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**SC 100966 REG: Human Resource Development in the
Maritime Sector in Asia and the Pacific**

FINAL REPORT, 14 JUNE 2013

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1. INTRODUCTION



Background

Asia and the Pacific (AP) is a major source of demand for shipping, and a leading supplier of seafarers for shipping worldwide. The supply situation is dynamic, with changes in the structure of the market for the supply of seafarers over the last 10 to 20 years, and further changes likely.

AP needs to sustain its competitiveness as a supplier of seafarers in light of economic development and changing social contexts (influencing numbers), significant variations in the approach to Maritime Education and Training (MET) and examination of seafarers across the region (influencing quality).

Fisher Associates has therefore been commissioned by the Asian Development Bank (ADB) to prepare a high level Strategic Review of seagoing human resource needs for the maritime sector in AP.

The goal is to inform the adoption and implementation of a human resource strategy by stakeholders, and to provide a basis for discussions with potential financiers (multilateral and bilateral) to help implement it.

The Review was overseen by Mr. Jouko Sarvi, Advisor and Practice Leader for Education, Regional and Sustainable Development Department, and Mr. Norman LaRocque, Senior Education Specialist, Southeast Asia Department.

Structure

The structure of this Strategic Review includes:

- Formulation of vision and mission statements and a number of objectives to deliver these.
- A gap and opportunity analysis leading to the development of key initiatives that might be adopted in response to these objectives.
- Wrapping these up into logical framework with outputs and activities to deliver them.

The Review is based upon a situation analysis, which explains the key findings from the research and consultation undertaken.

This report starts, however, with an explanation of the regulatory environment for seafarer training and certification, and a contextual review which puts the subject in a global and AP regional context.

Approach

This report considers the sustainability of AP in the international market for the supply of seafarers, primarily in terms of quality, and how to support AP to at least sustain its current position, and ideally to improve this.

The scope of this Review is ambitious in two respects. Firstly, it needs to reach out to four key constituencies:

- Employers of seafarers – primarily shipping companies or manning agencies acting on their behalf.
- Seafarers themselves, primarily via collective organisations (unions).
- MET colleges, which train seafarers.
- Maritime Safety Administrations which are responsible for the accreditation of colleges, and certification of seafarers, in accordance with international conventions and their own standards.

Secondly, it addresses a large geographical region, covering many countries large and small in the Pacific and further west.

Developing initiatives to cover such a large area, given the obvious differences in socio-economic conditions and cultures (e.g. India, China, Philippines compared to each other, and to the many smaller nations), presents significant challenges. The Review meets this challenge by offering a high level framework which provides scope for those countries that wish to proactively engage with the process to support improving their competitiveness. The more countries that do this, the greater will be the collective impact at a regional level.

Any initiatives should be stakeholder led, and Fisher Associates has undertaken field visits to The Philippines, London, Singapore and Hong Kong, China, to meet with employers, seafarers' representatives, regulators, and MET institutions. We gratefully acknowledge the many stakeholders who have given their time to contribute to this work.



2. REGULATORY FRAMEWORK

Summary

International Maritime Organization (IMO) - United Nations Agency: responsible for developing international regulation for the shipping industry.



IMO Conventions set the regulatory regime, including Standards of Training, Certification and Watchkeeping (STCW).



STCW Convention addresses minimum standards of competence for seafarers.



IMO is a partnership of Flag States amongst others → countries that register ships under their flags, and certify seafarers, according to IMO Conventions, including STCW.



Individual Flag State countries implement their obligations under the Conventions via their own Maritime Safety Administration (MSA).



An MSA has authority and responsibility to enforce regulations related to vessels registered under its flag, and related to seafarers it certifies.



There are 30 MSAs in ADB regional member countries.



IMO (and ILO)

The International Maritime Organization (IMO) is the UN agency responsible for developing international regulation for the shipping industry. This includes measures to deal with safety, the environment, technical co-operation, legal issues and security.

The IMO sets international maritime standards through a number of Conventions and guidelines that have a direct impact on living and working conditions. The three main IMO Conventions are:

- International Convention for the Safety of Life at Sea (SOLAS) – which covers safety at sea.
- Standards of Training, Certification and Watchkeeping Convention (STCW) – covering training and professional standards for seafarers. More explanation of this is provided on page 8.
- International Convention for the Prevention of Pollution from Ships (MARPOL) – which addresses environmental concerns.

The IMO includes representatives of the Flag States, which have collectively developed and agreed upon these adopted Conventions over the years, and are engaged in regularly amending these and adding new components to them.

The International Labour Organisation (ILO) is another UN agency that sets internationally recognised labour standards to protect the rights of workers. The ILO's Maritime Labour Convention concerns seafarers' *welfare*, and sets minimum standards of employment for the world's seafarers. It brings together and updates over 65 other ILO maritime labour instruments, while introducing a system of certification and inspection to enforce it.

Once ratified, ships of all countries will be subject to inspection in the ports of any country that has ratified. Ships could be detained if they are deemed not to have met the standards set.

As may be expected, IMO and ILO have joint working groups to cover some issues of mutual interest.

Flag States

Ships are valuable assets carrying valuable cargoes. Owners and mortgagees of these wandering assets obtain legal rights and protection over them by registering them with a Flag State on its Ship Registry. This gives a vessel "legal personality on the high seas" of its country of registration, no matter where it is.

Individual Flag States accept IMO Conventions and amendments (each at their own pace). They do this because their Governments have determined that this is required if they are to participate as a respected member of the global maritime community, and to avoid problems and complications for ships that are registered with them when they visit foreign ports.

When a Government accepts an IMO Convention it agrees to (i) make it part of its own national law, and (ii) enforce it just like any other law (although in practice, some countries lack the expertise, experience and resources necessary to do this properly).

Notwithstanding this, when Conventions and amendments are so enacted, this places obligations on the shipowners with respect to the scope of these conventions, and upon the Flag State to regulate shipowners' compliance with these. The Flag State implements this via its Maritime Safety Administration (MSA), as explained on page 9.



Standards of Training, Certification and Watchkeeping for Seafarers (STCW)

The safety and security of life at sea, protection of the marine environment, and over 90% of the world's trade depends on the professionalism and competence of seafarers.

IMO's STCW Convention 1978 was the first internationally-agreed Convention to address the issue of minimum standards of competence for seafarers. Previously the standards of training, certification and watchkeeping of officers and ratings were established by individual governments. The Convention prescribes minimum standards relating to training, certification and watchkeeping for seafarers, which countries are obliged to meet or exceed.

In 1995 the STCW Convention was completely revised and updated to clarify the standards of competence required and "provide effective mechanisms for enforcement of its provisions".

A comprehensive review of the STCW Convention and the STCW Code commenced in January 2006, and culminated in a Conference of Parties to the STCW Convention which was held in Manila in June 2010, which adopted a significant number of amendments to STCW. Now referred to as "the Manila amendments", these provide enhanced standards of training for seafarers and came into force on 1 January 2012.

Format of STCW

The "Convention" has 8 chapters related to: General provisions; Master and deck department; Engine department; Radiocommunication and radio personnel; Special training requirements for personnel on certain types of ships; Emergency, occupational safety, medical care and survival functions; Alternative certification; and Watchkeeping.

The Convention is supported by the "STCW Code". Generally speaking, the Convention contains overarching principles which are then expanded upon and explained in the Code:

- Part A of the Code is mandatory. The minimum standards of competence required for seagoing personnel are given in detail in a series of tables.
- Part B of the Code contains recommended guidance which is intended to help Parties implement the Convention. The measures suggested are not mandatory and the examples given are only intended to illustrate how certain Convention requirements may be complied with.

Model Courses

IMO has developed about 70 model courses intended to assist with implementation of STCW. These include a wide variety of models for general and specialist training of seafarers, safety courses, search and rescue, Flag State implementation etc. Of particular interest in the context of this Review are:

3.12: Assessment, Examination and Certification of Seafarers

3.17 Maritime English

6.09 Training Course for Instructors

6.09A Train the Simulator Trainer and Assessor (pending)



Maritime Safety Administrations (MSAs)

Flag States typically discharge their responsibilities in practice via:

- A policy branch within a government (deciding which conventions to adopt and enacting these).
- An MSA, which is an operational branch for administering the Ship Registry, certification (including of seafarers), pollution prevention obligations etc.

All countries (138 worldwide) that operate as a Flag State have an MSA function in some form, even though this function may not be performed by one organisation.

In accordance with the Conventions that have actually been enacted in a particular Flag State, that State's MSA has the authority and responsibility to enforce regulations over vessels registered under its flag, including those relating to inspection, certification (including of seafarers), and issuing safety and pollution prevention documents.

The MSAs listed by IMO as “national authorities maintaining registers of certificates and endorsements”, which are also listed as regional members of the ADB, are shown alongside. Thus 30 out of 48 members from within ADB's regional members have MSAs in some form.

The key suppliers of seafarers based on data presented in the next section are highlighted.

MSAs in ADB Regional Member Countries

AUSTRALIA: Australian Maritime Safety Authority
BANGLADESH: Department of Shipping
PEOPLE'S REPUBLIC OF CHINA: Maritime Safety Administration
COOK ISLANDS: Ministry of Transport Maritime Division
FIJI: Fiji Islands Maritime Safety Administration (FIMSA)
GEORGIA: Maritime Transport Agency
HONG KONG, CHINA: Marine Department
INDIA: Ministry of Shipping, Road Transport and Highways
INDONESIA: Directorate General of Resources and Equipment of Posts and Information Technology
JAPAN: Ministry of Land, Infrastructure and Transport, Maritime Bureau
KIRIBATI: Ministry of Information, Communication and Transport
MALAYSIA: Marine Department Malaysia
MALDIVES: Ministry of Transport and Communications
MARSHALL ISLANDS: The Office of the Maritime Administrator
MICRONESIA: Department of Transportation and Communications
MYANMAR: Department of Marine Administration Ministry of Transport
NEW ZEALAND: Maritime New Zealand
PAKISTAN: Ministry of Ports and Shipping
PAPUA NEW GUINEA: National Maritime Safety Authority
PHILIPPINES: Maritime Industry Authority (MARINA)
REPUBLIC OF KOREA: Ministry of Land, Transportation and Maritime
SAMOA: Ministry of Transport
SINGAPORE: Shipping Division, Maritime and Port Authority of Singapore
SOLOMON ISLANDS: Ministry of Transport, Works, Communication & Aviation
SRI LANKA: Merchant Shipping Division, Ministry of Ports and Aviation
THAILAND: Maritime Department Ministry of Transport
TONGA: Ministry of Marine and Ports
TUVALU: Ministry of Works, Energy and Communications, Department of Marine and Ports Services
VANUATU: Deputy Commissioner of Maritime Affairs
VIET NAM: Vietnam National Maritime Administration (VINAMARINE)



3. CONTEXTUAL REVIEW



Introduction

This section sets out a contextual review of seafaring:

- The nature of the derived demand for shipping and the key trends that will impact on future demand for seafarers.
- The supply of seafarers (and AP's role within this), and the key challenges for the future supply of seafarers.
- Key employers and training providers in AP.

Derived Demand

Shipping is a large global industry. It is based upon a derived demand which is driven by macro issues such as global economic development, structural changes within this, and social trends. When growth slows, the shipping industry cools. When the People's Republic of China eats more bread, shipping carries more grain. When the price of oil rises, ships reduce speed to reduce fuel consumption (at the expense of productivity).



Thus broadly speaking, as the shipping task rises due to economic growth and structural changes, the number of seafarers also rises. Such external drivers form the macro environment that seafaring operates within, and must adapt to as the world evolves. Within the industry itself, structural trends will influence the number of seafarers required.



Factors REDUCING the demand for seafarers**Trend to increasing vessel size:**

- As volumes increase globally, shippers want to ship bigger parcels at cheaper prices, and shipowners build larger ships that offer economies of scale.
- In general, crewing does not rise in direct proportion to ship size, thus limiting the effects of economic growth on the number of seafarers (although the number of vessels *per se* still rises with increases in world trade).

The Jury is out!**Cyclical nature of shipping:**

- There is a lag of several years between ordering a ship and its delivery. A large number of orders placed before the global financial crisis are finally being delivered in 2012/13.
- In the short term, there may be an oversupply of ships and low profitability at times of low economic growth, or conversely an undersupply of ships and high profitability.
- Crewing supply arguably lags such supply/demand cycles for shipping, creating tight supply of seafarers (and higher wages) in times of high growth, and a ready supply of seafarers manning underemployed ships at times of low growth.
- In the long run, shipping is in equilibrium with shipping task, and crewing in equilibrium with shipping.

Factors INCREASING the demand for seafarers**Increasing regulation of shipping by international convention:**

- This arises from two concerns. First, environmental issues related, for example, to management of ballast water, fuels etc. Second, safety driven regulation via the IMO, for example, with respect to the SOLAS (Safety of Life at Sea) and STCW Conventions. These issues may influence the number of crew per ship, although views differ on this.
- The ILO Maritime Labour Convention, 2006 introduces an “all encompassing employment code for shipowners and seafarers”. It seems likely that this may also influence crewing.

Increasing specialisation of crews:

- Thirty years ago, a “tanker man” worked on tankers, and a “bulk ship man” worked on bulkers, etc. The decline of seafaring by OECD crews, and the drastic and quick reduction in the number of crew per ship (from 40+ to 20 if that), has in recent years resulted in specialisation being limited to perhaps the Master of a vessel. On board crewing levels have changed little in the last decade, and there is little scope to reduce these further. The pendulum is now swinging back, as owners and charterers seek quality and experience for more difficult and riskier vessels (in an environmental sense). This increased specialisation increases apparent demand for seafarers.

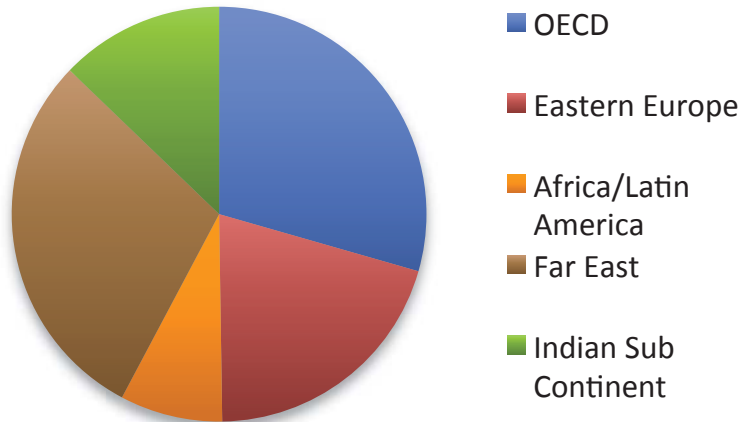
Socio-economic changes in the seafaring population:

- As AP seafarers have replaced OECD seafarers, who typically were “at sea for life”, the training task for seafarers has increased because of higher turnover due to AP seafarers generally having shorter careers at sea.



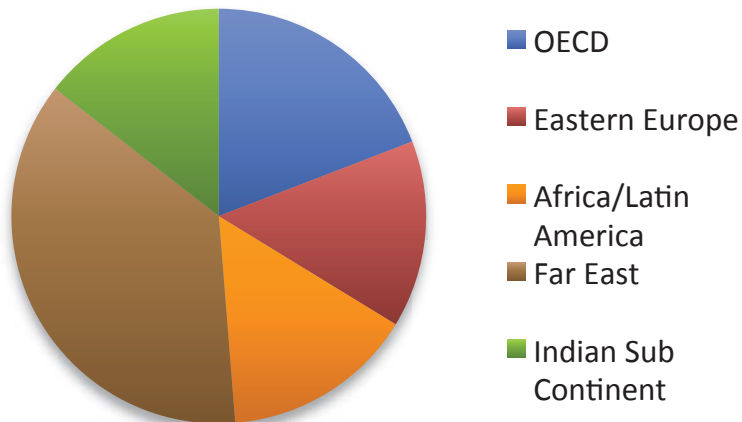
Officer Supply 2010

Officers



Ratings Supply 2010

Ratings



The Supply Balance

According to the BIMCO/ISF Manpower Update 2010, there were 624,000 Officers and 747,000 Ratings working as seafarers in 2010. These figures should be regarded as a best estimate.

AP supplies about 42% of Officers (excluding OECD countries in AP), and 51% of ratings.

BIMCO/ISF further estimates that total demand for Officers will grow to 772,000 by 2020 (21%), and for Ratings to 821,000 (10%). AP has the opportunity to participate in the overall growth of the market, as well as to grow its market share.

A survey of industry crewing experts in the BIMCO/ISF Report is of particular interest. Out of 18 companies surveyed:

- Over half considered that there were inadequate numbers and inadequate quality of Officers to meet the needs of the industry.
- A large minority also saw inadequacies in the quality of Ratings.

A review of the key challenges in satisfying these inadequacies is made on page 15.



Supply Estimates

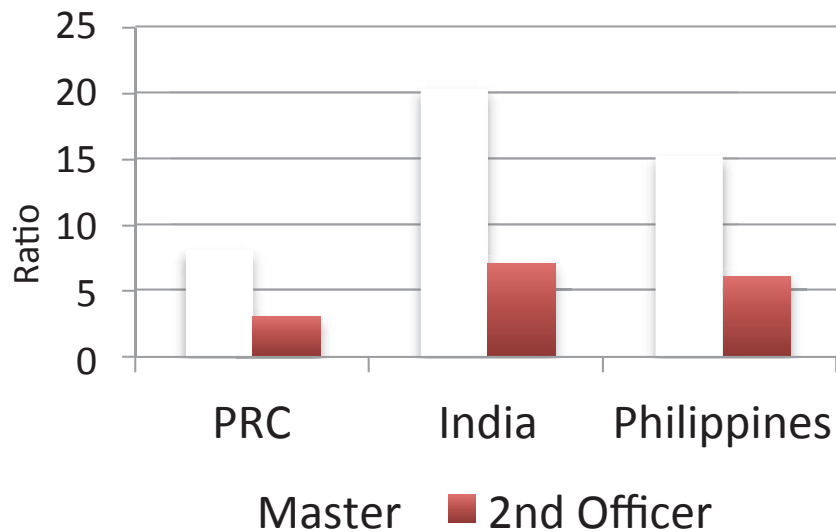
Drewry's Manning Annual Report 2012 provides somewhat different figures, and also attempts to offer more detail on the supply side. It states that there were 544,000 Officers and 758,000 ratings in 2011, of which 39% of Officers and 43% of Ratings were supplied from "Far East/India". This is broken down in the graph alongside. Again this should be taken as an approximation. Data suggests that the supply of seafarers from the key countries increased as follows over the 2000 to 2010 period:

- China: 82,000 to 142,000
- India: 56,000 to 63,000 (Officers share from 39% to 74%)

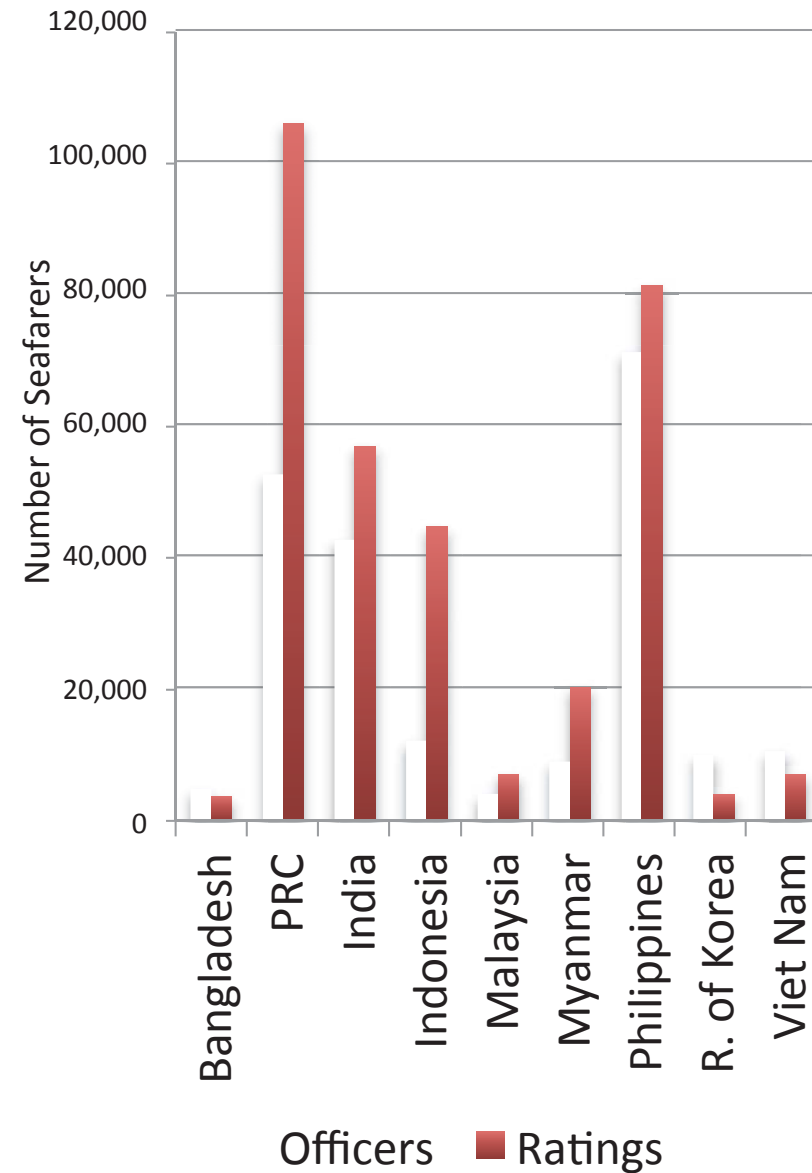
Drewry estimates that demand for Officers will increase by 31,000 (6%) by 2016.

Salaries for seafarers, particularly Officers, are significantly higher than national averages (see below).

Ratio of Salary to GDP per capita of working population, 2011



Supply of Seafarers 2011



Challenges Related to the Supply of Seafarers

Demography of the Officer population

- OECD countries have an ageing population of Officers who were recruited and trained many years ago. New entrants from OECD countries are not expected to keep pace with natural wastage (although perhaps the current recession, particularly in some European Union [EU] countries where unemployment is very high, may make seafaring attractive again). This offers an opportunity for seafarers from non-OECD countries to increase market share, but amplifies the challenge of recruitment from such sources.

Encouraging women seafarers

- Most seafarers are men. IMO's programme for the "Integration of Women in the Maritime Sector", now celebrating its 25th year, has a primary objective to encourage IMO Member States to enable women to train alongside men. Encouraging more women seafarers may be a significant supply side opportunity.

Existing training policies and standards

- A substantial increase in training of Officer Cadets occurred over the 2005 to 2010 period, and it seems likely that this trend has continued based on circumstantial evidence. This has taken place in the People's Republic of China, India and the Philippines, but also in countries such as the United Kingdom that have introduced incentives for companies to train Cadets.
- However, not all trainees and Officers are regarded as equal by employers. The reality is that the competency levels of trainees vary significantly from country to country, and that Senior Officers from some countries are preferred above others.
- Whilst the number of seafarers has stayed broadly in balance with demand, quality is said to be dropping overall.

Social development and aspirations of seafarers

- Opportunities for seafarers from non-OECD countries are expanding – particularly for Officers – and this is driving improved terms and conditions to attract people to seafaring:
 - Shorter tours of duty and more leave means more seafarers are required per ship.
 - The need to pay people more to bring them to sea means that their incomes rise relative to per capita GDP, allowing them to retire earlier. More recently, wages have stagnated, probably due to the cyclical downturn.

Reputation and image of the industry

- The shipping industry is exercised by its media portrayal as a polluter during incidents, and by the "criminalisation of the seafarer", and believes this makes it more difficult to recruit.
- Piracy has emerged as a real threat to seafarers. It is not clear how much this is reported around the world, but the apparent inability of the international community to deal with this could clearly affect the desirability of a job at sea.
- Although high relative salaries, and improving terms and conditions should attract people into the industry, several factors influence countries' roles as supply nations:
 - The allure of alternative careers such as IT and banking as countries develop.
 - The need to leave home and family for extended periods with loss of modern social networking.
 - Parental influence which may seek to avoid the "loss" of a family member as family sizes reduce.



Asian Shipowners' Forum



Organisation of Employers

There are thousands of companies in the global shipping community. These mostly work collectively through Shipowners Associations. National Associations form regional groups, and regional groups come together in the International Chamber of Shipping (based in London).

The members of the Asian Shipowners' Forum, which has an office in Singapore with a Secretary General, are noted alongside. The Federation of ASEAN Shipowners' Associations, also based in Singapore with a staff of three, is itself a collective of associations from 10 countries:

- Brunei Darussalam
- Cambodia
- Indonesia
- Lao PDR
- Malaysia
- Myanmar
- Philippines
- Singapore
- Thailand
- Viet Nam

Members of the key Associations are not just shipowners, but also include the key ship management companies who are also major employers of seafarers, and many other companies in the maritime community such as shipbrokers, lawyers, insurers, etc.



MET Institutions

It is estimated that there are over 300 MET institutions in the AP region. India has 139 approved Training Institutes, and there about 90 colleges in the Philippines. Many of these are small private sector providers said to be operating at a comparatively low level.

GlobalMET is an international collective organisation for MET institutions, with a good representation of AP colleges (over 60 members – see right). We understand from GlobalMET that its membership in AP includes most of the more substantial, quality providers, many with comprehensive training and with a progressive approach.

Significant providers that are not members include Shanghai Maritime University, Great Eastern and Samudra in India, CINEC in Sri Lanka, and John B Lacson University in the Philippines.

GlobalMET Membership by ADB's Regional MSA Community

Country	No	Country	No
Australia	5	Myanmar	1
Bangladesh	3	New Zealand	2
PRC	6	PNG	2
Cook Islands	0	Pakistan	1
Fiji	0	Philippines	11
Georgia	1	R. of Korea	0
Hong Kong, China	0	Samoa	0
India	19	Singapore	3
Indonesia	0	Solomon Islands	0
Japan	2	Sri Lanka	1
Kiribati	1	Thailand	0
Malaysia	1	Tonga	0
Maldives	1	Tuvalu	0
Marshall Islands	0	Vanuatu	0
Micronesia	0	Viet Nam	2



4. SITUATION ANALYSIS



Methodology

This Strategic Review has been developed in consultation with representatives from the four key constituencies (employers, unions, regulators and MET colleges).

The geographic focus of consultation was on the Philippines, and the concentration of key stakeholders in London, Singapore, and Hong Kong, China. Many of those consulted had significant experience with issues affecting the wider AP region.

An initial workshop, attended by a number of industry and government stakeholders, was held in Manila in March 2013 to discuss, *inter alia*, the scope and issues to be included in the Review.

An early draft of the Review was presented to and discussed with a wider group of stakeholders in a Consultative Forum, held in Manila in May 2013. This included representatives from various countries.

The research/data collection was supported by desk research, and Fisher Associates' own knowledge of the industry.

Key Issues

The discussions and research have been synthesised into six main topics:

- General issues
- Regulatory issues
- Training issues
- Structural issues
- Recruitment and retention issues
- Information issues

Our findings follow on the key issues related to these topics, with an analysis of the gaps, opportunities and potential initiatives to address the key issues.



Socio-Economic Context

Different standards of basic education across AP, and in comparison to traditional OECD source markets. There has been a “shift from an educated labour force that has been trained, to a trained labour force often without the underlying education”.



Different standards of English language skills – e.g. between PRC and the Philippines. Thus “Chinese seafarers mostly work on Chinese ships”.



Changing socio-economic environment:

- Reticence of families in some countries to “lose” their son /daughter.
- Coastal urbanisation of PRC and growth of income potential from other careers.



Need to sustain and develop the supply of labour from AP in response to new competition – “Is Africa the new PRC?”

The Challenge of Diversity

AP countries occupy different positions on the supply ladder, and each offers its own set of issues and challenges e.g.:

- India: The focus is on Officers, and these are highly regarded. Why has India not expanded supply? Partly because there is a shortage of training berths on ships. Do policy makers want expansion?
- Philippines: There is a widespread perception that standards in many maritime colleges are poor. Potential is not being realised but the issues have defied previous attempts to resolve them, resulting in scepticism that this can be done in the future. Companies try to take the best candidates (often putting potential recruits through their own exams before employing them), and fill in the gaps in training at colleges supported by them. Subsequent training for higher certificates is typically undertaken at institutions also supported by companies – significant private sector investment has taken place for this.
- What is the potential for countries such as Bangladesh, which might achieve significant benefits from developing seafarer supply?
- Some locations have specialised e.g. Bali is a key supply source for cruise/hospitality focused seafaring.

Different countries also have different approaches to the overall MSA role. Some approaches to the MSA role are not consistent with the perceived best practice model. Some such as the Philippines have had a multi-agency situation leading to issues related to control and accountability, which directly impacts on seafarer training.

This diversity is a significant challenge in developing an overarching strategy.



Gaps, Opportunities and Initiatives

Gaps	Opportunities	Initiatives
A1) The overall capability of MSAs and the capability desired	A2) Individual reviews to consider structure of MSAs and identify resources required	A3) Technical assistance programmes to MSAs
B1) Competence in English language better in some countries than others	B2) Improve training in English language where appropriate	B3) Targeted funding/assistance with English language instruction at pre sea training stage
C1) No vision/coordination to sustain AP's position as the lead supplier of seafarers	C2) Develop vision/coordination	C3) Develop an HRD Strategy for Seafaring in AP and implementation capability based on this Review
D1) No understanding of the needs of individual countries to participate in the future "cascade of supply"	D2) Individual reviews to consider countries' place, potential, and willingness to climb the supply ladder in both quality and volume terms	D3) Individual reviews of economic potential of seafaring for AP countries



The Challenge of IMPLEMENTING Effective Regulation

Individual MSAs have different interpretations of STCW regulations.

Different standards are applied in implementing regulations by MSAs in terms of:

- Accreditation of colleges and examiners.
- Assessment/examination/certification of seafarers.

Accreditation issues:

- There is a need for initial accreditation of MET colleges, and ongoing monitoring of delivery by and processes in colleges.
- Sanctions on colleges for non-compliance must be real and actually implemented – regulate bad colleges out of business.
- There is also a need for initial accreditation and ongoing monitoring of examiners.

There are multiple approaches to assessment/examination /certification of seafarers → multiple choice questions, compared to written + simulator + oral exams in Singapore.

Accreditation and examination processes:

- Quality Management Systems (QMS) are required by MSAs to support these.
- Processes and systems must not be open to corruption.

IMO auditing of STCW is based on a “soft” approach, and more robust auditing would be politically contentious and take a long time to agree.



Gaps, Opportunities and Initiatives

Gaps	Opportunities	Initiatives
E1) Between overall standard of implementation of regulation for: <ul style="list-style-type: none"> • Accreditation of colleges and examiners • Assessment/examination/certification of seafarers and the standards desired. 	E2) Raise standards of implementation of regulation in AP to best practice levels	As per A3
F1) Lack of QMS to support accreditation and assessment/examination processes	F2) Develop QMS guidelines for MSAs	As per A3



Overall Approach

Training tends to be targeted to satisfying the minimum STCW standard, rather than on outputs based on competency.

The structural approach is often based on “degree” courses, which are not **necessary** for training Officers, although this may suit some candidates.

There is a wide variety of course structures and curricula all supposedly achieving the same output. There is scope to develop a model of best practice for course structures and curricula e.g.:

- With differences in emphasis e.g. ocean v. coastal.
- Possibly modernisation of the curriculum: “How much old fashioned navigation is needed today?”
- There may also be a case for more specialisation – focusing on the needs of the future (e.g. LNG, chemical carriers)

Many colleges are theoretically training students for an Officer career, but in reality are mainly a feeder college for Ratings.

Training At Sea

Some companies are reluctant to host Cadets on board their ships, or may not have accommodation → exacerbated by Maritime Labour Convention requiring seafarers to have own cabins.

Lack of on board training framework for Cadets, exacerbated by multi-ethnic ship crews, and language barriers between Cadets and Officers who have a (moral) responsibility for Cadet training.

Need for Competency Management System (such as developed by the UK’s Royal National Lifeboat Institution). Intertanko created Tanker Officer Training Standards, which is understood to have such a purpose.

Partial use of distance learning techniques – not on-line but CD and DVD due to general lack of internet connection at sea. Estimated that 20,000 ships using such products → need to raise awareness of potential and availability.



Training Ashore

Some private sector colleges characterised by poor efficiency (very high wastage), and poor effectiveness (training to minimum standard not output based on competency).

Trainers' incentives: Being a trainer of seafarers is generally not a viable profession. Need to narrow the salary gap between being at sea and being a professional trainer.

Trainers' capability: Shortage of competent trainers due to incentives – the widespread approach of training as a part time job for Officers on leave is not sustainable (but has a role to play).

Trainers' training: Simply put, many trainer in A-P are not adequately trained to deliver training. Focus on short term “train the trainer courses”. Contrast in Singapore / UK where trainers must obtain a teaching qualification.

Andragogy/Pedagogy: “Too much teaching and not enough learning”. Lack of professional /trained trainers results in deficit – strong need to deliver training using various techniques to engage most of the people most of the time. Trainers need to understand how to create a learning environment – “not just chalk and talk”.

Potential to use distance learning (as At Sea), but problems with bandwidth in many AP locations (esp. outside of major cities).

Do trainers need to be former mariners to be competent to train mariners for all aspects of competency? Need to consider other sources for trainers.

Equipment: Certification based upon short sea time/long college time which is predicated on availability of simulation equipment, but not all colleges are properly equipped.

“Fabric of classrooms:”: often deficits in heat/cooling/light etc.



Gaps, Opportunities and Initiatives

Gaps	Opportunities	Initiatives
G1) Between overall standard of seafarers output by colleges, and the competency required by employers and desired by society	G2) Raise the overall standard of training for seafarers in AP to international best practice standards	As per A3 (Stick: through better implementation of regulation) G3.1) Carrot: Incentive from development of a Regional Quality Mark for colleges
H1) Between course structures and curricula in different countries	H2) Develop consistent course structures and curricula based on international best practice	H3) Review the: <ul style="list-style-type: none"> effectiveness of different course structures, and real curriculum needs for modern seafaring, and draw up guidelines
I1) Shortfall in the quantity and quality of trainers, and lack of sustainability of supply of professional trainers due to: <ul style="list-style-type: none"> Salary gap between being at sea and being a professional trainer Perception that all trainers must be former mariners 	I2.1) Professionalisation of trainers for seafaring training I2.2) Payment of sustainable salaries in the long run by full user pays	I3.1) Develop a structure to support training of trainers I3.2) Gap funding plan to support improved trainers' salaries such that quality of outputs rises to required competency, and user pays becomes viable I3.3) Greater use of college based distance learning techniques to improve access of Cadets to quality training from remote trainers
J1) Equipment and "fabric of classrooms" deficiencies in colleges	J2) Provide correct equipment and upgrade the learning environments where needed	J3) Gap funding plan to support equipment and classroom improvements such that quality of outputs rises to required competency, and user pays becomes viable
K1) Patchy integration of supply side for sea based component of seafarer training	K2.1) Improve matching of ships' accommodation supply with need for berths for Cadets K2.2) Develop a structured on board training and continuing professional development capability	K3.1) Improve partnership working between colleges/employers/regulators K3.2) Improve take up of structured at sea distance learning to sustain supervised learning K3.3) Research into/development of model competency management system



Chicken and Egg Problem

- Is there a shortage of seafaring Officers? No
- Is there a shortage of competency in newly qualified seafaring Officers? Yes
- Why? "The market (structure) has failed":

- The standard of training output overall does not meet standards of competency required by employers and desired by society, because ...
- Hundreds of private sector colleges are motivated by throughput of candidates, and initial demand for training by uninformed entrants (most not completing certification) is strong, but implementation of regulation is too weak to choke this cycle.
- Also employers are not prepared to pay for higher costs of training without a rise in quality, but ...
- Colleges cannot deliver this without better lecturers and equipment that they cannot afford.

In the long run employers must be responsible for/ pay for the training that the industry needs (directly or via subsequent salaries). Commitment of employers is therefore required to fund training that delivers the competency needed.

But how to overcome the output and funding gaps in the short term?

Four Potential Initiatives

1. Better implementation of regulation to put poor quality colleges out of business (already discussed).
2. Generate external funding to help close the "college capability deficit".
3. Increase the direct participation of employers in supporting colleges.
4. Improve public-private partnerships.

Comments

2. External funding might be applied, only in the context of improved implementation of regulation, to bridge the gap between the resources that colleges have now, and the resources they need to deliver competency levels required by employers, to the point where the outputs justify full user pays fees:

- People training via employer sponsorship: employers will pay the full cost of training.
- People paying for their training personally (non sponsored): if needed, gap funding provided via a personal loan scheme.

Thus a new status quo will be achieved.

3. Many larger shipping lines have developed their own training programmes e.g. AP Moller, Evergreen, Japanese s/o etc. Not only do they wish to train to a good level of competency (not just a minimum standard), but they also wish to instill a corporate culture. Relatively small companies are "less fussy".

4. Need to strengthen public-private partnership/interaction:

- Public sector learning more about what the industry needs.
- Private sector supporting technical understanding by public sector – e.g. assist auditing colleges against desired outputs.



Recruitment

The wider image of shipping is poor in comparison to say air transport → need to promote an overall positive image of shipping.



The opportunity for maritime industry careers, and the attractiveness of seafaring *per se* or as a stepping-stone to “shore jobs”, are generally not marketed to potential candidates. More people from AP are said to be looking for/interested in career paths – e.g. trainees in Singapore often have a full first degree.



“Recruiting from rural areas because people from good schools do not want to go to sea” (attraction of alternative employment).

Retention

Economic aims: Cultural approach to seafaring has changed → OECD seafarers were “at sea for life”, whereas perception that AP seafarers aim for wealth to purchase assets (e.g. farm), or a new opportunity (set up a business) upon early retirement from seafaring, leading to loss of skills. But some comments that wealth accumulation is no longer such a big motivator as wages from alternative employment have risen (IT, Finance, etc.)

Problems of the life at sea:

- Piracy
- Lack of lifestyle quality – social media unavailable
- Mix of languages/cultures/practices
- Need to continue to do courses to keep up regulatory compliance

How to enhance quality of life at sea? “Companies need to offer seafarers something that is not there now”:

- Internet – expensive and coverage patchy deep sea
- Make it easier to get on and off the ship in port – problems with immigration in many countries
- What else?

Problem of losing newly qualified people to other jobs in the maritime industry – desirable at a macro level, but “poaching” at a micro level. Having a trained seafarer resources in a country / region makes the overall maritime sector more competitive - e.g. Hong Kong, China/Singapore International Maritime Centres.

Smaller companies perceived to invest little in training new staff – relying on poaching investment made by bigger companies.



Some perceive that there is limited information/research capability:

Current and future numbers and skills required of professional seafarers

The economic impact/contribution of seafaring

But there are many bodies around the world undertaking relevant research – learning institutions, International Chamber of Shipping etc.

Thus there is a need for:

Research/information already available to be brought to the attention of people who may benefit from it

Research/information gaps to be identified, and then work commissioned (from existing providers) to undertake this

Gaps, Opportunities and Initiatives

Gaps	Opportunities	Initiatives
Structural Issues		
L1) Desired market structure for training is financially unsustainable (chicken and egg)	L2) Multi-strand approach to break the cycle and address the college capability deficit	As per A.3 (improved accreditation/ regulation of colleges) As per I3.2 and J3 (generate external funding to help close the “college capability deficit”) As per K3.1 (improve partnership between colleges/employers/regulators) L3) Increase the direct participation of employers in supporting colleges
Recruitment and Retention		
M1) Perceived lack of knowledge/ coordination on recruitment and retention of seafarers	M2) Develop programmes aimed at: <ul style="list-style-type: none"> Promoting seafaring careers, especially 2nd and 3rd career candidates Improve quality of life on board 	M3.1) Co-ordinate the gathering/collation of existing relevant research M3.2) AP regional initiative to support recruitment and retention
Information		
N1) Perceived lack of market intelligence and insight into: <ul style="list-style-type: none"> Demand side trends and needs The AP supply side context Economic importance/ contribution of seafaring 	N2) Identify what has been done where and by whom, and identify gaps in knowledge	As per M3.1 N3) Develop a forward programme to commission/update required research to provide information/fill gaps



Conclusion

The overall strategic position for supply of seafarers from AP is summarised in the following SWOT analysis, which also draws on the findings from Section 3.

The consultation and research has led to a number of categories of issues being identified:

- General issues such as varying educational standards and approaches to the MSA function.
- Issues related to implementation of regulations, including different interpretations of these, and different approaches to accreditation.
- A multitude of training issues both in general, at sea and ashore.
- The chicken and egg structural problem whereby many colleges are under resourced and producing trainees that do not meet employers' required standards, whilst employers refuse to pay more for training until the quality is improved.
- Issues related to recruitment and retention of seafarers if AP is to sustain/enhance its position regarding supply of seafarers.
- Perceived information deficits.

This has led to the identification of a number of clear gaps, and suggestion of various initiatives to address these.

Section 5 sets out an overall approach to address these initiatives, as prioritised by the Consultative Forum.

SWOT Analysis for Supply of Seafarers from A-P

Strengths	Weaknesses
<ul style="list-style-type: none"> • AP has a strong position in the supply of seafarers. • AP is the fastest growing economic region and a major location of demand for shipping • Some strong examples of good practice in regulation related to seafarer training exist 	<ul style="list-style-type: none"> • Some weak regulation of accreditation for colleges and examiners, and assessment and certification of seafarers • Newly qualified Officers often do not have the level of competency required by employers • Perceived shortfall in data and information to direct regional and country by country responses to the economic opportunities of seafaring
Opportunities	Threats
<ul style="list-style-type: none"> • Development of HRD Strategy for seafaring in AP to support cascade of seafarer supply from country to country as socio-economic conditions change • Institutional support for MSAs in AP leading to improved regulation activities • Development of a capability to address dissemination of best practice, training initiatives, and information gaps • Development of funding programmes and initiatives 	<ul style="list-style-type: none"> • Potential competition from other regions notably Africa in future • Need to sustain the supply in light of socio-economic changes in AP over time • Lack of co-ordination/vision to sustain AP's position as the lead supplier of seafarers • Structural failure in the market for seafarer training (chicken and egg)



5. PRIORITISATION OF INITIATIVES

Introduction

The situation analysis was discussed, and the suggested initiatives were piloted in a Consultation Draft with the ADB and some 45 industry representatives. This included about 30 attendees to a Consultative Forum in Manila (May 2013) drawn from countries including Bangladesh, Hong Kong, China, Malaysia, Papua New Guinea, and The Philippines. The remaining stakeholders, including Shipowners Associations in Singapore and Hong Kong, China, and IMO in London, were offered the opportunity for comment, and comments received were considered in finalisation of the Review.

The Consultative Forum had three key objectives which were well achieved:

- Present draft Strategic Review.
- Discuss, validate, develop.
- Encourage stakeholder ownership.

There was strong endorsement for ADB's initiative, with many commenting that there were old problems that needed a galvanized, sustained, and regional approach. The situation analysis was endorsed as identifying the key issues.

The key advice of the Consultative Forum was as follows:

- The primary focus for action should be targeted on the quality of regulation, and the quality of MET.
- People lie at the root of the required action i.e. Administrators, Trainers, and Managers in employer organisations, and improving partnership between these was seen as important.
- Frameworks for quality standards for both regulation (i.e. in MSAs) and for MET (i.e. in colleges) should play a significant role.
- Some of the activities were considered to be "an elephant too big to eat", and the consensus was that action should be practical and do-able in the short term to avoid becoming bogged down trying to deal with complex problems.

Prioritisation

The Consultative Forum attendees reviewed and prioritised the initiatives as illustrated on the following page. Four groups prioritised all initiatives High/Medium/Low, which were then assessed 3 points for High, and 1 point for Low (although in practice initiatives were rarely ranked as Low).

The Prioritisation yielded some interesting results (see next page):

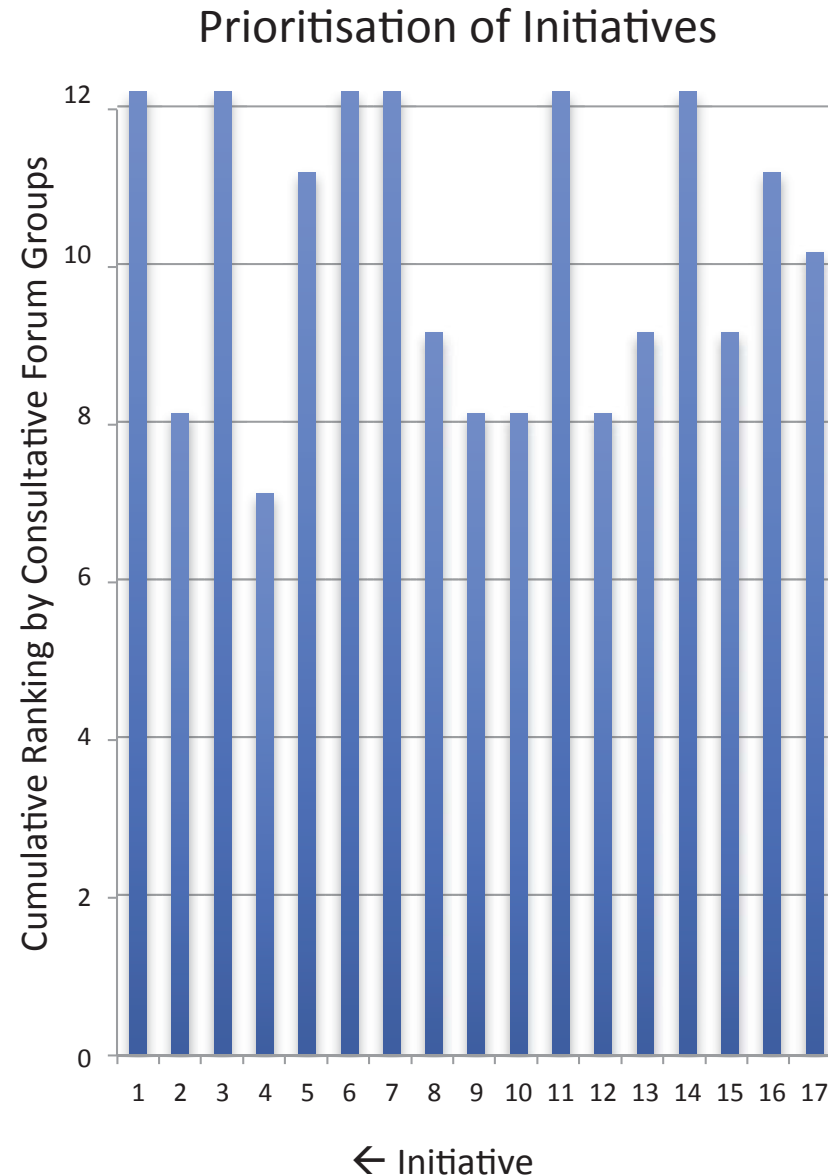
- It is relatively easy to discern the priorities, with six initiatives all ranked as high, and another two initiatives only dropping 1 point out of a maximum 12.
- The low priority attached to English language training should be viewed perhaps in the context of the strong Filipino presence (Filipinos having generally good English language).
- Dealing with the chicken and egg problem of trainers salaries fell into the "too difficult" category for some.
- The relatively low priority attached to distance learning reflected some people's views that whilst this had a part to play, it was not a major new opportunity.



Prioritisation of Initiatives

1. **Technical assistance programmes to MSAs.**
2. Targeted funding/assistance with English language instruction at pre sea training stage.
3. **Develop an HRD Strategy for Seafaring in AP and a capability to implement this.**
4. Individual reviews of economic potential of seafaring for AP countries.
5. **Incentive to raise standards through development of a regional quality mark for colleges.**
6. **Review the effectiveness of different course structures, and real curriculum needs for modern seafaring, and draw up guidelines.**
7. **Develop a structure to support training of trainers.**
8. Gap funding plan to support improved trainers' salaries such that quality of outputs rises to required competency, and user pays becomes viable.
9. Greater use of college based distance learning techniques to improve access of Cadets to quality instruction from remote trainers.
10. Gap funding plan to support equipment and classroom improvements such that quality of outputs rises to required competency, and user pays becomes viable.
11. **Improve partnership working between colleges/employers/regulators.**
12. Improve take up of structured at sea distance learning to sustain supervised learning.
13. Research into/development of model competency management system.
14. **Increase the direct participation of employers in supporting colleges.**
15. Co-ordinate the gathering/collation of existing relevant research.
16. **AP regional initiative to support recruitment and retention.**
17. Develop a forward programme to commission/update required research to provide information/fill gaps.

Prioritisation of Initiatives



6. THE STRATEGIC OUTLINE



Key Elements

Vision and
Mission:
Overall goal
and target

Objectives:
Key objectives
that will
support these

Implementation:
Based around
four key outputs

Vision

AP will sustain and enhance its position as the leading source of seafarers.

Mission

To positively influence recruitment, training, certification and retention of seafarers from AP countries, and encourage a cascade of seafarer supply from one country to another as countries develop socio-economically over time.

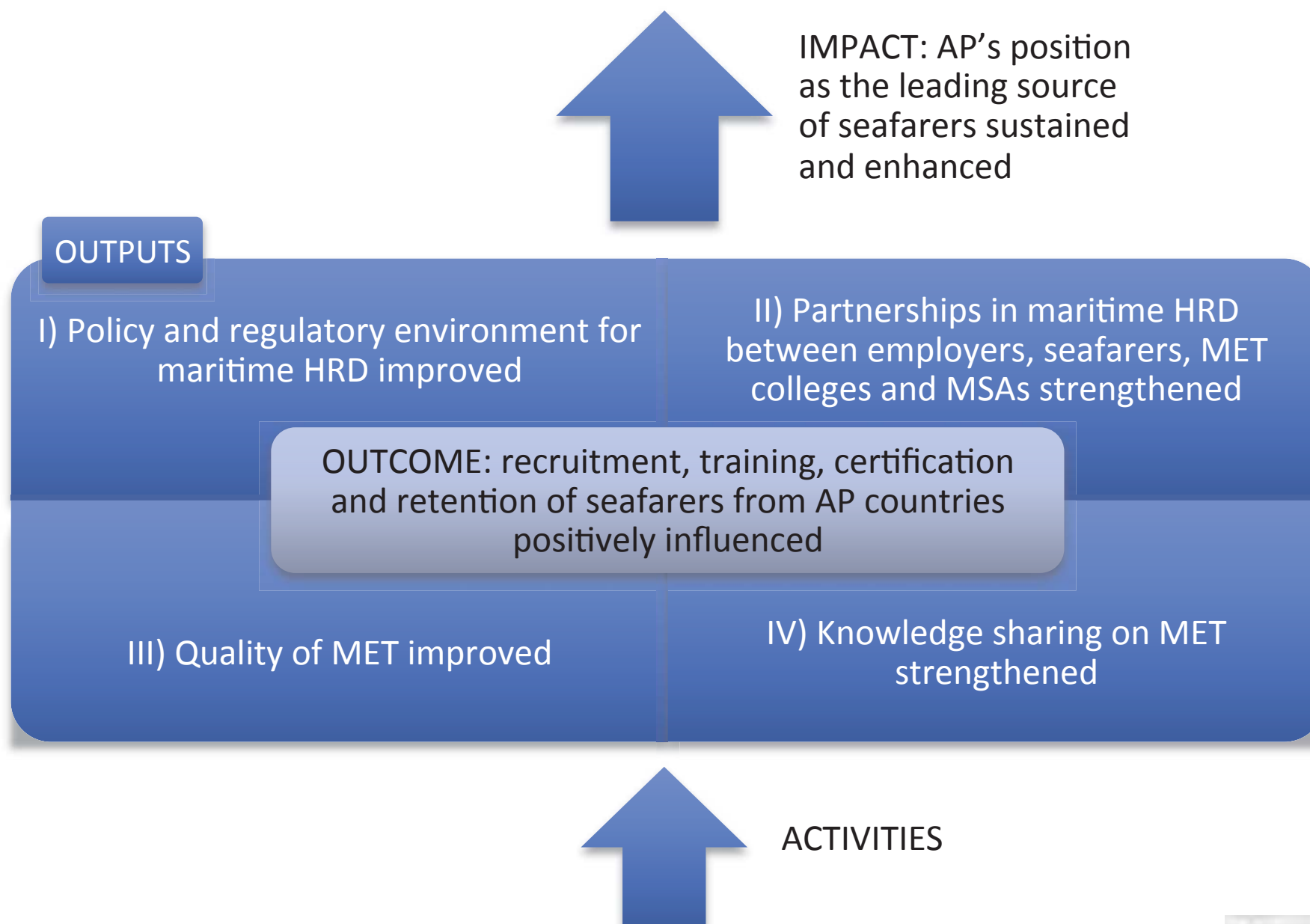
Objectives

1) Enhance the overall capability of MSAs in AP, and specifically their implementation of regulation related to seafarers (by improving the policy and regulatory environment).

2) Improve the overall level of competence of professional seafarers newly trained in AP (by strengthening knowledge sharing and improving the quality of MET).

3) Better match the resources *required* to train seafarers, with the resources *available* to train them (by strengthening partnerships in maritime HRD between employers, seafarers, MET colleges and MSAs).





Overview

The diagram on the following page shows how the previously suggested initiatives have been prioritised and grouped as activities under the four outputs identified on the previous page.

There is a strong degree of dependency/coherence between these. Whilst individual activities may be useful, particularly the priority ones, the synergy between them, and the outputs that they contribute to, mean that the collective impact will exceed the sum of its parts.

Coherence

Improving the Policy and Regulatory Framework (Output I) lies at the heart of achieving the overall impact, because this sets the “stick” element of the quality framework. If this output is not achieved in any country, then the effectiveness of the other outputs will be diminished, because there will still be scope for some colleges to continue training people who become certified without attaining the quality desired. However, the colleges that are progressive, and wish to improve, will still have a good opportunity to raise competency in their students if other outputs are achieved.

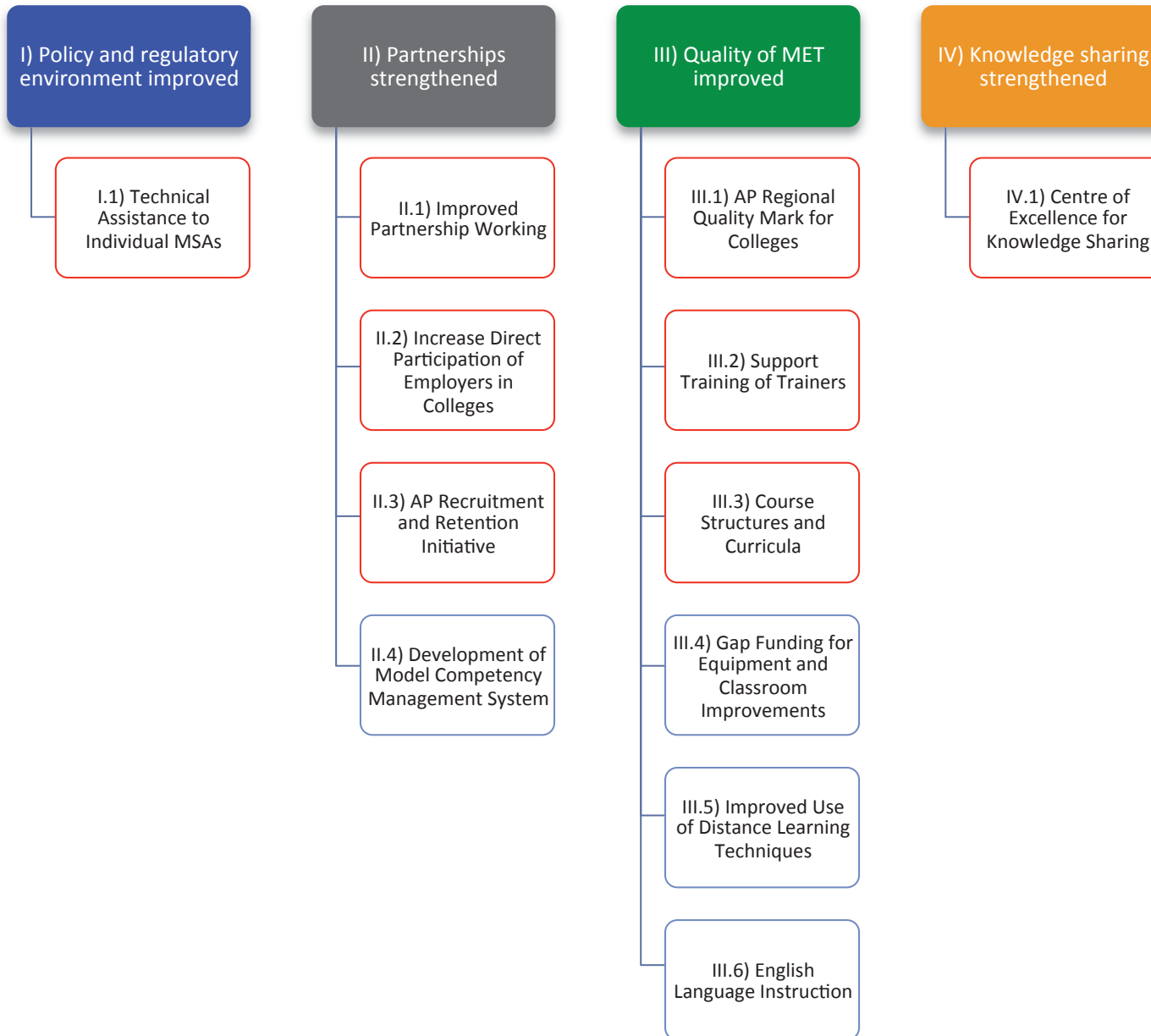
Improving the quality of MET (Output III), whether in response to the “stick”, or the carrot of the Regional Quality Mark, or under the influence of better teaching of better courses (or all these), offers a more direct path to the desired impact. Output III is linked to Output I as explained, and it is also closely linked to Strengthening Partnerships (Output II), because this is arguably an overriding necessity to create the conditions whereby Output III can be achieved. It would still be possible to achieve Output III in the absence of strengthening partnerships, but strengthened partnership between employers, colleges and regulators would clearly be beneficial, since all these must have a significant role.

The activity Gap Funding for Equipment and Classroom Improvements (III.4) is a special case, in that this should be considered only where there is an effective regulatory regime, and in the context of an individual college's quality improvement programme (e.g. progressing to the Regional Quality Mark (III.1)).

All of the outputs considered so far contain a significant element of investigating and promulgating best practice, and then encouraging this to be adopted. The last Output IV has a strong link to this, because the Centre of Excellence for Knowledge Sharing provides a capacity to communicate this, and therefore underlies the other Outputs. Outputs I, II and III could be achieved without Output IV, but Output IV will improve the effectiveness of these.



Outputs and Activities



I.1) Technical Assistance to Individual MSAs

I.1) For countries that wish to participate, provide technical assistance to individual MSAs (initiative A3) to:

- Consider their structure, and identify resources required to improve overall capability (A1 & A2).
- Raise standards of implementation of regulation in AP for (i) Accreditation of colleges and examiners; (ii) Assessment/examination/certification of seafarers, to international best practice standards (E1 & E2; G1 & G2).
- Develop QMS guidelines for MSAs to support accreditation and assessment/examination processes (F1 & F2).

Activity

The key steps would be:

- Agree on Terms of Reference for review.
- Undertake baseline review.
- Prepare action plan.
- Implement plan.

Homogeneity is not the aim. Country-by-country solutions are sought, using this framework to identify bespoke actions to improve standards that suit the location.

This framework is for all countries:

- Forward thinking policy makers and MSAs from current leading supply nations will have the opportunity to receive support to sustain their positions.
- Secondary supply nations, or new entrants that wish to grow as supply nations in the future, have the opportunity to set up well structured supply capabilities with reference to best practice.

We propose that assistance would be available to support one-off implementation costs, to assist MSA's to set fair on a new course if they wish to do so.

Once a few countries start to participate, it is anticipated that this will encourage wider participation by all the key countries, for the long term benefit of AP as a whole.

✓ **Priority Activity**



II.1) Improved Partnership Working

II.1) Improve partnership working between colleges and employers (and regulators) (initiative K3.1) to help address chicken and egg structural problems in training provision, and improve matching of ships accommodation supply with need for Cadet berths.

Activity

Employers must be at the core of the strategy – little sustainable progress will be made without this. Employers must be a key source of support for the activities proposed, and the coordination needed. The Asian Shipowners' Forum would be a key conduit, and organisations such as IMEC also have a big role to play.

It seems likely that better **MET colleges** will be keen to participate, but some may perceive the proposals as a threat. An organisation such as GlobalMET is perhaps a good collective representative.

MSAs will be interested parties, but will of course carry their individual country's agendas with them. The MSAs come together annually in the Asia-Pacific Heads of Maritime Safety Agencies Forum, which brings together senior maritime officials to exchange ideas and identify areas of cooperation. The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) might be an alternative collective body for MSAs. IMO can potentially play a key role, and has indicated its interest. EMSA may also play a supporting role.

Seafarers representatives such as the Filipino/Singapore/Hong Kong, China Unions, and the ITF maritime branch (an affiliation of these and other Unions around the world), provide potential partners. IMO's programme for the "Integration of Women in the Maritime Sector" has supported the establishment of two regional associations for women covering Asia and the Pacific Islands.

ADB can also play a major role in facilitating improved partnership working. It (or an organisation like it) is essential to take the overall socio-economic perspective on the future sustainability of of seafaring in AP. Without such an organisation anchoring the overall concept, it will not happen. **One consultee commented: "Employers will come on board only when they see some concrete action plans from ADB."** The ADB is also potentially a key catalyst for public funding in support of the "economic good" that the strategy seeks for AP in the longer term.

✓ Priority Activity



II.2) Increase Direct Participation of Employers in Colleges

II.2) Increase the direct participation of employers in supporting colleges (initiative L3) to help address the college capability deficit.

Activity

As noted earlier, employers have become progressively engaged in training, supporting some pre-sea and Class III colleges, and significantly supporting colleges for subsequent Class II and Class I training.

It seems highly likely that some of the problems can only be solved by even greater involvement of employers and their representatives. These are mostly private companies, and although on the one hand their responsibility for training the people they need is apparent, they will also demand quality and deserve value for money.

A more active role by employers in colleges is sought both in engaging with colleges to give them feedback and guidance on what employers need, and financially.

A collective approach is needed, and Activity II.1 Improved Partnership Working will support this.

✓ Priority Activity



II.3) AP Recruitment and Retention Initiative

II.3) AP regional initiative to support recruitment and retention of seafarers (initiative M3.2), promoting seafaring careers and encouraging AP to sustain/improve its position as a leading source of seafarer supply.

Activity

Various countries (typically OECD) have developed initiatives aimed at encouraging recruitment of people into seafaring. Most of these are promotional (soft interventions), and aim to raise awareness of seafaring careers in schools and colleges. Shipowners Associations are usually closely involved.

The Sea-going Training Incentive Scheme in Hong Kong, China is an example of a hard intervention. This provides a monthly subsidy of HK\$ 5,000 (c. US\$ 650) per month, in addition to a similar monthly salary paid by the shipowner, for Cadets at sea. This creates a total salary which is broadly equivalent to a typical graduate salary with a Higher Diploma, and appears to have contributed to encouraging Cadets, and meeting the need for a future supply of trained seafarers in Hong Kong, China. The scheme has disbursed HK\$20 million so far, with another HK\$6 million recently allocated. A review is needed of promotional activity within the 30 countries within ADB's Regional MSA Community. A best practice programme for promotion of seafaring careers should be developed that is customisable to different countries' circumstances. Based on examples of hard intervention, proposals could be developed for schemes that might be appropriate for individual countries, depending on the situation.

An early deliverable could be a promotional movie promoting a sea career, with a cast of a Filipino, Chinese, Indonesian, and Indian actors. This has potential to raise the profile of the industry, as well as explain career opportunities. Professionally created by marketing (not maritime) specialists, this could stress:

- Adventure based outcomes attractive to candidates.
- Prestigious high income earning attractive to parents.
- Entry/exit/re-entry career pathways showing length and breadth of opportunities in maritime.
- Connectivity with other occupations and professions is imperative.

Regarding retention, the focus is likely to be on understanding issues that affect this, and then encouraging longevity in seafaring careers through supporting key stakeholders to address problems, such as obstacles to shore leave, effective response to piracy etc.

✓ **Priority Activity**



II.4) Development of Model Competency Management System

II.4) Research into/development of model competency management system (initiative K3.3) to improve management of professional development of seafarers throughout their career.

Activity

Progressive companies actively manage the competency of their employees. This means monitoring the currency of existing standards obtained, and identifying when additional attainments are required.

Whilst it is understood that some larger companies may operate such management systems (e.g. in compliance with Intertanko's "Tanker Officer Training Standards" system), the general picture is that maintaining and developing competency is left to individuals. Several consultees have identified the need for a more structured approach to link on-board competence requirements with provision of MET, including:

- Identify shipboard and college tasks, develop inventory of required competences and audit existing competences.
- Perform 'gap analysis' to identify the competences currently available to MET and the competences needed.
- Formulate development strategy and how to implement strategy to close gaps.
- Obtain resources needed and commission required competence development.
- Use a Learning Management System to manage all the required learning, with emphasis on blended learning.

There is a need to investigate the feasibility of achieving this, and support implementation of any recommendations.



III.1) AP Regional Quality Mark for Colleges

III.1) Develop and administer an AP Regional Quality Mark for colleges (initiative G3.1), to provide a peer based incentive for colleges to improve training for seafarers in AP to international best practice standards.

Activity

Many MET colleges in AP are well run institutions delivering good outputs in the form of competent seafarers, but many also offer considerable scope for improvement. The objective of this activity is to create a “carrot” based incentive (in addition to the “stick” based incentive of better implemented regulation) for colleges to improve standards.

The Regional Quality Mark will encourage MET colleges with progressive management to aspire to recognition from their peers and employers for the quality that they provide. To provide a firm incentive, it may be that certain benefits might accrue from achieving the quality mark, such as the college then being eligible for funding to assist other colleges to raise standards, or to provide visiting lecturers or participate in lecturer exchange programmes.

There may be a transitional award to encourage some colleges to upgrade their facilities, and this might include eligibility for grants to enable them to do this, prior to obtaining the full quality recognition.

The Regional Quality Mark should set a standard built upon STCW for competency based delivery and assessments to the standards. The quality mark must be based on the principles of operating an organisation with excellence. The standards will be optimum not minimum, and the standards system from the Australian Quality Training Framework might provide a model.

Key aspects of the Regional Quality Mark could include:

- The organisation shall satisfy the registration requirements of the designated quality assured and certified Training Council (comprising Department of Education, MSA, Industry and METs) of the sovereign state in which the college resides.
- The organisation shall satisfy IMO’s white list audit requirements.
- The organisation shall be measured annually on its performance.

A proposal for the scheme should be prepared in consultation with the key partners, and then implemented.

✓ **Priority Activity**



III.2) Support Training of Trainers

III.2) Develop a structure to support training of trainers (initiative I3.1), leading to professionalisation of instructing for seafarer training and closing the college capability deficit.

Activity

The 2 week IMO “train the trainer” model course covers the bare basics, but does not address andragogy/pedagogy skills. There is a need to move away from the IMO 6.09 model course approach, and introduce more student centred and blended learning. “There needs to be an overall system, coordinating, monitoring, ensuring follow-on and with latest methodologies introduced as appropriate.”

There have been a number of attempts at training trainers by various organisations such as IMEC and Seafarers International Research Centre in Cardiff. These have experience of programmes that work, such as 3 to 5 day courses for trainers on teaching techniques (delivered in the Philippines), and schemes to expose trainers from different countries to teacher training, and encouraging international contacts. Deeper programmes to create professional trainers with teaching qualifications have also been tried, with sufficient success to believe that these can be built upon with the lessons learned.

A best practice review of previous interventions should be undertaken. Proposals can then be drawn up, and the budget needed to support them assessed. These may include:

1. Provide an umbrella resource of experienced examiners who can also support training of examiners.
2. Provide an umbrella resource of experienced trainers who can also support training of trainers.
3. Support the training of trainers in selected regional locations
→ provide an environment where trainers can be taken to and exposed to trainer training and pedagogic techniques – maybe 2 or 3 at a time from different locations.
4. Encourage links to be made between trainers from different countries → possible exchange programme.

✓ Priority Activity



III.3) Course Structures and Curriculums

III.3) Review the effectiveness of different course structures, and real curriculum needs for modern seafaring, and draw up guidelines (initiative H3) and contribute to consistent course structures and curriculums across AP based on international best practice.

Activity

There are a number of different approaches to course structures and curriculum in the AP Region.

The key limitations include:

- Courses that do little more than prepare students to pass exams, and often don't address competence requirements.
- A propensity to take an academic 'university' approach to what is essentially vocational learning.
- Courses designed around a talk and chalk delivery rather than modern teaching methodologies.

The curriculum should be derived from STCW which is the framework for qualifications, consisting of competences and even suggested assessment methods. Curriculum design and development is the responsibility of all MET institutions, but many MET personnel are untrained educationists, and therefore will find curriculum writing a challenge.

The curriculum could be standardised at regional level to ensure that outcomes are congruent and equivalent, and a review should be undertaken, with findings disseminated in a best practice report, which may be considered by MSAs and colleges.

✓ Priority Activity



III.4) Gap Funding for Equipment and Classroom Improvements

III.4) Gap funding to support *equipment and classroom improvements* (initiative J3) such that quality of outputs rises to required competency, the college capability deficit closes, and user pays becomes viable.

Activity

For colleges that remain in business within better implemented regulatory regimes, and aspire to improve standards perhaps towards gaining the quality mark, we propose that capital grants are made available for equipment (e.g. simulators IF necessary and appropriate) or improvements to the fabric of the learning environment (heat/cooling/light/power etc.).

This issue has been clearly identified as a problem, but needs to be approached with care. Full criteria for eligibility and an application process need to be developed for this, and only colleges that are operating within a well implemented regulatory regime, and which are seeking quality accreditation, should be considered.



III.5) Improved Use of Distance Learning Techniques

III.5) Greater use of college based distance learning techniques (initiative I3.3) to improve access of Cadets to quality instruction from remote trainers whilst in college.

Improve take up of structured at sea distance learning (initiative K3.2) to sustain supervised learning and CPD whilst at sea.

Activity

Consultations indicate that distance learning techniques could play a much more significant role in supporting access to a wider array of instruction ashore, and maintaining learning and CPD whilst at sea.

All things being equal, many colleges and individuals potentially have access to this already, but true e-learning efforts have been tentative and not attracted much attention.

Some of the reasons why the opportunity for distance learning is not used may be due to technology constraints (e.g. internet access), but lack of knowledge and understanding is also a significant factor.

Blended on and off-campus learning would be very useful for seafarers, whether at sea, on campus or on leave. There should therefore be a review of current distance learning applications. Best practice should be disseminated, and opportunities supported for colleges and individuals to access resources.

An early deliverable could be a full distance learning platform for all countries to use. Key aspects of this could include:

- Involve distance learning expertise from outside MET.
- Strategic development to be clarified.
- Develop recommendations.
- Develop a working group with e-learning development expertise (not just maritime) to develop policies and systems.
- Essential that industry is involved as there must be more on-board access.



III.6) English Language Instruction

III.6) Targeted funding/assistance with English language instruction at pre sea training stage (initiative B3) to improve training in English language where appropriate, and raise competency of trainees in English language.

Activity

Depending on the country concerned, there may be a need to improve English language capability both of students and of trainers.

IMO has produced Standard Maritime Communication Phrases (SMCP), but this appears to be little used by employers or colleges. This model course has “too much grammar and not enough practical English as a foreign language.” Learning material and assessment should be based on what English language is actually required.

It seems that a number of organisations have attempted to provide appropriate support, and a particularly successful scheme was provided by IMEC in the form of voluntary English language courses for Cadets in Russia. This provided elementary and pre-intermediate courses free of charge, but organised by colleges.

Established English language teaching organisations such as the major British Council centre in Singapore should be consulted to range over possibilities.

There are many trained English language teachers outside the seafaring area, and they should be employed to teach English, not mariners unless they are also trained English language teachers.

An English language needs assessment should be undertaken for each country, and support developed based upon successful models.



IV.1) Centre of Excellence for Knowledge Sharing

IV.1) This activity is designed to deliver the initiative to Develop an HRD Strategy for Seafaring in AP and implementation capability based on this Review (Initiative C3).

This activity has also been formulated to incorporate several other initiatives.

For countries that wish to participate, undertake individual reviews of economic potential of seafaring for AP countries (initiative D3) to consider countries' place, potential, and willingness to climb the supply ladder in both quality and volume terms.

Co-ordinate the gathering/collation of existing relevant research and identification of gaps (initiative M3.1) to address perceived lack of knowledge on:

- Recruitment and retention of seafarers (M1 & M2); and
- Demand side trends/AP supply side context/economic contribution of seafaring (N1 & N2)

Develop a forward programme to commission/update required research (initiative N3) to provide information/fill gaps in intelligence.

✓ **Priority Activity**

Activity

The Consultative Forum felt that there was a need for an implementation capability to ensure that actions follow this Strategic Review. Requirements for the Centre of Excellence include:

- Acting as a node of expertise.
- Encouraging knowledge transfer.
- Disseminating best practice.
- Coordination and delivering activities.
- Acting as a fulcrum for partnership working.
- Catalysing /organising conferences and events.
- Providing independent information such as on the success rate of MET colleges.
- Providing virtual forums for trainers and students.

Further investigation is required on *how* to provide this (e.g. as a physical or virtual capability), *where* to locate this (e.g. the IMCs of Hong Kong, China or Singapore, or a supply country), and how to *embed* it (e.g. within an employers association, or a MET institution, or within ADB).

The key aspects to individual reviews of economic potential of seafaring for AP countries are:

- Assess current seafaring supply capability.
- Engage with national policy makers on desired future outcomes, including regarding women seafarers.
- Assess future potential to support the AP strategy.

Where potential is identified, and national policy supports the realisation of this, this would provide a link to support for MSAs under I.1).

With respect to research tasks, there is a need to identify what useful work already exists, identify gaps that should be filled, and commission work to plug these.

There is also a need to disseminate to partners information on what is available, and the content, in a digestible form.



6. NEXT STEPS



Overview

The Strategic Review rests on the recommendation that outputs are likely to be delivered only if the activities have active support of employers and/or Government administrations as appropriate, and that a partnership approach is therefore essential.

An initial means to structure this is shown below. This foresees that ADB will retain “ownership” of the strategy implementation, but that this will be operationalised by another Agency, embedded in an existing institution. An Advisory Board with representatives from employers, seafarers, MET colleges and MSAs would oversee this.

The next step is to take all the findings of this Strategic Review forward into development of a business plan to implement it. This is referred to by ADB as the Technical Assistance phase (see right).

Technical Assistance (TA) Phase

- Concept paper setting out proposal for TA within ADB.
- ADB approval of the TA.
- Based upon the Strategic Review, determine detailed activities, outputs and costs for delivering these.
- Build support for the project.
- Identify financing mix, with potential donor financed Technical Assistance, and financing from private sector, governments and development partners.
- Develop comprehensive implementation plan.
- Implementation (from 2016).

Partnership Structure

“Overseeing Advisory Board” delivering effective partnership and ensuring success of overall project:
Employers / Seafarer bodies / MET colleges / MSAs



“Executive Agency” responsible overall for project:
ADB



“Implementing Agency” responsible for activities embedded in for example:
employers association / MET institution / IMO

Comments on Funding

The scope of the overall project is significant, and the funding requirement would be substantial in aggregate.

It is anticipated that activities will be funded via a mix of sources leveraged by ADB, employers via organisations such as IMEC, and Government administrations.

Different mixes of funding are likely to apply to different activities. This will be considered in detail during the Technical Assistance phase.

