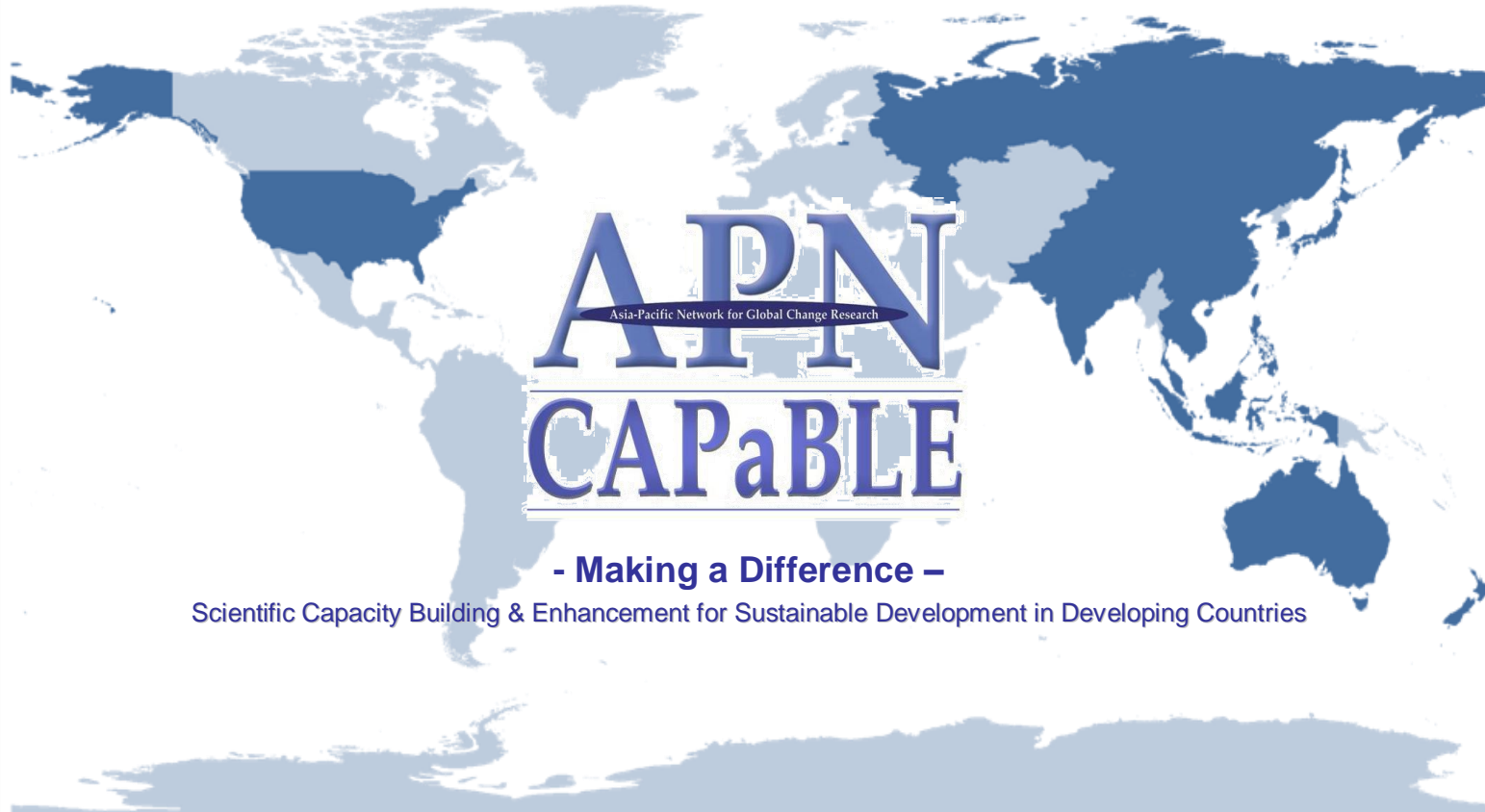


FINAL REPORT for APN PROJECT

Project Reference Number: CBA2011-06NSY-LOICZ

Young LOICZ Forum 2011: Capacity Building in the Asia-Pacific Region



APN
Asia-Pacific Network for Global Change Research
CAPaBLE

- Making a Difference -

Scientific Capacity Building & Enhancement for Sustainable Development in Developing Countries

The following collaborators worked on this project:

Cheng TANG, YIC, China, ctang@yic.ac.cn

Ping SHI, YIC, China, pshi@yic.ac.cn

Juergen WEICHSELGARTNER, LOICZ, Germany, j.weichselgartner@loicz.org

Hartwig KREMER, LOICZ, Germany, hartwig.kremer@loicz.org



Young LOICZ Forum 2011: Capacity Building in the Asia-Pacific Region

**Project Reference Number: CBA2011-06NSY-LOICZ
Final Report submitted to APN**

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OVERVIEW OF PROJECT WORK AND OUTCOMES

Non-technical summary

Comprehensive educational activities provide the next generation of scientists and managers with relevant knowledge and practical skills, opportunities to interact and network with their peers, and to implement sustainable measures in Asia-Pacific coastal zones. Young scientists in developing country have limited capacities to relate global thinking with local actions, and lack of such skills to help them in future career under Global Environmental Change (GEC) perspective. It is essential that they understand the methodologies and techniques for assessing the impacts of climate change by trained scientific community. Considering this, LOICZ/East Asia Office sorted financial support from Asia Pacific Network for Global Change Research (APN), Japan to organize a regional training workshop, the Young LOICZ Forum (YLF), integrated with LOICZ Open Science Conference in Yantai from Sep. 8-15, 2011. This workshop was intended to build capacity and train young scientist and future policy makers, researchers for understanding coastal zone vulnerability and adaptation to changing climate, provided the next generation of scientists and decision makers with knowledge and practical skills that they can apply in their own country and offer an opportunity to interact and network with their peers. The YLF is a well-balanced combination of OSC sessions and specific targeted activities for Early Career Scientist (ECS), including training workshops and practical exercises.

Objectives

The main objectives of the project were:

1. Promote awareness among ECS on GEC and the impacts to coastal areas in the Asia-Pacific region.
2. Mobilize the ECS in partnerships and increase youth involvement in coastal management activities.
3. Identify specific youth-related activities appropriate to contribute to GEC mitigation and adaptation.
4. Provide participants with practical knowledge, skills and materials regarding GEC in coastal zones.
5. Create synergy with the activities and accomplishments of other Young LOICZ activities and participants.
6. Engage more young scientists/managers and youth organizations in Young LOICZ

Amount received and number years supported

The Grant awarded to this project was:

- Funding sorted was US\$ 30,000 for 2011
- Funding received to-date for 2011 is US\$ 24,000

Activity undertaken

Subsequent to the approval of funding from APN, LOICZ and East Asia Node was able to leverage additional funding to upscale the originally planned workshop for a much wider group of participants from the Asia and other world regions, through a collaboration with SCOR, IOC, MAIRS, ESSP, SPRINGER, SOLAS, UNU, and the government of Muping Tourism Bureau, Rongcheng Fishery and Oceanic Administration, and hold a training workshop for Young LOICZ scientists and practitioners.



The work was supported by the LOICZ IPO, especially under the advisor of Dr. Juergen Weichselgartner

Results

The eight-day workshop was held in the Oriental Haitian Hotel in Yantai, China, between 8th September – 15th September, 2011, and was attended by 26 participants representing 15 countries in the Asia-Pacific and other regions. The aims and objectives of the workshop complemented and further enhanced the original objectives of the smaller sub-regional workshop planned under APN funding, and increase benefits to a much wider group.

Relevance to the APN Goals, Science Agenda and to Policy Processes

The thematic outline of the YLF implement the interactive role of regional processes in the overall Earth system and follows the objective of APN to link their sponsored initiatives with related projects conducted in other regions and under the aegis of global-scale programmes. Both the LOICZ OSC and YLF fully supported the APN vision of “enable countries in the Asia-Pacific region to successfully address global change challenges through science-based response strategies and measures, effective science and policy linkages, and scientific capacity development” as well as the three mission objectives as stated in the Third Strategic Plan (APN, 2010). In addition to the OSC themes, the proposed activities support regional cooperation in GEC research on issues particularly relevant to the region (APN Goal 1). Interaction with coastal practitioners and the direct support of ECS by senior scientists strengthen interactions among scientists and policy makers, and provide scientific input to scientific knowledge to the public (APN Goal 2). Well-targeted training seminars on soft and scientific skills support improving the scientific and technical capabilities of nations in the region, including the transfer of know-how and technology (APN Goal 3). Attending both the YLF and OSC is a great opportunity for ECS to engage and cooperate with other global change networks and organizations (APN Goal 4).

LOICZ places particular emphasis on capacity-building activities. It believes that young researchers have the capacity to make immediate progress in response to the significant environmental and societal challenges addressed by APN. The YLF offers ECS with interests in GEC processes in coastal zones the opportunity to expand their knowledge in all aspects of coastal science and to create and strengthen future collaborations with scientists from around the world. Another objective relating to the APN science agenda is the translation of global thinking into local actions.

The content and structure of the YLF supported the capacity of developing country experts to develop adaptation strategies by improving the preparation of national communications and developing fundable adaptation projects. The final outcome envisaged the development of a comprehensive modular web-based learning package for coastal GEC research, also complements the APN Science and Policy Agenda.

Self evaluation

The YLF brought together senior scientists, international organizations, and ECS from APN countries for both formal training and open discussions on relevant GEC topics. The training programme included tutorials, exercises, and open-discussions to provide cross-disciplinary learning; original workshops – e.g., Science Writing, Urban Risk Management, Eutrophication, Coastal Monitoring – provide both practical skills and scientific knowledge. Special attention is given to career advice for ECS, including acquiring transferable and soft skills, training-through-research and one-to-one mentorship (one senior scientist will be appointed to each ECS). Field trips and social events will support cultural understanding. The project was able to successfully accomplish all the objectives mentioned in the report. A self-evaluation was carried out (see Table below) in relation to each project objective, using the following evaluation grades:

FS – Fully Successful (The Original project objective/output was achieved as planned, in a commendable manner)

S – Successful (The Original project objective/output was achieved as planned, amidst a few constraints that were not envisaged earlier)

MS – Moderately Successful (The Original project objective/output was not fully achieved as planned, due to constraints that were not envisaged earlier)

US – Unsuccessful (The Original project objective was not achieved as planned, due to major constraints that were not envisaged earlier)

Project Objective	Self-Evaluation to date	
	Grade	Description
Promote awareness among ECS on GEC and the impacts to coastal areas in the Asia-Pacific region	FS	Integrated with LOICZ OSC and YLF lectures
Mobilize the ECS in partnerships and increase youth involvement in coastal management activities	FS	Has been show in the field trip together with local coastal zone governors
Identify specific youth-related activities appropriate to contribute to GEC mitigation and adaptation	S	Integrated with LOICZ OSC and YLF lectures
Provide participants with practical knowledge, skills and materials regarding GEC in coastal zones	FS	During the whole lecture processing
Create synergy with the activities and accomplishments of other Young LOICZ activities and participants	S	In the LOICZ OSC post section together with other young participants



Engage more young scientists/managers and youth organizations in Young LOICZ	S	Build broad connection with other organizations and support institutions
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Potential for further work

This Young LOICZ Forum could be opened as a series in the future in the Asia-Pacific region to attract more young generations, it could be hosted in different place among the developing member countries of APN.

Publications (please write the complete citation)

CD-ROMs:

1. Workshop proceedings (including power point presentations, full papers of presentations received)
2. Training workshop handbook

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We are extremely thankful to APN for providing us with financial assistance under its CAPaBLE Programme to implement this project. We wish to acknowledge the co-financing as well as the technical inputs received from LOICZ, SOLAS, IOC, SPRINGER, IHDP Taipei, ESSP, which enabled to upscale the workshop and involve a much wider group of participants. The support provided by the government of Rongcheng Fishery and Oceanic Administration, and Muping Tourism Bureau in organizing and hosting the field trip is much appreciated. We also thank for the Oriental Ocean Corp to support YLF T-shirts for every participants.

TECHNICAL REPORT

Preface

LOICZ East Asia Node received funding from APN to organize a capacity development workshop on tools and methodologies for Young Career scientists to Climate Change of Asia-Pacific Region. The funding received from APN was efficiently used to leverage additional financial and technical support from SCOR, SOLAS, IOC, IHDP, SPRINGER and the Government of Yantai Tourism Bureau and Rongcheng Fishery and Oceanic Administration, to organize an up-scaled trans-regional workshop for developing countries in Asia-Pacific and other regions, which was held in Yantai, China from Sep. 8-15, 2011, and attended by 26 participants from 15 countries, including 10 APN member states in Asia-Pacific.

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- 5.0 Future Directions
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1.0 Introduction

Having the capacity to conduct high quality research that provides scientific support for decision - makers and decision-making processes is vital for least developed and developing countries in the Asia-Pacific region and is recognized by the APN as crucial for improving the scientific and technical capabilities of these nations. The YLF on Enhancing Capacities for Global Change Mitigation in Asia-Pacific Coastal Zones is specifically designed to address this issue: Improving scientific knowledge and training practical skills of future scientists and managers.

In conjunction with the OSC, the YLF brought together senior scientists, international organizations, and young scientists and decision makers for structured training on soft and scientific skills as well as for scientific sessions and open discussions on relevant GEC topics. The advanced training programme included lectures, practical exercises, social-cultural activities, field trips, and open-discussions to enhance cross-disciplinary learning. Senior scientists with experience in capacity building and youth education provided training seminars on soft skills and on GEC-related issues. In addition, trainers from international institutions – e.g., ESSP, IHDP, UNU-EHS, presented training units with practical exercises. Special attention has been given to career advice for early-career scientists and managers (ECS), incl. acquiring transferable and soft skills, training-through-research, and one-to-one mentorship, i.e., one senior scientist was appointed to each YLF participant. Accompanying field trips and sport activities were integrated to facilitate cross-cultural understanding and foster partnerships. Other YLF features were a special demonstration of the use of coastal pedagogic material for young people, and YLF Awards for best contributions. Each



member of the LOICZ Scientific Steering Committee (SSC) will 'adopt' one YLF participant, i.e. each YLF trainee will receive individual guidance from a senior scientist.

LOICZ/East Asia Node sorted financial support from Asia Pacific Network for Global Change Research (APN), Japan to organize a regional training workshop, the Young LOICZ Forum (YLF) integrated with LOICZ Open Science Conference in Yantai from Sep. 8-15, 2011. This workshop was intended to build capacity and train young scientist and future policy makers, researchers for understanding coastal zone vulnerability and adaptation to changing climate, provided the next generation of scientists and decision makers with knowledge and practical skills that they can apply in their own country and an opportunity to interact and network with their peers. The YLF is a well-balanced combination of OSC sessions and specific targeted activities for Early Career Scientist (ECS), including training workshops and practical exercises.

The project team, led by the proponent, is scientifically, logistically, and administratively supported by YIC/CAS, LOICZ/GKSS, and its Regional Nodes: East Asia (Yantai), and South Asia (Chennai).

2.0 Methodology

The YLF brings together senior scientists, international organizations, and ECS from APN countries for both formal training and open discussions on relevant GEC topics. The training programme includes tutorials, exercises, and open-discussions to provide cross-disciplinary learning; original workshops – e.g., Science Writing, Urban Risk Management, Eutrophication, Coastal Monitoring – provide both practical skills and scientific knowledge. Special attention is given to career advice for ECS, including acquiring transferable and soft skills, training-through-research and one-to-one mentorship (one senior scientist will be appointed to each ECS). A job shop offers the opportunity to network with and meet potential employers; field trips and social events will support cultural understanding. Other YLF features are a demonstration of the use of coastal pedagogic material, the YLF statement 'The Future we Sea', a carbon offset activity, and YLF Awards for best contributions. The selection of funded ECS candidates (i.e., 15 ECS <35 years from APN countries) will be based on geographical and gender balance, personal history, and scientific quality, with a focus on recently identified coastal 'Hotspots'.

3.0 Results & Discussion

3.1 Training activities

The eight-day workshop was held in the Oriental Haitian Hotel in Yantai, China, between 8th September – 15 September, 2011 (see appendix 1 for agenda), and was attended by 26 participants representing 15 countries in the Asia-Pacific and other regions, including 9 LDC members of APN located in Asia (Bangladesh, China, India, Indonesia, Malaysia, Vietnam, Thailand, Fiji, Philippines, see appendix 2 for list of participants).

The YLF is a direct investment in awareness raising and developing national/regional capacities. With its training seminars, social activities, and scientific sessions the youth event serves as a perfect venue for participants – both early-career and senior scientists – from the Asia-Pacific region to discuss common global change issues and strengthen regional collaboration for global change research, capacity development and policy-relevancy. Together with the LOICZ OSC, it highlights GEC research and possible implications for policy-making.

One of most important outcome is under the APN's capacity development programme of APN



Proposal Development Training Workshops (PDTWs), early-career scientists from developing countries in the Asia-Pacific region were provided with opportunities to develop their knowledge and capabilities in global change research, to practice the skills necessary to write a competitive proposal for funding to the APN. Most recently, PDTWs were held in Shanghai, New York, Kobe, Pune and Manila back to back with other important meetings that brought together international participants. The training workshop in Yantai was composed of the following: i) Overview and discussion of the APN and its Proposals Process with detailed guidelines and advice on submitting proposals to the APN for funding. Speakers include members from APN's proposal review panel, membership, and successful project leaders. ii) Proposal-writing session where the 4 groups gather together with their mentors and develop their proposal further and then present (orally by PPT) to the workshop. iii) Proposal review session where each group had the opportunity to review their peer groups' proposals according to specific criteria and present their findings via oral presentation. iv) Discussion and feedback session on general strengths and weaknesses of the group proposals and opportunities for future collaboration.

After 2 days of intensive training, the trainees :

- Have a raised awareness of the APN and an increased capacity to write a proposal to the APN and compete effectively in its competitive annual calls for proposals (for research and capacity development) in the Asia-Pacific region.
- Understand that effective regional project management requires a great deal more than "just doing the science" to succeed.
- Have increased capacity to work in groups and understand effective communication is crucial to a successful research team working at the regional or international levels.

After the 2 days APN PDTW training workshop, the Young LOICZ Forum started with training on solid background in GEC process and soft skills in the academic curricula. Young scientists and future decision makers in policy and practice increasingly require a solid background in GEC processes and highly developed soft skills, which are often not included in the academic curricula. The YLF specifically aimed to build capacities in science communication and in better understanding GEC processes, dynamics, and impacts. Together with existing LOICZ training modules, the educational exercises served as a basis to develop a comprehensive learning package for young coastal researchers and practitioners. All YLF outputs and products were freely available to participants and the wider scientific and non-scientific community. The main highlights of these lectures are listed in below:

Indicating Adaptive Capacity in Urban Risk Management Systems –Mark Pelling

Coastal cities represent places of concentrated interaction between natural, social and physical processes and elements. While individual processes may be well known we are only beginning to understand the ways in which interaction between systems elements impacts on the sustainability of the whole. Coastal cities are at the frontline of mitigation and adaptation to climate change as well as being nodes in regional and global economic systems. These two pressures make important the temporality and phasing of systems interactions as well as its geography through scale and teleconnection effects. This session was used to explore the systems qualities and interactions of



coastal cities and in particular explore what makes particular cities and their natural, social and physical components more or less resilient and sustainable. Some initial discussions were taken to identify key attributes of sustainability and resilience and to consider how these might be indicated and tracked in cities. YLF Participants were asked to work in small groups to conceptualize and design a checklist of qualities that can be applied across large and megacities to help track changes in risk and resilience over time with a particular emphasis on adaptation and mitigation actions and policy. These proposals were to be discussed and produced a final group product, which feed into the development of a monitoring tool to be used by LOICZ to track coastal adaptation in mega-cities and urban regions. To prepare for this workshop participants were invited to read UN HABITAT's Global Report on Human Settlements 2011: Cities and Climate Change.

Economic Valuation of Coastal Ecosystems: A Fad or Reality? – Joyashree ROY

Coastal ecosystem is a Natural Capital (NC). Like manufactured capital (MC) it helps in production of multiple goods and services to generate human well-being. But unlike MC it is not produced by human effort and is limited in supply over time. The services produced by this NC are tangible and intangible. Human society manages (plans investment, allocation, preservation, conservation etc.) all sorts of capital through its institutions of market and/or regulation. But these institutions are limited by their scope driven by commercial/exchange value of capital, goods and services. Not all goods and services from NC pass through market mechanism. Those services/goods which the market mechanism cannot value are assumed by current regulatory/management institutions as abundant and are allocated free of cost or are not at all accounted for in regulation, formal management system. Many coastal ecosystem services have such non market value. Those having market value are also sometimes undervalued and are thus increasing stress on the NC service flow, affecting finally the human well-being. Therefore, appropriate valuation of coastal ecosystem services and level of uncertainties there in are crucial to know for making practical management efficient. The central question is if economic well-being is at the core of human system then correcting the valuation system for goods and services at the core needs to be a reality.

This training seminar focuses on interaction in a learning mode: YLF participants were encouraged to learn together how to identify, correctly value and aggregate coastal ecosystem services. All selected participants were provided an information checklist prior to the YLF in order to prepare specific information of their local environment. The aimed output of the training (take home knowledge) was that all participants will have carried out a local coastal ecosystem valuation on the basis of current methods (baseline).

How to do Integrative Science? Addressing Environmental Challenges – Ada Ignaciuk

The discussion about a stronger integration of research among different scientific disciplines becomes more and more prominent in particular in areas where science should deliver knowledge to societal questions. Integrated global change research establishes a link between not only scientific disciplines but also user communities, policy makers and other stakeholders, by co-designing of knowledge with help of integrated/coupled methods or concepts. Together with ISSC, ICSU and NKGCF, the Earth System Sciences Partnership is one of the co-sponsors of a scientific conference



that aims to discuss different dimensions of integration in more detail. ESSP would like the participants of the YLF to take an active part in co-designing the guidelines and best practices for integration of Sciences. This was a real life exercising that can allow them to gain a perspective of different levels of science community. In particular, they discussed three major dimensions of integration (co-mutuality):

- **Across-fields (multi-, and interdisciplinary)**
Outcomes: More frequent co-production of agenda's and knowledge of GEC and developmental challenges at all levels.
- **Co-production (stakeholders, thrust, transdisciplinary)**
Outcomes: Increase in participate of various stakeholders in the co-designing and production of agenda's and knowledge of GEC and developmental challenges at all levels.
- **Cross-cultural**
Outcomes: Increase in participation of scientists and stakeholders from the global south in the co-design and production of agenda's and knowledge of GEC and developmental challenges at all levels (e.g. multi theoretical / socio-geographic / cultural). Language and communications would cut across all three dimensions. Other issues/barriers to 'co-mutuality', e.g., infrastructure, language, IT, tradition, funding, educational systems, national science-policy will be also discussed. The outcome of this exercise will be presented at the Integrated Sciences Conference, taking place 10-12 November, 2011, in Berlin, Germany.

World Ocean Review: Last Stop: The Ocean - Polluting the Seas - Franciscus COLIJN

The training seminar contains an introduction to chapter 4 of the World Ocean Review. The chapter was made available to the YLF participants. In chapter 4, overarching themes related to the pollution of the sea are described and presented: 1) eutrophication or overfertilisation with nutrients, 2) organic pollutants in the marine environment, 3) Litter - pervading the ocean, and 4) Oil pollution of marine habitats. In the introduction of the presentation these themes are shortly presented on the basis of the document. Some additional explanations were given. After the presentation of the elementary facts, the participants were asked to divide into four groups, which had the task to discuss and argue which of the four threats are most prominent and why. They were also asked to come up with measures to combat pollution or to mitigate effects.

Risk and Vulnerability: From Theory to Capturing Key Factors - Fabrice RENAUD & Jörn BIRKMANN

More and more people and communities are affected by environmental hazards throughout the world such as floods, droughts, cyclones, earthquakes and other events. The Intergovernmental Panel on Climate Change (IPCC) has estimated that climate change will increase the frequency and magnitude of some of these hazards in the future. More than ever, decision-makers and practitioners in the field of disaster risk management need to have the tools to measure the vulnerability and risk of exposed populations, in order to prevent these hazard events becoming disasters. However, vulnerability and risk assessment requires an understanding of many processes



that interact amongst each other through feedback loops at various spatial and temporal scales and are therefore not easy to characterize.

During this training module, the YLF participants exposed to the most recent theory and frameworks in vulnerability and risk assessment: UNU-EHS being currently involved in several projects which aim at developing these frameworks, the most recent findings will be made available to the participants. This was followed by a discussion on methods to capture quantitative and qualitative data for indicator generation. Subsequently, there were a practical unit on selecting key indicators to characterize the vulnerability of communities to different types of coastal hazards, such as storm surges/tsunamis, coastal erosion, river flooding in coastal cities (group exercises), and a second practical unit on questionnaire design to capture the data for these indicators (group exercise). After each group exercise, each group shared their results with the entire group to stimulate discussions and exchange of ideas.

Integrated Coastal Management: Learning from Practice - Ramachandran RAMESH

The topics covered in this training module include:

Basics of ICM: Background to ICM – Sustainability and Sustainable ICM – ICM and Social Nature – Competing Claims and Visions of the Coast – ICM and Interdisciplinarity Practice oriented learning: Case studies (examples will be provided) – Resource survey – Learning through observation – Observing in practice – Participatory observation – Interpreting observations Integrating disciplinary perspectives: Social science insights – Natural science insights

At the end of this training programme, the participants had

- Gained an appreciation of the wide range of environmental, social and economic dimensions to coastal areas and the associated conflicts and problems
- Experienced the complexity of the process of ICZM through a case study
- Engaged with and appreciate the ICZM process through a training framework and matrixbased decision making technique to identifying potential management solutions for a coastal area
- Experienced a process of negotiation to arrive at consensus approach to management issues identified from a case study area, and
- Demonstrated their capability and capacity for ICZM through exercises to prepare an ICZM plan.

Why not becoming an Influential Scientist? Scientific Writing and Publishing - Juergen WEICHSELGARTNER

Science is incomplete unless the research results are effectively disseminated to the wider community. The scientist's responsibility does not end with the completion of empirical field work, but results must also be communicated to potential users of the knowledge generated: the scientific community, funders, and decision makers in policy and practice. Only then can the scientist claim to have made a real contribution to the existing body of research-based knowledge. Moreover, a good publication increases the chances of attracting new funding and collaborators and improves young careers since the scientific work will be seen as relevant, reliable, and good quality. Paradoxically,



academic curricula often do not support and develop the skills needed to accomplish the vital task of writing research articles is a rare endeavor at universities.

The training unit was designed to build expertise in writing scientific papers and to provide advice on how to publish in international journals. It aims to train the skills of early-career scientists and young coastal managers to enable them to make effective written presentations that communicate information clearly and concisely. At the end of the training, the participants had developed their skills in organizing a scientific paper, in preparing each section of a paper to communicate scientific information effectively, and in preparing a scientific abstract of their own research. The seminar follows the IMRAD (introduction, methods, results, and discussion) format

The most important capacity development outputs were the least tangible – the opportunity for YLF participants to expose their own research to international peers as well as the dissemination of cutting-edge GEC science to the next generation of scientists and the global ‘networking’ that an event such as the YLF fosters, i.e., the capacity building of the global GEC science community.

The workshop also enabled to enhance the capacity of developing country experts and national teams in developing adaptation strategies with the view of improving the preparation of national communications. The participants were also able to establish useful networks with each other to share experiences, and useful contacts with the resource personnel for relevant guidance in the future (see appendix 3 for list of resource personnel).

3.2 Social activities

When designing the YLF, the organizers took into account the experience of own and past, LOICZ capacity-building activities and results from international studies, clearly demonstrating the importance of teaching and learning environments. Consequently, emphasis was placed not only on scientific training, but also on advancing soft and communicative skills, on common learning in multi-cultural settings to provide social learning opportunities through peer interaction, as well as on joint social activities to create sustainable working relationships and individual friendships. With the intention to rearrange the hierarchy of social relations and to promote a wide range of soft skills, different activities have been initiated during the YLF.

- ◆ On 7 September, the organizers arranged an ice breaker in the hotel lobby to warm up the conversation, reinforce the objectives of the YLF, and ensure that participants enjoy their training week. After words of welcome from Juergen Weichselgartner, Cheng Tang, Alice Newton, Akio Takemoto, and Ping Shi, the participants had the opportunity to engage in early conversation with their peers and trainers. Two more culinary occasions followed: together with the participants of the LOICZ OSC, YLF participants were invited to join the Welcome Banquet at the Golden Gulf Hotel (12 September) and the official OSC dinner at the Orient Haitian Hotel (14 September)
- ◆ On 8 September, the participants together with the APN resource persons had their YLF inception dinner. After the first day of their Proposal Development Training Workshop, the YLF enjoyed the traditional cuisine of Yantai. Juergen Weichselgartner and Cheng Tang took the opportunity to express their gratitude to APN for their support and efforts. On behalf of APN, Akio Takemoto, thanked both organizers for their hard work in the lead up to the YLF and his resource persons for their continued support to APN activities.



- ◆ On 10 September, the YLF participants – accompanied by Juergen Weichselgartner, Cheng Tang, and Mark Pelling – gathered for a badminton and bowling tournament. Although hardly acknowledged and funded, such kind of social activities were considered crucial and thus have been included in the YLF design in order to reduce power structures and to reshuffle social hierarchies and the participants’ portfolio of different types of abilities and qualities. Most important, the sportive evening was real fun and an enjoyable component of the YLF. Each YLF participant was appointed a senior scientist (YLF mentor) to facilitate the exchange of ideas and scientific networking.
- ◆ On 11 September, an organized field trip along the Shandong coast (see map) provided the opportunity to meet and interact with the members of the LOICZ Scientific Steering Committee (SSC), who just finished their annual SSC meeting. Following a nice journey along the coast, the Rongcheng Ocean and Fisheries Bureau invited the group for a traditional lunch. Afterwards, the group visited a local fishing village and had time to discuss coastal issues with representatives of the coastal community. The field trip finished with a nice walk along a beautiful beach and the group went back to Yantai to join another social networking activity: the OSC reception.
- ◆ On 15 September, the final training seminar and YLF evaluation was held at the Yantai Institute of Coastal Zone Research. After a guided tour through the institute provided by Cheng Tang, the participants enjoyed their last lunch at the neighboring restaurant.

3.3 Feedback from the participants

Based on a questionnaire to be completed by the YLF participants, it can be concluded that the YLF 2011 was a great success. The feedback from the participants (n = 25) is listed below:

Evaluation of the ...	Excellent	Good	Ok	Poor	Very poor
A) ... YLF as a whole	17	8	0	0	0
B) ... preparation of the YLF ¹	15	10	0	0	0
C) ... overall design of the YLF ²	14	10	1	0	0
D) ... venue of the YLF ³	12	10	3	0	0
E) ... logistics of the YLF ⁴				0	0
F) ... individual components of the YLF					
Training seminars	18	5	2	0	0
Social activities ⁵	12	10	2	1	0
OSC sessions	10	11	3	0	0

1 = Flyer, announcement, website, handbook

2 = Training seminars, social activities, OSC sessions



3 = YLF training room, OSC session rooms

4 = Airport transfer, hotel, coffee breaks

5 = Field trip, bowling, badminton, YLF and OSC dinners

G) What did you like most?

- ☐ Training seminars and field trip are my favourites; I benefit a lot from the training, both academic knowledge and capacity building.
- ☐ What I like most is that we are all from different countries. Therefore, I learnt a lot not just from the actual class, but maybe a lot more indirectly from the participants. YLF 2011 had broadened my perspective and knowledge and given some idea on what should I do in the future. Thanks to APN, Dr. Juergen and Dr. Cheng Tang..
- ☐ Bowling, field trip, proposal session.
- ☐ Social activities, meeting and getting to know young scientists and coastal managers from various disciplines from around the world, establishing networks. Training sessions were also enjoyable.
- ☐ I liked the huge diversity of participants and trainers. The sessions were well-organised but can be improved in future fora.
- ☐ The interactions and discussions within the various groups during group work. The expertise of the varied trainers was quite excellent! The diversity of the participants in nationality and background was really good.
- ☐ I liked training seminars and OSC sessions because we got new knowledge.
- ☐ I liked the training seminars and social activities.
- ☐ To get in touch with the trainers. This format makes it possible to make better contacts and to learn deeply the science of global environmental change.
- ☐ New concept like integration of science and society and work together for a better world.
☐ Workshop with Mark during the OSC.
- ☐ Training seminars: this is very useful because this activity provide opportunities for young scientists to expose themselves with many experts to learn a lot, improving multi-cultural working environment, broadening their mind. It is better than just sitting down and read a book in your own country, but coming here is worth reading a hundred books.
- ☐ Don't have to pay extra money except registration fee, such as speakers.
- ☐ Interdisciplinary approach; applying methods learned on participant's own project.
- ☐ The opportunity to meet young scientists from all over the world.
- ☐ The discussion session just after the training in the session room. It made a good



brainstorming and interaction between the trainer and the trainees.

- ☑ All the trainers are nice and the training courses were excellent.
- ☑ The training seminars.
- ☑ APN's project preparation workshop.
- ☑ I liked the training seminars; because of brainstorming, it always gives me inspiration and we can review the problems of different countries.
- ☑ I liked most the general knowledge on the land-ocean interaction zone that I got; not only for my research, but also in my daily life. And the training of scientific writing was very good and is important to me.
- ☑ Meeting young scientists from different backgrounds, cultures, countries and sharing knowledge.
- ☑ The opportunity to meet other people from other countries and cultures.
- ☑ The open, free, international and relax atmosphere of YLF seminars are pretty good. I enjoyed it very much, especially all participants are encouraged to discuss and talk. This YLF providing an access to OSC sessions is a great idea. Field trip including amenity view and education is very impressive, even I have been in the Shandong province for two years. While I think the quality of the workshop suited the average level of the participants, I especially enjoyed connecting with researchers from my field, in the light of future research projects and publications. The outcomes for me include: connection with APN activities; connection with UNU activities.

H) Please suggest improvements

- ☑ Provide more information about member's professional experience ahead of the forum. For example, we can put a profile, not just the title of our poster in the handbook, or even the whole poster is acceptable to me, so we can get to know each other deeper in advance especially about the research interest. It will help a lot grouping, discussion and proposal writing during the training course. Maybe APN's training can be arranged after all the academic training when we are more familiar with each other and capable to work on a better proposal.
- ☑ Mostly, I am more than satisfied. If there is a room for improvement, it would be the preparation of the event, since we got a lot of information at the last minute. I would also like it if we have some free time to go shopping together ;-). It is also nice if we can apply some small gesture to create environmental awareness among us, like not using too much bottles in the workshop.
- ☑ No overlap between OSC and YLF; opportunity for participants to give oral presentation at OSC.
- ☑ Information overload at times – though the training sessions were informative, it was pretty intense. Send pre-activity reminders at least a week before the training starts. Group work in super-groups is very hard; maybe have smaller groups to facilitate discussions. ☑ Please try to avoid too many printouts. Soft copies were provided so I think they are enough. As for the YLF



handbook, ordinary paper is enough as well; photo paper is not appropriate I think.

- ☒ More group discussions and soft skills training with less lecture sessions. The schedule was really packed with useful lectures but more discussions would be quite good to encourage better quality assignments and ideas.
- ☒ I hope more time for the field trip than in the class. Maybe you have many time for the buying something like souvenir.
- ☒ More, more social activities. Focus on field trip with lessons.
- ☒ It was an excellent training, but a little bit tiring. I think that it would be more gainful if all the training finishes before the OSC starts. The social activities were great, but at the field trip we did not receive enough information about the places we visited. The OSC sessions were ok due to many reasons; a lot of talks were not so good and we were not able to choose the ones that we want to follow (training and session at the same time).
- ☒ Spread message all over the world and make available LOICZ and YLF findings to all other people.
- ☒ I suggest adding a session on personal academic presentation (5-10 min) to strengthen the academic identification at the beginning of the programme.
- ☒ For social activities (field trip), there should be some other activities that participants can spend time to interact with each other, e.g., dividing participants in a group (4-5 each).
- ☒ Held in other city, don't do it in the same place, it will be great.
- ☒ A bit more time for exercises; maybe a bit less group work and more exercise including the project of every participant; no parallel training units to OSC sessions would be good.
- ☒ Reduce bottle water use; encourage people to use cups.
- ☒ After concluding my training session I would like to suggest expanding the training schedule. Subject needs to more specific and let the trainers enough time to capture and analyse the whole subject matters.
- ☒ I think it will be much better when the trainers have different research interest.
- ☒ YLF can be organised more frequently; if possible maybe at regional level also.
- ☒ I think everything is fine. Thanks all!
- ☒ Sometimes Wi-Fi is really needed, for people to find important material. All the rest is pretty well. Thanks to LOICZ, thanks to the APN, thanks to Dr. Juergen and Dr. Tang, I benefit a lot and I am sure it will be a pretty memory in my life. See you next time.
- ☒ Maybe ask participants ahead of the training seminars what specifically they might like to learn about or need further training on, e.g., specific topics or issues.
- ☒ To have in advance not only e-tickets but also the timetables; put in the same room people that are leaving at the same days.



- ☒ The preparation, content and development of the workshops have been excellent. I might suggest in the future to: reduce differences within the levels of selected participants; avoid overlapping YLF of sessions with OSC.

4.0 Conclusions

The Young LOICZ Forum 2011 brought together 26 early-career coastal scientists and young policy makers from around the world. During one week, the participants had the opportunity to establish links and networks for their future research, to share interdisciplinary knowledge from different parts of the world, and to develop a set of skills that are vital for their future career. The same can be said for the YLF trainers and the members of the LOICZ SSC.

The design of the YLF took into account that young scientists and managers, particularly in developing countries, lack opportunities to get in contact with international institutions, to access research networks and to obtain supervision from leading experts. Thus the YLF went far beyond traditional training of scientific skills, but provided a unique learning opportunity for networking, acquiring transferable and soft skills.

The YLF was a successful LOICZ capacity activity in many aspects. The trainees took the opportunity to learn from their trainers, mentors and colleagues by active participation, as well as expanded their knowledge on scientific techniques and soft skills that will add value to their own future work. The two-day Proposal Development Training Workshop provided by the APN as an important component of the YLF provided an important opportunity for sharing knowledge on proposal development, submission, and selection process (see APN: Proceedings APN LOICZ Proposal Development Training Workshop, Kobe, 2011). Moreover, it increased awareness of the APN among the participants and their capacity to develop competitive proposals not only for APN's annual calls, but also for other funding agencies. The most important capacity development outputs are the least tangible: the opportunity for YLF participants to expose their own research and experiences to international peers as well as the dissemination of cutting-edge global environmental change science to the next generation of scientists and managers, as well as the "trickle-down effects" and "global networking" that an event such as the YLF creates and fosters. The launch of a Young LOICZ Alumni via the recently set-up fan page on Facebook will maintain close programmatic and substantive ties among participants, with LOICZ, and between participating institutions. It also provides the possibility to follow-up with specific surveys and monitoring the significance of the YLF and the career development of trainees. Finally, the organizers express their gratitude to all supporters of the YLF, the resource persons, and, last but not least, to all participants

5.0 Future Directions

LOICZ is engaged in academic lecturing, summer schools, children's universities, high school visits and in hosting students and pupils to facilitate internships. Two EU Erasmus Mundus Master Programmes 'Water and Coastal Management' and 'Ecohydrology' are LOICZ-affiliated. A new PhD one on 'Marine and Coastal Management' is starting soon. There are many intercross with APN goal, especially in Asia-Pacific region, the future directions would be use the existing platform, the



regional node to strengthen this effort.

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Appendix

1. Agenda of Training Workshop “Young LOICZ Forum 2011: Capacity Building in the Asia-Pacific Region”, Yantai, China (8 Sep. – 15 Sep. 2011)

Young LOICZ Forum 2011, 8-15 September, 2011, Yantai, China								
	LOICZ SSC Meeting			Field Trip	LOICZ Open Science Conference			
Day	1	2	3	4	5	6	7	8
Date	8 Sep.	9 Sep.	10 Sep.	11 Sep.	12 Sep.	13 Sep.	14 Sep.	15 Sep.
09:30	Introduction	TS1	TS2	SA3	TS5	TS7	SSA-SSD	Evaluation
10:30	Break							
11:00	TS1	TS1	TS3	SA3	TS5	TS8	SSA-SSD	Closure
12:30	Lunch							
14:00	TS1	TS1	TS3	SA3	TS5	SSA-SSD	SSA-SSD	
15:30	Break							
16:00	TS1	TS1	TS4	SA3	TS6	SSA-SSD	SSA-SSD	
17:30	Dinner							
19:00	SA1		SA2		SA4		SA5	

No.	Activity	Day	Time	Min.
Training Seminars				
TS1	Proposal Development Training Workshop (L. Stevenson)	1	11:00 – 17:30	270
TS1	Proposal Development Training Workshop (L. Stevenson)	2	08:30 – 17:30	390
TS2	Why not becoming an Influential Scientist? Scientific Writing and Publishing (J. Weichselgartner)	3	08:30 – 10:30	120
TS3	Integrated Coastal Management: Learning from Practice (R. Ramesh)	3	11:00 – 15:30	180
TS4	Coastal Challenges: Monitoring Human Impacts on Coastal Zones (F. Colijn)	3	16:00 – 17:30	90
TS5	Risk and Vulnerability: From Theory to Capturing Key Factors through Questionnaires (F. Renaud / J. Birkmann)	5	08:30 – 15:30	300
TS6	How to do Integrative Science? Addressing Environmental Challenges (A. Ignaciuk)	5	16:00 – 17:30	90
TS7	Economic Valuation of Coastal Ecosystems: A Fad or Reality? (J. Roy)	6	08:30 – 10:30	120



TS8	Indicating Adaptive Capacity in Urban Risk Management Systems (M. Pelling)	7	08:30 – 10:30	120
Social Activities				
SA1	YLF Inception Dinner (C. Tang & J. Weichselgartner)	1	18:30 – 21:30	180
SA2	Badminton Tournament: Sunshine Club (C. Tang & J. Weichselgartner)	3	18:30 – 21:30	180
SA3	Field Trip: Rongcheng City (together with LOICZ SSC) (C. Tang & J. Weichselgartner)	4	08:30 – 18:30	600
SA4	Welcome Reception YIC (C. Tang & J. Weichselgartner)	5	18:30 – 20:30	120
SA5	OSC Dinner (C. Tang & J. Weichselgartner)	7	18:30 – 21:30	180

2. List of participants

Applicant	Affiliation/Country	Gender	Nationality	Poster Title	Email
DANG-HOAI, Nhon	Institute of Marine Environment and Resource, Hai Phong City, Viet Nam	male	Viet Nam	Sedimentation rates and accumulation metals in coastal sediment of Hai Phong Estuaries, Viet Nam	nhondh@imer.ac.vn
HALDER, Pronab Kumar	Centre for Global Change, Dhaka, Bangladesh	male	Bangladesh	Impact on coastal land during storm surge in river mouth systems under climate change: a case study of Cyclone Aila in polder-5	pronab.halder@gmail.com
HUANG, Dekun	East China Normal University, Shanghai, China	male	China-Beijing	Particle dynamics of the Changjiang estuary by natural radionuclides	hdek2004@163.com
JIN, Guangzhe	Hiroshima University, Japan	male	China-Beijing	Effect of artificial dike construction on sediment phosphorus retention in river mouth area	jinguangzhe@live.cn
KUMAR, Mukesh	Jawaharlal Nehru University, New Delhi, India	male	India	Assessing vulnerability of small island aquifers in Arabian Sea using DPSIR framework	muke.jnu@gmail.com
LI, Mingjie	Helmholtz-Zentrum Geesthacht, Germany	female	China-Beijing	Synergistic monitoring of chlorophyll concentration in coastal waters based on MERIS and Ferrybox data	Mingjie.Li@hzg.de
LI, Yangfan	Nanjing University, Nanjing City, China	male	China-Beijing	The impact of urban sprawl on landscape and environmental change in Lianyungang, China	yangf@nju.edu.cn
LIU, Xin	Yantai Institute of Coastal Zone Research, China	female	China-Beijing	Do and how Chinese people care their environment?	Xin.icbm@gmail.com
OMUOMBO, Christine	University of Nairobi, Kenya	female	Kenya	Towards sustainable tourism along the Kenya coast	omuomboatieno@gmail.com



ROKOMATE, Akosita	Community Centred Conservation, Fiji and the South Pacific Programme, Fiji	female	Fiji	Cakau Bula: managing the marine resources of the Great Sea Reef, Fiji	ako@c-3.org.uk
THAMAN, Baravi	University of the South Pacific, Suva, Fiji	male	Fiji	"Those that returned": a retrospective taxonomic assessment of the recovery of a managed Fijian fishery: Navakavu, Fiji	baravi5@yahoo.com
VILLAMOR, Shiela	Graduate School of Kagoshima University, Kagoshima, Japan	female	Philippines	Geographic information system for habitats in Nogas Island, Philippines	goldentrevally33@yahoo.com
YULIUS	Agency for Marine and Fisheries Research and Development, Ministry of Marine and Fisheries, Indonesia	male	Indonesia	Islands identification in Lingga County Riau Archipelago Province Base on toponymy method	yulius.lpsdkp@gmail.com
ZHOU, Xin	Peking University, China	female	China-Beijing	Space optimization of wetlands under rapid urbanization in Tianjin Binhai New Area	zhouxincues@pku.edu.cn
TANGWANIC HAGAPONG, Siwaporn	School of Environment, Resources and Development, Pathumthani, Thailand	female	Thailand	Vulnerability to climate change in coastal cities: a case study of Thailand	st11558@ait.ac.th
AHMAD KAMIL, Khairunnisa	University of Malaya, Malaysia	female	Malaysia	Travel without passport: Be the plastic bags, to be the world traveller	nisakamil_um@yahoo.com.my
CHAND, Bimal Kinkar	University of Animal and Fishery Sciences, Kolkata, India	male	India	Capacity building and skill development programme on climate-resilient aquaculture in Indian Sundarban	kinkarbimal@yahoo.co.in
CHIA-WEI, Chen	National Taiwan Normal University, Taipei, Taiwan	male	China-Taipei	A research on green consumption in Taiwan: a case study of Taiwan Homemaker's Union Consumer Cooperatives	trombone0926@hotmail.com
SANO, Marcello	Griffith University, Australia	male	Italy	Coastal urbanisation in a changing climate: the case of South East Queensland, Australia	m.sano@griffith.edu.au
SCHMIDT, Anke	Leuphana University Lüneburg, Germany	female	Germany	Developing strategies for viable coastal protection in urban areas	anke.schmidt@uni.leuphana.de
SHADWICK, Elizabeth	CSIRO, Hobart, Australia	female	Canada	The CO2 system in Arctic coastal waters	elizabeth.shadwick@csiro.au
WU, Chia-Chi	University of Bonn, Germany	female	China-Taipei	Common pool resources management in linked social-ecological systems: a case of Penghu Archipelago, Taiwan	chiachiwu@hotmail.com
YUNG-SHIANG, Chang	National Taiwan Normal University, Taipei, Taiwan	male	China-Taipei	Coastal management for ecocultural diversity: a case study of local residents attitudes toward the green sea turtles on Wangan Island, Penghu Archipelago	handsomeroom@gmail.com
CASTELLANO S PEREZ BOLDE, Carlos	National Polytechnic Institute, Merida, Mexico	male	Mexico	Coastal urbanization, remote sensing and GIS: Yucatan, Mexico: a case study	carloscpb@yahoo.com



MARQUES DA SILVA, César	State University of Campinas, Brazil	male	Brazil	Urbanization, mobility and environment at São Paulo State coastal zone, Brazil	cesar@nepo.unicamp.br
Dawei Shi	The Hong Kong University of Science and Technology, China	Male	China	Observer	dvshi1987@gmail.com

3. List of resource persons

No	Name	Designation	Organization	Email
1	Joern Birkmann	Research fellow	UNU Institute for Environment and Human Security, Bonn	birkmann@ehs.unu.edu
2	Zhongyuan Chen	Professor	East China Normal University, Shanghai	z.chen@sklec.ecnu.edu.cn
3	Wenjie DONG	Executive dean	Beijing Normal University, Beijing	dongwj@bnu.edu.cn
4	Franciscus Colijn	Professor, director	Helmholtz-Zentrum Geesthacht, Geesthacht,	franciscus.colijn@hzg.de
5	Xiaojun Deng	Programme officer	Asia-Pacific Network for Global Change Research, Kobe	xdeng@apn-gcr.org
6	Ada Ignaciuk	Program officer	Earth System Science Partnership, Paris	Ada.Ignaciuk@essp.org
7	Konstantin Lutaenko	Research fellow	Institute of Marine Biology, RAS, Vladivostok	lutaenko@mail.ru
8	Mark Pelling	Research fellow	King's College London	mark.pelling@kcl.ac.uk
9	RAMESH, Ramachandran	Professor, Director, LOICZ new chair	Anna University, Chennai	rramesh_au@yahoo.com
10	RENAUD, Fabrice	Program manager	UNU Institute for Environment and Human Security, Bonn	renaud@ehs.unu.edu
11	Joyashree Roy	Professor, LOICZ SSC member	Jadavpur University, Kolkata	joyashreeju@gmail.com
12	TAKEMOTO	Director	Asia-Pacific Network for Global	atakemoto@apn-



	O, Akio		Change Research, Kobe	gcr.org
13	WANG, Hanjie	Research fellow	Institute of Atmospheric Physics, CAS, Beijing	eerc2502@vip.sina.com
14	WEICHSEL GARTNER, Juergen	Science coordinator of LOICZ	Helmholtz-Zentrum Geesthacht, Geesthacht	j.weichselgartner@loicz.org

4. Funding sources outside the APN

<i>organisations</i>	<i>In kinds of support (US\$)</i>	<i>Co-funding (US\$)</i>
YIC/CAS	4,500	
IHDP-Taipei	6,000	
LOICZ	3,000	1,000
Springer-Beijing Office	1,000	
Oritenal Ocean Corp.	1,000	
Rongcheng Ocean and Fisheries Bureau	700	

5. List of Young scientist from APN region who was supported by APN funds

Applicant	Affiliation/Country	Gender	Nationality	Poster Title	Email
DANG-HOAI, Nhon	Institute of Marine Environment and Resource, Hai Phong City, Viet Nam	male	Viet Nam	Sedimentation rates and accumulation metals in coastal sediment of Hai Phong Estuaries, Viet Nam	nhondh@imer.ac.vn
HALDER, Pronab Kumar	Centre for Global Change, Dhaka, Bangladesh	male	Bangladesh	Impact on coastal land during storm surge in river mouth systems under climate change: a case study of Cyclone Aila in polder-5	pronab.halder@gmail.com
KUMAR, Mukesh	Jawaharlal Nehru University, New Delhi, India	male	India	Assessing vulnerability of small island aquifers in Arabian Sea using DPSR framework	muke.jnu@gmail.com
ROKOMATE, Akosita	Community Centred Conservation, Fiji and the South Pacific Programme, Fiji	female	Fiji	Cakau Bula: managing the marine resources of the Great Sea Reef, Fiji	ako@c-3.org.uk
VILLAMOR,	Graduate School of Kagoshima University,	female	Philippines	Geographic information system for habitats in Nogas Island,	goldentrevally33@ya



Shiela	Kagoshima, Japan			Philippines	hoo.com
YULIUS	Agency for Marine and Fisheries Research and Development, Ministry of Marine and Fisheries, Indonesia	male	Indonesia	Islands identification in Lingga County Riau Archipelago Province Base on toponymy method	yulius.lpsdkp@gmail.com
ZHOU, Xin	Peking University, China	female	China-Beijing	Space optimization of wetlands under rapid urbanization in Tianjin Binhai New Area	zhouxincues@pku.edu.cn
TANGWANI CHAGAPON G, Siwaporn	School of Environment, Resources and Development, Pathumthani, Thailand	female	Thailand	Vulnerability to climate change in coastal cities: a case study of Thailand	st111558@ait.ac.th
AHMAD KAMIL, Khairunnisa	University of Malaya, Malaysia	female	Malaysia	Travel without passport: Be the plastic bags, to be the world traveller	nisakamil_um@yahoo.com.my
Dawei Shi	The Hong Kong University of Science and Technology, China	Male	China	Observer	dvshi1987@gmail.com

6. Glossary of Terms

Include list of acronyms and abbreviations

APN	Asia-Pacific Network for Global Change Research
ECS	Early-Career Scientist
ESSP	Earth System Science Partnership
EU	European Union
FTI	Fast Track Initiative
GEC	Global Environmental Change
GEF	Global Environment Facility
GKSS	Helmholtz Research Centre Geesthacht
GPA-Marine	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
IA	International Assessment
ICSU	International Council for Science
ICZM	Integrated Coastal Zone Management
IGBP	International Geosphere-Biosphere Programme
IGFA	International Group of Funding Agencies for Global Change Research
IHDP	International Human Dimensions Programme on Global Environmental Change
IPO	International Project Office
LOC	Local Organising Committee
LOICZ	Land-Ocean Interactions in the Coastal Zone
OSC	Open Science Conference
PACES	Polar Regions and Coasts in a changing Earth System
PDTW	Proposal Development Training Workshop
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia



R&S	Research and Studies
SA	Social Activity
SCOR	Scientific Committee on Oceanic Research
SOLAS	Surface Ocean - Lower Atmosphere Study
SS	Scientific Session
SSC	Scientific Steering Committee
TS	Training Seminar
UNESCO- IOC	Intergovernmental Oceanographic Commission
UNU-EHS	United Nations University, Institute for Environment and Human Security
WG	Working Group
WON	World Ocean Network
WSSD	World Summit on Sustainable Development
YIC	Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
YLF	Young LOICZ Forum

