

The seminar on “Enhancing a Maritime Cooperative Relationship between France and Japan”

-The Dialogue between Japan and France-



13 and 14 December, 2018

International Conference Hall, SPF Building, Tokyo



日仏交流160周年
160^e Anniversaire
des relations
franco-japonaises

Provisional Version

Program

13 December (Thursday)

9:00-9:30 Coffee

9:30-10:30 **Opening session: Basic Ocean Policy of Japan and France**

MC: Mr. Eiji SAKAI, Director of Ocean Policy Planning and Management Department, OPRI-SPF

Introduction speech by Dr. Atsushi SUNAMI, President of OPRI-SPF and Dr. Xavier PASCO, Director of FRS (5 min each)

Keynote lectures (20 min each):

1. Mr. Masashi OMODA, Director-General, National Ocean Policy Secretariat, Cabinet Office

2. Mr. Vincent BOUVIER, Prefet Secretary general for the sea

Q&A session (10 min)

10:30-10:45 Coffee Break

10:45-12:30 **Session 1: Science and Technology Cooperation: the Path to the Future**

Sub-themes: (1) Deep-Sea Science and Technology (2) Space and Ocean Observation

Moderator: Ms. Marie-Hélène TUSSEAU-VUILLEMIN, Head, Department of Environment, Agronomy, Earth and Universe Sciences, Ministry of Higher education, Research and Innovation

Speakers:

(1)-1 Mr. Tatsuya WATANABE, Director for Deep Sea- Earth Scientific Research, Ministry of Education, Culture, Sports, Science and Technology

(1)-2 Dr. Yves HENOCQUE, Senior Advisor Maritime Policy and Governance, IFREMER

(2)-1 Mr. Kazuo TACHI, Associate Director General, JAXA (Japan Aerospace Exploration Agency)

(2)-2 Dr. Juliette LAMBIN, Earth Observation Programme Manager at CNES (Centre National d'Etude Spatiales, the French space agency)

12:30-14:00 Lunch time (served inside the SPF building)

14:00-15:45 **Session 2: The “Blue Economy”: an Opportunity for Industrial Cooperation**

Sub-themes: (1) Infrastructures Building (2) New Energy in the Maritime Domain

Moderator: Dr. Hideyuki SUZUKI, Professor at Department of Systems Innovation, Graduate School of Engineering, the University of Tokyo

Speakers:

(1)-1 Mr. Olaf MERK, Organisation for Economic Co-operation and Development (OECD)

(1)-2 Mr. Akira ISHIHARA, Director, Ocean Development and Environment Policy Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism

(2)-1 Mr. Jean-Christophe ALLO, Business Development Manager, Sabella

(2)-2 Dr. Tomoaki UTSUNOMIYA, Professor at Department of Maritime Engineering, Graduate School of Engineering, Kyushu University

15:45-16:15 Coffee break

Program (cont'd)

16:15-18:00 **Session 3: Environmental Policies for the Maritime Domain and Governance**

Sub-themes: (1) Adaptation to Climate Change (2) Biodiversity and Resources Management

Moderator: Mr. Serge SÉGURA, Ambassador in charge of the oceans

Speakers:

(1)-1 Mr. Masanori KOBAYASHI, Senior Research Fellow, Policy Research Department, OPRI-SPF

(1)-2 Dr. Joachim CLAUDET, National Center for Scientific Research (CNRS)-CRIOBE

(2)-1 Mr. Akihiro UEDA, Director, Nature Conservation Bureau, Ministry of the Environment

(2)-2 Dr. Philippe CURY, Directeur de recherche IRD, MARBEC

Evening (18:30-): Reception at SPF building

14 December (Friday)

9:00-9:30 Coffee

9:30 - 9:45 Review of the day before (Dr. Keita FURUKAWA, Director of Policy Research Department, OPRI-SPF)

9:45-11:30 **Session 4: Security strategy and cooperation in the Indo-Pacific region**

Sub-themes: (1) Maritime Security (2) Capacity building and security in the Pacific and the Indian Ocean

Moderator: Mr. Ippeita NISHIDA, Senior Research Fellow, International Peace and Security Department, SPF

Speakers:

(1)-1 VAdm. Hervé de BONNAVENTURE, Deputy Director General, International Relations and Strategy, Ministry of the Armed Forces

(1)-2 Mr. Nobukatsu KANEHARA, Deputy Secretary General of National Security Secretariat

(2)-1 Dr. Valérie NIQUET, Senior Research Fellow, FRS

(2)-2 R. Admiral (retired) Mr. Kazumine AKIMOTO, Senior Research Fellow, Policy Research Department, OPRI-SPF

11:30-11:45 Coffee Break

11:45-12:00 Summary of Sessions (Mr. SÉGURA) and Closing Address (Dr. SUNAMI & Dr. PASCO)

Co-Chairs of the Seminar

Dr. Atsushi SUNAMI, President of the Ocean Policy Research Institute

Biography

Professor Sunami holds BSFS from Georgetown University, MIA and PhD in Political Science from Columbia University. He is serving as President, the Ocean Policy Research Institute of the Sasakawa Peace Foundation, Special Advisor, Cabinet Office responsible for Science and Technology and Innovation and Professor/Vice President at National Graduate Institute for Policy Studies, Japan.

He was a Fellow at Research Institute of Economy, Trade and Industry, the Ministry of Economy, Trade and Industry, Japan (2001-2003). He also worked as a researcher in the Department of Policy Research at Nomura Research Institute, Ltd. (1989-1991). He was a visiting researcher at Science Policy Research Unit, University of Sussex, and Tsinghua University, China. He is also a member of the Advisory Board for the Promotion of Science and Technology Diplomacy in Ministry of Foreign Affairs of Japan, the Council for Science and Technology in Ministry of Education, Culture, Sports, Science and Technology and the Expert Panel on Basic Policy in Council for Science, Technology and Innovation of Cabinet office.

Opening Session

1. **Mr. Masashi OMODA**, Director-General, National Ocean Policy Secretaria, Cabinet Office
2. **Mr. Vincent BOUVIER**, Prefet Secretary general for the sea

(MC: **Mr. Sakai EIJI**, Director of Ocean Policy Planning and Management Department, OPRI-SPF)

Keynote 1

Mr. Masashi OMODA, Director-General, National Ocean Policy Secretariat,
Cabinet Office, Government of Japan

Biography

Mr. Omoda graduated the University of Tokyo and joined Ministry of Transport in 1983. Mr. Omoda was appointed as Director-General, National Ocean Policy Secretariat, Cabinet Office, Government of Japan in July 2018.

Before that, Mr. Omoda served as Deputy Vice-Minister for Logistics in the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in June 2016.

Abstract

Japan, which is surrounded by the sea and has vast jurisdictional marine zones, is strongly expected to protect the sea, utilize the marine resources and maintain the marine environment for future generations.

Furthermore, since diverse ocean policies are related to the sea as a common place, they should be proceeded under the comprehensive coordination by the government as a whole.

Therefore, for the purpose of promoting ocean policies comprehensively and systematically, the Basic Act on Ocean Policy was put into force in 2007. In addition, the Basic Plan on Ocean Policy has been revised based on the Act in the Cabinet meeting approximately every five years.

This year, the Plan was revised as a new one (third edition), taking into account the change of recent situation in circumstances surrounding the sea and the innovation of technology.

The Plan sets “The challenge to being a new oceanic state” as the direction of the ocean policy and stipulates the promotion of actions for comprehensive maritime security by the entire government.

Moreover, as major maritime measures, the plan covers such basic policies as: (1) the promotion of the utilization of marine industries; (2) the preservation and conservation of marine environment; (3) the improvement of scientific knowledge of the ocean; (4) the promotion of arctic policy; (5) the international coordination and cooperation; and (6) the training maritime human resources and heightening citizens’ understanding toward the ocean.

Based on the Plan, the government of Japan will strongly promote the ocean policies.

Keynote 2

Mr. Vincent BOUVIER, Prefet Secretary general for the sea

Biography

Vincent Bouvier holds a diploma in advanced studies in public law and graduated in 1974 of the institute of political studies of Paris. He started his career as a policy officer in the French national agency for the valorization of research (ANVAR), from 1980 to 1981. From 1981 to 1988 he became associate professor of public law at the University of Strasbourg III. From that moment, until today, he joins the prefectural career. Director of cabinet of the prefect in the department « Tarn » from 1988 to 1991 and of the French high commissioner in New-Caledonia from 1991 to 1993. From 1991 to 2000 he acts as general secretary in many prefectures in mainland France and overseas. In 2007 he was appointed as Prefect of the overseas department of « Mayotte ». In 2009 he was appointed general director for the overseas, administration of the overseas Ministry. From 2013 to 2014 he is Prefect of the region « Haut-Rhin » and from 2014 to 2016 high commissioner of New-Caledonia. The 25th may 2016 he is appointed General Secretary for the sea. Vincent Bouvier ensures the effectiveness and the development of the Secretariat general for the sea in order to cope with the maritime world transformation. He carries out its activities within the European and international frameworks, thereby contributing to claim the maritime power of France on the international stage.

Abstract

The ocean is a key source of employment, of biodiversity and an initiator of technological innovation. Today it embodies all the issues at stake: scientific, technological, economic and, as a result, strategic. Over the years, the understanding has grown that the sea can provide a real answer to unresolved problems on land. France must be able to take advantage of all these potentialities while being able to respond to all these challenges. This presentation will be an opportunity to introduce the place that France can take in the maritime world of tomorrow, by presenting the background elements, recalling the assets it has at its disposal, and finally mentioning certain French priorities in the maritime field.

MC for the Opening Session

Provisional Version

Session 1 Science and Technology Cooperation: the Path to the Future

Provisional Version

Moderator for the session 1

Mrs. Marie - Hélène TUSSEAU-VUILLEMIN, R.D. Research and Innovation Strategy of the French Ministry in charge of Research

Biography

Since March 2018, Marie-Hélène Tusseau-Vuillemin is scientific director of the “Environment, Agronomy, Ecology, Earth system and Universe Science” in the Service for Research and Innovation Strategy of the French Ministry in charge of Research. She is the previous Director of Research at Ifremer (the French Marine Research Institute).

She has a 20 years research experience in the fields of marine biogeochemistry and ecotoxicology. Her field of interest was the bioavailability of xenobiotics to aquatic organisms and the detection of early impacts on the biosphere. She recently directed the edition of “Biodisponibles. Une histoire entre le vivant et son exposome” (ISTE editions, 2018).

She has a PHD in Oceanography (1996) and an HDR (Habilitation à Diriger des Recherches –2005) both from the Paris VI University.

Speaker for the session 1

(1)-1

Mr Tatsuya WANABE, Director for Deep Sea-Earth Scientific Research, Ocean and Earth Division, Research and Development Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan

Biography

Tatsuya Wanabe served as a hosting co-chair of 27th Joint Session of 'Japanese-French Ocean Development Sub-Committee' held in Tokyo on 23rd May 2018, under the Japan France Science and Technology Cooperation Agreement (1974-), by working with the other co-chair, Dr Gilles Lericolais, European and International Affairs Director, *Institut français de recherche pour l'exploitation de la mer* (IFREMER).

He entered to Ministry of Agriculture, Forestry and Fisheries (MAFF) in 1988 after receiving BSc in forestry from Tokyo No- 1 (Agriculture and Technology) University. His professional career started from practical management of Japan National Forest in Hokkaido (northern part) and Tohoku (north-east part) regions in Japan up to 2001. Since 2002, he engaged in climate change negotiations, capacity development projects of Japan International Cooperation Agency (JICA) in Uruguay and Papua New Guinea (PNG), and other international cooperation activities in forestry. He was a government delegation member of PNG to UNFCCC COP in 2012 (Doha, Qatar), 2013 (Warsaw, Poland) and 2015 (Paris, France) during his five and half year assignments in Port Moresby, PNG. Since April 2018, the MAFF seconded him to the current position in ME X, where he engages in bilateral and multilateral affairs of the Division in terms of science and technology cooperation on ocean.

As educational background, he received MSc (forestry) from Oxford University in 1994 and MA (Environment, Development and Policy) from Sussex University in 1995, both in taught courses.

Abstract

This presentation is an introduction of Japan-France cooperation in ocean science and technology since 1970's at 'Japanese-French Ocean Development Sub-Committee'. The presentation gives bird's-eye view of Sub-Committee's history, its current 'catalogue of projects', and conclusion with concise explanation on some of the projects. The Sub-Committee could be considered as an existing source of information feeding to future bilateral dialogues on ocean.

The Japan- France Science and Technology Cooperation Agreement was established between two governments in 1974, then revised in 1991. Under the Agreement, the 'Japanese-French Ocean Development Sub-Committee' has held joint sessions alternately in Japan and France for every one-and-half to two years from its first session in April 1975 to the twenty seventh session in May 2018. The Sub-Committee is co-chaired by directors of IFREMER of France and ME X of Japan, deals with coordination and promotion of ocean science and technology projects implemented by various institutions and universities, though not having its own funding.

The presentation sets off with brief explanation of the long history of the Sub-Committee for forty-three years as well as long standing cooperation on 'oysters' between two nations. Then, a portfolio of current projects, thirty-three in total, updated in its 27th session is outlined. Some of the projects in the history of the Sub-Committee are further elaborated as time allows. One of the projects is show-cased as a basket for nurturing 'seeds' of further research and development cooperation not only as bilateral but potentially involving other countries in the South Pacific region. The potential for developing the output of this project may be further explored in the following presentation by Dr Yves Henocque, IFREMER.

Speaker for the session 1

(1)-2

Mr. Yves HENOCQUE, Maritime Policy Senior Adviser at IFREMER

Biography

Yves Henocque is a Maritime Policy and Integrated Coastal and Ocean Management Specialist with over 30 years of research and consultancy in coastal and marine environment. First trained in marine ecology, he joined IFREMER in 1987 and, after a dedicated vocational training in the United States in 1994, he started to practice integrated coastal and ocean management (ICOM) and strategic planning in the Mediterranean and other maritime regions, more particularly in the Indian Ocean (Indian Ocean Commission), the South Pacific (South Pacific Commission), South-East Asia (Thailand), and Japan where he is currently in charge of cooperation development with partners, including JAMSTEC (Deep sea mineral resources exploration/exploitation), OPRI (Integrated coastal and ocean management), and FRA (fisheries and aquaculture governance). He is Vice-Chair of the French-Japanese Society of Oceanography.

Abstract

From coastal to deep ocean, common research issues and objectives between France and Japan

The Japan-France Jointed Committee on Ocean Development covers a large array of ocean and coast topics and institutions. On the French side, CNRS like IFREMER are largely involved whilst the two F-J and J-F Societies of Oceanography maintain a continuous flux of exchanges between researchers. IFREMER has currently two formal agreements, with JAMSTEC since several decades, and with FRA in relation with fisheries and aquaculture. The long-standing ocean cooperation fairly involved the use of research infrastructures including oceanographic vessels, submersibles, ROV/AUVs, side-scan sonar for mapping, deep-sea observatory devices, supercomputers like the JAMSTEC Earth Simulator for data management and modelling. In the last 5 years, both countries showed a renewed interest in the exploration of deep-sea mineral resources, as 'pioneer investors' in the Clarion-Clipperton area, and in regard to the development of their own EEZs as well. While collaborative work is now ongoing between 'Contractors' (IFREMER for France; DORD for Japan), three important workshops (including the participation of the International Seabed Authority, and the South Pacific Commission) were held in the frame of the first SIP programme (2014-2018) as regards deep sea mining environmental impact assessment, data acquisition and management. The last one took place in May 2018 and came up with strong recommendations towards the setting up of a large-scale deep-sea collaborative project between France and Japan in the South Pacific. The next step will consist in a feasibility study including a workshop to be held in New Caledonia, tentatively in March 2019.

Speaker for the session 1

(2)-1

Mr. Kazuo TACHI, Associate Director General of Space Technology Directorate I, JAXA.

Biography

Kazuo Tachi received the BA and MS degrees in physics from the Tokyo Institute of Technology. He joined National Space Development Agency of Japan (NASDA) in 1981. Over 37-year career at Japan Aerospace Exploration Agency (former NASDA), he has extensive experience in earth observation, particularly planning and management of JAXA's earth observation programs including international coordination. In the mid-90's, he engaged in program coordination of ADvanced Earth Observing Satellite (ADEOS) and successfully coordinated multiple hosting payloads onboard, which included five instruments from Japanese ministries, CNES and NASA. In the early 2010s, he played a leading role in shaping new missions, such as Advanced Land Observing Satellite (ALOS)-3, ALOS-4 and a technology demonstration satellite.

Kazuo Tachi serves as Associate Director General of Space Technology Directorate I as well as Senior Chief Officer of Satellite System Development at JAXA. He is now responsible for utilization of earth observation data as social infrastructure.

Abstract

JAXA launched Japan's first earth observation satellite, Marine Observation Satellite-1 (MOS-1), in 1987. Since then, JAXA has monitored the Earth including oceans. The satellites provide us with many observables such as sea surface temperature, sea ice cover, sea winds, red tide and situation of ships from global to local. These data have been applied for scientific and operational use.

Global climate change is a keen issue for humankind. Ice coverage in polar areas is vulnerable to global warming. From 40 years observation, sea ice cover over the Arctic Ocean had been decreasing year by year. The smallest extent of Arctic sea ice was recorded in September 2012. An ice cover of the Antarctic was supposed to be stable, but Advanced Microwave Scanning Radiometer on Global Change Observation Mission-1b/2 (GCOM-W) indicated that the ice cover turned to decrease in 2017. If the Antarctic ice melt, sea level would rise, and it would severely impact on coral islands and coastal areas. In contrast, a carbon dioxide level in the atmosphere has been increasing and was over 400 ppm two years ago, which was proven by Greenhouse gases Observing SATellite (GOSAT) which is world's first satellite dedicated to monitoring greenhouse gases (methane (CH₄) and carbon dioxide (CO₂)).

Regionally, there are many vessels around Japan islands. Movement of fishery ships is grasped by Synthetic Aperture Radar (SAR) and Automatic Identification System (AIS) data from Advanced Land Observing Satellite 2 (ALOS-2). Combined these data with sea surface temperature measured by GCOM-W and others, their target of fish is identified. Oil slick due to shipping accidents or illegal dumping is also detected by ALOS-2.

Locally, red tide in a bay area and a near coastal area is often observed from satellites. This phenomenon is closely correlated with human activities. In addition, satellites can observe sea surface temperature and chlorophyll concentration data. The data is utilized for detecting fishery spots.

JAXA will continue to develop and operate earth observation satellites for better understanding of climate change and for better life.

Speaker for the session 1

(2)-2

Dr (Mrs.) Juliette LAMBIN, Earth observation programme manager at CNES

Biography

Dr. Juliette Lambin is the Earth Observation Programme Manager at CNES (Centre National d'Etude Spatiales, the French space agency). She leads a team of about fifteen experts in the Directorate for Innovation, Applications and Science, covering CNES missions in all the fields of Earth Sciences as well as national interest in European (ESA, Eumetsat, Copernicus) or international space programmes, and serve as contact point between national user communities and projects. Their activities covers early pre-formulation studies and prospective up to operation phases and supporting science programs related to satellite Earth observation. Juliette Lambin is the French delegate in European Space Agency (ESA) Programme Board on Earth Observation, an in Committee on Earth Observation Satellites. She is an administrator of Institut Paul-Emile Victor (French Polar Research Institute).

She graduated from Ecole Polytechnique in 1997, then obtained a PhD in Geophysics from Institut de Physique du Globe de Paris. She then spent four years as a research scholar at Caltech and Jet Propulsion Lab in Pasadena, California. Her research interests ranged from global seismology to ionosphere monitoring using satellite data.

She joined CNES in 2005, holding position successively as: altimetry performance engineer on most CNES oceanography missions (TOPEX Poseidon, Jason1-2 -3, SARAL/AltiKa, CFOSAT, SWOT .), Ocean Programme Manager (in the team she now leads), head of radar processing office, and now head of "Earth-Environment-Climate" department.

Abstract

CNES, Centre National d'Etudes Spatiales, is the French space agency, responsible for shaping and implementing France's space Policy at national, European and international levels. Among its five key domains (Launchers, Space Science, Earth Observation, Telecommunications and Defence), Earth Observation programme is covers the full scope of space activities, from preparing innovative concept for the future to strengthening the use of currently operating satellites.

Ocean observation programmes make a significant part of the overall domain, with the long-term involvement of France in satellite altimetry. CNES has been partnering with national research institutions, as well as space agencies worldwide, in order to develop and maintain an operational ocean observation system (from TOPEX Poseidon mission, ERS mission, to supporting Mercator-Ocean as well as in situ ARGO system), but also to prepare innovative missions (such as CFOSAT, or SWOT) that will push further progress in ocean and climate science.

Session 2 The “Blue Economy”: an Opportunity for Industrial Cooperation

Provisional Version

Moderator for the session 2

Dr. Hiroyuki Suzuki, Professor at the University of Tokyo, Department of Systems Innovations, Graduate School of Engineering

Biography

Professor Suzuki received his B.Sc. in Naval Architecture from the University of Tokyo. After finishing his doctoral research on dynamic response and control of underwater line structure and obtaining Dr.Eng. from the University of Tokyo, he joined faculty of School of Engineering, the University of Tokyo as a lecturer. He is professor at the University of Tokyo from 2003. He served as a professor at Graduate School of Engineering for the period of 2003-2008, professor at Graduate School of Frontier Sciences 2008-2017 and again professor at Graduate School of Engineering from 2017.

His specialty is Ocean System Engineering and the research topics are floating structure for ocean resource recovery system, Very Large Floating Structure for Ocean Space Utilization and latest Floating Offshore Wind Turbine. He is leading the technology demonstration projects of floating offshore wind power generation in Japan.

He serves as a Vice President of Japan Society of Naval Architects and Ocean Engineers from 2017. He is a member of Extended Executive Committee of ASME Ocean, Offshore and Arctic Engineering Division from 2011 and Chair of Japan Section of Marine Technology Society. He also serves as chief of Japan delegation to a committee of International Electrotechnical Commission organized to create Technical Specification of Floating Offshore Wind Turbine.

Speaker for the session 2

(1)-1

Mr. Olaf MERK, Project Manager, Ports and Shipping at ITF/OECD

Biography

Olaf Merk is in charge of the ports and shipping work at the International Transport Forum at the Organisation of Economic Co-operation and Development (ITF/OECD). He is main author of studies such as “The Impact of Mega-Ships”, “Decarbonising Maritime Transport; Pathways to Zero-Carbon Shipping by 2035” and “The Impact of Alliances in Container Shipping”. At the OECD he also worked on port-cities, urban development and public finance. Prior to the OECD, he held various positions at the Netherlands Ministry of Finance. He has a Master’s degree in Political Science from the University of Amsterdam.

Abstract of presentation

This presentation presents the role of commercial ports as geopolitical assets. It sets out the ways in which seaports can be used in geopolitics, it analyses the roles of ports in the Chinese Belt and Road Initiative and it discusses the relevant policy issues in this respect, such as screening of foreign investment, reciprocity and port governance.

Speaker for the session 2

(1)-2

Mr. Akihiro ISHIOKA, Director of Ocean Development and Environment Policy Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan

Biography

Education

1987 Graduated from the Osaka Prefecture University

Career

1987 Joined the Ministry of Land, Infrastructure, Transport and Tourism

2006 Director of Multi-lateral Treaty, International Shipping Division, Maritime Bureau

2008 Director of International Negotiations Office, International Shipping Division, Maritime Bureau

2008 Ocean Policy Research Foundation (Ship and Ocean Foundation)

2010 National Maritime Research Institute

2011 Japan Ship Technology Research Association

2015 Director of International Negotiations Office, Ocean Development and Environment Policy Division, Maritime Bureau

2016 Director of Ship Safety Standards Office, Safety Policy Division, Maritime Bureau

2018 Director of Ocean Development and Environment Policy Division, Maritime Bureau

Abstract

Policy to promote offshore development

It is foreseen that the offshore oil and gas/renewable energy market will grow with the increase of global energy demand in the medium and long term. As affected by the fall in oil price over the past several years, cost reduction has become the keyword for offshore development recently. In consideration of these circumstances, The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) initiates “j-Ocean Project”, in which MLIT utilizes Japan’s high technical and industrial capabilities in order to contribute the improvement of offshore development productivity.

In the execution of the j-Ocean Project, MLIT put focus on three fields as below.

- i) offshore oil and gas development – overcoming the cost & risk challenges
- ii) offshore renewable energy – promoting the establishment of new market
- iii) autonomous underwater vehicle (AUV) – enabling cost-effective survey and maintenance services

Within these focal fields, MLIT promotes three initiatives. First, MLIT promotes technological development which meets the needs of oil and gas industry such as cost reduction and better risk management. Second initiative is establishment of supplemental guideline for floating offshore wind turbine (FOWT) considering the learnings from demonstration projects such as GOTO-FOWT, Fukushima FORWARD. This supplemental guideline would allow industry to design and construct the support structure of FOWT in the cost optimal way, in which both securing of safety and simplification of structure are achieved. Third is development of safety and operational guideline for AUV used for the maintenance of offshore structures including renewable energy facilities.

In this presentation, I will introduce these policy efforts.

Speaker for the session 2

(2)-1

Mr. Jean-Christophe ALLO, Head of business development for SABELLA

Biography

With a degree in engineering –management and energy projects - and a post-master degree in ocean energy, Jean-Christophe is involved in tidal energy since 2010. He joined SABELLA in 2012 to manage the D10 project and increase the notoriety of the company both in France and abroad. He then moved to business development, strategy and public relation. Today, Jean-Christophe is the head of business development for SABELLA, promoting tidal energy solutions worldwide. He is, in parallel, involved in the long-term roadmap of the company and represents SABELLA in several organization, such as OEE, AMET, SER and CMF.

Abstract

Since 2009 and its reward and recognition of promising technology by French public authorities, SABELLA has worked on its real scale marine current turbine Sabella D10, 10-meter diameter device with maximal output power of 1 M W This pre-commercial machine was immersed in June 2015 in the Fromveur Passage and has been operating for 12 months. During this period, energy produced was delivered to the off grid of Ushant. This device was fully monitored, both in operation and in terms of environment.

With the feedback of the demonstrator and a better understanding of environmental conditions of the site, SABELLA pursue the learning through ICE Interreg project. This project witnessed the deployment of D10 turbine back in the Fromveur Passage in October 2018, in an optimized and ruggedized version for extensive trials over three years.

Considering these first encouraging results, several remote communities have rose an interest on this new energy model. Inuit, Indonesian and Filipino delegations have visited Ushant and agrees on the perfect duplication of such energy solution –tidal energy and onshore energy storage system – on their own territory.

Speaker for the session 2

(2)-2

Dr. Tomoki Utsunomiya, Professor at Kyushu University, Dept. of Marine Systems Engineering

Biography

Tomoaki Utsunomiya is currently a professor at Department of Marine Systems Engineering, Kyushu University, Japan. His research interests have been in the areas of fluid-structure interactions, dynamics of offshore structures, hydroelastic analysis of Very Large Floating Structures (VLFS), dynamics of floating bridges, and dynamics of floating offshore wind turbines. He has been actively working for development of floating offshore wind turbines (FO Ws); the developed FO W of a hybrid-spar type has been commercialized as the first grid-connected floating wind turbine in Asia-Pacific.

Abstract

Japan has huge potential for offshore wind energy although we can now see only small installed capacity of offshore wind. It means that there remain huge untapped energy resources that are waiting for their development. In particular, floating offshore wind are most promising.

In my presentation, I will present demonstration project on floating offshore wind turbine in Goto Islands, Nagasaki Prefecture, Japan, funded by Ministry of the Environment, Japan. Latest progress will be presented, and future possible cooperation between France and Japan in this field will also be discussed.

Session 3 Environmental Policies for the Maritime Domain and Governance

Provisional Version

Moderator for the session 3

Provisional Version

Speaker for the session 3

(1)-1

Mr. Masanori KOBAYASHI, Senior Research Fellow Ocean Policy Research Institute of the Sasakawa Peace Foundation

Biography

Mr. Masanori Kobayashi undertakes research work on ocean and sustainability policy including marine and coastal resource management, blue economy, ocean governance and fishery policies. He worked on sustainability issues in the Pan Asia Fund and Pacific Island Nations Fund of SPF, the Ocean Policy Research Foundation, the Yokohama National University Graduate School for Environment and Information Science, the Institute for Global Environmental Strategies, the United Nations (Geneva, Bonn and New York), Ministry of Foreign Affairs, Japan (Permanent Mission to the United Nations in New York). He holds LL.M (University of Georgia School of Law, USA), M.A. (International Christian University, Tokyo), and LL.B. (Chiba University, Japan) and completed the doctor course of the University of Tokyo Graduate School of Life and Agricultural Sciences without degree. His latest publications include “Sustainable Development Goal 14 for Conservation and Sustainable Use of Oceans and Resources: Strategies and Challenges for Pacific Small Island Developing States (2017)” and “Participatory Sustainability Research for Risk Management and Leadership Development (2014)”.

Abstract

Ocean faces multiple and growing threats including marine pollution, marine debris and plastic wastes, marine and coastal environmental degradation, overfishing, ocean acidification and marine biodiversity depletion. Island and coastal countries and communities remain vulnerable to marine environmental changes and extreme climatic events. Small island countries termed as large ocean states are endowed with spacious marine areas that seem to be beyond their own management capacity. Countries are reporting on the measures to mitigate and adapt to climate change under the Paris Agreement of the UNFCCC and to conserve and promote sustainably use marine biological resources under the CBD. However, there references for marine and coastal ecosystems are limited. Evaluations varies on the performance of regional fishery management organizations. Resource flows from multilateral funds such as the Global Environmental Fund and Green Climate Fund are asymmetric globally.

Marine and coastal management and governance regime needs to be reinforced by considering the characteristics and conditions inherent to respective communities, countries and regions while observing overarching globally applicable norms and principles. It is vital to pursue synergies, curtail trade-offs and identifying optima. It is also important to reinforce enabling factors towards bolstering effective ocean governance by advancing inter-disciplinary, precautionary, and cross-sectoral approaches, science-policy-stakeholder interface and multifaceted innovation.

Speaker for the session 3

(1)-2

Mr. Joachim CLAUDET, Senior research scientist at CNRS

Biography

Joachim Claudet is Senior Research Scientist at the French National Center for Scientific Research (CNRS). Joachim Claudet specializes in linked coastal social-ecological research at the land-sea interface, using place-based case studies to inform management or meta-analyzes to impact policy. He is interested in research that helps implement appropriate monitoring designs and management plans, develop indicators and decision-making tools. He currently leads as PI two inter-disciplinary projects on linked social-ecological resilience of coastal systems (ACRoSS, ANR; INTENSE, Fondation de France) and one on the use of marine protected area networks to reach sustainable fisheries in the Mediterranean Sea (SafeNet, EC DG MARE), and, among others, is a leader in projects on ecosystem resilience and ecosystem services valuation. Expert on marine protected areas for PISCO and WWF, he is also involved in IPBES regional assessments and several scientific councils and is the president of the scientific committee of MedPAN. Joachim Claudet recently edited a book on marine protected areas at Cambridge University Press. More information at: <http://www.joachimclaudet.com/>

Abstract of presentation

Climate change has the potential to directly alter conditions that sustain food production and availability, with cascading consequences for human food security, health and economic development. Yet, food production sectors are rarely examined together, which may lead to misleading results depending on how gains or losses in one sector are balanced by losses or gains in another. Here, we compiled climate, and socio-economic data to evaluate human vulnerability to the impacts of climate change on agriculture and marine fisheries. Under a scenario of growing greenhouse gas emissions (RCP 8.5), around 65 % of the world's population –mostly living in the most sensitive and least adaptive countries– are projected to be exposed to 'double jeopardy' (i.e., productivity losses in both sectors), while 4 % are projected to live in regions experiencing a 'win-win' situation (i.e., productivity gains in both sectors) by 2100. With drastic reductions of greenhouse gas emissions (RCP 2.6), double jeopardy situations would be reduced by nearly threefold (to 23% of the world's population), while win-win situations would almost triple (to 11 % of the world's population). Most countries –including the most vulnerable, but also 12 of the 15 largest CO₂ producers – would experience concomitant greater wins or lower losses on both food production sectors if greenhouse gas emissions are reduced, highlighting the large co-benefits from moving beyond a business-as-usual emissions scenario, even for high emitter countries. Reducing human vulnerability to future climate impacts on food production systems requires prompt mitigation actions led by major contributors of CO₂ emissions which should be coupled with coherent development interventions targeted toward regions where negative impacts seem inevitable.

Speaker for the session 3

(2)-1

Mr. Akihiro UEDA, Director, Biodiversity Policy Division, Nature Conservation Bureau, Ministry of the Environment of Japan

Biography

Education

1989 Graduated from the University of Tokyo

Career

1989 Joined the Ministry of the Environment

2007 Director of Animal Welfare and Management Office

2009 Director-General of Kyoto Gyoen National Garden Office

2010 Director of Lifestyle Policy Office, Global Environment Bureau

2011 Director-General of Naha Nature Conservation Office, Kyushu-Regional Environmental Office

2015 Counsellor, Cabinet Secretariat

2016 Director, Wildlife Division, Nature Conservation Bureau, the Ministry of the Environment

2017 Director, Environmental Regeneration and Material Cycles Bureau

2018 Director of Biodiversity Policy Division, Nature Conservation Bureau

Abstract

Policy to promote marine biodiversity.

Although it is targeted to conserve 10 % of marine area in the Aichi biodiversity target and the UN Sustainable Development Goals (SDGs), the marine conservation area within Japan's jurisdiction still remains to be 8.3 %. The Ministry of Environment has selected Ecologically or Biologically Significant Marine Area (EBSAs) for 3 years from 2011 to 2013 and announced in 2016. Based on the selected EBSAs, considering not only ecological but also social and economic elements, the Ministry is preparing for establishment of marine protected areas in Japanese offshore areas for the purpose of adequate conservation and management of the 10% marine jurisdictional area by 2020.

Moreover, the Ministry has conducted international coral reef conservation through the International Coral Reef Initiative (ICRI) and Global Coral Reef Monitoring Network (GCRMN). We are also working for coral conservation domestically based on the Action Plan to Conserve Coral Reef Ecosystems in Japan 2016-2020.

In this presentation, I will introduce these policy efforts.

Speaker for the session 3

(2)-2

Dr. Philippe CURY, Institut de Recherche pour le Développement

Biography

Philippe CURY is the IRD representative in Brussels at CLORA (Club des Organismes de Recherche Associés). He is also the President of the Scientific Council of the Monaco Institute of Oceanography. He is a senior scientist at IRD (Institut de Recherche pour le Développement) in France working in marine ecology and fisheries. He was the former Director of the CRH (Centre de Recherche Halieutique Méditerranéenne et Tropicale) based in Sète France, of the Unit of research (UMR-EME 212 between IRD-Ifremer and University Montpellier 2) between 2004-2014. He is, with Catherine Boyen (CNRS), the scientific Director of Euromarine Consortium (www.euromarinenetwork.eu). He has a PHD in Biomathematics (University of Paris VII-Jussieu, Paris - 1989) and an HDR (Habilitation à Diriger des Recherches – 2007) from the University of Montpellier 2.

Since 1980, he has been working in Senegal, Côte d'Ivoire, California and South Africa to analyse the effect of climate on fisheries and how to implement the ecosystem approach to fisheries. He has published more than 150 peer-reviewed articles in the main international journals (Science, TREE, Ecology Letters ...) and produced 20 books or book chapters. He has organized several International symposia (e.g., FAO - Coping with global change in social ecological systems, Rome, SCOR-IOC-UNESCO W 119 on indicators for ecosystem approach to fisheries), ICES 'Ecosystem effects of fishing', Montpellier-1999). Philippe Cury has received several distinctions such as The National Scientific Philip Morris Prize obtained in 1991 (Life Science Prize), The National Scientific "Médaille d'Océanographie Française" obtained in 1995 from the scientific committee of the Prince Albert Monaco Museum of Oceanography, the Gilchrist medal obtained in 2002 (South African Marine Award) and the Trophée 2012 for best scientific achievement at Ifremer and the IRD scientific achievement in 2013. He is the author of 'Une mer sans poissons' published by Calmann-Lévy and translated into Japanese, Chinese and Catalan in 2008 and of 'mange tes méduses' published by Odile Jacob with Daniel Pauly in 2013. In 2017 he co-edited the book 'the Ocean revealed' published by CNRS Edition.

Abstract

Reconciling biodiversity and marine exploitation: towards the ecosystem approach to fisheries

This presentation will recapitulate the main global challenges that fisheries are facing today. The world fisheries context will be introduced, it will be followed by defining the impact of fisheries on marine biodiversity and its effect on ecosystem dynamics. Finally we will introduce how fisheries can be managed using the ecosystem approach using several example worldwide and how this can contribute to preserve marine biodiversity.

Session 4 Security strategy and cooperation in the Indo-Pacific region

Provisional Version

Moderator for the session 4

Mr. Ippeita NISHIDA, Senior Research Fellow, International Peace and Security Department, the Sasakawa Peace Foundation

Biography

Ippeita Nishida is the Senior Research Fellow of the International Peace and Security Department at the Sasakawa Peace Foundation (SPF). In this position, he conducts research on Japan's foreign engagement policies and tools, in particular, foreign aid and security cooperation. He is also an editor and a contributor of the International Information Network Analysis (IINA), an on-line global affairs commentary site at SPF. Additionally, he manages and oversees the mutual visitation exchange program for senior field officers between the Japan Self-Defense Forces and the Vietnamese People's Army, a flagship initiative of SPF.

Prior to joining SPF in October 2016, he held the position of the research fellow at the Tokyo Foundation where he worked on several key policy research projects and published reports such as: "The Quad Plus: Towards a Shared Strategic Vision for the Indo-Pacific" (co-editor, Wisdom Tree Publisher, 2015), "Rethinking Japan's Foreign Aid: Widening the Scope of Assistance from a Security Perspective" (co-author and editor, the Tokyo Foundation, 2014), "Maritime Security and the Right of Self-Defense in Peacetime" (co-author and editor, the Tokyo Foundation, 2013). He also contributes his comments and produces articles for domestic and international audiences.

He earned his MSc in Development Studies from the London School of Economics and Political Science (LSE). Currently, he serves as an expert panel member of the "Development Assistance Accountability Committee" at the Ministry of Foreign Affairs of Japan, and he teaches at the Hosei University and the Aoyama Gakuin University as an adjunct lecturer.

Speaker for the session 4

(1)-1

VA dm Hervé de BONNAVENTURE, Deputy director general for international relations and strategy

Biography

“Graduated from the French Naval Academy, Admiral de Bonnaventure has deployed to most challenging posts in the Navy and has served as navigator, jet pilot, executive officer, operation officer and commanding officer on-board patrol boat, frigate, squadron and aircraft carrier.

He has been engaged in operations in the Caribbean, North Atlantic, Mediterranean, Balkans, Indian Ocean and the Arabian Gulf.

Vice Admiral de Bonnaventure graduated from the US Naval Command college course in Newport, the French Centre for Higher Military Studies, and the Institute of advanced studies of National Defence.

Since July 2016, he was appointed deputy Director General for International Relations and Strategy and promoted to Vice Admiral.”

Abstract

French maritime domain covers around 11 millions of square kilometers and is the largest one in the world. It gives France huge opportunities but also the great responsibility to secure its sovereignty. That's the aim of French National Maritime Domain Strategy elaborated in 2015. Priority is given in this strategy to protect French Maritime Domain, our citizens and our economic and environmental interests. For that purpose, France developed a Maritime Security Strategy based on the concept of the Coast Guard Function, an interagency organization with one chain of command upon the authority of the Maritime Prefect. The French has a major role in that mechanism designed for efficiency and cost control principle.

A wide array of threats at sea challenges the French Maritime Security architecture. Having the best maritime information at the right moment in order to detect, prevent or deter a threat is key to control our maritime domain. To better merge the various kind of information regarding the sea France created in 2016 the Maritime Information Cooperation and Awareness (MICA) Center in Brest hosting the French Naval Voluntary Cooperation, the Maritime Domain Awareness for Trade –Gulf of Guinea (MDAT-GoG) and soon the Maritime Security Center – Horn of Africa (MSC-HoA).

The sea has always been a vector for all kind of criminal and illegal activities. Increasing our capacities to monitor the maritime routes and approaches represent consequently a major challenge for peace and stability in the world. It requires a close cooperation between all the countries, such as France and Japan, who fight for freedom of navigation and the application of the rule of law at sea.

Speaker for the session 4

(1)-2

Mr. Nobukatsu KNEHARA, Assistant Chief Cabinet Secretary, Deputy Secretary-General of National Security Secretariat

Biography

Mr. Nobukatsu Kneharara received his LLB from Tokyo University. He entered the Ministry of Foreign Affairs of Japan (MOFA) in 1981. During his career at MOFA, he served as the Deputy Director-General of the European Affairs Bureau, the Ambassador in charge of the United Nations Affairs, and the Minister of the Embassy of Japan in the Republic of Korea. His most recent position in MOFA is the Director-General of the International Legal Affairs Bureau in 2012.

Mr. Nobukatsu Kneharara has served as the Assistant Chief Cabinet Secretary, which is in charge of planning and coordination of important foreign policy of the Cabinet, since 2012. He has also served as the Deputy Secretary-General of National Security Secretariat, which supports the National Security Council and is in charge of planning and coordination of national security policy, since 2014. In addition to these positions in the government, he is a lecturer in Japanese Foreign Policy at the Faculty of Law of Waseda University.

Abstract

The U.S. and Japan are working closely with the Indo-Pacific region at large to resolve the challenge presented by a nuclear North Korea and to ensure global security and stability for the future.

Prime Minister Shinzo Abe recently reformed domestic legal systems to give more authority to our defense forces to closely coordinate with U.S. forces, positioning Japan, in certain cases, to be able to stand together with the U.S. in the need for collective self-defense. This coordination is critical, along with trilateral cooperation that includes South Korea, because the geopolitical challenges in Northeast Asia require Japan, the U.S. and South Korea to work together as one to contain the North Korean threat.

All the while, China remains reluctant to accept and help defend the values that we cherish. If China wants to join the open and liberal world order in a responsible manner, we should welcome them. But if China wants to take advantage of the system in order to undermine it, or to replace it with their own system, we must dissuade them together.

A strategic partnership on security issues is only one of the many ways Japan and the U.S. can work together in the 21st century. The U.S. and Japan have an opportunity to build upon our increasingly strong economic ties. Japan now boasts the second-largest cumulative foreign direct investment in the U.S., and is the second-biggest foreign employer. Likewise, U.S. direct investment in Japan has doubled since 2000. The rapid evolution of our economic relationship is truly remarkable.

Beyond these opportunities we can foster a new era of economic growth and development throughout the Indo-Pacific region, which is home to more than half the world's population. This is the greatest challenge of the 21st century: to create a free and open Indo-Pacific region that will help millions of people rise out of poverty and reap the rewards of the developed world. Prosperity, after all, is the greatest foundation for peace.

Most Asian countries are better prepared than ever before to work toward promoting democratic ideals of freedom and prosperity around the world and to defend against global security threats. Since the late 1980s, Asian nations have embraced these ideals, one after another. The Philippines became a democracy in 1986, and South Korea, Indonesia, Malaysia and Thailand followed. In retrospect, the self-determination of Asians seems like an inevitable denouement of history. But Japan and India paved the way.

Japan is ready to lead again, this time, to create a free and open Indo-Pacific region by supporting freedom of navigation and maritime law enforcement, as well as infrastructure upgrades in a way that meets global standards.

Japan and the U.S. are two global leaders who must work side-by-side to spread peace and prosperity in the Indo-Pacific region. We share a deep-rooted conviction in the fortifying power of democratic values and free and fair economic opportunities. With this in mind, and with unwavering commitment, now is the time for Japan and the U.S. to stand united on the world stage.

Speaker for the session 4

(2)-1

Dr. Valerie NIQUET, Head of the Asia Department at FRS

Biography

Valerie Niquet is Head of the Asia department at FRS (Fondation pour la recherche stratégique), adjunct senior fellow at the Japan Institute for International Affairs (JIIA) and a lecturer at Keio University (Tokyo) on Sino-Japanese relations. She has published extensively on Strategic issues in Asia as well as the evolutions of the Chinese political system. Her latest publications include *La puissance chinoise en 100 questions*, Tallandier, 2017.

Abstract

Japan and France do share close visions on the stability of the Indo-Pacific based on and the concepts of respect for the rule of law, non use of force and freedom of navigation as well as the evolution of the strategic situation. Both have considerable interests in this region and France is the only EU member state to have national interests in both oceans. These commonalities forms the basis of increased cooperation, and opportunities within the limits of constitutional and budgetary constraints. Capacity building in third countries, as a major factor of stabilization opens new fields for this cooperation to nourish a vibrant strategic partnership between France and Japan.

Speaker for the session 4

(2)-2

Retired Rear Admiral, Kazumine AKIMOTO, Senior Research Fellow, Policy Research Department, the Ocean Policy Research Institute

Biography

As a Retired Rear Admiral of the Japan Maritime Self-Defense Force (JMSDF), Kazumine Akimoto is now Senior Research Fellow at the Ocean Policy Research Institute of Sasakawa Peace Foundation.

His service career began in 1967, when he joined the JMSDF. After completing the Command and Staff Course at the Maritime Staff College, he held several positions in the Maritime Staff Office (MSO) and the Operation Evaluation Office. Positions held include: Liaison staff with Patrol and Reconnaissance Force US 7th Fleet; Chief, Intelligence Section of the MSO Intelligence Department; Chief of Staff, Fleet Air Wg. Rear Admiral Kazumine Akimoto became a senior researcher at the National Institute for Defense Studies at the Japan Defense Agency (Ministry of Defense) in 1995. He retired from JMSDF and resigned from the National Institute for Defense Studies in 2000. His field of study is maritime security and naval strategy. He has written numerous articles booklets related to maritime security and naval strategy. Some of his publications are “Sea Power Renaissance”, “Paradigm Shift of the Sea Power”, “A Sinister Shadow Lurking in the Sea Lane”, and “Structural Weakness and Threat in the Sea Lanes.”

Abstract

In order to stabilize the security environment in the Indo-Pacific, the “4 + 5 Synchronized Strategy” is proposed. The “4 + 5 Synchronized Strategy” is the strategy to harmonize the three cooperative systems which are the Quadrilateral cooperation framework of Australia, India, Japan, and the United States covering the Indian Ocean and the coastal sea areas of the Asian continent, the Quadrilateral defense cooperation framework of Australia, France, New Zealand, and the United States covering the entire Pacific Ocean, and the Five Power Defense Arrangements by the United Kingdom, Australia, New Zealand, Singapore, and Malaysia. The important considerations are capacity-building support for island nations, the construction of disaster-relief systems, support for sustainable development, and the dissemination of the rule of law. In this way, we can form a maritime order in the entire Indo-Pacific and deter hegemonic actions. In other words, this strategy is similar to the “synergy effects” talked about in the economic world in the cross-domain of the Indian Ocean and the Pacific Ocean.

Facilitator for the review of 1st day dialogue

Dr. Keita FURUKAWA, Director of Policy Research Department, OPRI

Biography

Dr. Keita Furukawa received a Dr (Eng.) in Civil Engineering in 2004 from the Waseda University, Japan. He has almost 30 years' experience with marine and coastal environmental research, coastal ecosystem restoration and ocean policy. Estuaries, Tidal-flats, Seagrass beds, Coral Reefs, and Mangrove Forests are the field of interests. His career includes a researcher position at the National Institute for Land and Infrastructure Management (NILIM: former PHRI) from 1988 to 2013, visiting research fellow at Australian Institute for Marine Science (AIMS) from 1994 to 1996, and affiliate professor of Yokohama National University (YNU) from 2008 to present. Since April 2013, he is working at OPRI/SPF on Ocean governance, Blue Economy, Ocean Education, Maritime Security, and Integrated Coastal Management.

He has been served as one of leading scientists for corroborative research project "Integrated Coastal and Ocean Management (ICOM): From National Policy to Local Implementation" in the ocean development sub-committee under Japan-France Science and Technology Cooperation Agreement since 2009 with Institut français de recherche pour l'exploitation de la mer (IFREMER).

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