its own Regulations on documentation. Although there are still many matters that have to be addressed in order to secure the minimum training standards of seafarers; it may be said that the primary needs have been almost completed.

(2) Private Base

In parallel, extensive assistance from the private sector to the Philippines, Vietnam, India and other countries has been an effective means of securing efficient seafarers for the fleets of participating companies. In particular, the long-term support for the Philippines has realized a plentiful supply of excellent seafarers not only to the Japanese shipping industry but also worldwide. In the Philippines, such seafarers are seen as an important way of acquiring foreign currency.

(3) Example in the Philippines

A representative example of the ODA program in the Philippines is that of the National Maritime Polytechnic (NMP) from 1995 to 1999, with follow up from 1991 to 1993. The Overall Goal was “to ensure that the Filipino maritime officers have further employment opportunities on foreign vessels, and stretch their career field”, and the Purpose of the Project was “Improved training given to maritime officers and ratings at the NMP to obtain appropriate maritime knowledge and skills in compliance with the STCW Convention of 1978”9. The NMP has been playing a very important role for MET in the Philippines; however its centre was seriously damaged by the typhoon “Haiyan” in November, 2013. The NMP is expecting to receive support for rehabilitation by JICA.

In the private sector, the major contributions from the All Japan Seamen’s Union (JSU) were reimbursed indirectly through the Associated Marine Officers and Seamen’s Union of the Philippines (AMOSUP). This was used to establish the Maritime Academy of Asia and Pacific (MAAP). Of course, Japanese shipping companies such as NYK Lines, MOL and K-Lines have also been contributing in order to foster efficient seafarers. Notably, NYK Lines established the NYK-TDG Maritime Academy (NTMA) in Laguna, which started its operation there in June 2007.

2.2 Maritime Safety and Security (MSS)

(1) Multilateral Base

Multilateral cooperation has played an important part in networking, collaborating and harmonizing practices amongst the coast guard agencies in the Asian region, examples include:

- North Pacific Coast Guard Forum Summit (NPCGF): It was initiated by the JCG (Japan Coast Guard) in the year 2000 to develop multilateral cooperation and to share information on matters related to joint operations, information exchange and other important subjects. The current membership includes agencies from Canada, China, Japan, South Korea, Russia and USA.

- Regional Cooperation Agreement on Combating Piracy and Armed Robbery against ships in Asia (ReCAAP): The ReCAAP is the first regional government-to-government agreement to promote and enhance cooperation against piracy and armed robbery in Asia.

- Heads of Asian Coast Guard Agencies Meeting (HACGAM): The HACGAM is composed of 10 ASEAN states, being China, Korea, Japan, India, Bangladesh, Sri Lanka, Pakistan, and Hong Kong (China). Its purpose is to discuss cooperation among the member organizations.

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(2) Bilateral Base

Bilateral cooperation has been developed with the Philippines, Malaysia, Indonesia and Vietnam in the Asian region, and in Djibouti in the Middle East. It is intended but currently in abeyance in Yemen because of that country’s unstable political situation. Such bilateral cooperation has been operating under the ODA scheme by the JICA. The Japan Coast Guard (hereinafter referred to as “JCG”) has been dispatching long- and short-term missions of experts on various subjects to develop bilateral cooperation.

- **In the Philippines**, the Project to enhance the capacity of the Philippine Coast Guard was implemented in 2002. This is the longest cooperation in the MSS sector supported by the JCG under the ODA scheme.
- **In Indonesia**, the Project has been working with the Indonesian Maritime Security Coordination Board (in Indonesian Language, BAKORKAMLA) since 2008.
- **In Malaysia**, the Project has been working with the Malaysian Maritime Enforcement Agency (MMEA) since 2009.

3. ISSUES FOR CURRENT APPROACHES TO MSS

3.1 Diversity of MSS

The organization of the MSS sector is diverse. The JCG has been taking the necessary steps to systematically respond to each area of expertise for its own duties nationally. However, the scope of the Japanese MSS is too extensive to be used as a model for giving the necessary technical assistance to the agencies in the developing countries.

According to the JCG Leaflet 2013, such diversity can be categorized as: 1) Vessel and Airplane Operation, 2) Maintaining Maritime Order, 3) Guarding Territorial Waters and the EEZ (Exclusive Economic Zones), 4) Saving Lives, 5) Protecting the Marine Environment, 6) Preparing for Disasters, 7) Exploring the Ocean and 8) Ensuring Maritime Traffic Safety. These need in-depth expertise and a large number of specialists and logistical support systems because of the specific nature of each subject.

3.2 Need from various countries and regions

Secondly, there is a high expectation for cooperation in this sector from various countries and regions\(^{10}\), such as:

- **ASEAN Region**: Philippines, Malaysia, Indonesia, Vietnam, Thailand, Cambodia, Myanmar and others.
- **East African Region**: Djibouti, Kenya, Tanzania and others.

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3.3 Public Benefits

MSSs are by their nature largely a public good rather than a market commodity. The definition of pure public goods, as an ideal, is a state of affairs that has two main qualities: its benefits are non-competitive and are non-excludable; however few goods are purely public or purely private (Inge et al. 1999). This definition may present some difficulty when measuring the public nature of MET assistance to the specific institute(s) of the specific country because MET contributes strongly to enhance shipping capability and this is the business of the private sector. Needless to say, the ODA has to tread carefully in dealings with the beneficiaries as it has a high public profile. On the other hand, MSS has some characteristics closely related to the public good because it has to satisfy a variety of public needs due to its international, regional and national nature. The nature of needs in each region has different focus, as follows:

1) In ASEAN

Piracy and armed robbery cases in Asian waters have decreased with the help of the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against ships in Asia (ReCAAP) and the cooperation mechanism for tighter traffic safety measures in the Malacca and Singapore Straits. The main recent issues have been the countermeasures for law enforcement (hereinafter referred to as “MARLEN”) and search and rescue (hereinafter referred to as “SAR”); for which the international public profile is not high as it was.

In addition, strong efforts are still needed to tackle the frequent accidents of fishing boats and ferry boats in the region\(^\text{11}\); therefore there is widespread public support for such initiatives in the region.

2) In East Africa

The serious threat posed by piracy and armed robbery to the important international traffic route in the Indian Ocean off East African coast has been the most significant recent concern for the international maritime sector\(^\text{12}\). International attention to this is highly regarded by people worldwide.

However, the need to cope with activities related to MARLEN and SAR are less than that in the ASEAN region because few members of the populations in the East African region are occupied in duties at sea. Because of this, the regional public concern is probably less than that in the international maritime sector.

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\(^{11}\) Japan International Cooperation Agency (2012) JICA’s regional Cooperation in ASEAN: 12.

(3) Total Public Nature

Although there are characteristic differences between these two (2) regions, the total Public Nature is said to be nearly the same.

![Fig. 1 Public Benefit Comparison](image)

4. A POSSIBLE FUTURE APPROACH

4.1 The need for collaboration between MET and MSS

As mentioned, the needs for assistance and the expectations of MSS sectors in the developing countries are very high. However, the capacity to recommend countermeasures to ensure safety and security is insufficient if action is taken only by the JCG because of the wide range of diversity in the MSS, and because of the shortage of human resources of the JCG for international technical cooperation.

Therefore it is worth considering collaboration by the MET institutions on the common subjects for both MET and MSS, such as vessel operation and maintenance. Moreover, the contents of MET include basic levels of SAR and some other subjects which are necessary for MSS. Of course there are differences between the operations and maintenance of merchant vessels and coast guard vessels; however, there is significant overlapping.

4.2 Collaboration Possibility between MET and MSS

The JCG has only two (2) education and training bodies, the JCG Academy and College.

On the other hand, there are several education and training institutes in MET, such as Kobe University, Tokyo University of Marine Science and Technology, and a number of National Colleges of Maritime Technology under the Ministry of Education, Culture, Sports, Science and Technology (MEXT).
In MET, there are also other education and training institutes such as the National Institute for Sea Training (NIST) and the Marine Technical College (hereinafter referred to as “MTC”) under the Ministry of Land, Infrastructure, Transport and Tourism (MLIT).

There is synergy with MSS in the field of vessel operation and maintenance, and in some other common subjects taught by MET institutions. Although such MET institutions have their own well-defined duties and responsibilities, coordination among MET institutions is a means for proposing solutions to cover these kinds of subjects.

Fig. 2 shows the image of collaboration between MET and MSS. This image is drawn only for the practical training; there may also be many common subjects in classroom lectures.

![Collaboration Image](image)

The first trial of collaboration is planned for implementation at the MTC under the individual group training scheme of JICA. It aims to enhance the skills of officers and ratings for the operation and maintenance of the Philippine Coast Guard (PCG) fleet, as a first collaboration trial from the MET to the MSS the MTC will contribute to train instructors for basic maritime education subjects, vessel operation and maintenance on both Navigation and Marine Engineering. Courses will be of about three (3) months duration, starting in 2014.

The discussion of “the Concept of the Asian Maritime Safety and Security Organization” (hereinafter referred to as “AMSSO”) (Habara, 2013) may support the previously mentioned need to assist Coast Guard Agencies in developing countries, especially in the ASEAN region. This concept’s target is to secure MSS under a comprehensive approach among the collaborating countries, in ways similar to the
European Maritime Safety Agency (EMSA), in order to coordinate, harmonize and enhance regional capacity related to the MSS.

There are three (3) specific goals in this concept, being 1) to accomplish an integrated, efficient, and competitive maritime transport system, 2) to develop a safety navigation system and establish an advanced maritime security system in line with international standards, 3) to create Eco-Ports and ensure environment-friendly shipping. To realize such a concept, efficient and skilled vessel operation and maintenance should incorporate the basic needs for MSS that are agreed by all.

5. OUTLOOK

5.1 All Japan Approach

In the future, such a wide range of tasks cannot be covered without the “All Japan Approach,” which needs collaboration between the government base and the private sector. The quality of Japanese MET and MSS standards is widely recognized to be very high, and the Japanese Maritime Industry has the capability to be very effective. If the public benefit of such an “All Japan Approach” is recognized, the “All Japan Approach” would be the best approach. One of the examples of effective cooperation and coordination between the government and the private base is the system to educate and train marine pilots. The MET institutions and the private maritime consultant firms have been cooperating extensively to meet this requirement.

It is obvious that a high-level competence in seafarers and coast guard personnel is the common goal for both MET and MSS without regard to the stage of developing or industrialization of a country. In other words, the high-level seafarers and coast guard personnel are at the core of securing MSS for the public good; therefore the “All Japan Approach” to the developing countries will help to secure the safety of the ocean environment for sea trade, fishing, tourism and other activities based on an internationally agreed and shared platform.

5.2 Joint Research on MSS

To enhance the capability of the MSS, there are various possibilities for joint research, study and analysis between specialists in MET and MSS. Such specialists have been working separately on research projects; however what is now needed is collaborative research related to questions on the international and regional matters of MSS, as outlined in this article, especially concerning with the issues in the developing countries. Private maritime firms should also be expected to participate in such government supported initiatives.

5.3 Contribution to the International Organization

The output from such an “All Japan Approach” can be expected to contribute to the international maritime sector, through bodies such as the IMO, in the same way as
6. CONCLUSION

To conclude, it is very clear that the MSS has a high public profile in its own right and that efforts to collaborate on MSS, by the MET, will have a similar result and so will give it a high priority. In order to increase the total training capacity related to the MSS internationally and regionally, it can be effectively supported through collaboration with the MET institutions in common subjects.

At the same time, joint research and study between the MET and the MSS are also indispensable in order to make such collaboration more effective and efficient. The focus needs to be on the use of project management tools, such as “Plan”, “Do”, “Check” and “Act” cycle.

In order to proceed with such actions based on the “All Japan Approach”, there is a need for further joint study and sharing of information on the necessary actions and possible approach among the related authorities, such as the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) of Japan, the JCG, MET institutions and the JICA nationally; and the IMO and respective MSS organizations, such as the Philippine Coast Guard (PCG), the Indonesian Maritime Security Coordination Board (BAKORKAMLA), the Malaysian Maritime Enforcement Agency (MMEA); and others.

To coordinate such a plan of action, mutual discussions between the MSS and the MET need to be more frequently and have well defined objectives and time frames.

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