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Inter-Governmental Meeting (IGM)/
Scientific Planning Group (SPG) Meeting

PROCEEDINGS

New Delhi, India, 26–27 April 2017



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Message from the Secretariat Director

THE 22nd Joint Intergovernmental Meeting and Scientific Planning Group Meeting (IGM/SPG Meeting) was held on 26–27 April 2017 in New Delhi, India. The Meeting was hosted by the Ministry of Environment, Forest and Climate Change, Government of India.

The Intergovernmental Meeting (IGM) approved the work programme for fiscal year 2017, which includes new and continuing projects under the Collaborative Regional Research Programme, the Scientific Capacity Development programme, and a special collaborative research programme that targets young and early career scientists. The IGM also considered and approved plans for new activities to be conducted by the subregional committees for South Asia and Southeast Asia.

A key outcome of the IGM/SPG Meeting is the approval of the recommendations by the Task Force for the Future Development of APN. I believe implementing these recommendations will improve the effectiveness of APN, especially in addressing the needs of member countries in strengthening the interaction between the science and policy communities and conducting research on global change issues that are relevant to policy. To this end, the IGM requested the Task Force to examine further on new or improved modalities to support global change research and capacity development in the Asia-Pacific region.

I hope this publication, which serves as an official record of the Meeting, is a useful reference for you as a member of APN. Taking this opportunity, I would like to extend my heartfelt appreciation to all national Focal Points, members of the Scientific Planning Group and Capacity Development Committee, invited experts and all stakeholders for their contribution and commitment to the work of APN.



Seiji Tsutsui
Director,
APN Secretariat



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 INDIA J. R. Bhatt (32)
 A. Raghava* (16)
 INDONESIA Subarudi* (40)
 JAPAN A. Takemoto
 K. Kumamaru* (9)
 MALAYSIA Md. H. Abdullah* (12)
 PHILIPPINES M. C. Amaro (31)
 SRI LANKA D. Somirathna* (8)
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 CHINA W. Dong (36)
 INDIA H. Borgaonka (7)
 INDONESIA E. Adiningsih (28)
 JAPAN K. Fukushi (10)
 MALAYSIA F. B. Yunus (26)
 NEPAL M. L. Shrestha (37)
 NEW ZEALAND W. A. Matthews* (30)
 PHILIPPINES H. A. Adornado (11)
 REPUBLIC OF KOREA S. J. Meyong (18)
 RUSSIAN FEDERATION A. Sterin (13)
 THAILAND J. Boonjawat (27)
 VIET NAM C. K. Ngo (25)

► **Honoured Guest**

R. R. Rashmi (33)

► **Invited Expert**

R. Fuchs (41)
 L. Heath (19)
 K. Koshy (39)
 S. Herath
 S. Moten (38)

► **Secretariat**

D. Condorini (6)
 X. Deng (4)
 H. Dinh (24)
 Y. Imanari (5)
 L. A. Stevenson
 R. Tamura (2)
 H. Tsujihara (34)

* Designated Alternate of nFP or SPG/CDC Member

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Section 1

Chairperson's Summary



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**The 22nd Joint Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Chairperson’s Summary of the 22nd Intergovernmental Meeting/Scientific Planning Group Meeting

Summary

This document serves as the official record of the 22nd Joint Intergovernmental Meeting/Scientific Planning Group Meeting held on 26-27 April 2017 in New Delhi, India.

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1. APN Members and designated alternates from Australia, Bhutan, China, India, Indonesia, Japan, Malaysia, Nepal, New Zealand, Philippines, Republic of Korea, Russian Federation, Sri Lanka, Thailand, United States of America and Viet Nam attended the 22nd Intergovernmental Meeting/Scientific Planning Group Meeting (IGM). Invited experts to the Steering Committee (SC), Scientific Planning Group (SPG) and Capacity Development Committee (CDC), and representatives from the international global change community such as the Climate Action Network South Asia and ICLEI Local Governments for Sustainability were present. A list of participants is attached to this summary as Appendix 1.

Inaugural Session

2. Mr Marcial C. Amaro Jr., national Focal Point (nFP) for the Philippines, gave a welcome remark on behalf of the SC to all participants, and expressed his appreciation to the Government of India for organizing the IGM and for the hospitality extended to all delegates. Mr Amaro Jr. then recalled the activities undertaken by the SC over the previous fiscal year (FY), highlighting discussions by the Task Force of APN Future Development (hereinafter referred to as the Task Force). In closing, he encouraged all delegates to actively share their expertise and experiences in the IGM to contribute to further develop and advance APN.

3. Dr J. R. Bhatt, in his capacity as the nFP for the host country and on behalf of the Government of India, welcomed all delegates to New Delhi and encouraged all participants to have productive deliberations in the IGM. He then introduced the launch of long-term ecological observatories and a carbonaceous aerosols programme in India and thanked the guest of honour, Mr R. R. Rashmi, Special Secretary, Ministry of Environment, Forest and Climate Change, Government of India, for his guidance and leadership that led to the launch of these programmes. He invited all member countries to explore possibilities of collaborative research in the said areas. APN, said Dr Bhatt, has been a platform for exchanging ideas and encouraging excellence in science, especially among developing countries in the Asia-Pacific region. He attributed the success of APN to the passion of all member countries that contribute in their own ways in the scientific and technical endeavours to address a global problem. In closing, he extended his welcome again to all members and encouraged productive deliberations in the IGM.

4. Mr Hiroshi Tsujihara, Director of the APN Secretariat, expressed his thanks to all participants for their attendance and appreciation to the Ministry of Environment, Forest and Climate Change, Government of India, for hosting the IGM. Mr Tsujihara introduced the history of APN and its achievements in enhancing collaborative research, capacity development and science-policy interactions in global change. He noted the stronger sense of ownership by members, and closer communication between nFPs and SPG members through the formation of Subregional Committees (SRCs). Thanking the strong commitment by all governments and scientists, and the continuous support by the Hyogo Prefectural Government of Japan, Mr Tsujihara pointed out the recent efforts in the world under the Paris Agreement to accelerate and intensify actions and investments needed for a sustainable low carbon and resilient future. In this connection, he stressed that APN must support member countries by enhancing efficiency and producing more tangible outcomes for sound policymaking based on better scientific knowledge. He invited members to consider the direction of the future development of APN by taking into account the consolidated report and recommendations to be presented under Item 9 by the Task Force. Thanking the efforts of the Task Force, he expressed his hope for a fruitful IGM and a stronger APN future.

5. Mr R. R. Rashmi, Special Secretary, Ministry of Environment, Forest and Climate Change, Government of India, declared the meeting open. Mr Rashmi welcomed the participants to Delhi and congratulated member countries for their commitment to APN, a joint regional initiative to counter global change challenges. He emphasized the scientific capacity and the importance of coordinating the

efforts of countries within the region to produce innovative findings that contributes to international policymaking. As countries assume new obligations under the United Nations Sustainable Development Goals (SDGs) and Nationally Determined Contributions (NDCs) under the Paris Agreement, Mr Rashmi said, greater and more focused environmental research coordinated by organizations like APN are needed to provide governments with strategies to respond to the challenges of global environmental change while ensuring future growth. He identified a number of priority areas as the most pressing in policy and societal needs, including water and mountain ecosystems, and emerging topics such as renewable energy, energy efficiency and sustainable consumption and production. Mr Rashmi further elaborated the new initiatives of India on black carbon and long-term ecological observatories, noting that these issues are not limited within India, and therefore invited APN and member countries to partner with India in advancing its efforts in this regard. In closing, he thanked all countries that support APN financially and in terms of scientific expertise.

Election of Chairpersons

6. Participants introduced themselves and the IGM elected, among the nFPs, Dr Bhatt as Chair, and Mr Amaro Jr. as Vice-Chair of the IGM.

Item 1. Adoption of the Draft Agenda and items of any other business

7. The Draft Agenda was adopted with the understanding that any pressing issue may be introduced subsequently in the course of the meeting if the IGM considers it necessary.

Item 2. Report from the Steering Committee and Secretariat

8. Mr Amaro Jr. reported on behalf of the SC on the work undertaken and action points addressed since the 21st IGM held in April 2016 in Zhengzhou, China. These include: project management; calls for proposals under the core programmes of APN; new pilot programme “Call for Proposals for Collaborative Research for Young Scientists (CRYSS)”; activities under thematic frameworks; subregional activities; Proposal Development Training Workshop (PDTW); Science-Policy Dialogue; scoping workshop on technology transfer; activities organized in collaboration with the Hyogo Prefectural Government, among others. He also provided information on the change of members, new outputs and publications, as well as major events that APN organized and participated during FY 2016.

9. Mr Yukihiro Imanari of the Secretariat presented the final financial report for FY 2015 for information of IGM and a financial status report for FY 2016, for IGM information and comment. He informed that as the Institute for Global Environmental Strategies (IGES), under whose administrative umbrella APN Secretariat operates, has decided to shift its fiscal year system from the period of 1 April to 31 March, to 1 July to 30 June, starting from 1 July 2017. Following the decision of IGES, he reported that current FY 2016 will be extended by three months, and that in future, fiscal years will start on 1 July.

10. Professor Roland Fuchs, Invited Expert to the SC and CDC from the United States of America, pointed out that cost items for SRC meetings and contingency allocations should not be categorized under administrative costs, as indicated in the financial reports presented. He suggested that in-kind contributions from research activities should be reflected in the reports, which would be useful in presenting a smaller disparity between the expenses for scientific activities and for administrative affairs.

11. Dr Andrew Matthews (New Zealand), Invited Expert to the SC and CDC, supported the suggestion by Professor Fuchs to recategorize the costs for SRCs and contingency funds. However, he suggested that the issue of in-kind contributions should be addressed carefully as the inclusion of in-kind contributions may make direct financial contributions appear disproportionately small. He stressed that

although a methodology of estimating in-kind contributions was developed, it is important to carefully consider the way to present the figures in financial reports so that it does not impact the significance of financial contributions from donor countries. Dr Matthews further pointed out that the Secretariat should not be seen as purely an administrative body due to the engagement of Secretariat staff in APN scientific activities. Therefore, he further suggested that the presentation of administrative costs be reviewed again as certain portions of other cost items such as travel costs should not be considered as administrative costs.

12. Mr Imanari indicated that the definition of in-kind contributions in APN context should be clarified. He agreed that financial reports should be presented in such a way that all Member Countries are agreeable to and noted that revisions will be made by recategorizing subregional activities and contingency funds, as suggested by Professor Fuchs. However, Mr Imanari requested that the issue of in-kind contributions be taken as an action point for further deliberation.

13. Mr Amaro Jr. reminded the IGM that under a subsequent agenda item, the recommendations by the Task Force would be presented, which includes suggestions on establishing a task force to consider issues on in-kind contributions within the wider context of resources development. He then proposed the Secretariat to prepare a terms of reference for the creation of the task force.

14. The Chair, acknowledging the significant in-kind contributions by member countries and projects, and recognizing the financial contributions by Japan, Republic of Korea and New Zealand, asked the IGM to consider the proposal made by Mr Amaro Jr., which was then agreed.

Item 3. Subregional Parallel Sessions

15. Members of the South Asia Subregional Committee (SA-SRC), Southeast Asia Subregional Committee (SEA-SRC) and Temperate East Asia Subregional Committee (TEA-SRC) met in parallel sessions.

Item 4. Subregional Committee Reports

4.1 South Asia Sub-Regional Committee

16. Speaking on behalf of the SA-SRC, Mr Jamba Tobden, SPG Member for Bhutan, reported the election of Dr Bhatt as the Committee Chair and Mr Tobden, himself, as the Vice-Chair. Mr Tobden reported that the SA-SRC reviewed and discussed action points of the 7th SA-SRC meeting and outputs of the collaborative approach workshop held back-to-back in Bhutan, stressing the view of the Committee that APN should continue to engage the organizations that were represented in the collaborative approach workshop. Mr Tobden further shared ideas and proposed actions for improving the SRC, including further communication with South Asian Association for Regional Cooperation (SAARC) and the SAARC Agricultural Centre. He reported on the agreement of India to host the 8th SA-SRC meeting in India, preferably in conjunction with a symposium on sustainable agriculture. He shared that the Committee identified “policy relevant research on implementation of Nationally Determined Contributions (NDCs)” as a priority research area for the subregion. Finally, the SA-SRC considered the idea of organizing a workshop on happiness index in relation to SDGs under a changing climate as worth exploring. Mr Tobden noted that collaboration with other organizations should not be restricted to funding aspects, as technical support in research, dissemination and communication are also areas that the SA-SRC believe are necessary.

17. The Chair pointed out that APN should explore linkages with regional and international organizations such as ADB, SACEP, UNESCAP, etc., by undertaking collaborative activities. With regard to collaborating with SAARC Agriculture Center, he suggested that the workshop can be hosted either by the Indian Council of Agricultural Research (ICAR) Institutes like Central Research Institute

for Dryland Agriculture (CRIDA) or National Academy of Agricultural Research Management (NAARM) in Hyderabad India and welcomed collaboration of more stakeholders to develop synergy. The Chair highlighted the discussions of the SA-SRC regarding how the experience of Bhutan in developing Gross National Happiness indicator could contribute to the attainment of SDGs in the context of a changing climatic regime. He encouraged members to further consider the idea, and develop activities through various bilateral and multilateral mechanisms, including APN. He also highlighted the importance of studies on the implementation of Nationally Determined Contributions under the Paris Agreement.

4.2 Temperate East Asia Sub-Regional Committee

18. Dr Akio Takemoto reported on behalf of the TEA-SRC that the Committee elected him as the Chair and Dr Soojeong Myeong, SPG Member for Korea, as the Vice-Chair. The TEA-SRC reviewed action points from the 21st IGM and agreed that PDTWs should be promoted in the subregion in the future, including by linking them with the CRYs programme. In this regard, he stressed the importance of communicating with young scientists for potential co-financing opportunities. The TEA-SRC preferred not to have a face-to-face meeting during the ensuing intersessional period, and suggested that time allocation for subregional meetings during the IGM be extended. Dr Takemoto shared the preliminary discussion of the Committee to hold a PDTW in Japan in 2018, where water-related issues could be set as the theme for proposal development. Finally, he shared four areas that the Committee identified as issues of common interest: (1) climate change effects on the global supply chain; (2) climate change and human security (water-food-energy nexus); (3) water treatment technology transfer in the context of the Paris Agreement; and (4) monsoon and climate change (extreme events).

19. Professor Kensuke Fukushi, SPG Member for Japan, shared with the IGM the opportunities offered by Kurita Foundation for meeting support. He strongly encouraged members to seek funding support from this foundation if they plan to organize water-related meetings in Asia. Dr Soojeong Myeong, pointed out that transfer of water treatment technology is in line with the focus of the Paris Agreement in the area of technology transfer, therefore, it was timely to seek cooperation in this area. Dr Takemoto further noted that the topic of water treatment arose out of the discussion on co-financing possibilities with private foundations. He indicated that it may be interesting to develop this idea into a framework activity in the future.

20. Responding to a question by Dr Erna Sri Adiningsih, SPG Member for Indonesia, on how to proceed with activities addressing the topics outlined in the presentation, especially those related to climate change, Dr Takemoto clarified that the list represents areas of interests suggested by TEA-SRC members, which are not only of domestic interests but also of global interests related to socio-economic issues. Therefore, it may be worthwhile to support regional research on this topic. Dr Myeong added that the topic of global supply chain was added because the TEA-SRC saw private sector engagement as crucial in addressing the issue of climate change impacts and technology transfer.

21. Relating to the discussions to a new approach to better reflect the needs of member countries, especially from the policymaker perspective into APN activities, Dr Matthews noted that such a new approach may be a solid step towards a more effective APN in responding to the needs of member countries. He encouraged participants to contribute actively to the discussion in this regard in a subsequent agenda item, report by the Task Force on the future development of APN, to be discussed the following day.

22. Mr Amaro Jr. reminded participants about the Technology Transfer Scoping Workshop held in December 2016 in Kobe, Japan, and pointed out that further discussion on wastewater treatment could be undertaken as part of the follow-up work related to technology transfer.

4.3 Southeast Asia Sub-Regional Committee

23. Dr Monthip Sriratana, nFP for Thailand, reported on behalf of the SEA-SRC which she was elected as Chair and Dr Henry Bastaman, nFP for Indonesia (represented by Dr Subarudi) was elected as Vice-Chair. Dr Sriratana reported on the progress and outcomes of activities since the last IGM, and shared the future plan of the Committee for FY 2017. The SEA-SRC identified the following as priority areas of the subregion: (1) disaster risk reduction and resilience to climate change; (2) community resilience to climate change impacts in vulnerable areas; (3) energy, ecosystems in the context of climate change and low carbon society; and (4) water, agricultural productivity and nutrient management.

24. In response to a question by Professor Fuchs on whether the proposed workshop on disaster risk reduction duplicates earlier work, Dr Sriratana noted that there will be no duplications since the proposed activity will address the limited preparedness of countries in the region due to the lack of equipment, know-how and monitoring for early warning. Dr Sriratana said APN could play an important role in supporting the development and sharing of knowhow in this regard. She emphasized the need for the harmonization of guidance on disaster risk reduction in areas such as agricultural insurance, adding that planning is needed for coordinated efforts. Finally, Dr Sriratana stressed the need to identify gaps in scientific knowledge on the harmonization of such guidelines.

Item 5. Activities in 2017

25. Ms Dyota Condorini of the Secretariat reported on activities to be conducted in FY 2017 under core programmes and frameworks, activities to be jointly organized with the Hyogo Prefectural Government of Japan, and other science and policy events. Dr Chi Kim Ngo, SPG member for Viet Nam, shared a proposal for a workshop entitled “Technology needs assessment on climate change mitigation and adaptation in Southeast Asia: Experience sharing on technology transfer”. Mr Xiaojun Deng of the Secretariat shared plans for new publications and communication activities, including the development of a publication policy.

26. Dr Takemoto asked whether APN could secure sufficient registrations to participate in events at the 23rd Session of the Conference of Parties (COP 23) to the United Nations Convention on Climate Change (UNFCCC). He further pointed out that if an APN member participates in COP 23, then having this member to represent APN at the conference would save the budget allocated.

27. The Chair underlined the importance of visibility of research outputs, adding that they should go beyond journal publications and create a larger impact in the community. Therefore, he approved of the development of a publication policy, inviting all members, including nFPs, to contribute. Further, he suggested that a publication on 1.5 °C scenario would be desirable and would increase the visibility of APN in the global policy community.

28. Dr Adiningsih recalled the large amount of scientific journal articles published from APN projects and noted that APN should ensure these publications are well documented for easy access. In addition, she stressed the importance of data collected using APN funds, which should also be deposited on the APN website for wider access, as required by the data management policy of APN.

Item 6. Budget Plan and Work Programme

29. Mr Imanari presented a draft work programme and resource allocation plan, and provided explanation on each line item contained in the resource allocation plan.

30. Dr Takemoto expressed his appreciation to the continuous financial support provided by the governments of New Zealand and the Republic of Korea. Also thanking various countries for their in-kind support, especially the host of this IGM and other APN events, he requested countries to provide

financial contributions to APN, particularly for its core activities. He reminded IGM of the imbalanced funding situation where Japan provides over 90% of financial resources to APN—an unhealthy situation for an intergovernmental network. He further proposed to remove the budget allocation for a subregional committee meeting for TEA, citing the previous decision of the TEA-SRC. Further, Dr Takemoto asked the Secretariat to close projects which started in FY 2013 or earlier.

31. Dr Matthews reiterated that the action point agreed on previous day regarding the presentation of administrative and operational costs must be addressed, adding that the contingency fund in the draft budget should be listed as resources carried forward. On in-kind contributions, he stressed the importance for APN to examine, through a task force, the best approaches to reporting in-kind contributions and presenting them in a way that is agreeable to donors and other members. He agreed with the suggestion of Dr Takemoto of closing projects properly and noted that it is important to maintain a transparent reporting approach reflecting the status of projects.

32. The Vice Chair recalled the agreed action points on adjusting the reporting format, including administrative costs and in-kind support, and developing a terms of reference for the creation of a working group to address other financial concerns. He pointed out reconciliation between budget item on resources carried forward and a related footnote.

33. Professor Fuchs pointed out that reflecting in-kind contributions in financial reporting represents a change in how APN portrays its projects, which in essence could be considered as co-funded projects in collaboration with various partners. In addition, he suggested that the budget should not be discussed in detail at the IGM, which would be in line with the recommendation by the Task Force on APN Future Development. Regarding how to reassign the funds originally allocated for TEA SRC activities, Professor Fuchs suggested introducing a category called “programme development”.

34. The IGM approved the proposed work programme and budget for FY 2017 subject to revision of some elements as per the agreed action points. The updated work programme and budget is attached as Appendix 2 of this Summary.

Item 7. Report by the Scientific Planning Group

35. In his capacity as SPG Co-Chair, Professor Fukushi presented the selected proposals from the 2016 calls for proposals under CRRP and CRYs, for IGM approval. He reported the results of implementing an improved review system, which has improved effectiveness by streamlining the process and strengthening the involvement of external reviewers. He shared with IGM the emerging issues and priorities for FY 2017 identified by the SPG, and reported on the new composition of the SPG Sub-Committee (SPG-SC) following an election which has held the day before the IGM.

36. Dr Takemoto thanked the efforts of SPG members in evaluating proposals for the CRRP programme. He suggested that in the statistics of project proponents, their nationality, rather than the country where they are based, should be included as an important indicator to measure the impact of APN in terms of increasing scientific capacity of researchers in APN member countries.

37. Professor Fuchs asked whether the recommended CRRP proposals are linked to the list of prioritized research areas. He also asked whether there would be any conflict of interest for an IGES researcher to be funded by APN. Further, he pointed out that the scale of APN projects is limited to capture a broad interest by stakeholders, and therefore suggested that the Task Force consider the mechanisms for large-scale umbrella projects to increase engagement and impact.

38. Responding to the first question by Professor Fuchs, Dr Fukushi stated that the list of prioritized areas for research was used in the calls of proposals. Dr Linda Anne Stevenson of the Secretariat added that the proposals received did respond to the list of specific topics highlighted in the calls for proposals.

39. Regarding the second question, which was also raised by Dr Sriratana, particularly on the conflict of interest and duplication of efforts, Dr Matthews emphasized that funding IGES researchers should not be seen as a special case simply because IGES provides the administrative structure of APN. He stressed that APN manages its finances independently from IGES, and therefore IGES researchers are equally welcome to submit proposals to APN. Dr Fukushi added that the SPG spent a considerable amount of time to arrive at this particular recommendation following an impartial review process using established rules and regulations of APN. He stressed that the affiliation of the proponent was not a point of consideration in making that decision.

40. Dr Sriratana suggested that all nFPs should look into the approved proposals and encourage project leaders to maintain communication with them to ensure that the research fulfils the policy needs of countries involved. Dr Stevenson explained the current approach of engaging nFPs by sharing final project reports with them, and suggested that APN could further encourage project leaders and collaborators to communicate with their nFPs, not only during project implementation itself, but also during the proposal writing process. She further gave an example of a successful APN research project, which provided input for policy formulation, and suggested that countries could recommend these projects to be further supported by APN after the completion of their initial phase.

41. Based on suggestion from members, the IGM requested the Secretariat to share project progress reports to relevant nFPs for information and feedback, and that the Secretariat encourage project leaders to communicate via email and have face-to-face meetings with relevant nFPs to ensure policy relevance of their research.

42. Dr Adornado suggested APN could encourage project participants to meet nFPs and inform them of their research, with the understanding that this is not mandatory.

43. Dr Boonjawat stressed the importance for nFPs and SPG members to be involved in projects undertaken in their countries. She recognized SPD and PDTWs as two major forums that facilitate science-policy exchange.

44. Regarding the list of prioritized themes, Dr Fukushi noted that further structuralization should be done by the Secretariat through email exchanges with the SPG, so that it will become a clear guidance for the 2017 call for proposals.

45. The lists of approved projects under CRRP and SRYS are attached as Appendices 3 and 4, respectively.

Item 8. Report by the Capacity Development Committee

46. On behalf of the CDC, Dr Matthews presented its funding recommendations on multi-year projects and new proposals under the CAPaBLE Programme, for IGM decision. He provided a brief analysis of the recommended proposals in terms of regional and thematic distributions. Finally, he reported on the new composition of the CDC, which was decided following discussions at the CDC meeting held a day prior to the present IGM.

47. Regarding co-opted members to the CDC, Dr Matthews mentioned APN may want to consider a formal process for nominating CDC invited experts.

48. Dr Ngo thanked the CDC for the review and recommendations. She expressed her appreciation to the CAPaBLE programme which is providing opportunities for developing countries. She hopes the CAPaBLE mechanism could be further refined to support more proponents from developing countries.

49. The list of approved projects under CAPaBLE is attached as Appendix 5.

Item 9. APN Future Development

50. On behalf of the Task Force for APN Future Development, Dr Matthews presented its work in FY 2016 and its findings and recommendations for action. Particularly, he introduced the key strategic areas identified by the Task Force for improving the effectiveness of APN (contained in paper IGM/22/9.1-App.1), and explained each concrete action point recommended by the Task Force for urgent action (contained in paper IGM/22/9.1). Finally, he noted that the APN Framework Document should be amended in order for some recommendations to be implemented.

51. Dr Takemoto acknowledged the importance of the recommendations for the future of APN. He highlighted the actions related to the exploration of new schemes of programmes and activities, particularly actions B1 (2) and B1 (3), which were proposed as a way to encourage and motivate member countries to co-finance APN activities, and would be particularly useful for developing country members. He, therefore, urged member countries to consider these action points.

52. Dr Adiningsih pointed out that recent activities proposed and undertaken by the SEA-SRC were a useful approach to increasing sense of belonging of members, and ensuring benefits and outcomes that are in line with the needs of subregions. These activities, said Dr Adiningsih, could also attract funding from member countries as their outputs are in line with the needs of countries. She concluded by stressing the importance of the strengthening the activities under SRCs.

53. Professor Fuchs clarified that the recommendation on flagship projects was proposed as an approach to increase the significance of APN activities, as opposed to the current mechanism of supporting research or capacity building with limited timescale and narrow scope. One example, he suggested, could be a young scientist conference series that covers participants of the entire region. He expressed support for strengthening SRCs and suggested that APN could consider working towards a regional network of various thematic networks, such as biodiversity, to be led by different member countries depending on their interest. He asked members to broaden their thinking and work towards fundamental change.

54. Dr Boonjawat expressed her view that efforts to strengthen SRCs should not be made at the cost of undermining the strength of annual meetings of the IGM and SPG, since APN is a network which covers the whole Asia-Pacific region. She expressed her preference for the existing annual gatherings of all countries in IGM/SPG meetings over the recommended action related to SRCs, which would give them dominance. This was supported by Dr Adiningsih, who further asked how annual SPG activities would be scheduled if IGMs were to be held biennially.

55. In response, Dr Matthews stressed that the key idea behind related recommendations is to enhance the involvement of nFPs in providing strategic guidance, rather than weakening or eliminating any existing organ. The essence of the recommendations, said Dr Matthews, was to change the existing way of doing business to enhance the role of the IGM so that it deals with strategic issues and guidance to APN. In order to achieve this, he said, the Task Force recommended that the IGM delegates daily administrative decision-making tasks to the SC, so that nFPs, could focus on strategic issues that address their policy needs through a streamlined IGM and strengthened SRCs. He added that the detailed mechanism to accommodate the change, including the meetings of other organs, should be further developed so that it does not affect the necessary timescale under which APN operates.

56. Dr Takemoto pointed out that since many recommendations require amendments to the Framework Document, members will have an opportunity to further discuss the way forward when deliberating the amendments to the Framework Document. As a follow-up, Dr Matthews urged the IGM to expedite the proposal of amendments in this regard in order that the recommendations to engage nFPs could be implemented as soon as possible. Mr Imanari followed up by referring to Recommendation Area C,

which was proposed in order to further work on developing concrete plans for areas that require more deliberation.

57. Dr Matthews drew attention to other areas of concrete recommendations, stressing that the IGM should consider and approve these actions, if appropriate, in order for actions to be taken immediately after the IGM, without deferring them indefinitely. This was supported by Dr Madan Lall Shrestha, SPG Member for Nepal, in his capacity as a member of the Task Force. Acknowledging the need to amend the Framework Document for some specific actions, he suggested that, in order to move forward with the changes for increased effectiveness of APN, the IGM approve the recommendations unless there are objections to the recommendations from the floor. Mr Tobden supported the proposal by noting the substantial amount of work the Task Force has done in arriving at the recommendations. Dr Subarudi pointed out that for the recommendations to be effective, the responsibility of nFPs to nominate national experts must be clarified in terms of the persons in charge and timeline.

58. The Chair, acknowledging the work by the Task Force, urged members to consider approving the recommendations in order to avoid deferring those important and concrete actions, while, as proposed by the recommendations document, allow more time for deliberation of other areas where more careful consideration must be given, taking into account the inputs from all members. He requested members to revisit this item after the ensuing lunch break, where members should consider the feasibility of approving the recommendations, either in part or in whole, by building consensus. The meeting was adjourned and resumed after the lunch hour.

59. Mr Tsujihara thanked members for their active discussion in the morning session regarding the Task Force recommendations. He clarified the misunderstanding by some members that the IGM would be weakened or abolished, stressing that on the contrary, the recommendations were made to empower nFPs to play a more important role in APN, including the design of its future vision, evaluating its activities, among others. He sought clarification from the IGM whether it agreed in principle with the recommendations and whether the Secretariat should take next steps to implement the recommendations, which would include proposing amendments to the Framework Document where necessary, for the consideration of the IGM. Regarding Section B of the recommendations, he noted that, with the approval of the IGM, the Task Force should have more in-depth discussions in order to achieve common understanding on the specific changes to improve existing programmes or initiate new programmes. He then invited all members to volunteer to contribute to the work of the Task Force as Non-Affiliated Invited Experts (NAIEs) by communicating their willingness to the Secretariat.

60. The IGM approved the consolidated report and recommendations of the Task Force, recognizing the following: (1) the IGM delegates the Secretariat to draft the first amendment of the Framework Document by consulting the SC and NAIEs, and to circulate the draft to all members of the Task Force by the end of June 2017; (2) the Task Force is to further examine the modalities of improved and/or new mechanisms for research and capacity development; and (3) the Task Force is to meet by the end of September 2017 to further discuss implementation of recommendations.

Item 10. Steering Committee Election and Quorum

10.1 Election of National Focal Points for the SC

61. Mr Deng briefly explained the process of a new staggered system for SC election and introduced the three eligible candidates who would serve on the SC for a two-year term following the conclusion of the present IGM.

62. The following members were elected as SC members for a two year term: Dr J. R. Bhatt (nFP for India), Mr Marcial Amaro Jr. (nFP for the Philippines), and Dr Monthip Sriratana (nFP for Thailand).

63. Dr Bhatt, speaking on behalf of the elected members, thanked members for their trust and confidence, and expressed his commitment to fulfilling his duties as a member for the SC.

10.2 Quorum for Steering Committee Meetings

64. Presenting on behalf of the SC, Mr Deng shared the proposed draft amendment text aimed to relax the quorum requirement for future SC meetings. The proposed text seeks to revise the quorum of SC meetings to half of the total membership of the SC.

65. Dr Matthews pointed out a technical difference between the original text and the proposed text, with the former applying to those present at the meeting, and the latter applying to the total membership of SC. He reminded the IGM that the clause in question was applicable only to the SC, and not the IGM. He requested the IGM to approve the recommendation.

66. The Chair suggested that the issue of quorum be dealt flexibly in a way that recognizes the valuable time spent by members who attend the meeting. He suggested, without revising the quorum previously fixed, that a mechanism could be put in place where members present could reconvene and deliberate in good faith after adjournment for a short period of time. In doing so, he said, the members present would not be disheartened, while the absentees would be motivated to ensure participation in the future. He noted once the IGM agrees on the proposal, he would propose a revised draft to reflect the idea.

67. Mr Imanari indicated that the present proposal intended to address the difficulty that can arise at intersessional SC meetings, which are normally held in autumn in Japan. Due to uncertainties of participation, he said, it is difficult to make logistical arrangements without ascertaining that a quorum will be present. Mr Deng further indicated the clause in question applies only to SC meetings and not the IGM. Therefore, he said, the major implication would be in the organization of intersessional SC meetings held between IGMs. He urged the IGM to give due consideration to finalizing the text for this proposal and approve it as an ad hoc amendment.

68. Mr Tobden asked whether the proposal from the Chair implies an SC meeting would be held even if only four or five members are present. He expressed concern over whether such an arrangement would be effective, especially considering the difficulties faced by the Secretariat in organizing SC meetings. He suggested that the IGM could consider taking up this proposal and review it after implementation for one or two years.

69. The Chair further explained that such an arrangement could motivate absentees because important decisions were expected to be taken even without their presence. He stressed that it is important for members to remain committed, otherwise the need for such a network would be in question. He mentioned as APN is in the process of reform by streamlining its processes, it is important to keep this issue under review as part of the reform.

70. The Chair provided a revised draft amendment, which was approved by the IGM as part of the subsequent item.

Item 11. Action Points of the Meeting

71. Members reviewed and approved the draft action points, presented as IGM/22/A, subject to formal editing. The list of approved action points is attached as Appendix 6 of this summary.

Item 12. Any Other Business and Closing

72. In closing the IGM, the Chair, speaking on behalf of the host country, thanked all participants for the fruitful discussions and the Secretariat for its support.

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**The 22nd Joint Intergovernmental Meeting/
Scientific Planning Group Meeting**

26-27 April 2017
New Delhi, India

Participants List

Summary

This document contains a list of participants of the 22nd Intergovernmental Meeting and Scientific Planning Group Meeting.

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Work Programme and Resource Allocation for FY 2017

Exchange Rates in FY 2017

USD 1 = JPY 118

USD 1 = NZD 1.50

All figures in USD

New Resources for FY 2017

MOEJ (JPY 209,766,000)	1,778,000
Hyogo (JPY 22,009,000)	186,000
NZ (NZD 30,000)	20,000
ROK	50,000
Balance from FY 2009 and FY 2015	18,193
Total (A)	<u>2,052,193</u>
Use of Resources	
Projects and other Activities in FY 2017	
CRRP (Collaborative Regional Research Programme)	664,800
CRYS (Collaborative Research for Young Scientists)	59,850
CAPaBLE (Capacity Development Programme)	362,203
SRC-SA	15,000
SRC-SEA	15,000
SRC-TEA	0
PDTW Southeast Asia	25,000
TNA Capacity Building Workshop in SEA	30,000
Science Policy Linkage (SBSTA, IPBES, COP23)	45,000
Hyogo Activities	40,000
Annual Reports & Other Publications	5,000
Sub Total New Projects and Other Activities (B)	1,261,853
Administration and Operational Costs	
23rd IGM/SPG & 37th SC	110,000
APN Members/Secretariat Travel	40,000
Personnel	473,000
General Maintenance & Operational Cost	44,000
Partial Payment for extended three Months of FY 2016 (50% ¹⁾)	70,000
IGES Administrative Overhead (3% of MOEJ Contribution)	53,340
Sub Total Administration and Operational Costs (C)	790,340
(B)+(C)	<u>2,052,193</u>

1) For the extended three months of FY 2016 an additional budget of approximately USD 140,000 is needed. It is proposed to adjust these expenses in three partial payments, i.e. 50% in FY 2017, 30% in FY 2018 and 20% in FY 2019.

2) FY 2017, the resources allocation consists of new resources. There is a small allocation of unspent funds from FY 2009 and FY 2015, amounting to USD 18,193.

Committed Funds for Ongoing Projects (as of 31 March 2017)²⁾	
ARCP (CRRP) 2016	282,748
CAPaBLE 2016	154,800
CAF 2016	474,964
ARCP (CRRP) 2015	94,036
CAPaBLE 2015	67,086
CAF 2015	281,389
ARCP 2014	81,318
CAPaBLE 2014	36,310
CAF 2014	43,300
ARCP 2013	58,451
CAPaBLE 2013	18,400
LCI 2013	19,389
Total (D)	<u>1,612,191</u>

Total Resources under Operation in FY 2017 (B)+(C)+(D) **3,664,384**

Contingency (no contingency was used in FY 2016, and the entire amount will be carried over to FY 2017) **121,170**

2016 Call for Proposals under Collaborative Regional Research Programme (CRRP): SPG Recommendation to the IGM

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Total Funding Requested (Original)	Total Funding recommended (USD)	SPG/SC Comments and/or Recommendations to the IGM
CRRP2016-SP2173-MARCOTULLIO	CRRP2016-FP10-Marcotullio	Tracking Influences of Asian Urban GHG emissions for Sustainability Policies: Identifying Low Carbon Pathways to meet the Paris Agreement	3 years	RUSD	China, Japan, Republic of Korea, Thailand, United States of America, Others		Prof. Peter John Marcotullio Director/Professor, CUNY Institute for Sustainable Cities / Hunter College Department of Geography Hunter College, 695 Park Avenue, Room 1215E, New York, New York, 10065, USA Phone: 212-396-6136 Fax: 212-396-6137	95,448	95,448	The proposal ranks number 1, which shows that all the reviews have shown excellent result. The SPG RECOMMENDS FUNDING
CRRP2016-SP2098-TAKEUCHI	CRRP2016-FP05-Camacho	Sustainable mangrove rehabilitation for global and local benefits	2 years	CCCV, BES	Japan, Myanmar, Philippines		Prof. Leni D. Camacho, PhD Department of Social Forestry & Forest Governance College of Forestry and Natural Resources University of the Philippines Los Baños (UPLB) College, Laguna 4031 PHILIPPINES Email: ldcamacho@up.edu.ph Email: camachold@yahoo.com.ph	90,000	90,000	The project sits number two, with high scores, showing good review results. It addresses important issues, countries included in the study sites are the ones vulnerable to sea level rise. The SPG RECOMMENDS FUNDING
CRRP2016-SP1879-BALT	CRRP2016-FP06-Balt	Ecological vulnerability assessment for adaptation strategy formulation at different spatial scales in western Mongolia and China	2 years	CCCV, RRR	Australia, China, Japan, Mongolia		Dr. Suvdantsetseg Balt Director, Sustainable Development Institute for Western Mongolia, Khovd State University 164300, Khovd Province, Mongolia Phone: +976 70432038 Fax: +976 70432038	86,160	85,352	The proponent is a former PDTW participant. The SPG SC agrees that it is a good proposal, however the SPG SC feels it is a bit too ambitious to do four study sites. This should be clarified with the project leader. The SPG RECOMMENDS CONDITIONAL FUNDING
CRRP2016-SP2237-SENTIAN	CRRP2016-FP12-Sentian	Climate Change and Biogenic Emission Impact on Particulate and Tropospheric Ozone in Southeast Asia	3 years	CCCV, CATMD	Malaysia, Philippines, Republic of Korea, Thailand, Indonesia		Assoc. Prof. Justin Sentian Lecturer, Universiti Malaysia Sabah Faculty of Science and Natural Resources, Jalan UMS, 88400 Kota Kinabalu, Sabah, Malaysia Phone: 06088320000 Fax: 06088320086	111,125	104,000	This is a project conducted in Southeast Asia region, which has received comprehensively good review. The SPG RECOMMENDS for funding.
CRRP2016-SP1952-FARZANEH	CRRP2016-FP02-Farzaneh	Multiple Benefits Assessment of the Low Emission Development Strategies in Asia-Pacific Cities	1 year	CCCV, RUSD	Australia, China, India, Japan, Malaysia		Dr. Hooman Farzaneh Junior Associate Professor Institute of Advanced Energy, Kyoto University Gokasho, Uji Kyoto 611-0011, Japan Phone: +81-774-38-3429 Fax: +81 774-38-3426	41,812	40,000	The project budget structure looks more like capacity building project, but overall a good scientific results are coming out of the project. Clarifications are needed, though, including acknowledgment that APN has significant contribution (assuming that project is part of other bigger project). Also, the other funding secured need to be clarified whether it's a new money or old money that has been spent. The SPG RECOMMENDS Conditional Funding.
CRRP2016-SP2017-CAPON	CRRP2016-FP14-Capon	Improving health outcomes in Pacific Island Countries through better urban governance for climate change adaptation	1 year	CCCV, RUSD, RRR	Malaysia, Pacific Island States, United States of America		Prof. Anthony Capon Director, UNU International Institute for Global Health UKM Medical Centre, Malaysia Phone: +60 19 387 1498	45,000	43,000	The project has good team member, and it is good link to planetary health issue for APN. However, the affiliation of project leader might have changed and need to be clarified. The SPG RECOMMENDS for funding.
CRRP2016-SP2081-AHMED	CRRP2016-FP01-Ahmed	Understanding the opportunities and challenges of compliance to building codes for disaster resilience in South Asia - the cases of Bangladesh and Nepal	1 year	RRR	Australia, Bangladesh, Nepal		Dr. Iftekhar Ahmed Senior Lecturer School of Architecture and Built Environment, University of Newcastle University Drive, Callaghan, NSW 2308, Australia Phone: +61 2 4921 6011 Fax: +61 2 4921 6913	44,790	43,000	The proposal itself is good, however, it needs to have additional information on the relation to other global change issues, not only earthquakes. The proponent is to provide this information according to the APN's definition of global change in the Strategic plan. The SPG RECOMMENDS CONDITIONAL FUNDING
CRRP2016-SP1884-DEMBEREL	CRRP2016-FP09-Demberel	Climatogenic transformation of the alpine landscapes in Mongolian and Siberian Altai	2 years	CCCV, BES	Japan, Mongolia, Russian Federation		Dr. Otgonbayar Demberel Geography Lecturer Khovd University, 164300, Khovd Province, Mongolia Phone: +97699290963	84,000	82,000	The review results are good and SPG SC also agrees to the result. The proposal has merit for APN funding. The SPG RECOMMENDS FOR FUNDING

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Total Funding Requested (Original)	Total Funding recommended (USD)	SPG/SC Comments and/or Recommendations to the IGM
CRRP2016-SP1846-KAWASAKI	CRRP2016-FP08-Kawasaki	Effective models for payment mechanisms for forest ecosystem services in Papua New Guinea, Philippines and Thailand	2 years	BES	Japan, Pacific Island States, Philippines, Thailand		Dr. Jintana Kawasaki Policy researcher Institute for Global Environmental Strategies, Natural Resources and Ecosystem Services Area 2108-11 Kamiyamaguchi, Hayama, Kanagawa 240-0115 Japan Phone: +81-46-826-3031	90,000	82,000	Related to IPBES, more comprehensive compared to number 11. PNG is engaged. One reviewer thinks the output is more comprehensive compared to number 11. The issue of similarity with 11 and 13 was discussed among the SPG members. It was noted that the value placed on natural resources in economic modelling for global change is important and, therefore warranted funding over proposal ranked 11. After thorough discussion, consensus was for 13, but conditional funding is suggested based on the fact that the project team must ensure that the project can be concluded in 2 years. Technical soundness was also higher than rank 11. The SPG RECOMMENDS for funding.
CRRP2016-SP2095-POKHREL	CRRP2016-FP13-Pokhrel	Socio-ecohydrological Approach for Water Security in the Himalayas: A Case Study of Koshi River Basin, Nepal	2 years	CCCV, CATMD	China, India, Japan, Nepal, United States of America		Prof. Yadu Pokhrel Assistant Professor, Michigan State University 1449 Engineering Research Ct., East Lansing, MI 48824, USA Phone: +1-517-355-2360	97,796	0	The SPG SC agrees that many things have been done in Koshi basin on water-related issues. Many donors, for example AusAID has invested so much, thus the SPG SC feels that there is high risk of duplication of works. The SPG DOES NOT RECOMMEND for funding.
CRRP2016-SP1999-SIDLE	CRRP2016-FP03-Sidle	Improving resilience assessment for climate hazards (IRACH)	1 year	CCCV, RRR	Australia, Cambodia, Pacific Island States, Viet Nam		Prof. Roy Sidle Professor University of the Sunshine Coast Locked Bag 4, Maroochydore DC, Queensland 4558, Australia Phone: +61754563401	42,290	0	The proposal fits to CAPaBLE Programme rather than CRRP. Proponent is to be suggested to submit proposal in the next round of CAPaBLE programme. The SPG DOES NOT RECOMMEND for funding.
CRRP2016-SP1833-DEJONG	CRRP2016-FP07-DeJong	Enhancing ecosystem services under forest transition	2 years	BES, RUSD	China, Japan, Lao PDR, Republic of Korea		Prof. Wil de Jong Professor, Kyoto University 46 Shimoadachichou, Yoshida, Sakyo-ku, Kyoto 606 8501 Japan Phone: +81757539605 Fax: +81757539602	89,765	0	This project is similar to project that sits on 13th position. The SPG asked the SPG members to provide their opinion on which project has more merits for APN funding. The list of pros and cons were presented during the SPG Pre Meeting and following thorough discussions, the SPG DOES NOT RECOMMEND FOR FUNDING
CRRP2016-SP1954-CRAWFORD	CRRP2016-FP04-Crawford	Coastal Erosion, Monsoon Dynamics and Human Livelihood Vulnerabilities in South Asia	2 years	CCCV, CATMD, RUSD, RRR	Bangladesh, India, United States of America		Dr. Thomas Crawford Banpu Endowed Professor of Sustainability Center for Sustainability, Saint Louis University 3694 West Pine Mall, Des Peres Hall, Suite 203F, Saint Louis, MO 63108, USA	62,264	0	While the proposal itself is good, upon further scrutiny the SPG feels that the project has secured enough funding for the activities from other sources. Thus, SPG feels that it no longer require support from the APN. The SPG DOES NOT RECOMMEND for funding.
CRRP2016-SP2233-ANTWI	CRRP2016-FP11-Antwi	Spatial risk assessment of industrial crops and climate change impact on the water-related ecosystem services in Indonesia, Japan and the Philippines	2 years	CCCV, CATMD, RRR	Indonesia, Japan, Philippines		Dr. Effah Kwabena Antwi Assistant Professor, The University of Tokyo, Integrated Research System for Sustainability Science (IR3S) 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8654, Japan Phone: +81358411549 Fax: +81358411545	62,340	0	The proposal ranks low and we basically ran out of funds. For this reason, The SPG DOES NOT RECOMMEND for funding.
									664,800	

2016 Call for Proposals under Collaborative Research for Young Scientists: SPG Recommendation to the IGM

Summary Proposal Reference number	Full Proposal Reference Number	Project Title	Thematic Areas	Proponent	Collaborators	Countries Involved	Funding Requested to APN (USD)			Other funding secured	Rank	Recommendations
							Year 1	Year 2	Total			
CRYS2016-SP62-PANTHI	CRYS2016-FP03-Panthi	Rainwater Harvesting for Mitigating Drought in Western Nepal	CCCV, RUSD, RRR	Mr. Jeeban Panthi The Small Earth Nepal (SEN) Buddhanagar, Naya Baneshwor, Nepal Email: panthijeeban@gmail.com jeeban@smallearth.org.np	Dr. Yadu Pokhrel , Michigan State University, USA; ypokhrel@egr.msu.edu Ms. Fawzia Tarannum , TERI University, India; fawzia.tarannum@teriuniversity.ac.in Dhiraj Pradhananga , Tribhuvan University/University of Saskatchewan, Nepal/Canada; dhirajmet@hotmail.com, dhiraj.pradhananga@usask.ca	India, Nepal, United States of America, Others	14,920	14,930	29,850	750	1	All good proposals scored highly among internal and external reviewers. Regional balance has been maintained with TEA, SEA, and SA all represented in the proposals. Recommendations for the proposals are: Rank 1: Total of USD29,850 Rank 2: Total of USD15,000 Rank 3: Total of USD15,000 Total: USD 59,850
CRYS2016-SP77- Almaden	CRYS2016-FP01-Almaden	Multidimensional Indicators of Adaptive Capacity of Rice Farming Households to Address Salt Water Intrusion in the Philippines and Vietnam	CCCV	Ms. Catherine Rowcen C. Almaden Xavier University - Ateneo de Cagayan Corrales Avenue, Cagayan de Oro City, Misamis Oriental 9000, Philippines Email: calmaden@xu.edu.ph catherinerowcen@yahoo.com	Dr. Tung Thanh Diep , Tra Vinh University, Viet Nam; dtung@tvu.edu.vn Dr. Agnes C. Rola , UPLB, Philippines; acrola@up.edu.ph	Philippines, Viet Nam	15,000		15,000	2,000	2	
CRYS2016-SP10-SING	CRYS2016-FP05-Sing	Urban biodiversity and human well-being in Asia's megacities	BES	Dr. Kong Wah Sing Institute of Plant Protection, Chinese Academy of Agricultural Sciences Address, No. 2 West Yuanmingyuan Rd., Haidian District, Beijing, 100193, P. R. China Email: garysingkongwah@qq.com gary.singkw@gmail.com	John James Wilson , China Agricultural University, China; johnjameswilson@qq.com Narong Jaturas , Naresuan University, Thailand; narongjaturas@gmail.com Huyh N. Ha , Oxford University Clinical Research Unit, Viet Nam; hahn@oucru.org Wang Wenzhi , Kunming Institute of Zoology, China; wangwz@mail.kiz.ac.cn Masashi Soga , University of Tokyo, Japan; soga06154053@yahoo.com	China, Japan, Thailand, Viet Nam	15,000		15,000	60,029	3	
CRYS2016-SP93-Amar	CRYS2016-FP02-Amar	Monitoring of Dust Storms in Gobi Area using Multispectral Satellite Data and Its Current Condition	CCCV	Ms. Tungalag Amar NUM-ITC-UNESCO Space Science/Remote Sensing International Laboratory, National University of Mongolia, first building-400, Ulaanbaatar, Mongolia Email: amar_tungalag@num.edu.mn tungalag0504@gmail.com	Tsolmon Renchin , National University of Mongolia, Mongolia; ttr112@psu.edu Ochirkhuyag Lkhajav , Mongolian Geospatial Association, Mongolia; ochirkhuyag@geomedeel.mn Elbegjargal Nasanbat , Information and Research Institute of Meteorology, Hydrology and Environment, Mongolia; n.elbegjargal@gmail.com Bayartungalag Batsaikhan , Korea University, ROK; bayarungalag@korea.ac.kr Alexander Jeffrey Hinde , University of Sydney, Australia; daitsiyo@gmail.com	Australia, Mongolia, Republic of Korea	15,000		15,000	N/A	4	None of the original proponents or collaborators have been engaged in an APN Proposal Development Training Workshop. Proposal is therefore ineligible for funding. NOT RECOMMENDED FOR FUNDING
CRYS2016-SP13-HASAN MUHAMMAD	CRYS2016-FP04-Abdullah	Quantifying the Land Dynamics of South Asian Coast Utilizing Remote Sensing for Sustainable Intensification of Agriculture in the Context of Climate Change	CCCV, RUSD, RRR	Dr. Abdullah Hasan Muhammad Bangabandhu Sheikh Mujibur Rahman Agricultural University BSMRAU, Gazipur-1706, Bangladesh Email: hasan.abdullah@bsmrau.edu.bd	Seema Sepat, PhD , Indian Agricultural Institute, India; seemasepat12@gmail.com Zia U. Ahmed , CIMMYT-Bangladesh & Cornell University-USA; zahmed@cigar.org	Bangladesh, India, United States of America	14,990	14,855	29,845	10,000	5	There were some issues on funding this proposal. Following comments were provided by both internal and external reviewers: 1. No study sites selected in 7-8 countries formation on policy relevance 2. This simple study will not enhance the research capacities of the young scientists. NOT RECOMMENDED FOR FUNDING
CRYS2016-SP102-SONG	CRYS2016-FP06-Song	Forest Degradation and Carbon Regulation Ecosystem Service Assessment in Korean Peninsula and North-East China	BES	Mr. Cholho Song Room 322, College of Life Science East, Korea University, 145, Anamno, Seoungbukgu, Seoul, Republic of Korea Email: cholhosong@gmail.com; cholhosong@korea.ac.kr	Guishan Cui , Yanbian University, China; cuiguishan@ybu.edu.cn Prof. Shizhu Jin , Yanbian University, China; jinsz@ybu.edu.cn Jooyeon Moon , Korea University, ROK; mjy891024@gmail.com Chulhee Lim , Korea University, ROK; limpossible@korea.ac.kr Prof. Woo Kyun Lee , Korea University, ROK; leewk@korea.ac.kr	China, Republic of Korea	12,000	12,000	24,000	9,000	6	1. Regional data collection includes North Korea so considered too politically sensitive. 2. Not original and too vague in nature. NOT RECOMMENDED FOR FUNDING
CRYS2016-SP19-Chan	CRYS2016-FP07-Chan	Facilitating the transition to low carbon homes for Asian developing countries	RUSD	Dr. Hoy Yen Chan Solar Energy Research Institute, National University of Malaysia, 43600, Bangi, Selangor, Malaysia Email: hoyyen.chan@ukm.edu.my; hyen23@gmail.com	Prof. Dr. Kamaruzzaman Sopian , Universiti Kebangsaan Malaysia, Malaysia; ksopian@ukm.edu.my Dr. David Whaley , University of South Australia, Australia; David.Whaley@unisa.edu.au Mr. Steve Anthony Lojuntin , Sustainable Energy Development Authority (SEDA), Ministry of Energy, Green Technology and Water (KETTHA), Malaysia; Steve@sed.gov.my	Australia, Malaysia	14,936	14,990	29,926	84,408	7	Scored low, funding ran out and reviewers were not happy with the proposal. NOT RECOMMENDED FOR FUNDING

CDC Recommendation to IGM for Funding

Full Proposal Reference Number	Proposed Project Title	Total	In kind/ cash contribution	Extent of Collaboration	APN Countries Involved	Proponent	Gender	Country	Collaborators' Information	Final Rank	Remarks
CBA2016-FP09-Ho	Using indigenous knowledge to enhance community resilience to climate change in mountainous region of Vietnam	62,203	14,864	National	Viet Nam	Dr. Ho Ngoc Son Agriculture and Forestry Research and Development Centre for Mountainous Region (ADC), Vietnam, Group 10 Quyet Thang, Thai Nguyen City, Vietnam, Phone: +84 (0) 2803851822	Male	Viet Nam	Ms. Luu Thi Thu Giang, Centre for Natural Resource and Environmental Studies, Vietnam National University, Vietnam; Email: luuthuthugiang@gmail.com Dr. Ha Thi Hoa, Thai Nguyen University of Agriculture and Forestry, Vietnam; Email: hoadhnl@gmail.com	1	RECOMMENDED FOR FUNDING
CBA2016-FP08-Tanimoto	Fostering of the next generation of scientists for better understanding of air quality and regional climate change in Monsoon Asia and Oceania region	71,500	18,000	Regional	Japan, India, Thailand, Philippines, Bangladesh, Others	Dr. Hiroshi Tanimoto Head, National Institute for Environmental Studies 16-2 Onogawa, Tsukuba, Ibaraki 305-8506, Japan Phone: +81-29-850-2930	Male	Japan	Dr. Manish Kumar Naja, Aryabhata Research Institute of Observational Sciences (ARIES), India; Email: manish@aries.res.in Prof. Dr. Nguyen Thi Kim Oanh, Asian Institute of Technology, Thailand; Email: kimoanh@ait.ac.th Dr. Shih-Chun Candice Lung, Research Center for Environmental Changes, Academia Sinica, Taiwan; Email: sclung@rcec.sinica.edu.tw Dr. Erika von Schneidmesser, Institute of Advanced Sustainability Studies, Germany; Email: erika.vons@iass-potsdam.de Dr. Maria Obiminda L. Cambaliza, Ateneo de Manila University, The Philippines; Email: mcambaliza@ateneo.edu, mcambaliza@observatory.ph Prof. Dr. Abdus Salam, Department of Chemistry, University of Dhaka, Bangladesh; Email: asalam@gmail.com Dr. Mitsuo Uematsu, Atmosphere and Ocean Research Institute (AORI), The University of Tokyo, Japan; Email: uematsu@aori.u-tokyo.ac.jp	2	RECOMMENDED FOR FUNDING
CBA2016-FP01-Pulhin	Enhancing Climate Risk Resilience through Human Security Development and Capacity Development in the Province of Aurora, Philippines	71,500	81,372	National	Philippines	Prof. Juan Pulhin Professor and Chair, INREM University of the Philippines Los Banos, College, 4031 Laguna, Philippines Phone: +63-49-536-5314 Fax: +63-49-536-5314	Male	Philippines	Dr. Rex Victor O. Cruz, CFNR-UPLB; Email: rcruz@up.edu.ph Dr. Wilfredo M. Carandang, CFNR-UPLB; Email: wncarandang@up.edu.ph Ms. Maricel A. Tapia, CFNR-UPLB; Email: matapia@up.edu.ph Ms. Catherine C. de Luna; CFNR-UPLB; Email: ccdeluna@up.edu.ph Dr. Lorena B. Loma-Sabino, CFNR-UPLB; Email: flex_lorens@yahoo.com	3	RECOMMENDED FOR FUNDING
CBA2016-FP11-Rizvi	Capacity building of agroforestry stakeholders in Bangladesh and Nepal involving India as technical hub	35,000	13,000	Regional	Bangladesh, India, Nepal	Dr. Javed Rizvi Regional Director of South Asia Program of ICRAF World Agroforestry Centre (ICRAF) C Block, NAS Complex, Dev Prakash Shastri Marg, Pusa Campus, New Delhi – 110012, INDIA Phone: +91-9999755192	Male	India	Dr. Shiv Kumar Dhyani, Indian Council of Agricultural Research (ICAR), India; Email: shivkudhyani@gmail.com Dr. Virendra Pal Singh, World Agroforestry Center (ICRAF), India; Email: V.P.Singh@cgiar.org Dr. A. K. Handa, Central Agroforestry Research Institute, India; Email: orgsec@gmail.com Dr. Londhe Sunil Lalasaheb, World Agroforestry Centre (ICRAF), India; Email: s.londhe@cgiar.org Dr. Md. Abiar Rahman, BSMRAU, Bangladesh; Email: abiar@bsmrau.edu.bd, abiarbd@yahoo.com Mr. Keshab Adhikari, Ministry of Agriculture Development, Nepal; Email: zzahikary@yahoo.com	4	RECOMMENDED FOR FUNDING
CBA2016-FP05-Hofmann	Management Strategy Evaluation: Achieving Transparency in Natural Resource Management by Quantitatively Bridging Social and Natural Science Uncertainties	25,000	73,000	Regional	Australia, China, India, Japan, New Zealand, Philippines, Republic of Korea, Russian Federation, United States of America, Others	Prof. Eileen Hofmann Professor, Old Dominion University CCPO, 4111 Monarch Way, Old Dominion University, Norfolk, VA 23508 USA Phone: +1-757-683-5334 Fax: +1-757-683-5550	Female	United States of America	Heather Benway, OCB/Woods Hole Oceanographic Institution, USA; Email: hbenway@whoi.edu Leo Dutra, University of the South Pacific, Fiji; Email: leo.dutra@csiro.au Wardis Girsang, University of Pattimura, Indonesia; Email: girsangwardis@yahoo.com Julie Hall, NIWA, New Zealand; Email: Julie.Hall@niwa.co.nz Anes Dwi Jayanti, Gadjah Mada University, Indonesia; Email: anes.dwijayanti@ugm.ac.id Shuya Natsuka, National Research Institute of Far Seas Fisheries, Japan; Email: snakatsuka@affrc.go.jp Ingrid van Putten, CSIRO, Australia; Email: Ingrid.Vanputten@csiro.au Francisco Werner, NOAA, USA; Email: cisco.werner@noaa.gov Xinjuan Shan, Chinese Academy of Fishery Science, China; Email: shanxj.ysfri.ac.cn	5	RECOMMENDED FOR FUNDING
CBA2016-FP13-Akbar	Improving skills for promoting sustainable watershed management practices in South Asia	50,000	15,000	Regional	Bangladesh, Japan, Nepal, Pakistan, Sri Lanka	Dr. Ghani Akbar Senior Scientific Officer/Program Leader Climate Change, Alternate Energy and Water Resources Institute (CAEWRI), National Agricultural Research centre (NARC), Pakistan Agricultural Research Council (PARC) CAEWRI-NARC Park Road Chak Shahzad, Islamabad, Pakistan Phone: +92519255395 Fax: +92519255074	Male	Pakistan	Dr. Muhammad Munir Ahmad, Climate Change, Alternate Energy and Water Resources Institute (CAEWRI), National Agricultural Research Centre (NARC)/PARC, Islamabad, Pakistan; Email: munir.wrri@gmail.com Mr. Aftab Ahmad Khan, GCISC, Pakistan; Email: aftabalam_2005@yahoo.com Dr. Madan Lal Shrestha, Nepal Academy of Science & Technology, Nepal; Email: madanls@hotmail.com Dr. Sudeep Thakuri, Central Department of Environmental Science, Tribhuvan University; Email: sthakuri@hotmail.com; thakuri@irsa.cnr.it Mr. Jeeban Panthi, The Small Earth Nepal; Email: jeeban@smallearth.org.np, panthijeeban@gmail.com Dr. S. H. S. A. De Silva, Natural Resource Management Center, Dept. of Agriculture, Sri Lanka; Email: ajandes@gmail.com Dr. B. V. R. Punyawardena, Natural Resource Management Center, Dept. of Agriculture, Sri Lanka; Email: batugedara_vrp@yahoo.com Prof. E. I. L. Silva, Water Resources Science & Technology, Sri Lanka; Email: eils.wrst@gmail.com	7	RECOMMENDED FOR FUNDING

Full Proposal Reference Number	Proposed Project Title	Total	In kind/ cash contribution	Extent of Collaboration	APN Countries Involved	Proponent	Gender	Country	Collaborators' Information	Final Rank	Remarks
CBA2016-FP03-Raj	Enhancing Women farmer's Adaptive Capacity to address the Challenges of Climate Change	34,000	15,600	Local	India	Dr. Rengalakshmi Raj Principal Coordinator - Gender and Development, M.S.Swaminathan Research foundation, III Cross Taramani Institutional area, Chennai, Tamil Nadu, India, Phone: 91-44-22541229, Fax: 91-44-22541319	Female	India	N. Chattopadhyay, Indian Meteorological Department, India; Email: nabansu.nc@gmail.com Dr. Pannersevlam, Tamil Nadu Agricultural University, India; Email: meteorology@tnau.ac.in Deputy Director, Department of Agriculture, India; Email: agrisec@tn.gov.in	12	RECOMMENDED FOR FUNDING
CBA2016-FP02-Tshering	Identification of Wetland Types in Bhutan with Detailed Documentation of Carbon Rich Wetlands	13,000	10,200	National	Bhutan	Mr. Kuenzang Tshering Lecturer, Royal Thimphu College, Royal University of Bhutan P.O. Box# 1122 Ngabphu, Thimphu, BHUTAN Phone: (975) 02-351801 Fax: (975) 02-351806	Male	Bhutan	Ms. Kinley Choden, Ugyen Wangchuck Institute for Conservation and Environment (UWICE) under Department of Forest and Park Services; Email: kchoden@uwice.gov.bt Mrs. Kezang Dema, Department of Forest and Park Services (DoFPS), Royal Government of Bhutan; Email: kezangdema@moa.gov.bt; kezangde@gmail.com Mr. Tshering Phuntscho, Royal Society for Protection of Nature (RSPN); Email: tphuntscho@rspnbtan.org Dr. Gretchen Gettel, UNESCO-IHE Institute for Water Education; Email: g.gettel@unesco-ihc.org	9	SEED GRANT RECOMMENDED FOR FUNDING. This is a good proposal but scoping activity is needed to ensure that the methodology being used is succinct. As there is research involved as well, full proposal developed from the seed grant should be submitted under CRRP (collaborating countries need to be found)
CBA2016-FP04-Le	Research and Capacity Building on Payment for Environmental Services (PES) Livelihoods and Vulnerability in Vietnam	-	-	Local	Viet Nam	Dr. Le Thi Van Hue Project Coordinator, Center for Environment and Community Assets Development (CECAD) No. 12 Lane 15 Bui Ngoc Duong Street, Hanoi, Vietnam Phone: +84-4-3625-4977	Female	Viet Nam	Dr. Dao Minh Truong, Center for Natural Resources and Environmental Studies (CRES), Vietnam National University, Hanoi; Email: mr_truong@hotmail.com Dr. Ho Ngoc Son, Deputy Director Agriculture and Forestry Research & Development Centre for Mountainous Region (ADC), Vietnam; Email: son.ho@adc.org.vn	6	NOT RECOMMEND FOR FUNDING. This proposal and the proposal FP09-Ho (1st rank) have the same proponents/collaborators and working at same project site. The top ranked proposal is recommended.
CBA2016-FP06-Bui	Improving Adaptive Capacity and Risk Reduction for Coastal Bivalve Culture Farms in Vietnam	-	-	National	Viet Nam	Dr. Thuyet Bui Lecturer/Vice Dean, Hanoi University of Natural Resources and Environment 41A Phu Dien, Bac Tu Liem, Hanoi, Vietnam Phone: +84968051630	Male	Viet Nam	Dr. Le Van Khoi, Research Institute for Aquaculture No1 (RIA1), Vietnam; Email: lvkhai@ria1.org. Dr. Le Xuan Tuan, HUNRE, Vietnam; Email: lxtuan@hunre.edu.vn Dr. Tran Thi Minh Hang, HUNRE, Vietnam; Email: tmhang@hunre.edu.vn Dr. Nguyen Hong Lan, HUNRE, Vietnam; Email: nhlan@hunre.edu.vn; nnhlan@gmail.com Mr. Vu Van Lan, Ha Noi University of Natural Resources and Environment, Vietnam; Email: vvlan@hunre.edu.vn Ms. Nguyen Thi Lan, Hanoi University of Natural Resources and Environment, Vietnam; Email: lann2112@gmail.com Mr. Nguyen Van Khuong, Directorate of Fisheries, Ministry of Agriculture and Rural Development, Vietnam; Email: khuongnvnts@mard.gov.vn, nguyenvankhuong2610@gmail.com	8	NOT RECOMMEND FOR FUNDING because this proposal is research oriented rather than capacity development.
CB2016-FP12-Parama	Environmental Awareness on Invasive Alien Species in the Western Ghats	-	-	Local	India	Mr. Anandan Parama Chief Functionary, Foundation for Research and Sustainable Development (FRSD), RH239, Ellis Nagar, Madurai 625016, Tamil Nadu, India Phone: +91452-4368689	Male	India	Dr. S. Mutheswaran, National Institute of Siddha, Chennai, Tamil Nadu, India; Email: muthis2009@gmail.com P. Pandikumar, Loyola College, Chennai, Tamil Nadu, India; Email: pkr_eri@hotmail.com	10	NOT RECOMMEND FOR FUNDING because this proposal is more like a research proposal rather than capacity development.
CBA2016-FP07-Satanarachchi	Contributing for reflexive sustainability assessment in developing countries, by exploring diverse value-based narratives and mechanisms of sustainability change in local Sri Lankan contexts	-	-	Regional	Japan, Sri Lanka	Dr. Niranjani Satanarachchi Visiting Researcher, The University of Tokyo, Graduate School of Frontier Sciences (Department of Socio-cultural Environmental Studies and Graduate Program in Sustainability Science-GPSS-GLI) Rm 171, Environmental Studies Bld, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5, Kashiwa-no-ha, Kashiwa, Chiba, 277-8563 Japan Phone: +81-80-5682-3118	Female	Japan	Dr. Jagath Manatunge, University of Moratuwa, Sri Lanka; Email: manatunge@civil.mrt.ac.lk Dr. Mino Takashi, University of Tokyo, Japan; Email: mino@k.u-tokyo.ac.jp	11	NOT RECOMMEND FOR FUNDING because the proponent is no longer with the University of Tokyo.
CBA2016-FP15-Sethi	Evidence Based Decision Making Tool to Build Capacities for Low-Carbon Spatial Planning in Indian Cities	-	-	Local	India, Japan	Dr. Mahendra Sethi Research Advisor, Indian Society for Applied Research and Development Joshi Sadan, M-90, Jagat Ram Park, Laxminagar, Delhi-110092, India Phone: +919811090564 Fax: +911122042039	Male	India	Prof. (Dr) Aki Suwa, Kyoto Women's University - F/o Contemporary Studies, Japan; Email: Suwa@kyoto-wu.ac.jp Prof (Dr) Shovan K Saha, Sharda University, India; Email: shovanksaha@gmail.com Dr. Hooman Farzaneh, Institute of Advanced Energy, Kyoto University, Japan; Email: hooman.farzaneh.2v@kyot-u.ac.jp Prof (Dr) Abhik Ghosh, Panjab University, India; Email: anthro@pu.ac.in Dr. Binit Singh, KRVI & Lucknow University, India; Email: binitisingh@gmail.com	13	NOT RECOMMEND FOR FUNDING due to no available budget.
		362,203	241,036								

Action Points for the 22nd Intergovernmental Meeting/Scientific Planning Group Meeting

Item #	Item description	Action #	Action description	Action by
-	Election of Chair	1	The IGM elected Dr. J. R. Bhatt, nFP for India, as Chair, and Mr. Marcial Amaro Jr., nFP for Philippines, as Vice-Chair of the 22st IGM/SPG Meeting.	IGM, Chair, Vice-Chair
1	Adoption of the draft agenda and items of any other business	2	The Draft Agenda was adopted without change. No items of any other business was raised.	IGM
2	Report from the Steering Committee and Secretariat	3	The IGM approved the Steering Committee's Report.	IGM
		4	The IGM took note and approved the Final Financial Report for FY 2015.	IGM
		5	The IGM approved the draft Financial Status Report for Fiscal Year 2016.	IGM
		6	The Secretariat is tasked to develop a terms of reference to set up a task force to develop financial resources and call for non-affiliated invited experts (NAIEs) to work on this task. Additionally, other matters such as the possibility of presenting subregional activities under "Administrative and Operational Costs", and ways for the Secretariat and Members to appropriately reflect members' in-kind contributions in financial reports are also to be discussed. The timeline of work to be conducted by the task force will be decided by the SC.	SC, Secretariat
4	Subregional Committee (SRC) report (South Asia)	7	SA-SRC elected Dr. J. R. Bhatt, nFP for India, as Chair and Mr. Jamba Tobden, SPG member for Bhutan, as Vice-Chair.	SA-SRC
		8	SA-SRC is to involve the ICAR Central Research Institute for Dryland Agriculture (CRIDA) or National Academy for Agriculture Research Management (NAARM) in Hyderabad for the 8th SA-SRC meeting.	SA-SRC, Secretariat
		9	SA-SRC is to continue to involve South Asian Association for Regional Cooperation (SAARC) and collaborate with regional organizations such as ADB and SAARC Agriculture Center (SAC). Partnership and collaboration should not be limited to funding perspectives.	SA-SRC, Secretariat
		10	The nFP for India will communicate with SAC on APN-SAC collaboration with the support of the Secretariat.	nFP for India, Secretariat
		11	SA-SRC proposes to prioritize the following topic for annual call for proposals: i. Policy-relevant research on the implementation of nationally determined contributions (NDCs).	SA-SRC, Secretariat
		12	SA-SRC proposes to increase support for young scientists in South Asia, especially in Bhutan.	SA-SRC, Secretariat
		13	SA-SRC is to consider organizing a workshop on the happiness index in changing climatic conditions in relation to SDGs.	SA-SRC, Secretariat
	Subregional Committee report (Southeast Asia)	14	SEA-SRC elected Dr. Monthip Sritatana, nFP for Thailand, as Chair and Dr. Henry Bastaman, nFP for Indonesia, represented by Dr. Subarudi as Vice-Chair.	SEA-SRC
		15	SEA-SRC proposes to prioritize the following topics for annual calls for proposals: i. Disaster risk reduction and resilience to climate change; ii. Community resilience to climate change impacts in vulnerable areas; iii. Energy and ecosystems in climate change and low carbon society; and iv. Water, agricultural productivity, nutrient management.	SEA-SRC, Secretariat
		16	SEA-SRC is to further explore opportunities to address mountain research initiatives by engaging the International Centre for Integrated Mountain Development (ICIMOD) and its expertise.	SEA-SRC, Secretariat
		17	nFP for Thailand is to continue to explore possible co-funding mechanisms between APN and Thailand.	nFP for Thailand, Secretariat
		18	SEA-SRC, under CAPaBLE, is to conduct the 2nd "training of trainers" on urban climate adaptation and a synthesis workshop in Bangkok, Thailand, coordinated by Dr. Jariya Boonjawat, SPG Member for Thailand.	SEA-SRC, Secretariat
		19	SEA-SRC proposes a workshop on "Technology Needs Assessment on Climate Change Mitigation and Adaptation in SEA: Experience Sharing and Technological Transfer", coordinated by Dr. Kim Chi Ngo, SPG Member for Viet Nam. This is a follow up to the scoping workshop held on the same topic in Kobe, Japan December 2016.	SEA-SRC, Secretariat
		20	SEA-SRC Chair is to send an invitation letter to Myanmar to request their participation in the next SEA-SRC.	SEA-SRC Chair, Secretariat
		21	SPG Member for Viet Nam, with support from the Secretariat, is to continue to approach the Government of Viet Nam for the appointment of a national Focal Point for Viet Nam.	SPG Member for Viet Nam, Secretariat
		22	SEA-SRC is to conduct a Proposal Development Training Workshop (PDTW) back-to-back with the SEA-SRC meeting under the theme of "disaster risk reduction and community resilience to climate change in vulnerable areas" in Viet Nam. This is subject to the appointment of the nFP for Viet Nam. Another option for the venue is the Philippines.	SEA-SRC, Secretariat
	Subregional Committee report (Temperate East Asia)	23	TEA-SRC elected Dr. Akio Takemoto, nFP for Japan, as Chair and Dr. Soojeong Myeong, SPG Member for Republic of Korea, as Vice-Chair.	TEA-SRC
		24	TEA-SRC is to promote PDTWs in the Temperate East Asia region and link PDTWs with the CRYs programme.	TEA-SRC, Secretariat
		25	TEA-SRC is to hold intersessional meetings by teleconference when necessary. Possible agenda items: i. Organize an alumni meeting at IGM; ii. Organize a PDTW in July-September 2018 with possible co-funding from private foundations such as the Kurita Water and Environment Foundation; and iii. Promote APN by introducing PDTWs at conferences related to areas of APN interest.	TEA-SRC, Secretariat
		26	TEA-SRC proposes to prioritize the following topics for annual call for proposals: i. Climate change effects on global supply chain; ii. Climate change and human security, especially on water-food-energy nexus; iii. Water treatment technology transfer in the context of the Paris Agreement; and iv. Extreme events related to monsoon and climate change.	TEA-SRC, Secretariat
5	FY 2017 activities	27	The following proposed activities were approved: i. Call for proposals under CRRP and CAPaBLE, management of continuing projects under CRRP, CAPaBLE and CAF, and new projects under CRRP at the amount of USD 664,800, CAPaBLE at the amount of USD 352,053 and CRYs at the amount of USD 70,000; ii. Hyogo Activities at the amount of USD 40,000; iii. Science policy activities including engagement with UNFCCC (SBSTA/SBI, COP) and IPBES at the amount of USD 30,000; iv. Workshop on technology needs assessment on climate change mitigation and adaptation in Southeast Asia under the theme of "experience sharing and technological transfer" at the amount of USD 30,000; and v. Publication policy and new publications - Compendium of climate-friendly practices.	IGM, Secretariat

6	Proposed work programme and resource allocation FY 2017	28	The Proposed Work Programme and Resources Allocation for FY 2017 was approved subject to the following revisions: i. No budget is to be allocated for TEA-SRC activity in FY 2017 as the committee will meet electronically; and ii. Footnote 2 of the Draft Work Programme and Resources Allocation for FY 2017 to be revised as follows: - FY 2017, the resources allocation consists of new resources. There is a small allocation of unspent funds from FY 2009 and FY 2015, amounting to USD 18,193.	IGM, Secretariat
7	SPG report including topics of interest for FY 2017	29	Nine CRRP and three CRYSP proposals were approved at the amount of USD 664,800 and USD59,850 respectively. Please see attached spreadsheet for details.	SPG, Secretariat
		30	The Secretariat will provide background information including nationality and expertise of project leaders and collaborators to all Members.	Secretariat
		31	The Secretariat will share project progress reports to nFPs of the countries involved for information and feedback.	Secretariat
		32	The Secretariat will encourage project leaders to communicate via email and face-to-face meetings with relevant national Focal Points to ensure policy relevance of their research.	Secretariat
		33	The list of emerging issues and priorities, which includes recommendations from SRCs for FY 2017 call for proposals, were approved. Whether the Secretariat will implement a call under these topics will be subject to the revised structure of the call for proposals, which will be shared with members before the FY 2018 call for proposals is launched.	Secretariat
		34	The following members were elected as SPG Sub-Committee members: - Professor Giasuddin Miah (Bangladesh, Co-Chair); - Dr. Soojong Myeong (Republic of Korea, Co-Chair); - Dr. Hemant Borgaonkar (India); - Professor Alexander Sterin (Russian Federation); and - Dr. Kim Chi Ngo (Viet Nam).	SPG
8	CDC report including topics of interest for FY 2017	35	Seven CAPaBLE proposals were recommended for funding and one proposal was recommended for seed grant. The total amount allocated is USD 362,023. Please see attached spreadsheet for details.	CDC, Secretariat
		36	IGM approved project CBA2015-02NMY-Pushpakumara be terminated, effective immediately.	IGM
		37	The following members were elected as CDC members: - Ex-officio members: the SC Chair and two SPG Co-Chairs; - Donor representative: Dr. Akio Takemoto (nFP for Japan); and - Invited experts: Dr. Andrew Matthews (New Zealand), Professor Juan Pulhin (Philippines), Dr. Srikantha Herath (Sri Lanka), Dr. Roland Fuchs (USA).	CDC
		38	The SC has the authority to assign new members to the CDC.	SC
9	APN future development	39	The recommendations by the Task Force for APN Future Development were approved for action recognizing the need to further develop and clarify the following: i. The IGM delegates the Secretariat to draft the first amendment of the Framework Document by consulting the SC and NAIEs, and to circulate the draft to all members of the Task Force by the end of June 2017; ii. The Task Force is to further examine the modalities of improved and/or new mechanisms for research and capacity development; and iii. The Task Force is to meet by the end of September 2017 to further discuss implementation of recommendations.	IGM, SC, Secretariat
		40	The Consolidated Report of the Task Force for APN Future Development was approved.	IGM, SC
10	Steering Committee election, confirmation of Steering Committee members, SC quorum	41	The following members were elected as new Steering Committee members for a two year term: - Dr. J. R. Bhatt (nFP for India); - Mr. Marcial Amaro Jr. (nFP for Philippines); and - Dr. Monthip Sritana (nFP for Thailand).	SC
		42	SC Members will consider the appointment of co-opted members at the 36th SC Meeting after the IGM.	SC, Secretariat
		43	Paragraph 6.B.3.ii of the Framework Document will be amended as follows: The required quorum for a meeting of SC shall be two thirds of the members of the SC. In the event that the aforesaid quorum is not present, the meeting of the SC shall be adjourned for an hour and then reconvened. The members present would serve as quorum of the meeting.	SC, Secretariat
11	Action points of the 22nd IGM/SPG Meeting	44	The Chair and Secretariat will revise the draft action points based on inputs from members under the current agenda item.	IGM Chair Secretariat
12	Any other business and closing	45	No action.	-
Interactive Session I	Mitra awardee presentation	-	The Mitra Award was awarded to Dr. Shaikhom Inaotombi, ICAR-Directorate of Coldwater Fisheries Research, for his poster titled "Climate Change and its Impact on Aquatic Ecosystem in the Central Himalayas".	IGM, Secretariat
		-	The following young scientists were awarded as runners-ups of the Mitra Award: - Dr. Manish Kumar Goyal, Indian Institute of Technology, Guwahati - Ms. Sagarika Majumder, South Asian Forum for Environment; - Dr. Adukkam Veedu Sijin Kumar, Department of Geology, Central University of Kerala; and - Mr. Nitesh Sinha, Indian Institute of Tropical Meteorology.	IGM, Secretariat

Section 2

Main Item Papers



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

**Draft Agenda of the 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

Day 1: Wednesday, 26 April 2017

- 08:30–09:00 Registration of members and observers
- 09:00–10:00 Opening session
- (a) Welcome remarks by Dr J. R. Bhatt, national Focal Point for India
 - (b) Welcome remarks by Mr Marcial Amaro Jr., Chair of the Steering Committee
 - (c) Welcome remarks by Mr Hiroshi Tsujihara, Director of the Secretariat
 - (d) Opening address by the guest of honour: Mr R. R. Rashmi, Special Secretary, Ministry of Environment, Forest and Climate Change, Government of India
 - (e) Group photograph
- 10:00–10:30 *Tea/coffee break*
- 10:30–10:40 Election of Chair and Vice-Chair of the 22nd Intergovernmental Meeting and Scientific Planning Group Meeting
- 10:40–10:50 Item 1. Adoption of the Draft Agenda and items of any other business
- 10:50–11:50 Item 2. Report from the Steering Committee and the Secretariat
- 2.1. 2016 APN activities and action points
 - 2.2. Final financial report for FY 2015
 - 2.3. Budget status report for FY 2016
 - 2.4. Change in fiscal year
- 11:50–13:00 *Lunch*
- 13:00–15:00 Item 3. Subregional parallel sessions
- 3.1 South Asia subregional parallel session
 - 3.2 Southeast Asia subregional parallel session
 - 3.3 Temperate East Asia subregional parallel session

- 15:00–16:30 Interactive Session I: Networking session-Indian youth poster session
- 16:30–17:10 Item 4. Subregional Committee reports
- 4.1. South Asia Subregional Committee
 - 4.2. Southeast Asia Subregional Committee
 - 4.3. Temperate East Asia Subregional Committee
- 17:10–18:10 Item 5. Activities in FY 2017
- 5.1. Core programmes and frameworks
 - 5.2. Hyogo Activities
 - 5.3. Science-policy activities: COP, SBSTA, IPBES
 - 5.4. Workshop on Technology Needs Assessment on Climate Change Mitigation and Adaptation in Southeast Asia: Experience Sharing on Technology Transfer
 - 5.5. Publications and communications

Day 2: Thursday, 27 April 2017

- 08:30–09:20 Item 6. Proposed work programme and resource allocation for FY 2017
- 09:20–09:50 Item 7. Scientific Planning Group report (including topics of interest for FY 2017 and funding recommendations for CRRP)
- 09:40–10:20 Item 8. Capacity Development Committee report (including topics of interest for FY 2017 and funding recommendations for CAPaBLE and CRYS)
- 10:20–10:40 *Tea/coffee break*
- 10:40–12:00 Item 9. APN future development
- 9.1. Recommendations by the Task Force for the Future Development of APN
 - 9.2. Report by the Task Force for the Future Development of APN
- 12:00–13:00 *Lunch*
- 13:00–14:10 Interactive Session II: Local Government Seminar: Climate Friendly Sustainable Lifestyles (50 min)
- Mitra awardee presentation (20 min)
- 14:10–14:30 Item 10. Steering Committee election and quorum
- 10.1. Steering Committee election and confirmation of members
 - 10.2. Decreasing the quorum of Steering Committee meetings
- 14:30–14:50 *Tea/coffee break*
- 14:50–15:30 Item 11. Action points of the 22nd IGM
- 11.1. Budget and finances
 - 11.2. Others
- 15:30–15:40 Item 12. Any other business and closing



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Item 2 of the draft agenda¹

**Item 2.1. Report from the Steering Committee on APN
Activities of Fiscal Year 2016**

Summary

This report contains a summary of the work undertaken and action points implemented by APN since the 21st Intergovernmental Meeting and Scientific Planning Group Meeting (hereafter referred to as IGM/SPG Meeting). The 22nd IGM/SPG Meeting is requested to consider and approve the report.

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¹ IGM/22/A.

1. Project Management

In FY 2016, the Secretariat is supporting and managing 12 projects (10 new and 2 continuing) under the Collaborative Regional Research Programme (CRRP), 10 projects (8 new and 2 continuing) under the Scientific Capacity Development Programme (CAPaBLE) and 12 continuing projects under the Climate Adaptation Framework (CAF). The Secretariat is also managing projects that were approved in previous fiscal years that are not yet closed.

2. Calls for Proposals

2.1. Annual Call for Proposals for FY 2016

The 2016 annual call for proposals was launched on 10 June 2016 and received 63 summary proposals under CRRP and 53 under CAPaBLE. As a result of the review, 14 full proposals under CRRP and 13 under CAPaBLE are recommended for funding. The Scientific Planning Group (SPG) and Capacity Development Committee (CDC) will present the recommendations under Items 7 and 8 of this Meeting.

2.2. Call for Proposals for Collaborative Research for Young Scientists

Following the 21st IGM/SPG Meeting, a special call for proposals named Collaborative Research for Young Scientists (CRYS) was launched on 25 October 2016 as a pilot programme. The Secretariat received 8 summary proposals of which 7 are shortlisted for the next stage of review. In total, 7 full proposals are recommended for funding. The CDC will present the recommendations under Item 8 of this Meeting.

3. Frameworks

3.1. Biodiversity and Ecosystem Services Framework

- Three capacity building projects under the Biodiversity and Ecosystem Services Framework were completed in FY 2016, while 2 regional research projects are continuing.
- APN participated in the IPBES 5th Plenary held in March 2017 in Bonn, Germany.

3.2. Climate Adaptation Framework

- Twelve continuing projects under CAF were granted funding continuation at the 21st IGM/SPG Meeting.
- A session was organized during the Adaptation Futures 2016 conference held in Rotterdam, the Netherlands, to showcase activities conducted in regional research and capacity building projects under CAF.
- APN held two side events at the Asia Pacific Adaptation Network Forum held in October 2016 in Colombo, Sri Lanka.

3.3. Low Carbon Initiatives Framework

- Outputs of 6 projects conducted under the Low Carbon Initiatives Framework (LCI) were developed into policy briefs and disseminated to APN members at the 21st IGM/SPG Meeting.
- Outputs of LCI were shared at the Science-Policy Dialogue (SPD) held in February 2017 in Bangkok, Thailand. Information on the SPD is provided in Section 6 of this report.

4. Subregional Activities

4.1. South Asia

The South Asia Collaborative Approach Workshop was held on 12–13 December 2016 in Paro, Bhutan. The Workshop was hosted by the National Environment Commission, Royal Government of Bhutan, with the participation of 11 representatives from 10 organizations in South Asia and APN members of the South Asia Subregional Committee (SA-SRC).

Following the Workshop, the 7th SA-SRC meeting was held on 13 December 2016. The meeting reviewed action points that were endorsed at the SA-SRC parallel session held at the 21st IGM/SPG Meeting. The meeting also reviewed outputs of the above Workshop and considered ways to improve the effectiveness of APN in addressing the needs of South Asia.

Additionally, the annual Proposal Development Training Workshop (PDTW) was held back-to-back with the Workshop and the SA-SRC meeting. Information on the PDTW is available in Section 5 of this report.

4.2. Southeast Asia

The 9th Southeast Asia Subregional Committee (SEA-SRC) meeting was held on 9-10 February 2017 at the Asian Institute of Technology (AIT), Pathum Thani, Thailand, back-to-back with the capacity building workshop and SPD that was co-organized by APN, AIT Regional Resource Centre for Asia and the Pacific (RRC.AP) and Low Carbon Asia Research Network (LoCARNet). The participants consisting of national Focal Points (hereafter referred to as nFPs), Scientific Planning Group members (hereafter referred to as SPG members) and their alternates for Thailand, Viet Nam, Indonesia and Malaysia reviewed and discussed the progress of action points from the 8th SEA-SRC meeting and the SEA-SRC parallel session held at the 21st IGM/SPG Meeting. The discussion included:

- Possible collaborative activities with ASEAN in 2017;
- Alternative plan to approach Myanmar;
- Role of the SEA-SRC in the Southeast Asia network established by the Mountain Research Initiative and possible collaboration;
- Future activities under the SEA-SRC project on climate change adaptation in urban planning in Southeast Asia; and
- Knowledge and best practices on technology needs assessment (mitigation and adaptation) in the context of the Paris Agreement, and to develop a concept paper in this regard as a SEA-SRC activity for submission to the 22nd IGM/SPG Meeting.

4.3. Temperate East Asia

The Temperate East Asia Subregional Committee (TEA-SRC) did not hold a meeting. However, the Committee continued to discuss by email on the best way to collaborate within the subregion and agreed to closely work on:

- Supporting and encouraging young scientists from the subregion to submit proposals to the call for proposals of APN;
- Considering a proposal to establish a platform or a network for young scientists in the subregion;
- Considering to develop a co-finance system between APN and member countries;
- Developing a topic for training young scientists during the TEA-SRC meeting; and
- Discussing the agenda, time and venue of the next TEA-SRC meeting during the subregional committee parallel session at the 22nd IGM/SPG Meeting.

5. Proposal Development Training Workshop

The 2016 PDTW was held on 14-16 December 2016 in Paro, Bhutan. The Workshop involved 22 young and early career scientists selected out of 182 applicants from six South Asia member countries. Eighty three percent of the participants had not received international research grants before.

Participants worked with their mentors to prepare and review group proposals on the following themes: (1) greenhouse gas emissions and climate change; (2) observed climate change and variability; (4) paleoclimatology; and (5) climate applications. Past Global Changes (PAGES) provided USD 6,000 to support the participation of 6 young scientists specializing in past global changes studies.

APN has conducted 15 PDTWs to date, engaging in total 286 young and early career scientists. APN has received 54 proposals developed by PDTW trainees of which 8 were submitted to CRYIS. In total, 10 proposals were approved for funding by the 21st IGM/SPG Meeting.

6. Science-Policy Dialogue

APN, LoCARNet and AIT RRC.AP co-organized a capacity building workshop and SPD at AIT on 6-8 February 2017 in Pathum Thani, Thailand. The activities were targeted to strengthen global responses to climate change set forth in Article 2 of the Paris Agreement, and to celebrate four years of support for low-carbon development by APN and LoCARNet.

The three day activity reviewed results from LCI, CAF and the latest outcomes of programmes of partner organizations that support the implementation of the Paris Agreement. The activities included the capacity building workshop (one day) and the SPD (two days) that included discussion on: (1) the role of green investment in cities; (2) low-carbon and energy-efficient technologies; (3) better water-energy-carbon nexus, among others. In addition, participants joined “café kiosks” and discussed issues on effective science and policy interactions, knowledge management, and networking and capacity building to realize a low-carbon and resilient Asia. Decision-making games also formed part of the activities engaging participants in making decisions that are or may be high-risk decisions. A policy brief summarizing the outcomes and recommendations of the SPD will be published this year.

7. Hyogo Activities

7.1. EMECS11

APN supported the participation of former project leaders and collaborators of APN funded projects to the Environmental Management of Enclosed Coastal Seas (EMECS) 11th Joint Conference “Managing Risks to Coastal Regions and Communities in a Changing World” held on 22-27 August 2017 in St. Petersburg, Russia.

7.2. International Open Seminar on Hokusetsu SATOYAMA

The International Open Seminar on Hokusetsu SATOYAMA was co-organized by APN and the Hyogo Prefectural Government on 21 November 2016 in Takarazuka, Japan. The objective of the Seminar was to discover new values of Satoyama in modern society by developing the understanding of the importance of harmonious coexistence of humans and nature. The Seminar received the participation of approximately 150 people from governments, universities, private companies, volunteer groups and citizens from Japan and overseas.

8. Other Activities

8.1. Second International Workshop on Waste Management and the 3Rs

APN organized the Second International Workshop on Waste Management and the 3Rs on 10 March 2017 in New Delhi, India, hosted by the Ministry of the Environment of Japan. The Workshop received the participation of approximately 60 people from governments, universities and private companies in India, Iran, Japan, Myanmar and Sri Lanka.

The Workshop was composed of presentations on waste management and recycling from each participating country. The Workshop also provided a platform for participants to frankly discuss and share best practices to promote proper waste management, and to introduce possible technologies to achieve a sustainable society.

8.2. Technology Transfer Scoping Workshop

APN organized the Technology Transfer Scoping Workshop on 6-7 December 2016 in Kobe, Japan. The two day workshop concluded with inputs for the development of a framework on research and capacity development in technology transfer.

The objective of the Workshop was to address technology transfer needs among developing member countries with the aim of establishing a robust collaborative regional research and capacity development framework under APN. It is hoped that the framework will provide support for technology transfer research, synthesis, assessment and capacity development to effectively respond to the needs of member countries. The Workshop also aimed to produce information on how decision makers can lead the discussion in developing stronger solutions for an adaptable, sustainable, low-carbon Asia-Pacific region in a warming climate.

The Workshop was attended by researchers and experts on technology transfer from: the Asia Development Bank; The Energy and Resources Institute; Institute for Global Environmental Strategies; Kitakyushu Foundation for the Advancement of Industry, Science and Technology; International Institute for Sustainable Development; Sustineo/Australian National University; UNEP International Environmental Technology Centre; APEC Virtual Center for Environmental Technology Exchange Japan; AIT RRC.AP; Climate Technology Centre and Network (CTCN); University of Southern Queensland; International Research Network for Low Carbon Societies(LoCARNet); Global Environment Centre Foundation; National Institute for Environmental Studies (NIES); Vietnam Academy of Science and Technology (VAST); Asia-Europe Foundation; Department of Science and Technology of the Philippines; National Environment Commission Secretariat of Bhutan; the Global Environment Facility (GEF); and the Ministry of the Environment of Japan. A summary report of the outcomes is attached as Appendix 2.

8.3. South Asia Media Fellowship Programme

APN organized the South Asia Media Fellowship Programme themed “Homegarden Systems in the Face of Climate Change” in collaboration with the University of Peradeniya, Sri Lanka, on 13–14 July 2016 in Kandy, Sri Lanka. As a special activity to celebrate the 20th anniversary of APN, the Programme was the first attempt to directly engage the mass media in disseminating outcomes of APN activities to a wider public audience.

Seven young journalists from 6 countries in South Asia took part in the Programme. Articles prepared by participants appeared in national newspapers and mass media platforms such as the Dhaka Tribune (Bangladesh), My Republica (Nepal), Pakistan Today (Pakistan), Sunday Observer (Sri Lanka) and Sri Lanka Broadcasting Corporation (Sri Lanka).

9. Change of Members

In FY 2016, APN welcomed new members from the following countries.

- Bangladesh: Mr Muhammad Ziaur Rahman (nFP), Ministry of Environment and Forest
- Bhutan: Mr Karma Tshering (nFP), National Environment Commission
- Bhutan: Mr Jamba Tobden (SPG member), Royal University of Bhutan
- Cambodia: Mr Roath Sith (nFP), Ministry of Environment
- Thailand: Dr Monthip Sriratana (nFP), National Research Council of Thailand

10. New Outputs and Publications

10.1 Output from Projects

Projects under CRRP produced: 10 final project reports; 18 papers presented in conferences; 2 poster presentations in conferences; 3 workshop proceedings; 9 peer-reviewed papers in 7 international journals; 10 papers in national journals; 1 special edition newsletter; 6 working paper series at the United Nations University; 1 master's degree thesis; and 1 set of guidelines. Projects under CAPaBLE produced: 6 final project reports; 1 briefing paper; 1 brochure; 2 conference papers; 9 peer-reviewed papers; 1 book on green growth; and 1 handbook on small hydropower development and environment. LCI projects produced: 1 final project report; one workshop proceeding; and 6 case study reports.

10.2 In-house Publications

In-house publications include: Proceedings of the 21st IGM/SPG Meeting; Annual Report FY 2015; APN brochure in Japanese; Science Bulletin 2017 (ongoing); and policy brief on the SPD on low-carbon initiatives and climate adaptation (ongoing).

11. List of Major Events

Events organized by APN

- APN Session at the 4th Climate Adaptation Futures Conference, Rotterdam, the Netherlands (10-14 May 2016)
- South Asia Media Fellowship Programme, Kandy, Sri Lanka (11-15 July 2016)
- International Open Seminar on Hokusetsu SATOYAMA, Takarazuka, Japan (12 November 2016)
- Scoping Workshop on Technology Transfer, Kobe, Japan (6-7 December 2016)
- South Asia Collaborative Approach Workshop, Paro, Bhutan (12-13 December 2016)
- Proposal Development Training Workshop (PDTW) 2016, Paro, Bhutan (14-15 December 2016)
- Capacity building workshop and SPD on climate change, Bangkok, Thailand (6-8 February 2017)
- Second International Workshop on Waste Management and the 3Rs, New Delhi, India (8-11 March 2017).

APN committee and task force meetings

- The First Task Force Meeting on the Future Development of APN, Kobe, Japan (22-23 August 2016)
- The 7th SA-SRC meeting, Paro, Bhutan (13 December 2016)
- The 9th SEA-SRC meeting, Bangkok, Thailand (9-10 February 2017)
- The 2nd Task Force Meeting on the Future Development of APN, Kobe, Japan (27-28 February 2017).

Events where APN was represented

- International Research Dialogue, 44th SBSTA, UNFCCC, Bonn, Germany (16-26 May 2016)
- 23rd Pacific Science Congress, Taipei, Taiwan (13-15 June 2016)
- 8th International Forum for Sustainable Asia and the Pacific, Yokohama, Japan (12-13 July 2016)
- NAP Expo 2016: Advancing National Adaptation Plans Post-Paris, Bonn, Germany (11-15 July 2016)
- EMECS 11th Joint Conference, Saint Petersburg, Russian Federation (22-27 August 2016)
- Climate and Ocean: Variability, Predictability and Change Open Science Conference, Qingdao, China (18-25 September 2016)
- IPBES Capacity Building Meeting, New York, United States (23 September 2016)
- 5th Asia-Pacific Climate Change Adaptation Forum, Colombo, Sri Lanka (17-19 October 2016)
- Belmont Forum Plenary Meeting, Doha, Qatar (31 October-2 November 2016)
- Seventh Regional 3R Forum in Asia and the Pacific, Adelaide, Australia (2-4 November 2016)
- Monsoon Asia Integrated Regional Study, Scientific Steering Committee Meeting, Kyoto, Japan (17-18 November 2016)
- IPBES Stakeholder Day and the 5th Plenary of IPBES, Bonn, Germany (6-12 March 2017)

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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Item 2 of the draft agenda¹

Item 2.1 Appendix 1. Action Points for Fiscal Year 2016

Summary

This document provides a list of action points approved by the 21st IGM/SPG Meeting.

¹ IGM/22/A.

1. Action Points Approved by the IGM for FY 2016

Item #	Item description	Action #	Action description	Action by
	Election of Chair	Action 1	The IGM elected Dr Zhang Jiutian of China as Chair, and Dr Luis M. Tupas of USA as Vice-Chair of the 21st IGM/SPG Meeting.	IGM, Chairs
1.	Adoption of the Draft Agenda	Action 2	The draft agenda was adopted as presented. No items of any other business were raised.	IGM
2.	Reports from Steering Committee (SC) & Secretariat	Action 3	The IGM approved the SC Chair's report with the condition that: <ul style="list-style-type: none"> • Additional information on the Science-Policy Dialogue be included in the Chair's Summary; • Co-funding in Cambodia for PDTW be included in the Chair's Summary; • Courtesy calls to Sida, USAID and USGCRP be included in the Chair's Summary; • An error in the Annual Report related to SC elected member for Pakistan be corrected in the electronic version of the report. 	IGM
		Action 4	Secretariat will continue its communications with Myanmar and provide an update at the 22nd IGM.	Secretariat
		Action 5	The IGM approved the Final Financial Report for FY 2014.	IGM
		Action 6	The Financial Status Report for FY 2015 was accepted by the IGM. The Secretariat will finalize the Report and present it to the SC during the next intersessional meeting for endorsement by the SC and to the 22nd IGM meeting for approval.	IGM, SC, Secretariat
		Action 7	Secretariat will document and include all in-kind contributions for APN operations.	Secretariat
		Action 8	APN is to work on a full cost accounting procedure with the assistance of Dr Matthews and Dr Tupas in the process of defining the metrics of in-kind contributions.	Dr Matthews, Dr Tupas and the Secretariat
		Action 9	Secretariat will add country breakdowns to the in-kind contributions section of the financial reports.	Secretariat
3.	APN Framework Document IGM,	Action 10	The amount of time and financial resources APN Member countries provide to APN meetings should be recorded in figures.	Secretariat
		Action 11	The Framework Document Task Team will collect further input on the Draft Proposed Amendments to the Framework Document and prepare a finalized suggestion for IGM adoption under Item 7 of the Meeting.	FD Task Team, IGM

	SC, Secretariat (PART I)	Action 12	Secretariat will use the current model of email communication with national Focal Points for the nomination process, which will open in mid-November.	Secretariat
5.	Activities for FY 2016	Action 13	The IGM endorsed the report on core programmes and science frameworks (IGM-SPG/21/05-01).	IGM, SPG, Secretariat
		Action 14	Secretariat will take necessary steps to organize the scoping workshop on technology transfer as presented in IGM-SPG/21/05-02 and share its outcomes in the next IGM, with the following understanding: <ul style="list-style-type: none"> • Dr Lance Heath will provide contact details of an APEC work group on technology transfer to seek synergies and build potential network; • Dr Stevenson serves as contact person on ideas/concepts about other scoping activities; • Secretariat will circulate more detailed ideas about the scoping workshop to members and stakeholders, for example the specific areas of technology transfer; • The intersessional SC Meeting will review and further discuss the plan and arrangement for the scoping meeting on technology transfer. 	Secretariat, Lance Heath, IGM, SPG
		Action 15	Secretariat will work with Hyogo Prefectural Government to organize an international workshop on Satoyama in the latter half of 2016 as presented in paper IGM-SPG/21/05-03.	Secretariat, Hyogo
		Action 16	Secretariat will send and assist selected researchers (listed in paper IGM-SPG/21/05-03) to participate effectively in the 11th EMECS Conference.	Secretariat, Project leaders
		Action 17	Secretariat will make necessary arrangements to ensure the active engagement of APN in major international science-policy processes including UNFCCC SBSTA, COP meetings and IPBES sessions as presented in paper IGM-SPG/21/05-04.	Secretariat, APN Members
		Action 18	Secretariat will further communicate with LoCARNet/LCS-RNet with a view to hold a joint activity in FY 2016 to increase visibility of the Low Carbon Initiatives framework of APN, inter alia.	Secretariat, Project leaders
		Action 19	Secretariat will communicate with organizers of the Asia-Pacific Adaptation Forum to secure the presence of APN in the Forum through organizing/co-organizing interactive sessions with the possibility of holding booth exhibitions.	Secretariat
		Action 20	The SA-SRCom will report to the IGM under Item 8 with details of a suggested approach to collaborate with organizations in South Asia.	SA-SRC, Secretariat
6.	Proposed Work Programme, Budget and Risk Management	Action 21	The IGM approved the proposed work programme and budget for FY 2016 by taking the following points into consideration: <ul style="list-style-type: none"> • The IGM is to consider developing capacity building activities in support of the IPCC AR6 process, the implementation of the Paris Agreement and the realization of SDGs; 	IGM, Secretariat

	Strategies for FY 2016		<ul style="list-style-type: none"> The IGM agreed to close out the project ARCP2009-Schaefer. 	
7.	APN Framework Document	Action 22	The IGM adopted the draft amendments to the Framework Document, which was presented by Dr Subramaniam Moten on behalf of the Framework Document Task Team.	IGM, Secretariat, Task Force
		Action 23	Amendments on the election of the next SC will take effect at the following IGM.	
8.	Sub-Regional Committee Reports and Discussions	Action 24	The IGM endorsed reports from the South Asia (SA), Southeast Asia (SEA) and Temperate East Asia (TEA) Sub-Regional Committees, and requested the committees to follow up on the proposed actions presented, including those indicated as action points below.	IGM, Secretariat, SRComs
		Action 25	South Asia SRC: <ul style="list-style-type: none"> The SA-SRC elected Chair is the nFP for Sri Lanka and Vice-Chair is the SPG member for Bangladesh; A cover letter from APN and nFP/SPG member will be drafted and sent to the 22 organizations identified; contact persons will be identified and invited to the collaboration workshop; A virtual meeting will be conducted on the activity between May and September 2016; The SA-SRCom will seek financial partnerships with collaborating organizations; The SA-SRC meeting will be conducted back-to-back with the collaboration workshop and PDTW in October 2016 at Pakistan; SA-SRCom nominated the nFP for Pakistan, currently observer in SC, to serve in the SC for a one-year term; If Pakistan cannot host the SA-SRC meeting and associated meetings, Sri Lanka will host these back-to-back meetings². 	SA-SRC, Secretariat
		Action 26	Southeast Asia SRC: <ul style="list-style-type: none"> The elected Chair is SPG Member for Viet Nam and Vice-Chair is nFP for Cambodia; Training under the second year of the CAPaBLE project will be held in Bangkok, followed by a synthesis workshop in Ho Chi Minh City; Tentatively, members agreed to hold the 9th SEA-SRC meeting in 7-10 November 2016 at Viet Nam as a back-to-back event with the synthesis workshop; Following a recent successful meeting in Hanoi on Waste Management and the 3Rs, SEA-SRC wishes to conduct a similar international workshop involving private sector and communities; 	SEA-SRC, Secretariat

² The venue was subsequently changed to Bhutan.

			<ul style="list-style-type: none"> • Undertaking efforts to establish a Mountain Research Initiative in Southeast Asia; • The SRCom will nominate two members from SEA (nFP of Malaysia and Philippines) to serve in the SC for a two-year term; • The Secretariat is to provide a terms of reference for SEA-SRC for ASEAN collaboration. 	
		Action 27	<p>Temperate East Asia:</p> <ul style="list-style-type: none"> • Dr Wenjie Dong is elected TEA Chair and Dr Soojeong Myeong Vice-Chair; • The TEA-SRC is to continue supporting and encouraging young scientists from TEA to submit proposals to APN; • It was proposed to establish an APN young scientists' platform or network in the region; • Consider developing a co-financing system between APN and member countries; • Biodiversity is decided as the theme of focus for FY 2016; • The SRCom will further communicate by email in order to develop a clear topic for training young scientists during the SRC Meeting; • China or Korea will host the next TEA meeting. Detailed venue, time and agenda will be discussed by members via email after the IGM. 	TEA, Secretariat
9.	SPG Report: Topics of Interest and CRRP Recommendations for Funding	Action 28	<p>Actions from Report by SPG Co-Chair:</p> <ul style="list-style-type: none"> • Two ARCP multi-year projects were accepted for continued funding; • Twelve multi-year CAF projects were approved, 4 were conditionally approved based on progress report submission, recommendation and approval at the interim SC meeting; • Ten new proposals for CRRP were approved: 8 new projects and 2 seed grant awards. 	Secretariat
		Action 29	<p>On the brainstorming of the proposals and review process to ensure efficiency, transparency and fairness, the following actions were noted:</p> <ul style="list-style-type: none"> • Work will continue on a renewed skeletal revised process with the intention of implementing a pilot proposal and review process in 2016. Results are to be presented at the next IGM; • More discussions on capacity development are to take place under Item 10 of the present IGM. 	SPG, CDC, Secretariat
		Action 30	<p>Emerging issues, topics and priorities for the 2016 call for proposals were listed and accepted with the following add-ons:</p> <ul style="list-style-type: none"> • It was made clear by the IGM that the list presented is not exhaustive; • Policy implementation and sustainable development goals have to be emphasized as well. 	Secretariat
		Action 31	<p>The new SPG Sub-Committee (SPG-SC) and SPG Co-Chairs were elected:</p> <ul style="list-style-type: none"> • Dr Kensuke Fukushi, SPG Member for Japan will act as Co-Chair for one more year; 	IGM

			<ul style="list-style-type: none"> • Dr Giashuddin Miah, SPG Member for Bangladesh is elected as SPG Co-Chair for a two-year term; • Dr Tsogbaatar Jamsran, SPG Member for Mongolia will serve one additional year as SPG-SC Member; • Dr Fariza Yunus, SPG Member for Malaysia will serve one additional year as SPG-SC Member; • Dr Louie Tupas, SPG Member and nFP for USA is elected as a new SPG-SC Member. 	
10.	CDC Report: Topics of Interest and CAPaBLE Recommendations for Funding	Action 32	<p>Actions from Report by the CDC:</p> <ul style="list-style-type: none"> • One CAPaBLE multi-year project was approved and another conditionally approved based on successful submission of a progress report that will be presented to the interim SC Meeting for endorsement; • Eight new proposals under CAPaBLE were approved for funding. 	CDC
		Action 33	The work on the definition of Capacity Development in the context of APN, as well as the development of the conceptual framework was approved.	CDC
		Action 34	<p>The new Capacity Development Committee (CDC) was elected:</p> <ul style="list-style-type: none"> • Dr Kensuke Fukushi, SPG Member for Japan and SPG Co-Chair (ex-officio); • Dr Giashuddin Miah, SPG Member for Bangladesh as new SPG Co-Chair (ex-officio); • Ms Peldon Tshering, SC Chair (ex-officio); • Donor Member (Japan); • Dr Andrew Matthews, invited expert; • Prof. Roland Fuchs, invited expert; • Dr Srikantha Herath, invited expert; • Dr Juan Pulhin, invited expert. 	CDC
		Action 35	<p>A session ensued on developing the capacity of young/early career scientists, some of the action points generated for further discussion by the SC include:</p> <ul style="list-style-type: none"> • Secretariat is to remind young scientists who participated in the PDTW in Mongolia to submit proposals to APN; • Young scientists should be referred by senior scientists or introduced to senior scientists when submitting proposals. In this context, APN is to explore a mentoring system for young scientists, explore with countries that have resources on a co-financing mechanism which will benefit these countries in the review process. In doing so, consideration is to be given to the thematic priorities of countries engaged in such co-funding mechanisms; 	IGM, SC, Secretariat

			<ul style="list-style-type: none"> • APN is to consider reserving a small portion of funds for young scientists who submitted proposals. The funds do not have to be a large amount – in the range of US\$10,000 and it would be considered as “Early Career Awards”; • Be conscious to involve young scientists in science-policy dialogues and other activities in APN; • Online networking is very important and should be strengthened within the mechanism of APN; • APN is to further develop its mechanisms to advertise the availability of training to young scientists; • SC will discuss all of the above issues with the aim of possible implementation. 	
11.	APN Future Development	Action 36	<p>In the discussion that ensued on APN Future Development, the following points were noted for further consideration by the SC.</p> <ul style="list-style-type: none"> • The IGM may establish two task forces: one to work on activities to assess the core value of APN based on experiences of the past 20 years, and the other to work on a partnership approach that could be discussed with member countries in order to solve some of the technical aspects of APN’s operations and consider the potential barriers for creating such partnerships; • Japan and Dr Matthews would like to participate in these task forces; • A concept paper to be developed by Japan will be shared with the task forces, circulated among national Focal Points in the final draft stage and introduced to the IGM. The work will start as soon as possible; • The mandate of the SC is well laid out in the Framework Document and is responsible for resources development. The SC can nominate suitable candidates who the Secretariat Director will invite to join the Task Force as NAIEs; • The SC will make an action plan for the task forces; • Additional discussion that can be incorporated into the action points above: <ul style="list-style-type: none"> ○ It is important to streamline APN. However, we should not have a 2-day meeting for the IGM without considering the significance of the Meeting; ○ Discuss a strategy to ensure that a full contingent of national Focal Points attend the IGM; ○ Discuss the concern on recent financial contribution imbalance of which 90% of income is contributed by Japan. All member countries should make a financial contribution – this is an expectation of the Ministry of Finance of Japan; ○ We need to see more tangible outputs from APN projects to ensure the 	IGM, SC

			<p>continuation of funding;</p> <ul style="list-style-type: none"> ○ Bilateral-based projects would be a good mechanism that APN could undertake; ○ The uniqueness of APN seems to prevent other partners from donating to APN; ○ Need to create a new programme that would develop strong ownership through co-financing; ○ Access to Green Climate Fund would be good for APN; ○ Bilateral-based projects/mechanisms could send a clear signal on projected outputs to policymakers; ○ Japan will develop a concept paper on this for FY 2017; ○ The SC can form co-opt groups within the SC to work on specific tasks. 	
12.	Confirmation of Steering Committee Procedures and Members for 2016 and Beyond	Action 37	<p>The IGM confirmed the SC membership as outlined below. The SC will discuss and select co-opted members in a meeting after the present IGM. The host country of the next IGM will be announced under Item 13 or upon official communication by the host country after the IGM.</p> <ul style="list-style-type: none"> • Elected nFPs <ul style="list-style-type: none"> ○ Ms Peldon Tshering, Bhutan (Chair) ○ Dr Chengyong Sun, China (First Vice-Chair) ○ Mr Marcial Amaro, Philippines ○ Mr Muhammad Irfan Tariq, Pakistan ○ Dr Andrey V. Adrianov, Russian Federation ○ (Discussion on the Second Vice Chair to be made at the 33rd Steering Committee) • Ex-officio members (SPG Co-Chairs) <ul style="list-style-type: none"> ○ Dr Kensuke Fukushi, SPG Member for Japan ○ Dr Giashuddin Miah, SPG Member for Bangladesh • Donor members <ul style="list-style-type: none"> ○ Dr Akio Takemoto, nFP for Japan ○ Mr Beom-Sik Yoo, nFP for the Republic of Korea • Host of the next IGM (one-year term) <ul style="list-style-type: none"> ○ To be announced • Co-opted members (one-year term) <ul style="list-style-type: none"> ○ To be announced 	SC, Secretariat, next IGM host country
		Action 38	Based on the new amendments to the Framework Document, the staggered SC election system will begin from April 2017 by electing 2 or 3 members depending on the year.	
13.	Hosts for 22nd and 23rd	Action 39	No decision was made on the host country for the 22nd Joint SPG-IGM Meeting. Members will consider and contact the Secretariat.	Members, Secretariat

	IGM/SPG Meetings			
14.	21st IGM Action Points: Budget (Part I) and Others (Part II)	Action 40	The IGM Chair and Secretariat will revise the draft action points based on input from participants under the current agenda item.	IGM Chair, Secretariat, Members
Item 15.	AOB, Final Remarks, Closing and Housekeeping	Action 41	The “APN Mitra Award for Global Change Research” was awarded to Dr Lu Heli for his work on “A Spatially Explicit Modelling Framework of Cost-Benefit and Carbon Emissions from Land Use Coverage Changes for Implementing REDD+ in Southeast Asia”.	IGM, Secretariat
		Action 42	The “L. B. Brown Memorial Photography Award” was given to Mr Mohammad Rakibul Hasan, Bangladesh for his photo themed “Water for Sustainability”, which was submitted to the monthly contest for August 2015.	IGM, Secretariat
		Action 43	The IGM may consider establishing a Sub-Regional Committee for Oceania.	IGM, Secretariat

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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Item 2 of the draft agenda¹

**Item 2.1. Appendix 2: Technology Transfer Needs for Asia
and the Pacific – A Scoping Workshop**

Summary

This document is a report of the Technology Transfer Scoping Workshop held in December 2016 in Kobe, Japan.

¹ IGM/22/A.

1. Abstract

The objective of the Technology Transfer Scoping Workshop is to address technology transfer needs among developing member countries with the aim of establishing a robust collaborative regional research and capacity development framework. It is hoped that the framework will provide support for technology transfer research, synthesis, and assessment and capacity development to effectively respond to the needs of member countries. The Workshop also aimed to produce information on how decision makers can lead the discussion in developing stronger solutions for an adaptable, sustainable, low-carbon Asia-Pacific region in a warming climate.

2. Meeting Overview

The Workshop was held on 6-7 December 2016 in Kobe, Japan. The two day workshop concluded with inputs for the development of a framework on research and capacity development in technology transfer.

The Workshop was attended by researchers and experts on technology transfer from: Asia Development Bank; The Energy and Resources Institute; Institute for Global Environmental Strategies; Kitakyushu Foundation for the Advancement of Industry, Science and Technology; International Institute for Sustainable Development; Sustineo/Australian National University, UNEP International Environmental Technology Centre; APEC Virtual Center for Environmental Technology Exchange Japan; AIT RRC.AP; Climate Technology Centre and Network; University of Southern Queensland; International Research Network for Low Carbon Societies/LoCARNet; Global Environment Centre Foundation; National Institute for Environmental Studies; Vietnam Academy of Science and Technology; Asia-Europe Foundation; Department of Science and Technology of the Philippines; National Environment Commission Secretariat of Bhutan; the Global Environment Facility; and the Ministry of the Environment of Japan.

Mr Hiroshi Tsujihara, Director of the Secretariat, delivered an opening remark, which was followed by a self-introduction from participants.

3. Presentation Session

3.1 APN: Technology Transfer Needs in Asia-Pacific

Dr Linda Stevenson delivered a presentation on APN and an overview of the Technology Transfer Scoping Workshop. Dr Stevenson mentioned that in its 4th Strategic Phase, APN emphasizes the importance of inter- and transdisciplinary approaches in addressing regional issues.

Dr Stevenson stated that the two day workshop is expected to result in a robust collaborative regional research and capacity development initiative for technology transfer in the context of global change and sustainability. This initiative, which may be a stand alone framework or embedded under Collaborative Regional Research Programme and the Scientific Capacity Development Programme, would provide support for technology transfer in research, synthesis, assessment and capacity development activities.

Selected key players were then invited to deliver presentations and share their experiences and knowledge in the implementation of technology transfer. Following the presentations, group discussions were conducted to identify: (i) what has taken place in terms of research and capacity development in technology transfer; (ii) key players and their roles in technology transfer and; (iii) potential research and capacity development themes and activities that can be included in the Technology Transfer Framework of APN.

3.2 CTCN: Enabling Technology Transfer

Dr Parimita Mohanty from Climate Technology Centre and Network (CTCN) delivered a presentation on the activities conducted by CTCN to support technology transfer. The main role of CTCN is to

support technology transfer for developing countries based on their requirements. To date, CTCN has received 157 requests from developing countries in areas that include: (1) technology identification; (2) strengthening technology policy and regulation; (3) enhancing project readiness; (4) project scale-up by accessing investment; and (5) capacity building and knowledge management.

Based on the assessment it conducted, CTCN identified capacity building and knowledge sharing as main requirements to conduct technology transfer. CTCN conducts different types of capacity building based on the requirement of each country including: (1) empowering focal points at national level; (2) sharing experience at regional level through network meetings; (3) providing thematically focused learnings on areas where countries are frequently requiring assistance; (4) the Least Developed Countries Incubator Programme; and (5) the Secondment Programme.

3.3 GEF: Supporting Activities and Technology Transfer of the Global Environment Facility

Ms Masako Ogawa delivered a presentation remotely from the Global Environment Office (GEF) in Washington DC. Ms Ogawa explained the support that GEF has provided on technology transfer.

GEF has been supporting efforts to address climate change and technology transfer as one of the focused themes under mitigation and adaptation. The support of GEF in regional projects consists of three core elements: (1) policy development; (2) focal points and technical assistance; and (3) financial support. In supporting the Paris Agreement, GEF has been requested to support countries in formulating policies, strategies, programmes and projects to implement activities that advance priorities identified in their Intended Nationally Determined Contributions (NDCs) starting in 2016, and GEF intends to support countries to implement the Paris Agreement.

3.4 ADB: Scaling Cleantech in Asia

Mr Daniel Hersson from the Asia Development Bank (ADB) presented on Cleantech, the current project on technology transfer supported by ADB. ADB identified challenges faced in scaling up Cleantech in Asia as:

There's a lack of entrepreneurs, i.e. lack of strong and experienced Cleantech entrepreneurs; (ii) Lack of early-stage risk capital; (iii) Weak ecosystem. ADB has been focusing its support to build Cleantech ecosystem through: (i) Support accelerators & incubators; (ii) Support new Cleantech investors; (iii) Support Cleantech marketplaces; (iv) support networking and collaboration.

3.5 TERI: Case Studies of Technology Transfer in India

Dr Girish Sethi from The Energy and Resources Institute (TERI) presented a case study on technology transfer that took place in India. Lessons learnt from the case studies are: (1) technology transfer was implemented through business-to-business in India of which common barriers faced during the process were financial and technological barriers, among others; (2) key important factor is the process of technology transfer and knowledge flows; (3) high potential for adoption of low-carbon technologies in developing countries in terms of mitigation; (4) enabling collaborative research, development, deployment and diffusion (research, design, development and demonstration) and; (5) considering local conditions when adopting technology and involving local players to ensure sustainability of the project as a matter of importance.

3.6 Status of Technology Needs of Bhutan

Mr Karma Tshering informed the participants on climate technology status and challenges in Bhutan. Bhutan developed its Technology Needs Assessment (TNA) in 2013 that identified technology needs,

and developed the Nationally Appropriate Mitigation Actions on transport and waste, and energy efficiency in buildings. Several challenges that Bhutan currently face are adopting appropriate technologies that suit the conditions of Bhutan and the absence of specific policies on climate change. Mr Tshering noted the top priority sectors for technology transfer for Bhutan, which includes industries such as waste and transport, and issues such as energy efficiency in buildings.

3.7 VAST: Case Study on Technology Transfer and Technical Capacity Building in Resource Utilisation-GHG Mitigation in Vietnam

Dr Kim Chi Ngo from Vietnam Academy of Science and Technology (VAST) presented case studies on technology transfer conducted in Viet Nam. From the experiences shared, Dr Ngo identified some factors required to support successful technology transfer such as:

- Regulation and logistics of technology transfer (technical standards, norms, guidelines and promotion);
- Linkages with technical capacity building (human resources and equipment);
- Technology demonstration, role of institutions, private sector and government;
- Competition in technology (imported and locally made technologies): and
- Research and development support, including identification of barriers, challenges and opportunities on marketing the best available technologies.

4. Discussion Session

4.1. Regional Research

Regional research that responds to the needs of member countries as reflected in official documents such as NDCs and TNAs may take form in the following:

- Case studies on best practices and success stories of technology transfer;
- Action research and solution-oriented research that may address the following areas,
 - Development of web-based information platforms and establishment or improvement of technology information
 - Market and market based policies and instruments to enable technology transfer
 - Innovative financing or new business models for technology transfer and scale-up
 - Needs assessment and assessment of appropriate technology, localization of technology
 - Social issues on technology transfer (technology awareness and attitude, behaviour change, gender issues, etc.);
- Integration of mitigation and adaptation research that focuses on the ability to measure the effectiveness of technology transfer, particularly in relation to adaptation;
- Technology information, data collection and easy access;
- Private sector involvement (incentives, business model, civil society, and the role of the government in helping de-risk projects for greater private sector engagement);
- Opportunities resulting from technology transfer; and
- Development of web-based information platforms, establishment or improvement of technology information, data collection and ease of availability.

4.2 Capacity Building

Capacity building projects that respond to the needs of member countries in addressing the following:

- Establish and strengthen south-south cooperation on technology transfer;
- Increase capacity to access financial resources for technology transfer;

- Raise awareness, and increase knowledge and capacity on technology and technology transfer among member countries;
- Improve decision-making processes;
- Train on the use and application of technology, and capacity building on low-cost technology particularly at the community level;
- Twinning programme; and
- The role of the private sector in building capacity.

4.3 Science-Policy Interactions

Science-policy interactions that aims at:

- Establishing technology discussion forums and policy forums;
- Increasing multi-stakeholder and multi-sector engagement, and multiple level of policy- and decision makers;
- Effective mechanism of data, information and knowledge delivery (interactive dialogue, synthesis activities etc.);
- Explore mechanisms to better improve engagement with policy makers as mentioned in Table 4; and
- Research should focus on: (1) how technology transfer interventions interact with NDCs; (2) government strategies and politics around climate change policies; (3) attitudes to international climate processes such as the UNFCCC; and (4) bilateral and plurilateral² engagements.

4.4 Collaboration, Communication, and Outreach

4.4.1 Partnerships

Establish partnerships with other organizations to combine strengths and to create significant impacts more effectively and efficiently.

- Include relevant organizations such as CTCN in APN network.

4.4.2 Communication and outreach

Undertake communication and outreach activities that effectively reach multiple level of stakeholders, from community level to the policymaking and decision-making level.

- Engaging national Focal Points to take part in disseminating findings.

² A plurilateral agreement is a multi-national agreement between countries. In economic jargon, it is an agreement between more than two countries, but not a great many, which would be multilateral agreement.

Appendix 1. Group Discussion Result

1. Current situation on research and capacity development on technology transfer

Adaptation Group	Mitigation Group
<p>Identified research and capacity development activities on adaptation technology transfer are:</p> <ul style="list-style-type: none"> • Remote sensing and early warning systems. Ministry of the Environment of Japan is supporting small island states to use remote sensing for climate change impacts, linked to early warning systems. • Hydrological and agricultural modelling that makes CC information relevant for policy. • Hard engineering solutions – sea walls, river protection works etc. • Ecosystem based adaptation as complementary to hard engineering solutions. • Behavioural and other social science research, including discussion support systems (not just decision support systems). • Studies on crop suitability and management for altered climate regimes (Bhutan can now plant rice at higher altitudes, however new pests and diseases are entering the area where they did not previously exist) (GM, breeding). • Infectious diseases (health impacts). • Downscaling of global climate models to actionable levels. • In Vietnam, participatory research involving communities and small businesses on coffee and rubber plantations are underway. • Infrastructure vulnerability assessments: In various countries, ADB supporting studies on risks of specific cities to CC impacts. • Impacts on existing urban housing and urban planning (e.g. increased exposure to flooding)? • APN supported a research project on linking climate change science to real time with decisions made by farmers. Finding from the research suggests that bottom-up approaches are needed. 	<p>Identified current situation on research and capacity development activities on mitigation technology transfer are:</p> <ul style="list-style-type: none"> • There are official documents on Nationally Determined Contributions (NDCs), Technology Needs Assessments (TNAs), Technology Action Plans (TAPs) and project ideas. • Sectoral-based research and capacity development are taking place. • There is a need for approaches that can lead to transformation, which implies multi-stakeholder engagement.

2. Barriers and challenges for technology transfer

Adaptation Group	Mitigation Group
<ol style="list-style-type: none"> 1. Social barriers/challenges <ul style="list-style-type: none"> • Behavioural changes at individual and community levels. • Social responsibility. 2. Financial barriers/challenges <ul style="list-style-type: none"> • Farmers risk adverse, reluctant to take up unproven technologies. • Lack of understanding on how to access adaptation financing and lack of sufficient financing. • Private sector investment in adaptation is very low. 3. Policy barriers/challenges <ul style="list-style-type: none"> • Low uptake of adaptation technologies (only 5% according to FAO). • Approach is too top-down. 4. Institutional barriers/challenges <ul style="list-style-type: none"> • Lack of human capacity to develop/ implement projects that are attractive to funders. • Difficulty in measuring the effectiveness of adaptation strategies. • Insurance and reinsurance (this is a new area taking a strong interest in private sector investment). 5. Intellectual property right issues. In general sense, it does not hinder technology transfer for adaptation, however this could differ between countries. 	<ol style="list-style-type: none"> 1. Technical barriers <ul style="list-style-type: none"> • Lack of access to technology information. • Lack of capacity to assess appropriate technology. • Lack of capacity to operate and maintain the technology 2. Institutional barriers <ul style="list-style-type: none"> • Lack of funding availability and capacity to access funding (i.e. formulate bankable projects). • Policies that are conducive for technology transfer are minimal. • Sectoral-based projects instead of multiple sector collaboration. • Conducive market is not available. 3. Social barriers <ul style="list-style-type: none"> • Cultural and language barrier. • Social resistance (lack of awareness, negative attitude towards technology).

3. Stakeholder mapping exercise

Adaptation Group

Suppliers	Procurers/ beneficiaries	Research	Finance	Policy making
<ul style="list-style-type: none"> • Developers (R&D) • Industry groups (at all levels of chain), local SMEs (installation); large enterprises • Distribution channels (NGOs) • Training • Knowledge networks (sharing experiences) • Research institutions (as knowledge generator, data, monitoring) • Data providers (NASA) • Standardization bodies 	<ul style="list-style-type: none"> • Agriculture (farmers and the whole supply chain) • Government (local, federal, regional) • Agencies (government, NGOs) • Village development committees 	<ul style="list-style-type: none"> • Researchers (knowledge generator) 	<ul style="list-style-type: none"> • Financing institutions 	<ul style="list-style-type: none"> • Ministries and departments • Local governments • Regional district level

Mitigation Group

	Research & Development		Technology Demonstration		Technology deployment/diffusion	
	Financing	Implementation	Financing	Implementation	Financing	Implementation
International		International research institutions	GEF, GCF	International organisations, such as UNDP, UNEP, ADB, GEF, WB		Small number of international organizations (due to intellectual property rights issue)
Regional	APN	Regional research institutions				
National	- Relevant ministries - Private companies (technology holder)	- Relevant ministries - Academic institutions (i.e. universities) - Research institution - Private companies (technology holder)	- Relevant ministries	- Relevant ministries - Private sector	- Relevant ministries	- Relevant ministries - Private companies
Sub-national	- Private companies (technology holder)	- Academic institutions (i.e. universities) - Research institution - Local government (limited numbers, e.g. city alliance (C40 cities)) - Private companies (technology holder)	- Local government (limited numbers, facilitating role, e.g. city alliance (C40 cities)) - Private companies (technology holder)	- Local government (limited numbers, facilitating role, e.g. city alliance (C40 cities)) - Private companies (technology holder)	- Local government - Private domestic financial institutions	- Private companies - Local governments
Community		- Research institution - Civil society organization/non-governmental organisations	- Civil society organization/non-governmental organisations	- Civil society organization/non-governmental organisations	- Civil society organization/non-governmental organisations	- Civil society organization/non-governmental organisations

4. Opportunities for research, capacity development and science-policy linkages for technology transfer

Adaptation Group	Mitigation Group
<p>1. Research and capacity building on following areas:</p> <ul style="list-style-type: none"> • Resilient crop and farming systems research; • Transboundary management of land; • Participatory local discussion fora for famers, etc.; • Distance education; • Health; • Improved decision-making using shorter term forecasts facilitating incremental adaptation (equals effective adaptation over the long-term) • Better forecasting; • SDGs and Paris Agreement <ul style="list-style-type: none"> ○ Providing new drivers for adaptation support in terms of resources and actions on the ground ○ Requesting integration of mitigation of adaptation, need for better understanding of co-benefits of such integration; • Research on how to best engage policy makers (role exchange: second policy makers to research institutions and vice versa, etc.); • Development of web-based information platforms; • Support for participatory (face-to-face) interactions at all levels; • Public and private sector linkage for wide application/scaling up; • Adaptation as beyond disaster risk reduction; • Science policy dialogue; • Solutions need to be co-created by multiple stakeholders and sectors (need to move away from silo approaches: too many cases where the ministry dealing with climate and environment is the only one working). The SDGs may help with this since their emphasis is on integrated approaches, however there may be a risk of different agencies looking after different SDGs; • Multiple level of decision-making/poor communication between different levels of government; • Need for greater involvement with stakeholders on the ground (including those exposed to risk); • Bottom up approaches to influence government; • Messages from the science community needs to be delivered to policy makers in a readily understandable way; • Synthesis needed; and • Effective processes for engaging policy makers. 	<p>1. Regional research and capacity development that looks at the following:</p> <ul style="list-style-type: none"> • NDCs and TNAs are already available, research and capacity development that responds to the NDCs and TNAs, how to implement the NDCs; • Research and knowledge sharing on best (good) practices/success stories in technology transfer; • Research and capacity building for transformation (most of the time, researchers, practitioners, governments and local communities are working in silos, however it is important to have shared common knowledge and understanding to gain optimal benefit and achieve transformation - multi-stakeholders participatory approach and transdisciplinary approach is needed); • Research on specific sector, looking at (i) technology, tools (ii) policy (iii) systems research (iv) promotion and awareness raising; • Localization of technology, not only how to transfer technology from developed country to developing country, however also to improve the existing technology inside the country; • Market and market-based policies and instruments, intellectual property rights issue; and • Development of innovative financing and new business model. <p>2. Science-policy dialogue.</p> <p>3. Knowledge sharing among countries.</p>



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Item 2.2. Final Financial Report for Fiscal Year 2015

Summary

This document is the Final Financial Report for Fiscal Year 2015.

¹ IGM/22/A.

Final Financial Report for FY 2015

As of 31 March 2016

Exchange Rates in FY 2015:

USD 1 = JPY 126

USD 1 = NZD 1.35

All figures in USD

Resources Available:

	Initial Resources	Resources Available as of 31 March 2016	Difference
Direct Financial Contributions			
Ministry of the Environment of Japan	2,187,000	2,170,000	-17,000
Hyogo Prefectural Government	167,200	172,000	4,800
Ministry of Environment of Republic of Korea	50,000	50,000	0
Ministry for the Environment of New Zealand (NZD 30,000)	22,200	22,200	0
Operational Resources from FY 2014	1,941,700	1,941,700	0
Refunds from Completed Projects		62,609	62,609
Other Adjustments (exchange rate gains, etc.)		18,333	18,333
Total	4,368,100	4,436,843	68,743

Use of Resources:

	Approved Allocation	Expenditure	Roll Over to FY 2016	Difference
	A	B	C	D=A-(B+C)
FY 2009 - FY 2014				
ARCP 2009	7,854	0	0	7,854
ARCP 2012	51,800	25,394	0	26,406
ARCP 2013	190,844	102,692	71,234	16,918
ARCP 2014	452,999	219,826	229,000	4,173
CAPaBLE 2013	58,000	32,741	18,400	6,859
CAPaBLE 2014	85,465	12,942	55,589	16,933
CAF 2013	9,500	0	9,500	0
CAF 2014	140,903	22,642	116,883	1,379
AOA 2012	6,000	0	6,000	0
LCI 2012	9,000	1,450	7,550	0
LCT 2013	61,060	28,480	24,840	7,740
RUSD 2012	5,986	0	0	5,986
EBLU 2012	7,800	7,800	0	0
Sub Total	1,087,211	453,967	538,996	94,248

FY 2015 (Projects and Other Activities)				
ARCP(CRRP)	440,200	88,000	352,200	0
CAPaBLE	407,500	226,000	181,500	0
Climate Adaptation Framework	1,419,900	445,247	974,653	0
Low Carbon Initiatives Framework	33,110	8,315	24,795	0
One Annual Sub-Regional PDTW	25,000	25,000	0	0
Science-Policy Linkages	60,000	29,145	30,857	0
Hyogo Activities	40,000	13,642	0	26,357
Partnership Activity with Cambodia	18,000	18,000	0	0
20th Anniversary Activities in 2016	55,000	8,909	46,091	0
4th Strategic Plan and 3rd Strategic Phase Report & Publication	5,000	2,237	0	2,763
Annual Reports and Other Publications	20,000	6,887	0	13,113
Sub Total	2,523,710	871,382	1,610,096	42,233

FY 2015 (Administration)				
21st IGM/SPG & 31st SC	130,000	18,144	111,856	0
SRC South Asia	15,000	0	15,000	0
SRC Southeast Asia	15,000	15,000	0	0
SRC Temperate East Asia	15,000	15,000	0	0
Secretariat Travel to APN Meetings and ad-hoc Science Meetings	55,000	45,445	0	9,555
Personnel	495,000	496,620	0	-1,620
General Maintenance and Operational Cost	70,000	40,866	0	29,134
Contingency (5% from Projected Direct Financial Contributions in FY 2015)	121,170	0	121,170	0
Deficit Compensation	50,000	0	0	50,000
IGES Overhead (3% of MOEJ Contribution)	66,000	65,100	0	900
Sub Total	1,032,170	696,175	248,026	87,969

Total	4,643,091	2,021,524	2,397,118	
Deficit as of 1 April 2015	(275,000)			
Balance in the Differences of FY 2015	293,193			
Balance as of 31 March 2016	18,193			

1) Ministry of Environment of Cambodia contributed USD 18,000 to the Proposal Development Training Workshop, held in Siem Reap in October 2015.

2) Ministry of Science and Technology of China/Department of Science and Technology of Henan Province kindly provided substantial in-kind contribution for the conduct of the 21st IGM/SPG Meetings.

3) In-kind contributions to APN funded projects by organizations of Project Leaders and Collaborators: approximately USD 1,220,000.

4) MOEJ Commissioned Project: International Workshop on Waste Management and the 3Rs, Hanoi, Viet Nam USD 42,100



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Item 2 of the draft agenda¹

Item 2.3. Budget Status Report for Fiscal Year 2016

Summary

This document is the Budget Status Report for Fiscal Year 2016 as of 31 March 2017.

¹ IGM/22/A.

Budget Status Report for FY 2016 as of 31 March 2017

Exchange Rates in FY 2016
 USD 1 = JPY 124
 USD 1 = NZD 1.50

All figures in USD

Resources

MOEJ, Japan (JPY 268,446,000)	2,165,000
Hyogo Prefecture, Japan (JPY 22,043,000)	177,800
New Zealand (NZD 30,000)	19,900
Republic of Korea	50,000
Projected Resources, Committed and Uncommitted from past FYs	2,397,118
Past Global Changes (PAGES) Contribution for Young Scientists in PDTW Activity	6,000
Total	4,815,818

Use of Resources

	Initial Allocation	Expenditure	Balance
Ongoing Projects from Past Fiscal Years			
CAF 2015	509,411	228,022	281,389
CAF 2014	100,783	57,483	43,300
CAF 2013	9,500	9,289	211
LCI 2013	24,840	5,451	19,389
ARCP (CRRP) 2015	316,700	222,664	94,036
ARCP 2014	264,500	183,182	81,318
ARCP 2013	71,234	12,783	58,451
CAPaBLE 2015	83,500	15,414	68,086
CAPaBLE 2014	55,589	19,279	36,310
CAPaBLE 2013	18,400	0	18,400
AOA 2012	6,000	6,000	0
21st IGM/SPG	111,856	89,545	22,311
Sub Total	1,572,313	849,112	723,201

Projects and other Activities in FY 2016			
ARCP (CRRP)	1,042,650	759,902	282,748
CAPaBLE	402,000	247,200	154,800
CAF (including APAN Forum (12k), Mortgage for CAF Projects (25k))	523,055	48,091	474,964
LCI (Low Carbon Technology Transfer Scop WS (50k), LoCARNet (50k))	99,795	20,095	79,700
PDTW	25,177	25,177	0
PAGES Contribution for Young Scientists in PDTW Act	6,000	6,000	0
Science Policy Linkage (SBSTA, IPBES, COP22)	53,316	30,227	23,089
Hyogo Activities	40,000	15,827	24,173
secured from new resources received FY 2016.	15,000	15,000	0
20th Anniv. (Media Visit, PROVIA)/Other	38,091	24,627	13,464
Annual Reports & Other Publications	10,000	4,851	5,149
Sub Total New Projects and Other Activities	2,255,084	1,196,997	1,058,087

Administration and Operational Costs			
22nd IGM/SPG & 32nd SC	130,000	23,468	106,532
SRC-SA	15,000	3,950	11,050
SRC-SEA	15,000	15,000	0
SRC-TEA	15,000	0	15,000
APN Members/Secretariat Travel	50,000	40,971	9,029
Personnel	650,000	488,892	161,108
General Maintenance & Operational Cost	68,750	40,971	27,779
Contingency	121,170	0	121,170
IGES Administrative Overhead (3% of MOEJ Contribution)	64,950	64,950	0
Sub Total Administration and Operational Costs	1,129,870	678,202	464,168
Total	4,957,267	2,724,311	2,245,456

1) Ministry of Environment, Forest and Climate Change, Government of India, kindly provided substantial in-kind contribution for the conduct of the 22nd IGM/SPG Meetings.

APN received substantial in-kind contribution from organizations of Project Leaders and Collaborators of APN funded projects.

3) MOEJ Commissioned Project: International Workshop on Waste Management and the 3Rs, March 2017, New Delhi, India, for USD 43,324 will be reported separately after closing the books of the project.

4) Regarding allocation of USD 523,055 for CAF under "Projects and other Activities in FY 2016" 95% is from past fiscal years. 5% is secured from new resources received in FY 2016.



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Item 2.4. Change in Fiscal Year

Summary

This document provides information on the decision of the Institute for Global Environmental Strategies (IGES) to shift its fiscal year between 1 April and 31 March to between 1 July and 30 June, starting from 1 July 2017. As a result, Fiscal Year 2016 will be extended by three months as a special measure. Fiscal Year 2017 will start on 1 July 2017. APN will follow the decision of IGES.

¹ IGM/22/A.

IGES has made a decision to shift its fiscal year from 1 April-31 March to 1 July-30 June, starting from 1 July 2017. As a result, FY 2016 will be extended by three months as a special measure. FY 2017 will start on 1 July 2017. As the administration of APN is managed by IGES, APN will follow the decision of IGES.

Some aspects must be considered in order to respond to the new fiscal year.

- The 23rd IGM/SPG Meeting may be held around mid-June 2018, towards the end of FY 2017 to respond to the new fiscal year.
- The calls for proposals for FY 2017 may be launched around July 2017 (i.e. soon after the start of FY 2017).
- The Secretariat considers that the new fiscal year will free up necessary time to dedicate more time to work on APN programmes and finalizing contracted activities. Currently, March to May is a busy period for the Secretariat with: (1) finalizing reports; (2) closing financial books of contracted activities; (3) preparing contracts to be drawn for approved projects; (4) preparing the launch of the new call for proposals; (5) managing commissioned projects such as projects from the Ministry of the Environment of Japan; and (6) preparing the IGM/SPG Meeting.
- The Government of Japan passes the budget bill through the Diet around March every year. This resulted in the brief time allocation for APN to strategically consider the financial implications of the budget for APN activities as the IGM/SPG Meetings were held around March and April every year. The new financial year and convening the IGM/SPG Meeting around mid-June will allow APN substantial time to consider its programmes, and to plan the budget for the coming fiscal years.



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**The 22nd Intergovernmental Meeting/
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Item 3 of the draft agenda¹

Item 3. Subregional Parallel Sessions

Summary

This document provides guidance for members in the subregional committee (SRC) parallel sessions.

¹ IGM/22/A.

1. Instructions for the Subregional Committee Parallel Sessions

Members of the South Asia SRC, Southeast Asia SRC and Temperate East Asia SRC will break into their respective subregions to discuss committee activities. Members are requested to proceed to their respective SRC in accordance with the following table.

Subregional Groups	Member Countries	Room Assigned
South Asia (13:00-14:40) (Xiaojun Deng)	<ul style="list-style-type: none"> • Bangladesh • Bhutan • India • Nepal • Pakistan • Sri Lanka 	Crystal 3
Southeast Asia (13:00-14:40) (Long Dinh Huong)	<ul style="list-style-type: none"> • Cambodia • Indonesia • Lao PDR • Malaysia • Philippines • Thailand • Viet Nam 	Crystal 4
Temperate East Asia (13:00-14:40) (Linda Stevenson)	<ul style="list-style-type: none"> • China • Japan • Mongolia • Republic of Korea • Russian Federation 	Ebony 2
Meeting of SRC Chairs and Vice Chairs (14:40-15:00) (Linda Stevenson)	<ul style="list-style-type: none"> • Southeast Asia Chair • South Asia Chair • Temperate East Asia Chair 	Ebony 2

- Agenda and background papers of the parallel sessions are available under Item 3.
- Each SRC is required to assign a rapporteur and provide a summary of the discussion for submission to the Secretariat². The summary is to be written in a Word document.
- Each SRC is required to provide a report to the IGM/SPG Meeting under Item 4. The reporting is preferably to be conducted using PowerPoint.
 - Item 4.1 Report from South Asia (10 minutes)
 - Item 4.2 Report from Southeast Asia (10 minutes)
 - Item 4.3 Report from Temperate East Asia (10 minutes)
 - Discussion session (10 minutes)
- Each SRC is to hand their PowerPoint to Dyota Condrorini at least ten minutes before the commencement of Item 4.

² The Secretariat is not available to take minutes or prepare SRC reports.



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New Delhi, India

Draft Agenda of the South Asia Subregional Committee Meeting

13:00-15:00, Wednesday, 26 April 2017

- 13:00–13:05 Welcome remark and brief introduction
- 13:05–13:15 Self-introduction, clarification of election procedures and election of officers
- 13:15–13:20 Adoption of the draft Agenda
- 13:20–13:30 Item 1. Review and discuss action points of the 7th South Asia Subregional Committee meeting
- 13:30–14:10 Item 2. Follow-up on the South Asia Collaborative Approach Workshop
- 14:10–14:20 Item 3. The 8th South Asia Subregional Committee meeting
- 14:20–14:30 Item 4. Identifying South Asia subregional priorities for FY 2017
- 14:30–14:35 Item 5. Steering Committee election
- 14:35-14:40 Any other business, closing and final remarks
- 14:40-15:00 Meeting of Chair/Vice-Chairs of all subregional committees



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**The 22nd Intergovernmental Meeting/
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26 April 2017
New Delhi, India

Item 1 of the draft agenda¹

Report of the 7th South Asia Subregional Committee Meeting

Summary

This document is the final report of the 7th South Asia Subregional Committee (SA-SRC) meeting held in December 2016 in Paro, Bhutan.

¹ IGM/22/3.1/A.

1. Date, Time and Venue of the Meeting

14:00-17:00, 13 December 2016, Paro, Bhutan

2. Attendance

Bangladesh	Mr MD Shafiqur Reza Biswas (nFP Alternate) Prof. Giashuddin Miah (SPG member, SA-SRC Chair)
Bhutan	Mr Karma Tshering (nFP) Mr Jamba Tobden (SPG member)
India	Dr Hemant Borgaonkar (SPG member)
Nepal	Ms Laxmi Kumari Basnet (nFP) Dr Madan Lall Shrestha (SPG member)
Pakistan	Dr Amir Muhammed (SPG member)
Sri Lanka	Mr Gamini Wikramapara (nFP Alternate)
Secretariat	Mr Yukihiro Imanari, Ms Taniya Koswatta, Mr Xiaojun Deng

3. Summary and Action Points

(Actions are underlined)

Item 1. Review of Action Points since the Last SRC Meeting in China

1.1 Establishing contact with the South Asian Association of Regional Cooperation (SAARC).

1. Contact with SAARC Agricultural Center was established at the South Asia Collaborative Approach Workshop that was held immediately before this Meeting.
2. Contact with SAARC Secretariat in Nepal has yet to be established. SA-SRC recommended the following actions to approach the SAARC Secretariat:
 - a. Ms Basnet will resend an introductory letter via email to SAARC Secretariat with a carbon copy to Mr Karma Tshering who will take follow-up actions; and
 - b. Ms Basnet and Dr Shrestha will hand the letter in person to relevant officials at SAARC at an appropriate occasion.

1.2. Co-finance partnerships.

1. The SA-SRC will further explore opportunities for co-finance partnerships by keeping in mind the new developments resulted from the Task Force on the Future Development of APN.

Item 2. Outputs of the South Asia Collaborative Approach Workshop

2.1. A report of the outcomes of the South Asia Collaborative Approach Workshop will be prepared and presented to the IGM/SPG Meeting. The following points will be considered when developing the report:

1. The report will include three collaboration concepts developed from three group discussions;
2. The report will convey a strong message on the success, effectiveness and usefulness of the Workshop by emphasizing:
 - a. The strong commitment and active participation of all participants;
 - b. The strong feeling in favour of regional collaboration;
 - c. Raised awareness of APN in South Asia; and
 - d. The Workshop is important in supporting SA-SRC members to achieve greater goals that will benefit all countries in South Asia.
3. Possibilities of working with SAARC Agricultural Centre seems promising, yet APN should continue exploring other opportunities.

2.2. The SA-SRC will review and discuss the report at the next SA-SRC meeting that will be held before or during the 22nd IGM/SPG Meeting in April 2016.

2.3. A SAARC Technical Group Meeting will be held on 16-17 February 2017 in Bhutan. A Secretariat representative may attend the Meeting and make a presentation to raise awareness of APN.

Item 3. Improving the Subregional Committee

3.1. A key recommendation from the Task Force on the Future Development of APN is to strengthen the activeness and effectiveness of SRCs to enable member countries to share common challenges in the region.

3.2. The SA-SRC is encouraged to consider its roles, responsibilities and rights in line with the recommendations of the Task Force on the Future Development of APN in 2017, if not later. Matters of importance to be considered are:

1. What tasks can the IGM delegate to and share with SRCs;
2. The modalities holding future IGM/SPG Meetings;
3. Increase the number of elected members at the Steering Committee (SC);
4. Empower and engage nFPs in identifying needs in the region, and deciding on APN activities;
5. Ensure each nFP appoints an active and consistent alternate to undertake APN related work.

3.3. Increasing nFP attendance at IGM/SPG meetings and other meetings.

1. The Secretariat will identify the new nFP for Bangladesh with the assistance of Mr Biswas and Prof. Miah.
2. The role of nFP requires reconsideration. The following opinions were expressed:
 - a. APN activities are mostly led by scientists. APN should make an effort to increase the interests of nFPs by engaging them in identifying country needs;
 - b. With national commitment at a high level, technical cooperation may follow; and
 - c. The same person playing multiple roles in APN (SC, SRC and IGM/SPG Meeting etc.) may induce difficulty for other members to engage in APN actively.
3. The Secretariat will send an IGM invitation letter to nFPs that will emphasize the role and responsibilities of nFPs and will stress the importance their participation in APN meetings.

Item 4. APN Steering Committee nomination 2017

4.1. Nominees should be vocal and active in the IGM/SPG Meeting and SC and represent the interest of the subregion.

4.2. Ms Basnet will submit a letter to nominate the nFP for Bangladesh and the nFP for India to serve on the SC from 2017 to 2019 for a two-year term.

4.3. The Secretariat will seek consent from the above nFPs for their willingness to serve on the SC.

Item 5. Introducing the Upcoming PDTW

5.1. Ms Koswatta reported on the application and selection process of the Proposal Development Training Workshop (PDTW) by emphasizing the successful open call that attracted well-qualified trainees. She introduced the structure and the roles of members at the PDTW to be held on 14-16 December 2016.

Item 6. Host of the 8th SA-SRC meeting

6.1. The SCR will decide on the host of the next SA-SRC meeting that will be held during the IGM/SPG Meeting in April 2017.



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**The 22nd Intergovernmental Meeting/
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Item 2 of the draft agenda¹

Report of the South Asia Collaborative Approach Workshop

Summary

This report provides a summary of the background, structure, discussion and outputs of the South Asia Collaborative Approach Workshop held in December 2016 in Paro, Bhutan.

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¹ IGM/22/3.1/A.

1. Background

In 2014, the South Asia Subregional Committee (SA-SRC) initiated an effort to list existing organizations and activities in South Asia working on matters in line with the goals of APN. The SA-SRC members identified 73 organizations with the possibility of future collaboration with APN.

In 2016, the Secretariat distributed a questionnaire to 24 short-listed organizations to learn their areas of interest. Following the questionnaire, the Secretariat held teleconferences with selected organizations to better understand their ideas for possible collaboration.

As a follow-up, the South Asia Collaborative Approach Workshop was held in December 2016 in Paro, Bhutan, and APN invited 11 interested organizations to further develop possible collaboration concepts with nFPs and SPG members from South Asia. The Workshop is expected to produce a set of concept notes for activities that will be further developed and implemented by collaborating with interested organizations.

2. Objectives

The main goals of the collaborative approach were:

1. Research: to support researchers and practitioners in South Asia to cooperate in identifying and assessing the needs and challenges of global change and sustainability in the region; and
2. Capacity development: to develop the capacities of scientists, policymakers, practitioners and the public to collaborate, communicate and implement actions that respond to the challenges of global change and sustainability in South Asia.

APN expects to achieve the following objectives by implementing collaborative activities:

1. Increase policy relevance of programmes and activities of APN;
2. Improve communication among APN and subregional organizations;
3. Promote synergy and avoid duplication of work among organizations;
4. Strengthen the pool of expertise of APN and increase its effectiveness;
5. Create sustained research and capacity development activities;
6. Promote APN activities to a wider audience including communities; and
7. Provide more opportunities for south-south cooperation.

3. Participants

The Collaborative Approach Workshop was hosted by the National Environment Commission, Royal Government of Bhutan, and was held on 12–13 December 2016 in Paro, Bhutan. Eleven representatives representing 10 organizations in South Asia, members of the SA-SRC and staff from the Secretariat attended the Workshop.

Bangladesh	Mr Istiaq Ahmed	International Centre for Climate Change and Development (ICCCAD)
	Dr Thushara Wickramaarachchi	South Asian Association for Regional Cooperation (SAARC) Agriculture Centre (SAC)
Bhutan	Dr Norbu Wangdi	Ugyen Wangchuck Institute for Conservation and Environment (UWICE)
	Dr Kinley Tenzin	Royal Society for Protection of Nature (RSPN) (participated by sharing presentation)
India	Dr Dipayan Dey	South Asian Forum for Environment (SAFE)

	Dr Ashwini Kulkarni	Indian Institute of Tropical Meteorology (IITM)
	Dr Kirit N. Shelat	National Council for Climate Change Sustainable Development and Public Leadership (NCCSD)
Nepal	Dr Binod Dawadi	Central Department of Hydrology and Meteorology, Tribhuvan University (CDHM-TU)
	Dr Kedar Rijal	Central Department of Environmental Sciences, Tribhuvan University (CDES-TU)
Pakistan	Mr Ahmad Burhan Khan	Pakistan Meteorological Department (PMD)
Sri Lanka	Dr S. D. G. Jayawardena	Sri Lanka Council for Agricultural Research Policy (SLCARP)
	Dr Herath Manthirithilake	International Water Management Institute (IWMI)

4. Structure of the Workshop

The Workshop consisted of an information sharing session, a breakout group discussion session and an open discussion. The goals of each session were as follows:

1. Information sharing session: APN to introduce its future development plan and background information on the Workshop, and participating organizations to share information on relevant activities in their respective organizations;
2. Group discussion session: Identify regional challenges and conceptualize collaborative research, capacity development and science-policy activities that utilize the knowledge, expertise and resources of each participating organization;
3. Open discussion session: Share presentations among the participants of the Workshop and collect feedback and consider ways to further develop and implement the conceptualized activities.

5. Information Sharing Session and Partner Analysis

The following table summarizes information presented by each participating organization at the information sharing session.

Organization	Key area	Main activity	Possible areas for collaboration
ICCCAD	Environment and development	<ul style="list-style-type: none"> • Capacity building • Research • Knowledge management • Education 	<ul style="list-style-type: none"> • Research on loss and damage, and livelihood and resilience • South-South Centre for Adaptation Technology • Capacity building and knowledge sharing
SAC	Agricultural research, policy planning, knowledge management	<ul style="list-style-type: none"> • Agricultural research and development • Regional policies and strategies • Innovation in agriculture • Collaborative research • Risk and disaster management • Capacity development • Technology transfer 	<ul style="list-style-type: none"> • Regional research to fill information gaps • Regional adaptability testing for major crop varieties • Capacity development • Awareness raising and networking

Organization	Key area	Main activity	Possible areas for collaboration
UWICE	Environmental, forest and conservation science	<ul style="list-style-type: none"> • Research • Publications • Conferences • Training 	<ul style="list-style-type: none"> • Water resources and climate change • Adaptation and resilience • Long-term water resources monitoring • Climate impact studies
RSPN	Environmental conservation, sustainable livelihood	<ul style="list-style-type: none"> • Research • Education • Sustainable livelihood opportunities • Fund management 	<ul style="list-style-type: none"> • Flagship species and flagship programmes • Land restoration • Environmental education • Water • Rivers • Sustainable livelihoods • Waste management • Climate change (low-carbon development)
SAFE	Environmental science for sustainable development	<ul style="list-style-type: none"> • Agriculture • Water and sanitation • Waste management • Mangroves • Wetland ecosystems • Sustainable livelihoods • Disaster risk reduction • Climate change • Biodiversity 	<ul style="list-style-type: none"> • Land use/land cover change • Wetland ecosystem services and payment • Climate and agriculture • Blue carbon • Water, sanitation and hygiene • Integrated solid waste management • Sustainable transport
IITM	Basic research on the climate system	<ul style="list-style-type: none"> • Climate change and variability • Tropical clouds • Monsoon • Air quality • Data and computing • Library, information and publications 	<ul style="list-style-type: none"> • Analysis, synthesis and assessment • Downscaled climate change scenarios • Regional change and global change • RCM downscaling for adaptation and risk resilience
NCCSD	Climate and sustainable agriculture	<ul style="list-style-type: none"> • Capacity building • Leadership training • Agriculture entrepreneurship • Technology transfer 	<ul style="list-style-type: none"> • Climate resilient agriculture and livelihoods • Extension and communication • Training modules • Framework for agricultural and rural development • Technology transfer
CDHM-TU	Research on water, glaciers, climate and environment	<ul style="list-style-type: none"> • Watershed management • Water quality • Water disaster • Water use • Glacial flow • Glacial lake outburst floods • Glacial pollutants • Climate and environment 	<ul style="list-style-type: none"> • Capacity building • Knowledge sharing • Increase data resolution • Address cross-border issues • Interdisciplinary and transboundary research • Data exchange

Organization	Key area	Main activity	Possible areas for collaboration
CDES-TU	Environmental education, research and development	<ul style="list-style-type: none"> • Mountain research • UNFCCC national communications • Landslide inventory • Disaster risk management in academia • Mountain ecosystem 	<ul style="list-style-type: none"> • Joint research and development • Workshop and conferences • Exchange programmes • Regional water management
PMD	Meteorological information service and research	<ul style="list-style-type: none"> • Information and forecasting • Data processing • Early warning systems • Monitoring, research and assessment 	<ul style="list-style-type: none"> • Climate extreme indices and indicators • Climate, glacier and water cycle variability • Drought monitoring • Impact assessment training
SLCARP	Agricultural research coordination, planning and execution	<ul style="list-style-type: none"> • Agricultural research policy development • Agriculture research • Science-policy interfacing • Research funding • Knowledge sharing • Capacity building 	<ul style="list-style-type: none"> • Joint research • Science-policy interfacing • Knowledge sharing • Capacity building
IWMI	Water security	<ul style="list-style-type: none"> • Flood/drought prediction • Regional hydro-economic modelling • Smallholder farming • Information systems • Risk reduction • Ecosystems • Water and society 	<ul style="list-style-type: none"> • Gathering national and donor priorities • Integrated planning

6. Group Discussion Session and Collaborative Concepts

Three breakout groups were formed based on the area of interest among the 11 organizations to discuss common challenges in South Asia that may be addressed through collaborative activities. Three groups identified the following concepts that can be address through future collaboration.

6.1 Group 1: Water Resources

Partners	Dr Herath Manthrithilake, IWMI; Dr Dipayan Dey, SAFE; Dr Binod Dawadi, CDHM-TU; Dr Norbu Wangdi, UWICE
APN	Mr Gamini Wickramapara, Sri Lanka (nFP); Mr Yukihiro Imanari, Secretariat
Theme	Towards effective water resources risk preparedness and communication

Problems	<p>Lack of preparedness to risks associated with supply and demand of water resources due to:</p> <ul style="list-style-type: none"> • Climate change and climate variability; • Lack of sectoral demand management (agroforestry, industry, drinking, energy); • Deteriorating water quality; and • Poor coordination in information sharing.
Possible activities	<ul style="list-style-type: none"> • Implement water budgeting for sectoral allocation. • Establish baseline information on water quality. • Assess the impact of water on ecosystem services. • Create strategic information package(s) based on risk assessment and prediction. • Mainstream risk communication. <p>Water is the medium of which climate change will be felt immediately by communities and individuals. Future collaborative activities should focus on preparedness for extremes events, especially in water supply, water quality and ecosystems, information sharing and risk communication.</p> <p>While the demand of water increases gradually, its variability is less volatile than supplies. The variability of supplies can be estimated or addressed by hydrological statistics. However, with the changing climate conditions, general statistics can no longer meet the demands of water supply estimation. Climate processes have become dynamic and probabilistic scenario analysis should be applied. Based on the results of the analysis, developing systems to allocate water to different sectors on priority basis are necessary, which are entailed with certain risks as well. Hence, allocation should be factored with risk analysis. In other words, we need to find suitable, easy to practice principles for water resources supply in South Asia. This shall entail sectoral management (demand management within sector) and establishing some buffer (possible storage scenarios) etc. which needs to be looked at through research.</p> <p>In addition, extreme events would cause water quality deterioration and ecosystem damage. Knowledge on how these could be managed is necessary.</p> <p>Information sharing is another area that could be addressed by collaboration. There are gaps between research results, applications and end users of water related information.</p> <p>High priority should be given to risk communication strategies, practices and means, as there lacks a systematic method to communicate risks to communities in a convincing manner for communities to take action after receiving such communications. There is an immense area of risk communication, which is unknown at least to practitioners and communities. If we can convince communities on the impending risks, they will find suitable mitigation and adaptation measures, thereby the extent of disasters could be reduced drastically.</p>

6.2 Group 2: Agriculture and Biodiversity

Partner	Dr Thushara Wickramaarachchi, SAC; Dr Kirit N. Shelat, NCCSD; Dr S. D .G. Jayawardena, SLCARP
APN members	Prof. Giashuddin Miah, Bangladesh (SPG), Mr Karma Tshering, Bhutan (nFP), Mr Karma Tshering, Bhutan (SPG), Dr Amir Muhammed, Pakistan (SPG); Mr Xiaojun Deng, Secretariat
Theme	Climate resilient agriculture, livestock and fisheries with a focus on smallholder farmers
Key issue	Vulnerability of food security and livelihood of smallholder farmers in South Asia with the increased frequency of extreme climatic events.

Problems	<ul style="list-style-type: none"> • Lack of understanding and information on climate variability. • Lack of genetic resources and advanced technologies. • Need for multidisciplinary study. • Need for institutional reform. • Lack of awareness on climate-smart agriculture. • Deviation from farming.
Possible activities	<ul style="list-style-type: none"> • Develop alternative cropping patterns. • Identify appropriate adaptation technologies. • Establish a network on climate change and agriculture, livestock and fisheries. • Develop a climate change research and development agenda. • Research and harmonise climate change responsive policies. • Develop the capacity of scientists and policy makers. <p>(further input from participants)</p> <ul style="list-style-type: none"> • Strengthen the understanding of the current level of certainty and uncertainty with seasonable forecasting and relevant areas of climatic services with participating farmer groups. • Developing climatic advisories which includes seasonal forecast coupled with the agro-advisory practice. • Understanding the impact of climate change locally, particularly soil gravity moisture salinity progress, water and water gravity. • Increase community resilience to reduce risks due to climate change, particularly prepare the community for resilience during disasters such as cyclones, heavy floods and restoration of livelihood, and to return to normal life quickly. • Increase knowledge management to continuously improve the understanding of what is happening to soil, water, crops and insects with the changes in participatory efforts at local and national level. • Increase advocacy to develop needed policy and programme implementation perspective to promote national, regional and global alliance. • Introduce community planning processes. • Introduce community managed weather stations. • Introduce profitable perennial crops. • Design agricultural forecasting by involving users, intermediaries, academics and national meteorological agents that can sustainably scale up to meet the need of small farmers.

6.3 Group 3: Climate Change and Variability

Partner	Mr Istiak Ahmed, ICCCAD; Mr Ahmad Burhan Khan, PMD; Dr Ashwini Kulkarni, IITM; Dr Kedar Rijal, CDES-TU
APN members	Mr MD Shafiqur Reza Biswas, Bangladesh (nFP); Dr Hemant Borgaonkar, India (SPG); Ms Laxmi Kumari Basnet, Nepal (nFP), Dr Madan Lall Shrestha, Nepal (SPG), Ms Taniya Koswatta, Secretariat
Theme	Generating high-resolution climate change scenarios for impact assessment, policy makers and stakeholders.

Problems	<ul style="list-style-type: none"> • Coarse resolution of observed data and dynamically downscaled data cannot meet the needs of South Asia that has complex physiography. • Lack of high-altitude observation stations. • Lack of capacity among researchers and communicators. • Preparedness to disaster is compromised due to: <ul style="list-style-type: none"> ○ Limited local information and data; ○ Low user-friendly forecast information and data; ○ Lack of trust on weather warning systems due to low levels of accuracy; ○ Lack of sustainability of projects; and ○ Difficulties in communicating to remote areas.
Possible activities	<ul style="list-style-type: none"> • Research <ul style="list-style-type: none"> ○ Perform statistical downscaling to identify the most reliable set of models for South Asia. ○ Use high-resolution data for validation. ○ Prepare climate change profiles for vulnerable sectors. • Capacity development <ul style="list-style-type: none"> ○ Train young researchers with facilities/infrastructure from IITM/PMD and post-graduate support from CDES. ○ Train the media on interpreting climate information (ICCCAD). ○ Capacity building for communities and policy makers (ICCCAD). • Possible government supported activities that may help in implementing research and capacity development activities <ul style="list-style-type: none"> ○ Establish high-altitude observation stations. ○ Share experience on data collection. ○ Connect stakeholders from all countries in South Asia.

7. The Way Forward

As the first face-to-face exchange among representatives of interested organizations, the Workshop was successful in serving as a venue to share experiences and expectations, building trust, and exploring possible areas and ways of collaboration. Participants showed great interest in conceptualizing collaborative approaches with APN that are in line with the mission and goals of their respective organizations.

It is expected that the concepts are further developed electronically with the active engagement of potential partners, and APN members to develop and implement collaborative activities that benefit countries in South Asia. The collaborative approaches are expected to be equitable, sustainable and inclusive, where all partners contribute in designing and implementing by collectively pledging financial and human resources, facilities and expertise.



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**Subregional Parallel Session for
South Asia at the 22nd IGM/SPG Meeting**
26 April 2017
New Delhi, India

Item 2 of the draft agenda¹

Draft Concept Note from SAARC Agriculture Center on APN-SAC Collaboration

Summary

APN received the draft concept note prepared by SAARC Agriculture Center in February 2017. The South Asia Subregional Committee members are requested to consider the concept note and discuss possible engagement with SAARC Agriculture Center. The concept note below is presented as it was submitted, with minor editorials.

¹ IGM/22/3.1/A.

Concept Note

Regional expert consultation workshop on agricultural policies, strategies and agricultural development programs towards climate change adaptation and mitigation (Collaborative event of SAC & APN as an initiative for future collaboration).

South Asia is highly vulnerable to climate change

- Diverse geography, high level of poverty and high population density make South Asia more vulnerable to climate change impacts
- High incidence of natural disasters, sea level raise and heavy dependence on monsoon aggravate climate change issues

South Asia contribution for climate change

- A significant contributor on GHG emission

Adverse effects and risks of climate change on agriculture which is critical in South Asian development

- Reduced productivity (direct climate impact and proliferation of pest, disease and weeds)
- High vulnerability of marginal areas (drought in arid areas and salinity due to sea water intrusion)
- Sudden crop failures due to extreme events

Poor integration of agricultural policies with climate change issues

- Most of the agricultural related policies in South Asia have been developed when issues of climate change were less pertinent. Thus, policy makers did not predict that climate change would emerge to be an issue in future.
- Most of the policies are found to be weak in mainstreaming issues of climate change and hence strategies do not directly refer to climate change adaptation and mitigation
- It is worthwhile to evaluate the level of integration of strategies for addressing climate change issues in agricultural policies

Inadequate focus of agricultural research on climate change mitigation and adaptation technology and mechanism of dissemination of research findings for policy makers

- Weak linkages of agricultural practices, research and policy
- Promotion of climate-resilient cropping patterns and techniques
- Agricultural research and extension for promoting climate resilient crop varieties
- Improvements in risk management such as climate insurance
- Irrigation development and increased investment in water harvesting techniques

Objectives of the workshop

- To make common understanding of climate change impact on agriculture
- To evaluate the agricultural policies for integration of addressing the climate change issues
- To discuss and prioritise issues and gaps in climate change policy, research, capacity development and knowledge management in the region
- To formulate key policy recommendations based on the evaluation of regional adaptation techniques

- To develop a climate change conceptual framework for collaborative research, capacity development and knowledge management in Southeast Asia

Target participants

- Participants are expected to come from relevant government agencies from Southeast Asia and experts and policy makers from research and development organisations.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26 April 2017
New Delhi, India

Item 3 of the draft agenda¹

Item 3.1 The 8th South Asia Subregional Committee Meeting

The South Asia Subregional Committee (SA-SRC) is requested to identify the host country of the 8th SA-SRC meeting and to decide a tentative timeline of the meeting. This document provides information on the date and location of past meetings.

Meetings	Date	Host country
7th SA-SRC meeting	December 2016	Paro, Bhutan
6th SA-SRC meeting	January 2015	Thimphu, Bhutan
5th SA-SRC meeting	October 2013	Wattala, Sri Lanka
4th SA-SRC meeting	January 2013	Kathmandu, Nepal
3rd SA-SRC meeting	January 2012	Paro, Bhutan
2nd SA-SRC meeting	November 2010	Pune, India
1st SA-SRC meeting	July 2009	Colombo, Sri Lanka

¹ IGM/22/3.1-A.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

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New Delhi, India

Item 4 of the draft agenda¹

Item 4. Identifying South Asia Subregional Priorities for FY 2017

Summary

This document aims to provide information on pressing scientific issues identified at various APN activities. The South Asia Subregional Committee (SA-SRC) is required to provide inputs on possible themes and policy responses that are relevant to the subregion. The inputs provided will be recommended for developing the 2017 call for proposals.

¹ IGM/22/3.1-A.

1. Background

APN conducted two Task Force Meetings to discuss on the future development of APN. One of the key findings from the Meetings was the recognition that APN programmes and activities is able to respond to policy needs of member countries. The following provides a list of scientific themes that are considered as priority in the subregion. The SA-SRC is required to discuss the themes to be recommended to the IGM/SPG Meeting and implemented for the 2017 call for proposals.

2. South Asia Collaborative Workshop

2.1. Towards effective water resource risk preparedness and risk communication

Lack of preparedness for risks associated with the supply and demand of water resources due to:

- Climate change and climate variability;
- Lack of sectoral demand management (agroforestry, industry, drinking, energy);
- Deteriorating water quality; and
- Poor coordination of information sharing.

2.2 Climate resilient agriculture, livestock and fisheries with a focus on smallholders

- Lack of understanding and information on climate variability;
- Lack of genetic resources and advanced technologies;
- Need for multidisciplinary study;
- Need for institutional reform;
- Lack of awareness on climate-smart agriculture; and
- Deviation from farming.

2.3 Generating high-resolution climate change scenarios for impact assessment, policy makers and stakeholders

- Coarse resolution of observed data and dynamically downscaled data cannot meet the needs of South Asia which has complex physiography;
- Lack of high-altitude observation stations;
- Lack of capacity among researchers and communicators;
- Preparedness to disaster is compromised due to:
 - Limited local information and data;
 - Low user-friendly forecast information and data;
 - Lack of trust on weather warning systems due to low levels of accuracy;
 - Lack of sustainability of projects; and
 - Difficulties in communicating to remote areas.

3. Areas of interest for the 2016 call for proposals

The following are the areas of interest identified and recommended for further development for the 2016 call for proposals.

- Community resilience to climate impacts in vulnerable areas;
- Energy and ecosystems in a changing climate;
- Low-carbon societies;
- Increased occurrence of extreme weather and its impacts;
- Health and climate change;
- Water availability, agricultural productivity and nutrient management;

- Global change data policy and access (open access to data on global change);
- Climate change and biodiversity;
- Disaster risk reduction and resilience to climate change;
- Sustainable consumption and production;
- Food security, salinity intrusion, water security (ground water);
- Security and climate change (water, energy and food);
- Urban air quality; and
- Interdisciplinary research, particularly on linkages to the sustainable development goals.

4. Scoping Workshop on Technology Transfer

APN organized the Scoping Workshop on Technology Transfer that identified opportunities for research and capacity development in technology transfer, among others. The opportunities are:

- Development of web-based information platforms and establishment or improvement of technology information;
- Market and market-based policies and instruments to enable technology transfer;
- Innovative financing or new business model for technology transfer and scale-up;
- Social issues on technology transfer (technology awareness and attitude, behaviour change, gender issues etc.);
- Establish and strengthen south-south cooperation on technology transfer;
- Capacity development on accessing financial resources for technology transfer; and
- Capacity development on the use and application of technology, capacity building on low-cost technology, particularly at the community level.



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**The 22nd Intergovernmental Meeting/
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26 April 2017
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Item 5 of the draft agenda¹

Item 5. Steering Committee Election

The South Asia Subregional Committee (SA-SRC) is required to discuss the upcoming election of the Steering Committee. Detailed information is available under Item 10.1.

¹ IGM/22/3.1/A.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Draft Agenda of the Southeast Asia Subregional Committee Meeting

13:00–15:00, Wednesday, 26 April 2017

- 13:00–13:05 Welcome remarks and brief introduction
Dr Ngo Kim Chi, Chair of the Southeast Asia Subregional Committee will provide remarks and a short introduction of the meeting
- 13:05–13:15 Self-introduction and election of Chair and Vice Chair
Dr Ngo Kim Chi will facilitate the election of a Chair and a Vice Chair for FY 2017 (one-year term) — the elected Chair and Vice Chair will preside over the meeting
- 13:15–13:18 Item 1. Adoption of the Draft Agenda
The elected Chair of the meeting will seek adoption of the agenda
- 13:18–13:40 Item 2. Review of action points of the 9th Southeast Asia Subregional Committee meeting (refer to document Action Points IGM/22/3.2/2-App.1.)
- 13:40–14:00 Item 3. Concept paper for technology needs assessment
- 14:00–14:10 Item 4. 10th anniversary activities
- 14:10–14:20 Item 5. Proposal Development Training Workshop
- 14:20–14:35 Item 6. Any other business
- Host and date of the 10th Southeast Asia Subregional Committee meeting
 - Confirmation on the topics of interest discussed at the Scientific Planning Group Pre-meeting
 - AOB
- 14:35–14:40 Wrap-up and closing
- 14:40–15:00 Chair/Vice-Chairs' meeting among all subregional committees



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

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Item 2 of the draft agenda¹

Item 2. Review of Action Points

The SEA-SRC is requested to review the action points from the 9th SEA-SRC meeting. Detailed information is available under Item 3.2/2-App.1.

¹ IGM/22/3.2/A.



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Item 3 of the draft agenda¹

**Item 3. Concept Paper for Technology Needs Assessment
Workshop**

The SEA-SRC is required to discuss the final concept paper of the Technology Needs Assessment Workshop. This concept paper will be delivered to the IGM/SPG Meeting under Item 5.4. Please refer to your IGM/SPG Meeting folder for the paper.

¹ IGM/22/3.2/A.



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New Delhi, India

Item 4 of the draft agenda¹

Item 4. 10th Anniversary Activities

The SEA-SRC is required to discuss on how to celebrate the 10th anniversary of the establishment of the SEA-SRC with the aim to raise awareness of APN in Southeast Asia.

¹ IGM/22/3.2/A.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

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New Delhi, India

Item 5 of the draft agenda¹

Item 5. Proposal Development Training Workshop

Summary

This document provides information on the background and objectives of the Proposal Development Training Workshop (PDTW).

¹ IGM/22/3.2/A.

1. Background

One of the four goals of APN is to improve the scientific and technical capabilities of member countries in the Asia-Pacific region. It is vital that these countries have the capacity to conduct high quality research that provides underpinning scientific input to policy-making.

CAPaBLE, the capacity development programme of APN, was launched in 2003 and provides early career scientists with opportunities to develop their knowledge and capabilities in global change research. Furthermore, since 2008, APN has been conducting PDTWs in countries such as Bhutan, Mongolia and Laos. In most cases, PDTWs are held back-to-back with Subregional Committee meetings to ensure maximum participation of experts from member countries in Southeast Asia.

2. Objectives

- Raise awareness of APN among early career scientists and practitioners in Southeast Asia.
- Increase the capacity of early career scientists and practitioners to submit proposals and compete in the annual calls for proposals of APN.
- Create opportunities for early career scientists and practitioners to build networks with other early career scientists who are working in the field of global change in different countries.
- Empower APN Members to: (1) provide their knowledge on the APN proposal submission process; and (2) learn about the APN proposals process so that they might go back to their respective countries and impart their knowledge.



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**The 22nd Intergovernmental Meeting/
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26 April 2017
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Draft Agenda of the Temperate East Asia Subregional Committee Meeting

13:00-15:00, Wednesday, 26 April 2017

- 13:00-13:05 Welcome remark and brief introduction by Dr Wenjie Dong, Chair (5 minutes)
- 13:05-13:15 Self-introduction, clarification of election procedures and election of officers, Dr Wenjie Dong, Chair
- 13:15-13:20 Adoption of the Draft Agenda-New Chair/Vice-Chair
- 13:20-13:40 Item 1. Discussion of action points of the 21st Intergovernmental Meeting and Scientific Planning Group Meeting Temperate East Asia Committee meeting
- 13:40-13:55 Item 2. The 2nd Temperate East Asia Committee meeting: Agenda, date and host country
- 13:55-14:15 Item 3. Temperate East Asia Committee proposal for training young scientists (refer to previous action point under Item 1)
- 14:15-14:25 Item 4. Subregional priorities for FY 2017
- 14:25-14:35 Item 5. Steering Committee election (explanation of new system)
- 14:35-14:40 Any other business, closing and final remarks
- 14:40-15:00 Chair/Vice-Chairs' meeting among all subregional committees



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**The 22nd Intergovernmental Meeting/
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Item 1. Action Points of the 21st Intergovernmental Meeting

The following is a list of action points from the Temperate East Asia Subregional Committee (TEA-SRC) parallel session of the 21st IGM/SPG Meeting.

- Dr Wenjie Dong is elected as TEA-SRC Chair and Dr Soojeong Myeong as Vice-Chair.
- The TEA-SRC is to continue supporting and encouraging young scientists from Temperate East Asia to submit proposals to the call for proposals of APN.
- It was proposed to establish a platform or a network for young scientists in the region.
- Consider developing a co-financing system between APN and member countries.
- Biodiversity is decided as the theme of focus for FY 2016.
- The TEA-SRC will further communicate by email to develop a topic for training young scientists during the TEA-SRC meeting.
- China or Korea will host the next TEA-SRC meeting. Details on agenda, time and venue will be discussed by members via email after the IGM/SPG Meeting.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

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Item 2 of the draft agenda¹

**Item 2. The Second Temperate East Asia Subregional
Committee Meeting**

The First TEA-SRC meeting was held in Mongolia in October 2015. In 2016, the TEA-SRC meeting parallel session decided to conduct the Second TEA-SRC meeting in China or Korea. The TEA-SRC is required to discuss the country, agenda, date and venue of this meeting.

¹ IGM/22/3.3/A.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

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New Delhi, India

Item 3 of the draft agenda¹

Item 3. Training Workshop for Young Scientists

The TEA-SRC is required to continue the discussion on their proposal to conduct a training workshop for young scientists. If such a workshop is to be conducted, the TEA-SRC is asked to develop a timeline for the proposal to be submitted to the 23rd IGM/SPG Meeting in 2018.

¹ IGM/22/3.3/A.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26 April 2017
New Delhi, India

Item 4 of the draft agenda¹

Item 4. Identifying Temperate East Asia Subregional Priorities for FY 2017

Summary

This document aims to provide information on pressing scientific issues identified at various APN activities. The TEA-SRC is required to provide inputs on possible priorities and policy responses that are relevant to the subregion. The inputs provided will be recommended as issues of priority for the 2017 call for proposals.

¹ IGM/22/3.3-A.

1. Background

APN conducted two Task Force Meetings to discuss the future development of APN. One of the key findings from the Meetings was the recognition that APN programmes and activities are able to respond to policy needs of member countries. The following provides a list of scientific themes that are considered as priority in the subregion. The TEA-SRC is required to discuss the themes to be recommended to the IGM/SPG Meeting and with a view to highlighting them as issues of priority for the 2017 call for proposals.

2. Areas of Interest for the 2016 Call for Proposals

The following are the areas identified as interests and recommended for further development for the 2016 call for proposals.

- Community resilience to climate impacts in vulnerable areas.
- Energy and ecosystems in a changing climate, and low carbon societies.
- Increased occurrence of extreme weather and its impacts.
- Health and climate change.
- Water availability, agricultural productivity and nutrient management.
- Global change data policy and access (open access to data on global change).
- Climate change and biodiversity.
- Disaster risk reduction and resilience to climate change.
- Sustainable consumption and production.
- Food security, salinity intrusion, water security (ground water).
- Security and climate change (water, energy and food).
- Urban air quality.
- Interdisciplinary research, particularly on linkages to the sustainable development goals.

3. Scoping Workshop on Technology Transfer

APN organized a Scoping Workshop on Technology Transfer that identified opportunities for research and capacity development in technology transfer, among others. The opportunities are:

- Development of web-based information platforms and establishment or improvement of technology information;
- Market and market-based policies and instruments to enable technology transfer;
- Innovative financing or new business models for technology transfer and scale-up;
- Social issues on technology transfer (technology awareness and attitude, behaviour change, gender issues etc.);
- Establish and strengthen south-south cooperation on technology transfer;
- Capacity development on accessing financial resources for technology transfer; and
- Capacity development on the use and application of technology, capacity building on low-cost technology, particularly at community level.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

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Item 5 of the draft agenda¹

Item 5. Steering Committee Election

The Secretariat will provide an update on the new staggered system adopted at the 21st IGM/SPG Meeting. Members are required to discuss issues related to the upcoming Steering Committee election. Detailed information is available under Item 10.1.

¹ IGM/22/3.3/A.



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26–27 April 2017
New Delhi, India

Item 4 of the draft agenda¹

Item 4. Reports from Subregional Committees

Summary

16:30-16:40	4.1. South Asia Subregional Committee Report
16:40-16:50	4.2. Southeast Asia Subregional Committee Report
16:50-17:00	4.3. Temperate East Asia Subregional Committee Report
17:00-17:10	Discussion Session

The reports will be provided by the rapporteur of each subregional committee at the appointed time.

¹ IGM/22/A.



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**The 22nd Intergovernmental Meeting/
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Item 5 of the draft agenda¹

Item 5. Activities in FY 2017

Summary

The proposed activities for FY 2017 are available in the following papers.

IGM/22/5.1.

Core Programmes and frameworks

IGM/22/5.2.

Hyogo Activities

IGM/22/5.3.

Science-policy events

IGM/22/5.4.

Workshop on Technology Needs Assessment on Climate Change Mitigation and Adaptation in Southeast Asia: Experience Sharing on Technology Transfer

IGM/22/5.5.

Publications and communication

¹ IGM/22/A.



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Item 5 of the draft agenda¹

Item 5.1. Core Programmes and Frameworks

Summary

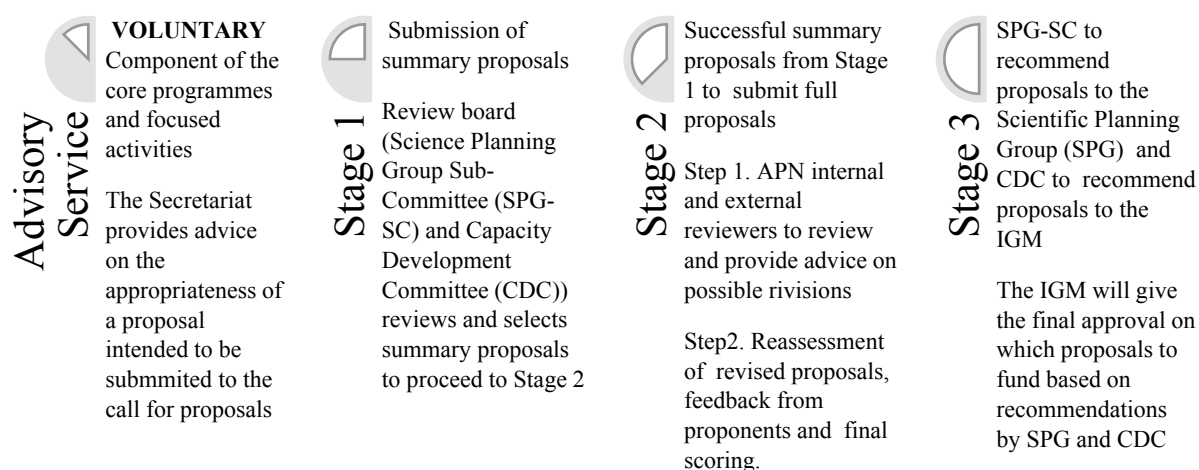
This document provides information on proposals received and projects being undertaken under the core programmes and the science frameworks of APN. The document is structured around three main themes: call for proposals; project management; and science frameworks.

¹ IGM/22/A.

1. Call for Proposals

The call for proposals is the main pillar of APN since its establishment in 1996. Increasing interest towards the call has been observed over the past years, proven by the increasing number of summary proposal submitted. While it is acknowledged that financial resources are limited, it is proposed that APN will continue to support regional research and capacity development under the Collaborative Regional Research Programme (CRRP) and the Capacity Development Programme (CAPaBLE).

The submissions received are reviewed based on a three-stage process as indicated below.



The call for proposals will accept proposals that fall under the area of interests, which will be discussed in Item 7. Proponents are required to submit summary proposals through the online submission system.

At stage 1 of the review process, SPG-SC and CDC will select summary proposals that will be invited to submit full proposals. At stage 2, the SPG and external reviewers will review the full proposals. Inviting external reviewers to the group has ensured that each proposal has sufficient number of reviews without increasing the burden of SPG members.

2. Project Management (Core Programmes)

2.1 Collaborative Regional Research Programme

In FY 2016, APN managed ten CRRP projects approved by the 21st IGM/SPG Meeting, which all will be continuing to FY 2017. To increase the efficiency in project management, project contracts are drawn covering the whole project period from 2016. Project progress review will be conducted after one year after contract signing to provide enough time for projects to progress sufficiently. Details of project status, awards and schedule are provided in the spreadsheet under Item 5.1-App.1.

2.2 Capacity Development Programme

In FY 2016, APN managed ten projects of which two projects are continuing multiyear projects and eight projects are projects approved at the 21st IGM/SPG Meeting. As in the case of CRRP, the project contract for the new CAPaBLE projects were drawn covering the whole project period. One project is continuing to its second year in FY 2017. Detail of project status, awards and schedule are provided in the spreadsheet under Item 5.1-App.2.

3. Science Framework

3.1. Climate Adaptation Framework

In FY 2016, the Secretariat managed 12 projects under the Climate Adaptation Framework (CAF). The status of these projects is indicated in the spreadsheet under Item 5.1-App.3. Two projects are seeking continuation to their third year in FY 2017. Recommendation for funding continuation will be provided under Item 7.

4. Appendices

- IGM/22/5.1-App.1 CRRP projects summary table
- IGM/22/5.1-App.2 CAPaBLE projects summary table
- IGM/22/5.1-App.3 CAF projects summary table

2016/2017 CRRP Project Management

Project Reference Number	Proposal Title	Proponent, Institution and Country	Collaborating Countries	Project Duration	Project Award (based on 21st IGM recommendation)	Project review schedule	Remarks
CRRP2016-01MY-Park	Anthropogenic perturbations to carbon export and greenhouse gas evasion from Asian river systems	Prof. Ji-Hyung Park Ewha Womans University 52 Ewhayeodae-gil, Seoul 03760, Republic of Korea	Bangladesh, Cambodia, China, India, Nepal, Republic of Korea, Singapore, USA, Viet Nam	3 years	USD 129,000.00	Aug-17	Project is ongoing
CRRP2016-02MY-Santisirisomboon	SEACLID/CORDEX Southeast Asia Phase 2: High-resolution analysis of climate extremes over key areas in Southeast Asia	Dr. Jerasorn Santisirisomboon Division of Energy Engineering, Faculty of Engineering, Ramkhamhaeng University Ramkhamhaeng Road, Hua Mak, Bang Kapi, Bangkok, Thailand 10240	Indonesia, Malaysia, Philippines, Thailand, Viet Nam	3 years	USD 120,000.00	Dec-17	Project is ongoing
CRRP2016-03MY-Nunn	Risk and Resilience in the Pacific: Influence of Peripherality on Exposure and Responses to Global Change	Prof. Patrick Nunn University of the Sunshine Coast (Sustainability Research Centre) Locked Bag 4, Maroochydore, Queensland 4558, Australia	Australia, Fiji, Federated States of Micronesia	3 years	USD 140,000.00	Jul-17	Project is ongoing
CRRP2016-04MY-Zhen	Assessing land use functions for sustainable land management in Asia countries	Prof. Lin Zhen Institute of Geographic Science and Natural Resources Research, Chinese Academy of Sciences 11A Datun Road, Chaoyang District, Beijing 100101, PR China	Bangladesh, China, Japan	2 years	USD 84,000.00	Aug-17	Project is ongoing
CRRP2016-05MY-Rowlings	Managing organic amendments to reduce greenhouse gas emissions and supplement fertiliser nitrogen inputs in tropical Indian and Sri Lankan agricultural soils	Dr. David Rowlings Queensland University of Technology (QUT) 2 George Street, Brisbane, 4001, Australia	Australia, India, Sri Lanka	2 years	USD 80,000.00	Oct-17	Project is ongoing
CRRP2016-06MY-Kumar	Development of new water supply strategies in two watersheds of India and Sri Lanka in the context of climate change, rapid urbanization and population growth: a vulnerability assessment approach	Dr. Manish Kumar Tezpur University Department of Environmental Sciences, Tezpur University, Napaam, Sonitpur, Assam 784-028, India	India, Japan, Sri Lanka	2 years	USD 75,000.00	Oct-17	Project is ongoing

Project Reference Number	Proposal Title	Proponent, Institution and Country	Collaborating Countries	Project Duration	Project Award (based on 21st IGM recommendation)	Project review schedule	Remarks
CRRP2016-07MY-Ishigaki	Appropriate Solid Waste Management Towards Flood Risk Reduction Through Recovery of Drainage Function of Tropical Asian Urban Cities	Dr. Tomonori Ishigaki National Institute for Environmental Studies (NIES) 16-2, Onogawa, Tsukuba, Ibaraki, 305-8506, Japan	Japan, Thailand, Viet Nam	2 years	USD 80,000.00	Aug-17	Project is ongoing
CRRP2016-08MY-Kuyama	Water-Energy-Food nexus perspective: Path making for Sustainable Development Goals (SDGs) to country actions in Asia.	Mr. Tetsuo Kuyama Institute for Global Environmental Strategies 2108-11 Kamiyamaguchi, Hayama, Kanagawa 240-0115 Japan	Bangladesh, Japan, Viet Nam, India	2 years	USD 80,000.00	Jul-17	Project is ongoing
CRRP2016-09MY-Lokupitiya	Identification of the best agricultural management practices with better greenhouse gas benefits in salinity affected areas of South Asia	Dr. Erandathie Lokupitiya Department of Zoology, Faculty of Science, University of Colombo, Colombo 03, Sri Lanka	Sri Lanka, Pakistan, Bangladesh, India, USA	2 years	USD 80,000.00	Aug-17	Project is ongoing
CRRP2016-10MY-Huang	Assessing the health effects of extreme temperatures and the development of adaptation strategies to climate change in the Asia-Pacific region	Dr. Cunrui Huang Sun Yat Sen University 74, Zhongshan Road #2, Guangzhou 510080, China	China, Vietnam, Thailand, Bangladesh, Australia	2 years	USD 82,000.00	Sep-17	Project is ongoing
					USD 950,000.00		

2016/2017 CAPaBLE Project Management

Full Proposal/ Project Reference	Project Reference Number	Proposal Title	Theme	Proponent, Institution and Country	Regional Collaboration Countries Involved	Project Duration	2016/2017 Award (based on 21st IGM recommendation)	Project review schedule	Remarks
CBA2014-21NSG- Adiningsih	CBA2016-01CMY- Adiningsih	Building Capacity for urban climate change adaptation in Southeast Asia	CCCV	Dr. Erna Sri Adiningsih Remote Sensing Technology and Data Center, Indonesian National Institute of Aeronautics and Space (LAPAN) Jl. Lapan no. 70, Pekayon, Pasar Rebo, Jakarta 13710, INDONESIA	Indonesia, Thailand, Viet Nam, Philippines, Cambodia, Lao PDR, Malaysia, USA	2 Years	USD 40,000.00	N/A	Project contract has not yet been drawn.
CBA2014-FP20- Pushpakumara	CBA2016-02CMY- Pushpakumara	Scientific Capacity Development to Strengthen Informed-decision Making for Improved Climate Policy Formulation and Implementation in South Asian Countries	CCA, SPL	Prof. Gamini Pushpakumara, Faculty of Agriculture, University of Peradeniya, Old Galaha Road, Peradeniya, SRI LANKA	Sri Lanka, Bangladesh, Nepal, Bhutan	2 Years	USD 32,000.00	N/A	Project is still in its first year
CBA2015-FP11- Luong	CBA2016-3SY-Luong	Enhancing perception and capacity for national and provincial leaders and practitioners on GHG emission inventory to support the implementation of NAMAs and development of low-carbon cities in Vietnam	CCCV	Dr. Luong Quang Huy Department of Meteorology, Hydrology and Climate Change (DMHCC), Vietnam Ministry of Natural Resources and Environment (MONRE) 10 Ton That Thuyet Street, Nam Tu Liem District, Hanoi, VIETNAM	Viet Nam	1 year	USD 40,000.00	Jul-17	Project is ongoing
CBA2015-FP15- Dutta	CBA2016-4MY-Dutta	Mainstreaming weather and climate information application for agro-ecosystem resilience in a changing climate	CCCV, BES, RRR	Dr. Rishiraj Dutta Asian Disaster Preparedness Center (ADPC) SM Tower, 24th Floor, 979/69 Paholyothin Road, Samsen Nai, Phayathai, Bangkok-10400, THAILAND	Nepal, Sri Lanka, Japan, Thailand & Vietnam	2 years	USD 72,000.00	Aug-17	Project is ongoing
CBA2015-FP17- Kang	CBA2016-5SY-Kang	Facilitating the attendance, interaction and training of young and developing nation scientists from Asia-Pacific at the International Conference on Regional Climate - CORDEX 2016 (ICRC-CORDEX 2016)	CCCV, BES, CATMD, RUSD, RRR	Dr. Hyun-Suk Kang National Institute of Meteorological Research, Korea Meteorological Administration 33 Seohobuk-ro, Seogwipo-si, Jeju, REPUBLIC OF KOREA	Australia, Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, Pacific Island States, Pakistan, Philippines, ROK, Russian Federation, Sri Lanka, Thailand, USA, Viet Nam, Maldives	1 year	USD 25,000.00	May-17	Project is ongoing
CBA2015-FP01-Qiao	CBA2016-6SY-Qiao	CLIVAR Open Science Conference	CCCV, CATMD	Prof Dr. Fangli Qiao UNESCO/IOC Regional Training and Research Center on Ocean Dynamics and Climate (WESTPAC) First Institute of Oceanography (FIO), SOA, 6 Xian-Xia-Ling Road, Hi-Tech Industry Park, Qingdao CHINA	France, China, Germany, New Zealand, Republic of Korea, USA	1 year	USD 40,000.00	May-17	Project is ongoing
CBA2015-FP03- Shrestha	CBA2016-7SY-Shrestha	Adapting groundwater of Asian cities to climate change: bridging the science and policy interface	CCCV, RUSD	Assoc. Prof. Dr. Sangam Shrestha (PL) Asian Institute of Technology (AIT), P O Box 4, Klong Luang, Pathumthani 12120, THAILAND	Thailand, Indonesia, Vietnam, Japan, Pakistan	1 year	USD 40,000.00	Aug-17	Project is ongoing
CBA2015-FP06- Weerakkody	CBA2016-8SY-Weerakkody	Capacity development of agrarian research-policy-technology personnel in Sri Lanka on 'Global Change and Sustainability'	RUSD	Mrs. Priyanjanie Renuka Weerakkody Hector Kobbekaduwa Agrarian Research and Training Institute; P.O. Box 1522, No.114, Wijerama Mawatha, Colombo 7, SRI LANKA	Sri Lanka	1 year	USD 22,000.00	Aug-17	Project is ongoing

Full Proposal/ Project Reference	Project Reference Number	Proposal Title	Theme	Proponent, Institution and Country	Regional Collaboration Countries Involved	Project Duration	2016/2017 Award (based on 21st IGM recommendation)	Project review schedule	Remarks
CBA2015-FP14- NGO	CBA2016-9SY-Ngo	Ecosystem based adaptation approach for sustainable management and governance of coastal ecosystems (ENGAGE)	CCCV, BES, RUSD, RRR	Dr. Tho Hung Ngo Asian Institute of Technology in Vietnam Building B3, University of Transport and Communication, Lang Thuong, Dong Da, Hanoi, VIET NAM	Cambodia, Indonesia, Malaysia, Philippines, Republic of Korea, Thailand, Viet Nam, UNU INWEH - Canada	1 year	USD 35,000.00	Aug-17	Project is ongoing
CBA2015-FP10- Sutrisno	CBA2016-10SY-Sutrisno	Rapid mapping technique for disaster observation and environmental change data acquisition	RRR	Prof. Dewayany Sutrisno Indonesian Society For Remote Sensing (ISRS) or Masyarakat Ahli Penginderaan Jauh Indonesia (MAPIN) Executing Secretariat 2nd Floor F Building, Jalan Raya Jakarta Bogor km 46 Cibinong 16911 INDONESIA	Indonesia, Malaysia, Taiwan and Netherlands	1 year	USD 35,000.00	Aug-17	Project is ongoing
							USD 381,000.00		

2016/2017 CAF Project Management

Project Reference Number	Proposal Title	Proponent, Institution and Country	Regional Collaboration Countries Involved	Project Duration	2016/2017 Award (based on 21st IGM recommendation)	2017/2018 Expected Award (committed based on 21st IGM recommendation)	Remarks
CAF2016-RR01-CMY-Basnayake	Developing climate inclusive potential loss and damage assessment methodology for flood hazards	Dr. Senaka Basnayake, Asian Disaster Preparedness Centre (ADPC), Bangkok, THAILAND	Thailand , Nepal, Sri Lanka, Australia	3 years	USD 38,000.00		Project is ongoing on its 2nd year
CAF2016-RR02-CMY-Singh	Developing and promoting a people-centred approach to assess and address impacts of climate change induced loss and damage	Harjeet Singh, ActionAid International for Asia, INDIA	Bangladesh, Cambodia, Myanmar, Nepal and Vietnam, UK, South Africa (SA and SEA)	3 years	USD 11,400.00		Project is ongoing on its 2nd year
CAF2016-RR03-CMY-Pereira	Integrating CCA, DRR and L+D to address emerging challenges due to slow onset processes	Professor Joy Jacqueline Pereira, Universiti Kebangsaan Malaysia, Selangor, MALAYSIA	Malaysia, Cambodia, The Philippines, Vietnam, Myanmar, Japan (SOUTHEAST ASIA)	3 years	USD 42,750.00		Project is ongoing on its 2nd year
CAF2016-RR04-CMY-Wang	Integrated flood modeling and pre-disaster loss estimation in Asian countries	Dr. Yi Wang, Asian Disaster Preparedness Center (ADPC), Bangkok, THAILAND	Thailand, Japan, China, Myanmar	3 years	USD 45,600.00		Project is ongoing on its 2nd year
CAF2016-RR05-CMY-Neef	Climate change adaptation in post-disaster recovery processes: Flood-affected communities in Cambodia and Fiji	Prof. Andreas Neef Human Sciences Building, 10 Symonds Street, Rm. 836B, Auckland 1142, NEW ZEALAND	New Zealand , Fiji, Cambodia, Australia, UK	3 Years	USD 35,000.00	USD 40,000.00	Project is ongoing
CAF2016-RR06-CMY-Siswanto	Developing high spatiotemporal resolution datasets of low-trophic level aquatic organism and Land-Use/Land-Cover in the Asia-Pacific Region: Toward an integrated framework for assessing vulnerability, adaptation, and mitigation of the Asia-Pacific ecosystems to global climate change	Dr. Eko Siswanto Japan Agency for Marine-Earth Science and Technology (JAMSTEC) 2-15 Natsushima-cho, Yokosuka, Kanagawa 237-0061 JAPAN	Japan , Korea, China, Thailand, Viet Nam, Malaysia, Indonesia, USA	3 Years	USD 45,000.00	USD 34,000.00	Project is ongoing on its 1st year
CAF2016-RR07-CMY-Shaheen	Climate smart agriculture through sustainable water use management: Exploring new approaches and devising strategies for climate change adaptation in South Asia	Nuzba Shaheen, Global Change Impact Studies Centre, National Centre for Physics (NCP) Complex, Shahdara Road, Quaid -i- Azam University Campus, Islamabad . (44000), PAKISTAN	Sri Lanka, Bangladesh, Cambodia, UK, Pakistan	2 Years	USD 44,000.00		Project is ongoing on its 1st year

Project Reference Number	Proposal Title	Proponent, Institution and Country	Regional Collaboration Countries Involved	Project Duration	2016/2017 Award (based on 21st IGM recommendation)	2017/2018 Expected Award (committed based on 21st IGM recommendation)	Remarks
CAF2016-RR08-CMY-Dautova	Developing life-supporting marine ecosystems along the Asia-Pacific Coasts - A synthesis of physical and biological data for the science-based management and socio-ecological policy making	Dr. Tatiana N. Dautova A.V. Zhirmunsky Institute of Marine Biology, Far East Branch of the Russian Academy of Sciences Palchevsky Street 17, Vladivostok 690041, RUSSIA	Russia , Viet Nam, Philippines	2 Years	USD 38,000.00		Project is ongoing
CAF2016-RR09-CMY-Odeh	Monitoring grassland degradation in North/Central Asia: Deciphering the impacts of climate change and government policies at different spatial-temporal scales using remote sensing and expert knowledge	Associate Prof. Inakwu Odeh Centre for Carbon, Water and Food, Faculty of Agric. & Envir., The Univ of Sydney, Australian Technology Park, 1, Central Avenue, Eveleigh NSW 2015, AUSTRALIA	Australia , China, Mongolia, Uzbekistan	2 Years	USD 28,000.00		Project is ongoing on its 1st year
CAF2016-RR10-CMY-Marambe	Building climate resilience in farming systems in sloping lands of South Asia	Prof. Buddhi Marambe, Faculty of Agriculture, University of Peradeniya Old Galaha Road, Peradeniya 20400, SRI LANKA	Sri Lanka , Bangladesh, Pakistan, Nepal	2 Years	USD 25,000.00		Project is ongoing on its 1st year
CAF2016-RR11-CMY-Pham	Utilizing geospatial technology to assess health vulnerability to climate change for rural population in Vietnam and Philippines	Dr. Pham Thi Thanh Nga Vietnam National Satellite Center, Vietnamese Academy of Science and Technology Floor 9th, Main Building, 18 Hoang Quoc Viet, Cau Giay district, Ha Noi, VIET NAM	Viet Nam , Philippines, Japan	2 Years	USD 40,000.00		Project is ongoing
CAF2016-RR12-CMY-Arifwidodo	Understanding urban heat island effect and its implications to climate change adaptation strategies in major Southeast Asian cities	Dr. rer. pol. Rizqi Abdulharis, ST, M.Sc Center for Agrarian Research, Institut Teknologi Bandung Gedung Labtek IX-C, Lantai 1, Jl. Ganesa 10, Bandung 40132, INDONESIA	Indonesia , Thailand, Philippines	2 Years	USD 40,000.00		Project is ongoing
					USD 432,750.00	USD 74,000.00	



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**The 22nd Intergovernmental Meeting/
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Item 5.2 of the draft agenda¹

Item 5.2. Hyogo Activities

Summary

The Hyogo Prefectural Government has been financially supporting APN since 1999. Activities in fulfilling the vision of APN with the support of the Prefectural Government is called Hyogo Activities. The proposed Hyogo Activity for FY 2017, the International SATOYAMA Workshop, seeks continuation in its cooperation between APN and the Prefectural Government in addressing the challenges of global change and sustainability. The second activity will be decided in consultation with the Prefectural Government.

¹ IGM/22/A.

1. Proposed activities for FY 2017

1.1. International SATOYAMA Seminar

APN proposes to organize a consecutive seminar under the theme of “how to use natural resources of satoyama² for regional revitalization” by building on the outcomes of the Hokusetsu SATOYAMA International Seminar held in 2015 and 2016. The proposed seminar plans to invite researchers, practitioners, educators, government officials and local volunteer groups working in areas related to satoyama.

APN and the Hyogo Prefectural Government have jointly organized a series of workshops and seminars since FY 2011 to explore the possibility of satoyama as a place of harmonious coexistence of humans and nature. The workshops and seminars have contributed in finding ways to sustainably use and enhance satoyama, and increase the resilience of local communities of satoyama towards climate change.

Date: End of November 2017

Location: Takarazuka, Hyogo Prefecture, Japan

Requested budget: USD20,000

1.2. Second Activity: To be Decided

Date: To be decided with the Hyogo Prefectural Government

Location: To be decided with the Hyogo Prefectural Government

Requested budget: USD20,000

² Satoyama is one of the traditional agricultural landscapes in Japan where harmonious human nature interactions have sustained landscapes characterized by a mosaic feature of different land uses such as woodland, grassland and paddy fields, and where farmers have grown rice, cut grass to maintain soil fertility and feed animals, and use wood for fuel etc. over a prolonged period of time.



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Item 5.3 of the draft agenda¹

Item 5.3. Science Policy Activities: COP/SBSTA/IPBES

Summary

This document proposes to continue collaboration between APN and international science-policy bodies including the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP), the Subsidiary Body for Science and Technological Advice (SBSTA) and the Nairobi Work Plan (NWP) for climate change, and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). A total of USD30,000 is requested for these activities.

¹ IGM/22/A.

1. United Nations Framework Convention on Climate Change

1.1. Conference of Parties

The 23rd COP will take place on 6-17 November 2017 at Bonn, Germany (USD10, 000).

1.2. Subsidiary Body for Science and Technological Advice

SBSTA 46 will take place on 8-18 May 2017 at Bonn, Germany (USD10, 000).

1.2.1. Ninth Meeting of the Research Dialogue (RD 9), SBSTA 46

The Dialogue is expanding its poster session from last year, taking into consideration the need to present the science as well as accommodating the request from Parties for more time for discussion by reducing presentation time. Dr Andrew Matthews, Steering Committee member has prepared and will present a poster titled “Measure to Manage: A view from the Asia-Pacific” (see Figure 1) at the three hour dialogue. In addition, Dr Matthews will deliver a short presentation on regional climate research data and gaps.

The Dialogue will open with keynote presentations by Dr David Carlson, World Climate Research Programme, and Professor Chris Rapley, University College London. Continuously, the Dialogue will discuss each theme in turn and for each of the two themes, an opening presentation will be given. The World Meteorological Organization will give the first opening presentation on theme 1 “regional climate research data and information, and gaps” including capacity building activities that are undertaken. The Intergovernmental Panel on Climate Change will give the second opening presentation on theme 2 “science to take stock and assess progress on mitigation”. Lastly, all experts from the poster session will present their posters and provide a short accompanying statement to explain the key messages. These statements will be integrated into the Q&A by the SBSTA Chair.



Fig.1 Measure to Manage: A view from Asia-Pacific

1.2.2. Nairobi Work Plan

NWP invited APN to submit its recent work in the area of ecosystems, and interrelated areas such as water resources and adaptation under the following topics:

- Lessons learned and good practices on adaptation planning processes addressing ecosystems and interrelated areas such as water resources;
- Lessons learned and good practices in monitoring and evaluating the implementation of ecosystem-based adaptation;
- Tools for assessing the benefits of mitigation and adaptation to enhance resilience and emission reductions that ecosystem-based adaptation provides; and
- This call for submission is in response to the invitation of SBSTA 44.

APN provided information on the following projects that are now showcased on the NWP adaptation web portal:

- Seagrass-Mangrove Ecosystems: Bioshields Against Biodiversity Loss and Impacts of Local and Global Change along Indo-Pacific Coasts (the Seagrass-Mangrove Bioshield Project, SMBP), APN E-Lib, accessed April 17, 2017, <http://www.apn-gcr.org/resources/items/show/1593>

- Optimizing Climate Change Adaptation through Enhanced Community Resilience, APN E-Lib, accessed April 17, 2017, <http://www.apn-gcr.org/resources/items/show/2028>
- Developing Ecosystem based Adaptation Strategies for Enhancing Resilience of Rice Terrace Farming Systems against Climate Change, APN E-Lib, accessed April 17, 2017, <http://www.apn-gcr.org/resources/items/show/1594>

2. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

2.1. Report of the IPBES-5 Plenary

The fifth session of IPBES Plenary was held on 7-10 March 2017 in Bonn, Germany. The Plenary was preceded by a Stakeholder Day that provided an opportunity for interested organizations to receive updates on IPBES and discuss their engagement with IPBES. Under the Work Programme of the Platform, the Plenary addressed the following assessments:

- Methodological assessment regarding diverse conceptualization of multiple values of nature and its benefits;
- Thematic assessment on invasive alien species; and
- Thematic assessment on the sustainable use of biodiversity.

Also considered were:

- Capacity building;
- Indigenous and local knowledge systems;
- Knowledge and data;
- Policy support tools and methodologies; and
- Communication, stakeholder engagement and strategic partnerships.

2.2. Summary of the Second Capacity-building Forum

The second IPBES Capacity-building Forum was held on 22 September 2016 at New York, United States of America.

The balance between individual versus institutional capacity-building was discussed. It is important to address institutional capacity in the context of IPBES in order to achieve greater impact. In this part of the discussion, the following points were considered:

- The need to consider how to address institutional capacity-building when planning and implementing all capacity-building activities
- Each activity in the rolling plan has a potential follow-up in moving from building the capacity of individuals to that of institutions, including through building communities of practice, and increasing the focus on building capacity to use the knowledge and experience resulting from IPBES deliverables; and
- Regional and subregional institutions could help provide opportunities for bringing people together.

2.3. Presence at the Sixth IPBES Plenary

- Endorsement of the Regional Assessment for Asia-Pacific is expected to take place at the sixth IPBES Plenary following the third stakeholder engagement day. As biodiversity and ecosystems is a key theme under the APN science agenda, the Secretariat proposes to attend both events on 18-24 March 2018 (USD10,000).



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Item 5 of the draft agenda¹

**Item 5.4. Workshop on Technology Needs Assessment on
Climate Change Mitigation and Adaptation in Southeast
Asia: Experience Sharing on Technology Transfer**

Summary

The Southeast Asia Subregional Committee (SEA-SRC) aims to promote cooperation, science-policy dialogues and research activities to facilitate global change and sustainability in the region.

The SEA-SRC proposes to hold a Workshop on Technology Needs Assessment on Climate Change Mitigation and Adaptation in Southeast Asia to enhance technology transfer, and deployment and dissemination of climate change solutions. The Workshop aims to assist member countries to meet the Paris Agreement by identifying national priorities with a strong focus on technology transfer. Support on technology assessments will also be provided to cross-cutting sectors such as energy, waste, water, tropical agriculture and specific industrial processes.

¹ IGM/22/A.

1. Background

The Southeast Asia region is home to 563 million people (8.5% of the world population), where its population is concentrated along the coastlines measuring 173,251 kilometres. In 2015, the economy has grown to more than USD2.8 trillion GDP which is the sixth largest economy and the biggest GHG emitter in the world. Meanwhile, Southeast Asia has become the most vulnerable region to droughts, floods, tropical cyclones and rising sea levels caused by extreme weather, and the region is in greatest need for adaptation to reduce the impacts of climate change. The region also has the potential for mitigation that can contribute to prioritizing technology transfer and experience-sharing to meet the requirements of each country.

2. Purpose

The Workshop on Technology Needs Assessment on Climate Change Mitigation and Adaptation in Southeast Asia aims to enhance technology transfer, deployment and dissemination of climate change solutions to support the goals of the Paris Agreement to further promote and facilitate environmentally sound technologies for mitigation and adaptation in Southeast Asia.

The Workshop will support developing countries to identify national priorities for adaptation and mitigation with a strong focus on technology transfer. The Workshop will also support cross-cutting sectors such as energy, waste, water, tropical agricultural and specific industrial processes on technology assessments through discussions. Member countries are required to present win-win solutions, best technology practices and priorities on climate change in their respective countries that have been assessed through technology needs assessments (TNAs) and updates.

The group discussion will:

- Update TNAs prioritizing in mitigation and adaptation techniques from various sectors including waste, energy, water, agriculture, industry etc., and enhance implementation in technology action plans, and project ideas by scoping projects or initiatives;
- Provisions of enhanced financial and technical support for the implementation of the results of TNAs; and
- Identify and address barriers hindering the deployment and diffusion of prioritized technologies, including the enabling framework for technologies.

3. Workshop Outline

3.1 Contents

The Workshop will be organized around several topics that will be developed in more detail following IGM approval. Suggested topics are:

- Technology assessment for climate change mitigation and adaptation in Southeast Asia member countries;
- Technology assessment for climate change mitigation and adaptation – experience-sharing (learning from other regions and organizations) and decision support tools for TNA;
- Technology assessment for climate change mitigation and adaptation in agriculture (coffee, tea, livestock, etc.) and forestation;
- Technology assessment for climate change mitigation and adaptation in industry and energy sectors, and waste to energy;
- Technology assessment for climate change mitigation and adaptation in wastewater, water supply, green buildings and low carbon society; and
- Detailed group discussions.

3.2 Date and Venue

The date is yet to be determined, however the Workshop is expected to take place in the first half of 2018. The venue will most likely be Ho Chi Minh City, Viet Nam, with the SPG member for Viet Nam taking the lead. This will be discussed further at the SEA-SRC meeting at the 22nd IGM/SPG Meeting.

3.3. Proposed Participants

The expected participants of the Workshop are: practitioners, scientists, policymakers and the business sector from Southeast Asia and other member countries; lecturers, early-career researchers, representatives from education and communication system networks; and organizations such as APN, Asian Institute of Technology, Asian Development Bank, Climate Technology Centre and Network, International Center for Tropical Agriculture, Japan International Cooperation Agency, Low Carbon Asia Research Network and the committee of the International Scientific Conference on Material Cycles and Waste Management.

3.4 Workshop Outputs

Outputs of the workshop will include:

1. Synthesis report on updating technology assessment for Southeast Asia focusing on technology transfer priorities in energy, waste, waste, agriculture and industry processes;
2. Workshop proceedings, publication and press release;
3. Enhanced networks and linkages for climate change mitigation and adaptation;
4. Enhanced awareness of APN in the region; and
5. Member countries will benefit in terms of updating their respective TNA country reports for adaptation and mitigation.

3.5. Proposed Budget

The budgets proposed is USD30,000.



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Item 5 of the draft agenda¹

Item 5.5. Publication and Communication

Summary

This document contains a proposal to develop a publication policy aiming to clarify procedures related to publishing and dissemination of APN publications. Members are invited to join the development process which is proposed to take place in FY 2017. Communication will be conducted electronically.

This document also contains a list of regular publications scheduled to be published in FY 2017.

¹ IGM/22/A.

1. Development of a Publication Policy

1.1. Background

The number and types of publications have expanded over the years as APN grew with the increased number of projects funded. Publications have gained a much wider exposure, especially with the introduction of the E-Library (www.apn-gcr.org/resources). In order for APN to remain competitive in providing credible scientific input for policy decision-making, it is important that the publications are produced in a timely and consistent manner with a focus on quality and policy relevance.

1.2. Development of the Publication Policy

In this context, the Secretariat finds it necessary to review the procedures related to publications, and proposes to develop an overarching publication policy in FY 2017 that may include plagiarism check, peer review, approval and distribution. All APN members and invited experts are invited to take part in developing the policy and are asked to indicate their willingness to the Secretariat during or after the IGM. Communication will be conducted electronically.

1.3. Goals

The publication policy is expected to ensure quality and timely dissemination of publications by clarifying the following points:

- Types and definition of publications;
- Procedures for reviewing and approval for each type of publication;
- Procedures for preventing academic misconduct in research publications; and
- Procedures for publication and dissemination planning.

1.4. Examples of Key Elements of the Publication Policy

- Establish a publication committee consisting of, for example, the Steering Committee Chair, Scientific Planning Group Co-Chairs, Secretariat Director, Head of Communication and Scientific Affairs, and one or two invited experts nominated by the SPG Co-Chairs.
- Classification of APN publications
 - By type of audience: policy-oriented, research-oriented, generic publications etc.
 - By medium: printed, web content, charts, maps, infographics, videos, etc.
 - By author: project publications, in-house publications, joint publications etc.
- Tools and procedures for plagiarism check.
- Procedures for approval depending on publication type.
- Use of logos, copyright notice, legal disclaimer and other boilerplate information.
- Publication and dissemination planning, depending on publication type.

2. Scheduled Publications for FY 2017

- Proceedings of the 22nd IGM/SPG Meeting.
- Annual report for FY2016 (electronic publication only).
- Science Bulletin 2017 and 2018.
- Synthesis of science-policy dialogues.
- Posters and other information material for international conferences and events.
- Generic promotional material in multiple languages.



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Item 6 of the draft agenda¹

Item 6. Work Programme and Resources Allocation for FY 2017

Summary

This document contains the Work Programme and Resources Allocation for FY 2017 for consideration and approval of the IGM.

¹ IGM/22/A.

DRAFT Work Programme and Resources Allocation for FY 2017

Exchange Rates in FY 2017

USD 1 = JPY 118

USD 1 = NZD 1.50

All figures in USD

New Resources for FY 2017

MOEJ (JPY 209,766,000)	1,778,000
Hyogo (JPY 22,009,000)	186,000
NZ (NZD 30,000)	20,000
ROK	50,000
Balance from FY 2009 and FY 2015	18,193
Total (A)	<u>2,052,193</u>
Use of Resources	
Projects and other Activities in FY 2017	
CRRP (Collaborative Regional Research Programme)	664,800
CRYS (Collaborative Research for Young Scientists)	59,850
CAPaBLE (Capacity Development Programme)	362,203
SRC-SA	15,000
SRC-SEA	15,000
SRC-TEA	0
PDTW Southeast Asia	25,000
TNA Capacity Building Workshop in SEA	30,000
Science Policy Linkage (SBSTA, IPBES, COP23)	45,000
Hyogo Activities	40,000
Annual Reports & Other Publications	5,000
Sub Total New Projects and Other Activities (B)	<u>1,261,853</u>
Administration and Operational Costs	
23rd IGM/SPG & 37th SC	110,000
APN Members/Secretariat Travel	40,000
Personnel	473,000
General Maintenance & Operational Cost	44,000
Partial Payment for extended three Months of FY 2016 (50% ¹⁾)	70,000
IGES Administrative Overhead (3% of MOEJ Contribution)	53,340
Sub Total Administration and Operational Costs (C)	<u>790,340</u>
(B)+(C)	<u>2,052,193</u>

1) For the extended three months of FY 2016 an additional budget of approximately USD 140,000 is needed. It is

proposed to adjust these expenses in three partial payments, i.e. 50% in FY 2017, 30% in FY 2018 and 20% in FY 2019.

2) FY 2017, the resources allocation consists of new resources.

There is a small allocation of unspent funds from FY 2009 and FY 2015, amounting to USD 18,19.

Committed Funds for Ongoing Projects (as of 31 March 2017)²⁾	
ARCP (CRRP) 2016	282,748
CAPaBLE 2016	154,800
CAF 2016	474,964
ARCP (CRRP) 2015	94,036
CAPaBLE 2015	67,086
CAF 2015	281,389
ARCP 2014	81,318
CAPaBLE 2014	36,310
CAF 2014	43,300
ARCP 2013	58,451
CAPaBLE 2013	18,400
LCI 2013	19,389
Total (D)	<u>1,612,191</u>

Total Resources under Operation in FY 2017 (B)+(C)+(D)	<u>3,664,384</u>
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Contingency (no contingency was used in FY 2016, and the entire amount will be carried over to FY 2017)	<u>121,170</u>
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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Item 7 of the draft agenda¹

Item 7. Scientific Planning Group Report

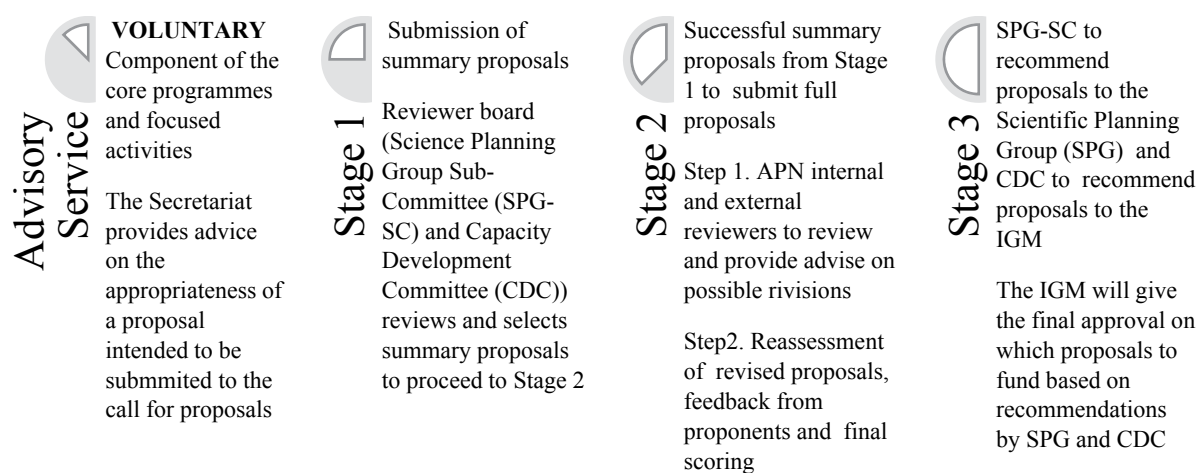
Summary

This report from the Scientific Planning Group includes information on the 2016 call for proposals under the Collaborative Regional Research Programme (CRRP). The table summarizing the proposals submitted under the 2016 call for proposals is provided under Item 7-App.1.

¹ IGM/22/A.

The 2016 call for proposals for CRRP was launched in June 2016. Similar to last year, an online submission system was used for the summary proposal stage of the call. An online advisory service was also made available for potential proponents to consult the Secretariat on proposal submission.

The submissions received are reviewed based on a three-stage process as indicated below.



The Secretariat received 63 eligible summary proposals under CRRP. Following a review by members of the SPG and CDC, 14 proposals were invited to submit full proposals. The table summarizing the proposals received is provided under Item 7-App.1.

2016 Call for Proposals under Collaborative Regional Research Programme (CRRP)

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Project Summary	Duration	Total Funding Request	Other Funding Secured	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CRRP2016-SP2081-AHMED	CRRP2016-FP01-Ahmed	Understanding the opportunities and challenges of compliance to building codes for disaster resilience in South Asia - the cases of Bangladesh and Nepal	This project will explore the opportunities and challenge to compliance of safe building codes for disaster resilience in South Asia, focusing on two countries of the region, Bangladesh and Nepal. Recent disasters in both countries highlight that the problem lies in non-compliance to building codes. Such disasters have brought institutional and community awareness of the importance of safe building codes, presenting a germane opportunity to undertake this project. Building codes do exist in the two countries, but compliance is generally lacking or limited, especially in the widespread informal building sector. There is thus a need for understanding how these codes might be more widely adopted to enable disaster resilience. Collaboration between two universities in these countries with experience in this field will address: sharing the understanding that evidence-based knowledge is a critical component in the commitment to local action; institutional and community awareness of the importance of compliance with/barriers to enforcement of codes; fostering communities of collaborative practice; subsequent development of local and international dissemination networks.	1 year	44,790	5,000	RRR	Australia, Bangladesh, Nepal		Dr. Iftekhar Ahmed Senior Lecturer School of Architecture and Built Environment, University of Newcastle University Drive, Callaghan, NSW 2308, Australia	Male
CRRP2016-SP1952-FARZANEH	CRRP2016-FP02-Farzaneh	Multiple benefits assessment of the low emission development strategies in Asia-Pacific cities	This research will develop and demonstrate a new strategic planning mechanism for achieving multiple benefits of Low Emission Development Strategies (LEDS) in Asia-Pacific cities, together with a robust analytical framework that can be used to assess those benefits during the development and implementation process. In this research, 1) we plan to develop a modeling framework in order to quantify the effect of LEDS on four main areas of energy systems, environment, public health and local economy at the city level; 2) We will create an executive package of policies with an assessment of implementation challenges in each city and 3) we will develop a strategic plan of the urban multiple benefits of LEDS based on the comparative analysis among the selected cities as the main output of this research. The five global cities which will be evaluated in detail in this research are Tokyo, Sydney, Shanghai, Kuala Lumpur and Delhi. In this research the focus would be on 'Buildings', 'Waste' and 'Transport' as the key sectors as they can offer substantial urban climate mitigation potential through the implementation of LEDS in these selected cities. Five expert workshops will be organized with local experts from each city in order to present outcomes.	1 year	41,812	86,000	CCCV, RUSD	Australia, China, India, Japan, Malaysia		Dr. Hooman Farzaneh Junior Associate Professor Institute of Advanced Energy, Kyoto University Gokasho, Uji Kyoto 611-0011, Japan	Male
CRRP2016-SP1999-SIDLE	CRRP2016-FP03-Sidle	Improving resilience assessment for climate hazards (IRACH)	We propose a research project with capacity building components that synthesises understanding about assessing multiple and cascading climate-related hazards, and their effects on marginalised groups. Despite significant funding for adaptation to climate change, our understanding about the ways in which hazards interact with each other to affect communities, and our ability to bring marginalised voices within communities into adaptation assessment and planning remains limited. As such, we have incomplete understanding of the needs and knowledge vested in these marginalised groups. This project combines social science expertise with biophysical approaches to assess climate-related hazards. The goal is to provide an Asia-Pacific understanding of inter-related climate hazards and their impacts on marginalised groups to facilitate climate change adaptation activities that more effectively engage marginalised groups and address their needs. We will address this through a novel Asia-Pacific event that provides a transdisciplinary synthesis of hazard impacts, their effect on marginalised groups, and how to assess and accommodate these in practice. Findings will be shared through tried and tested best practice guidelines and training curricula.	1 year	42,290	59,096	CCCV, RRR	Australia, Cambodia, Pacific Island States, Viet Nam		Prof. Roy Sidle Professor University of the Sunshine Coast Locked Bag 4, Maroochydore DC, Queensland 4558, Australia	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Project Summary	Duration	Total Funding Request	Other Funding Secured	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CRRP2016-SP1954-CRAWFORD	CRRP2016-FP04-Crawford	Coastal erosion, Monsoon dynamics and human livelihood vulnerabilities in South Asia	Settlement in coastal lowlands are vulnerable to shoreline erosion that displaces population and disrupts economic livelihood well-being. Monsoon driven hydrological discharge is hypothesized to be an important factor influence spatio-temporal patterns of erosion events. Prior funding from APN (ARCP2012-23NSG-Crawford) supported the seed project "Scoping Workshop: Human Responses to Catastrophic Monsoon Events in South Asia: Designing a Spatially Explicit Model in Low Lying Coastal Area". We propose follow on research activities designed to link monsoon rainfall to coastal river bank erosion and human response in coastal Bangladesh and India. We propose to build a 30-year dataset spanning 1988 to 2017 of shoreline change and precipitation in order to characterize inter and intra-annual patterns of erosion and rainfall. Erosion will be estimated using GIS and remote sensing methods at one year time intervals over the 30-year period to characterize space-time variability of erosion rates. Monthly precipitation data will be aggregated and characterized for contributing river basins and sub-basins. Village field work will collect focus group and interview data to characterize risk perceptions and livelihood strategies employed to mitigate or adapt to riverbank erosion. Focus regions include the lower Meghna coast in Bangladesh and the lower Hooghly estuary in West Bengal, India.	2 years	62,264	345,799	CCCV, CATMD, RUSD, RRR	Bangladesh, India, United States of America		Dr. Thomas Crawford Banpu Endowed Professor of Sustainability Center for Sustainability, Saint Louis University 3694 West Pine Mall, Des Peres Hall, Suite 203F, Saint Louis, MO 63108, USA	Male
CRRP2016-SP2098-TAKEUCHI	CRRP2016-FP05-Camacho	Sustainable mangrove rehabilitation for global and local benefits	Mangrove forests in coastal areas provide a wide range of vital ecosystem services for global and local communities, such as climate change mitigation (through high carbon sequestration), climate change adaptation (through protection from floods, tides and storms), biodiversity conservation, and local livelihoods (through community fishery, aquaculture and forest products). However, overharvesting and land use change have resulted in widespread degradation of mangrove forests, leading to loss and reduction of the above vital ecosystem services. While mangrove planting has been promoted to restore vital ecosystem services most of such efforts were largely monoculture plantation and were not effective in restoring the wide range of vital ecosystem services. The proposed research will review past experiences of mangrove planting and identify best practices for sustainable rehabilitation to integrate global and local benefits, taking case studies in the Philippines and Myanmar where both countries have suffered serious damages caused by typhoons and cyclones in recent years. Synthesizing findings from in-depth case studies of community-based mangrove rehabilitation efforts of both countries, the project aims to make policy recommendations to further improve mangrove rehabilitation strategies. The final output will be technical final reports, sustainable mangrove rehabilitation guidelines and policy briefs that will be conveyed to policy-makers and relevant mangrove stakeholders.	2 years	90,000	20,000	CCCV, BES	Japan, Myanmar, Philippines		Prof. Leni D. Camacho, PhD Department of Social Forestry & Forest Governance College of Forestry and Natural Resources University of the Philippines Los Baños (UPLB) College, Laguna 4031 PHILIPPINES	Female

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Project Summary	Duration	Total Funding Request	Other Funding Secured	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CRRP2016-SP1879-BALT	CRRP2016-FP06-Balt	Ecological vulnerability assessment for adaptation strategy formulation at different spatial scales in western Mongolia and China	The effects of climate change and active usage of natural resources are the most significant source of ecological vulnerability at agriculture and mining based developing countries in north and central Asia. The main objective of this cooperative research project is to develop an integrated vulnerability assessment model merging scientific data with community knowledge to frame the research based effective adaptation strategies and capacity for the local authorities at different spatial scales in Mongolia and China. The project will be implemented at 4 vulnerable provinces in 2 countries, covering various geo-climatic and ecological zones. The proposal will use advanced GIS, remote sensing, expert systems and local experiences to determine the degree and extent of ecological vulnerability as influenced by climate change and human activity. This approach will assist policymakers, development practitioners and other stakeholders to strengthen their resilience to climate change. A collaborator from regional universities will bring key adaptation technologies and practices to build the capacity of relevant stakeholders, and to integrate the vulnerability perspective into existing resilience thinking, practice and policies. The project will produce a scientific publication on the assessment of ecological vulnerability and adaptation policy formulation, and will host 2 capacity training workshops in Mongolia and China.	2 years	86,160	32,700	CCCV, RRR	Australia, China, Japan, Mongolia		Dr. Suvdantsetseg Balt Director, Sustainable Development Institute for Western Mongolia, Khovd State University 164300, Khovd Province, Mongolia	Female
CRRP2016-SP1833-DE JONG	CRRP2016-FP07-DeJong	Enhancing ecosystem services under forest transition	We will investigate changes in the composition and level of forest ecosystem services (FES) during forest transition. Specifically, we: (1) assess variation of FES in rehabilitated forests under forest transition; (2) identify causal factors that enhance FES from rehabilitated forests; (3) develop scenarios of alternative FES provision under forest transition; (4) identify options of forest rehabilitation practices and policies that enhance FES outcomes. We will work in areas dominated by rehabilitated forest in China and Laos. We will identify FES that are valued, captured or demanded by local communities, entrepreneurs, forest agencies and conservation organizations using interviews and questionnaire, and conduct field surveys to corroborate results from the interviews. The same protocol will be applied in comparable locations with original forest. We will analyse drivers of forest rehabilitation and rehabilitation practices to link them causally with FES outcomes. Results will be used to develop maps of variations of FES across forest landscapes, and explanatory models of changes in FES along the forest transition trajectory to anticipate future trends. The research will provide insights how FES evolve during forest transition, and how demand for them changes. The results allow to enhance FES outcomes of current and future forest rehabilitation efforts.	2 years	89,765	67,200	BES, RUSD	China, Japan, Lao PDR, Republic of Korea		Prof. Wil de Jong Professor, Kyoto University 46 Shimoadachichou, Yoshida, Sakyo-ku, Kyoto 606 8501 Japan Phone: +81757539605 Fax: +81757539602	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Project Summary	Duration	Total Funding Request	Other Funding Secured	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CRRP2016-SP1846-KAWASAKI	CRRP2016-FP08-Kawasaki	Effective models for payment mechanisms for forest ecosystem services in Papua New Guinea, Philippines and Thailand	Although it is widely acknowledged that forests provide critical ecosystem services for human survival and well-being, in the Asia-Pacific region forests are being converted to other land uses and degraded at alarming rates. One underlying factor for this destruction of forests is market failure. Forests are cleared for other land uses or degraded because their ecosystem services have no market value. Payments for forest ecosystem services (PFES) have been proposed as a way of overcoming this market failure, but PFES systems have been slow to develop in the region. Recognizing that PFES systems will need to be context specific, the proposed project explores the potential to develop PFES systems at three research sites - community forest in PNG, sub-watershed forest in the Philippines, and protected forest in Thailand – that offer contrasts with respect to all key elements of PFES, i.e. the type of ecosystem services with potential for payments, the types of buyers and sellers, and the likely payment arrangements. The key questions addressed are: What methodologies and processes for quantifying and valuing forest ecosystem services are effective, appropriate and cost-efficient? What management systems could deliver the ecosystem services? What arrangements between sellers and buyers could provide sufficient payments to maintain/enhance the service? What generic lessons from the research sites can be extracted as guidance on PFES for countries in the region?	2 years	90,000	AUD 140,915 JPY 20 Million	BES	Japan, Pacific Island States, Philippines, Thailand		Dr. Jintana Kawasaki Policy researcher Institute for Global Environmental Strategies, Natural Resources and Ecosystem Services Area 2108-11 Kamiyamaguchi, Hayama, Kanagawa 240-0115 Japan	Female
CRRP2016-SP1884-DEMBEREL	CRRP2016-FP09-Demberel	Climatogenic transformation of the alpine landscapes in Mongolian and Siberian Altai	Climate change affect the world's mountain regions and may jeopardize the important services (drinking water supplies, hydropower generation, agricultural suitability) provided by mountains. This is especially important for mountain areas located within the boundaries of several countries, for example, the Altai Mountains that stretch over four countries (China, Kazakhstan, Mongolia and Russia). Furthermore, research addressing the relations between climate changes and a dynamic alpine landscape is currently becoming more relevant in connection with the need for reliable predictive conclusions. The goal of this project is a quantitative estimation of climatic changes (past and present) in the Mongolian and Russian Altai and their reflection in spatiotemporal changes of the mountain landscapes and the identification of irreversible changes in their morphological structure. Project results are the quantification of relations between climatic parameters and changes in landscape structure of mountain glacial basins, instrumental and remote monitoring of the state of the nival-glacial and cryogenic landscapes, the dynamics of slope processes and detailed data observations of snow, soil and vegetation on the test polygons. These findings will be the basis for the development of regional policies and of intergovernmental cooperation, taking into account the interests of local communities	2 years	84,000	15,000	CCC, BES	Japan, Mongolia, Russian Federation		Dr. Otgonbayar Demberel Geography Lecturer Khovd University, 164300, Khovd Province, Mongolia	
CRRP2016-SP2173-MARCOTULLIO	CRRP2016-FP10-Marcotullio	Tracking Influences of Asian urban GHG emissions for sustainability policies: Identifying low carbon pathways to meet the Paris Agreement	Over the past decades, Asia has undergone rapid urbanization. This transformation has accompanied increased energy demand and subsequent greenhouse gas (GHG) emissions. For example, from 1990 to 2010, the number of urban residents in Asia grew by over 800 million, increasing the Asian share of global urban population from 45 to 52% while Asian CO2 emissions increased from 6 Gt to 14 Gt, increasing its share of global GHG emissions from 39 to 54%. Further urbanization portends even higher emission levels. The recent Paris Agreement (2015) has drawn attention to the dramatic actions necessary to keep emissions low and therefore climate stable. Organizations such as UN-HABITAT & UNESCAP (through the creation of the Northeast Asia Low Carbon Cities platform) and Asian governments are moving to develop low carbon cities. Application of mitigation policy for low carbon societies is complicated, however, by the unique regional development conditions (socially, physically, economically and politically). Policies appropriate elsewhere may not work in the Asian context making it necessary to understand the historical dynamics associated with regional urban development, energy use and GHG emissions. To address this challenge, we propose urban case study historical analyses of emissions and their driving forces	3 years	95,448	79,000	RUSD	China, Japan, Republic of Korea, Thailand, United States of America, Others	Taiwan (Republic of China)	Prof. Peter John Marcotullio Director/Professor, CUNY Institute for Sustainable Cities / Hunter College Department of Geography Hunter College, 695 Park Avenue, Room 1215E, New York, New York, 10065, USA	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Project Summary	Duration	Total Funding Request	Other Funding Secured	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CRRP2016-SP2233-ANTWI	CRRP2016-FP11-Antwi	Spatial risk assessment of industrial crops and climate change impact on the water-related ecosystem services in Indonesia, Japan and the Philippines	Trend of expanding industrial crops on large scale is critical for regional and national economy may divert the freshwater ecosystems from other users benefiting from water provision for small scale farming. However, as industrial crops are highly demanding for water (natural rubber, oil palm and sugarcane) there is a potential threat that in long term all end-users of water, small farmers and large plantation are likely to suffer water shortages if the land use is not regulated. Furthermore, impacts on freshwater ecosystem services are and will be magnified by climate change through alteration of seasonal rainfall pattern change causing seasonal water scarcity and increasing extreme events causing flood events. This complex interface of simultaneously working two drivers of change, namely water-demanding industrial crops and climate change are yet not studied as these two components have been considered individually. The Philippines, Indonesia and Japan, countries highly dependent on the industrial crops, are already greatly exposed to the water related risks. In this research, climate change projection, hydrological modeling, vulnerability and risk assessment method will be conducted based on combination of spatial data and expert opinions. Additionally validation and co-production of knowledge will be conducted through involvement of key stakeholders. This project will develop and showcase framework for the spatial risk assessment through employment of empirical study and develop science-policy dialogue.	2 years	62,340	72,000	CCCV, CATMD, RRR	Indonesia, Japan, Philippines		Dr. Effah Kwabena Antwi Assistant Professor, The University of Tokyo, Integrated Research System for Sustainability Science (IR3S) 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8654, Japan	Male
CRRP2016-SP2237-SENTIAN	CRRP2016-FP12-Sentian	Climate change and biogenic emission impact on particulate and tropospheric Ozone in Southeast Asia	Surface ozone and particulate matter are strongly influenced by both emissions and meteorological conditions. In the tropics such as Southeast Asia, the effect of climatic and emission factors on air pollution episode such as the increased level of surface ozone and particulate matter is relatively unexplored. In understanding how the changes in climatic and emissions factors affect the atmospheric chemistry and subsequently on air pollution in the region, requires full understanding on the regional climate change and emissions scenarios. This study is focusing on the investigation of how climate change, biomass and biogenic emissions influence the tropospheric chemistry that leads to the ozone and secondary aerosol formation in the region under different climate scenarios. Under the collaborative works of five countries, we are employing the high-resolution WRF model for the climate change projection under different Representative Concentration Pathways (RCPs), MEGAN for the biogenic emissions and CMAQ model for the air quality. The results of this investigation will be crucial in vulnerability and risk assessment exercises towards mitigation and adaptation policy formulation in respective countries in Southeast Asia that relate to wider issues such as climate change and greenhouse gases (GHGs), biomass emission and forest, biogenic emissions and landcover, and air quality and human health.	3 years	111,125	8,000	CCCV, CATMD	Malaysia, Philippines, Republic of Korea, Thailand		Assoc. Prof. Justin Sentian Lecturer, Universiti Malaysia Sabah Faculty of Science and Natural Resources, Jalan UMS, 88400 Kota Kinabalu, Sabah, Malaysia	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Project Summary	Duration	Total Funding Request	Other Funding Secured	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CRRP2016-SP2095-POKHREL	CRRP2016-FP13-Pokhrel	Socio-ecohydrological approach for water security in the Himalayas: A case study of Koshi River Basin, Nepal	As climate change continues to adversely affect water availability, and demands for competing use of water keep growing, sustainable management of limited land-water resources becomes increasingly challenging, especially in developing nations where weak institutional capacity and socio-economic and political stresses are present. In Himalayan regions, complex geo-political features and transboundary water management issues make sustainable resource management even more daunting. In the proposed study, we combine an integrated hydroecological model, a synthesis of ground- and satellite-based observations, and data from field survey to advance the understanding of complex hydrological, agricultural, and ecological systems of the transboundary Koshi river basin that stretches from high mountains in China to flat-fertile lowlands in parts of Nepal and India. We will examine the coupled system behavior of a range of natural processes (climate change, hydrology), human land-water management practices (irrigation, groundwater use), biophysical processes (land use change), ecological processes (wetlands, floodrecession agricultural), and socio-economic factors (changing population, water use). We will also assess the benefits and consequences of various adaptation strategies to meet the growing need for food, water, and energy toward providing crucial information for policy making and decision support. We will broadly disseminate the outcome through workshops,	2 years	97,796	93,000	CCCV, CATMD	China, India, Japan, Nepal, United States of America		Prof. Yadu Pokhrel Assistant Professor, Michigan State University 1449 Engineering Research Ct., East Lansing, MI 48824, USA Phone: +1-517-355-2360	Male
CRRP2016-SP2017-CAPON	CRRP2016-FP14-Capon	Improving health outcomes in Pacific Island Countries through better urban governance for climate change adaptation	Small Island Developing States (SIDS) in the Pacific are particularly vulnerable to the projected impacts of climate change due to their characteristically small physical size, exposure to natural disasters, extremely open economies and low adaptive capacity. Amongst SIDS, 60% of the population live in urban centres. Compared with the global average of 1.3%, Pacific Island Countries experience a very rapid urbanisation rate (4.3%). This trend is likely to persist due to increasing rural-to-urban migration and high levels of fertility in the Pacific. The coupling of climate change and rapid urbanisation amplify risks to human health; increasing demand for adequate and safe housing, increasing air pollution, clean water and sanitation, access to healthy food and protection from natural hazards requires appropriate planning and governance structures. Despite these trends, urbanisation issues have limited focus in formal climate adaptation planning efforts in the Pacific. Moreover, interactions between climate change, cities and human health are often overlooked. The study aims to learn more about these linkages through employing a governance lens (e.g., through institutions, legal and regulatory frameworks, norms and informal governance arrangements) across Fiji, Kiribati and the Solomon Islands. We will develop a suite of comparative case studies and undertake a set of workshops to inform climate adaptation practice and policy spanning various levels of governance from the local to the global. Both scientists and policy makers will be involved in the co-design and coproduction of	1 year	45,000	15,000	CCCV, RUSD, RRR	Malaysia, Pacific Island States, United States of America		Prof. Anthony Capon Director, UNU International Institute for Global Health UKM Medical Centre, Malaysia	Male

2016 Call for Proposals under Collaborative Regional Research Programme (CRRP): SPG Recommendation to the IGM

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Total Funding Requested (Original)	Total Funding recommended (USD)	SPG SC Comments and/or Recommendations to the SPG Pre Meeting
CRRP2016-SP2173-MARCOTULLIO	CRRP2016-FP10-Marcotullio	Tracking influences of Asian urban GHG emissions for sustainability policies: Identifying low carbon pathways to meet the Paris Agreement	3 years	RUSD	China, Japan, Republic of Korea, Thailand, United States of America, Others		Prof. Peter John Marcotullio Director/Professor, CUNY Institute for Sustainable Cities / Hunter College Department of Geography Hunter College, 695 Park Avenue, Room 1215E, New York, New York, 10065, USA Phone: 212-396-6136 Fax: 212-396-6137	95,448	95,448	The proposal ranks number 1, which shows that all the reviews have shown excellent result. The SPG RECOMMENDS FUNDING
CRRP2016-SP2098-TAKEUCHI	CRRP2016-FP05-Camacho	Sustainable mangrove rehabilitation for global and local benefits	2 years	CCCV, BES	Japan, Myanmar, Philippines		Prof. Leni D. Camacho, PhD Department of Social Forestry & Forest Governance College of Forestry and Natural Resources University of the Philippines Los Baños(UPLB) College, Laguna 4031 PHILIPPINES Email: ldcamacho@up.edu.ph Email: camachold@yahoo.com.ph	90,000	90,000	The project sits number two, with high scores, showing good review results. It addresses important issues, countries included in the study sites are the ones vulnerable to sea level rise. The SPG RECOMMENDS FUNDING
CRRP2016-SP1879-BALT	CRRP2016-FP06-Balt	Ecological vulnerability assessment for adaptation strategy formulation at different spatial scales in western Mongolia and China	2 years	CCCV, RRR	Australia, China, Japan, Mongolia		Dr. Suvdantsetseg Balt Director, Sustainable Development Institute for Western Mongolia, Khovd State University 164300, Khovd Province, Mongolia Phone: +976 70432038 Fax: +976 70432038	86,160	85,352	The proponent is a former PDTW participant. The SPG SC agrees that it is a good proposal, however the SPG SC feels it is a bit too ambitious to do four study sites. This should be clarified with the project leader. The SPG RECOMMENDS CONDITIONAL FUNDING
CRRP2016-SP2237-SENTIAN	CRRP2016-FP12-Sentian	Climate change and biogenic emission impact on particulate and tropospheric Ozone in Southeast Asia	3 years	CCCV, CATMD	Malaysia, Philippines, Republic of Korea, Thailand, Indonesia		Assoc. Prof. Justin Sentian Lecturer, Universiti Malaysia Sabah Faculty of Science and Natural Resources, Jalan UMS, 88400 Kota Kinabalu, Sabah, Malaysia Phone: 06088320000 Fax: 06088320086	111,125	104,000	This is a project conducted in Southeast Asia region, which has received comprehensively good review. The SPG RECOMMENDS for funding.
CRRP2016-SP1952-FARZANEH	CRRP2016-FP02-Farzaneh	Multiple benefits assessment of the low emission development strategies in Asia-Pacific cities	1 year	CCCV, RUSD	Australia, China, India, Japan, Malaysia		Dr. Hooman Farzaneh Junior Associate Professor Institute of Advanced Energy, Kyoto University Gokasho, Uji Kyoto 611-0011, Japan Phone: +81-774-38-3429 Fax: +81 774-38-3426	41,812	40,000	The project budget structure looks more like capacity building project, but overall a good scientific results are coming out of the project. There are clarifications are needed, though, including acknowledgment that APN has significant contribution (assuming that project is part of other bigger project). Also, the other funding secured need to be clarified whether it's a new money or old money that has been spent. The SPG RECOMMENDS Conditional Funding.
CRRP2016-SP2017-CAPON	CRRP2016-FP14-Capon	Improving health outcomes in Pacific Island Countries through better urban governance for climate change adaptation	1 year	CCCV, RUSD, RRR	Malaysia, Pacific Island States, United States of America		Prof. Anthony Capon Director, UNU International Institute for Global Health UKM Medical Centre, Malaysia Phone: +60 19 387 1498	45,000	43,000	The project has good team member, and it is good link to planetary health issue for APN. However, the affiliation of project leader might have changed and need to be clarified. The SPG RECOMMENDS for funding.
CRRP2016-SP2081-AHMED	CRRP2016-FP01-Ahmed	Understanding the opportunities and challenges of compliance to building codes for disaster resilience in South Asia - the cases of Bangladesh and Nepal	1 year	RRR	Australia, Bangladesh, Nepal		Dr. Iftexhar Ahmed Senior Lecturer School of Architecture and Built Environment, University of Newcastle University Drive, Callaghan, NSW 2308, Australia Phone: +61 2 4921 6011 Fax: +61 2 4921 6913	44,790	43,000	The proposal itself is good, however, it needs to have additional information on the relation to other global change issues, not only earthquakes. The proponent is to provide this information according to the APN's definition of global change in the Strategic plan. The SPG RECOMMENDS CONDITIONAL FUNDING
CRRP2016-SP1884-DEMBEREL	CRRP2016-FP09-Demberel	Climatogenic transformation of the alpine landscapes in Mongolian and Siberian Altai	2 years	CCCV, BES	Japan, Mongolia, Russian Federation		Dr. Otgonbayar Demberel Geography Lecturer Khovd University, 164300, Khovd Province, Mongolia Phone: +97699290963	84,000	82,000	The review results are good and SPG SC also agrees to the result. The proposal has merit for APN funding. The SPG RECOMMENDS FOR FUNDING

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Thematic Area	APN Countries Involved	Other Country(-ies) involved	Proponent	Total Funding Requested (Original)	Total Funding recommended (USD)	SPG SC Comments and/or Recommendations to the SPG Pre Meeting
CRRP2016-SP1846-KAWASAKI	CRRP2016-FP08-Kawasaki	Effective models for payment mechanisms for forest ecosystem services in Papua New Guinea, Philippines and Thailand	2 years	BES	Japan, Pacific Island States, Philippines, Thailand		Dr. Jintana Kawasaki Policy researcher Institute for Global Environmental Strategies, Natural Resources and Ecosystem Services Area 2108-11 Kamiyamaguchi, Hayama, Kanagawa 240-0115 Japan Phone: +81-46-826-3031	90,000	82,000	Related to IPBES, more comprehensive compared to number 11. PNG is engaged. One reviewer thinks the output is more comprehensive compared to number 11. The issue of similarity with 11 and 13 was discussed among the SPG members. It was noted that the value placed on natural resources in economic modelling for global change is important and, therefore warranted funding over ranked 11 proposal. After thorough discussion, consensus was for 13, but conditional funding is suggested based on the fact that the project team must ensure that the project can be conducted over 2 years. Technical soundness was also higher than rank 11. The SPG RECOMMENDS for funding.
CRRP2016-SP2095-POKHREL	CRRP2016-FP13-Pokhrel	Socio-ecohydrological Approach for Water Security in the Himalayas: A Case Study of Koshi River Basin, Nepal	2 years	CCCV, CATMD	China, India, Japan, Nepal, United States of America		Prof. Yadu Pokhrel Assistant Professor, Michigan State University 1449 Engineering Research Ct., East Lansing, MI 48824, USA Phone: +1-517-355-2360	97,796	0	The SPG SC agrees that there are so many things have been done in Koshi basin on water-related issues. Many donors, for example AusAID has invested so much, thus the SPG SC feels that there is high risk of duplication of works. The SPG DOES NOT RECOMMEND for funding.
CRRP2016-SP1999-SIDLE	CRRP2016-FP03-Sidle	Improving resilience assessment for climate hazards (IRACH)	1 year	CCCV, RRR	Australia, Cambodia, Pacific Island States, Viet Nam		Prof. Roy Sidle Professor University of the Sunshine Coast Locked Bag 4, Maroochydore DC, Queensland 4558, Australia Phone: +61754563401	42,290	0	The proposal fits to CAPaBLE Programme rather than CRRP. Proponent is to be suggested to submit proposal in the next round of CAPaBLE programme. The SPG DOES NOT RECOMMEND for funding.
CRRP2016-SP1833-DEJONG	CRRP2016-FP07-DeJong	Enhancing ecosystem services under forest transition	2 years	BES, RUSD	China, Japan, Lao PDR, Republic of Korea		Prof. Wil de Jong Professor, Kyoto University 46 Shimoadachichou, Yoshida, Sakyo-ku, Kyoto 606 8501 Japan Phone: +81757539605 Fax: +81757539602	89,765	0	This project is similar to project that sits on 13th position. The SPG asked the SPG members to provide their opinion on which project has more merits for APN funding. The list of pros and cons were presented during the SPG Pre Meeting and following thorough discussions, the SPG DOES NOT RECOMMEND FOR FUNDING
CRRP2016-SP1954-CRAWFORD	CRRP2016-FP04-Crawford	Coastal Erosion, Monsoon Dynamics and Human Livelihood Vulnerabilities in South Asia	2 years	CCCV, CATMD, RUSD, RRR	Bangladesh, India, United States of America		Dr. Thomas Crawford Banpu Endowed Professor of Sustainability Center for Sustainability, Saint Louis University 3694 West Pine Mall, Des Peres Hall, Suite 203F, Saint Louis, MO 63108, USA	62,264	0	While the proposal itself is good, upon further scrutiny to the proposal, the SPG feels that the project has secured enough funding for the activities. Thus, SPG feels that it no longer require support from the APN. The SPG DOES NOT RECOMMEND for funding.
CRRP2016-SP2233-ANTWI	CRRP2016-FP11-Antwi	Spatial risk assessment of industrial crops and climate change impact on the water-related ecosystem services in Indonesia, Japan and the Philippines	2 years	CCCV, CATMD, RRR	Indonesia, Japan, Philippines		Dr. Effah Kwabena Antwi Assistant Professor, The University of Tokyo, Integrated Research System for Sustainability Science (IR3S) 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8654, Japan Phone: +81358411549 Fax: +81358411545	62,340	0	The proposal rank the lowest and we basically ran out of funds. For this reason The SPG DOES NOT RECOMMEND for funding.
									664,800	

2016 Call for Proposals under Collaborative Research for Young Scientists: Recommendations from the SPG to the IGM

Summary Proposal Reference number	Full Proposal Reference Number	Project Title	Thematic Areas	Proponent	Collaborators	Countries Involved	Funding Requested to APN (USD)			Other funding secured	Rank	Recommendations
							Year 1	Year 2	Total			
CRYS2016-SP62-PANTHI	CRYS2016-FP03-Panthi	Rainwater Harvesting for Mitigating Drought in Western Nepal	CCCV, RUSD, RRR	Mr. Jeeban Panthi The Small Earth Nepal (SEN) Buddhanagar, Naya Baneshwor, Nepal Email: panthijeeban@gmail.com jeeban@smallearth.org.np	Dr. Yadu Pokhrel , Michigan State University, USA; ypokhrel@cgr.msu.edu Ms. Fawzia Tarannum , TERI University, India; fawzia.tarannum@teriuniversity.ac.in Dhiraj Pradhananga , Tribhuvan University/University of Saskatchewan, Nepal/Canada; dhirajmet@hotmail.com, dhiraj.pradhananga@usask.ca	India, Nepal, United States of America, Others	14,920	14,930	29,850	750	1	All good proposals that scored highly among internal and external reviewers. Regionality is well balanced with TEA, SEA, and SA all represented in the proposals. Recommendations for the proposals are: Rank 1: Total of USD29,850
CRYS2016-SP77- Almaden	CRYS2016-FP01-Almaden	Multidimensional Indicators of Adaptive Capacity of Rice Farming Households to Address Salt Water Intrusion in the Philippines and Vietnam	CCCV	Ms. Catherine Roween C. Almaden Xavier University - Ateneo de Cagayan Corrales Avenue, Cagayan de Oro City, Misamis Oriental 9000, Philippines Email: calmaden@xu.edu.ph catherineroween@yahoo.com	Dr. Tung Thanh Diep , Tra Vinh University, Viet Nam; dtung@tvu.edu.vn Dr. Agnes C. Rola , UPLB, Philippines; acrola@up.edu.ph	Philippines, Viet Nam	15,000		15,000	2,000	2	Rank 2: Total of USD15,000 Rank 3: Total of USD15,000 Total: USD 59,850
CRYS2016-SP10-SING	CRYS2016-FP05-Sing	Urban biodiversity and human well-being in Asia's megacities	BES	Dr. Kong Wah Sing Institute of Plant Protection, Chinese Academy of Agricultural Sciences Address, No. 2 West Yuanmingyuan Rd., Haidian District, Beijing, 100193, P. R. China Email: garysingkongwah@qq.com gary.singkw@gmail.com	John James Wilson , China Agricultural University, China; johnjameswilson@qq.com Narong Jaturas , Naresuan University, Thailand; narongjaturas@gmail.com Huynh N. Ha , Oxford University Clinical Research Unit, Viet Nam; hahn@oucru.org Wang Wenzhi , Kunming Institute of Zoology, China; wangwz@mail.kiz.ac.cn Masashi Soga , University of Tokyo, Japan; soga06154053@yahoo.com	China, Japan, Thailand, Viet Nam	15,000		15,000	60,029	3	
CRYS2016-SP93-Amar	CRYS2016-FP02-Amar	Monitoring of dust storms in Gobi Area using multispectral satellite data and its current condition	CCCV	Ms. Tungalag Amar NUM-ITC-UNESCO Space Science/Remote Sensing International Laboratory, National University of Mongolia, first building-400, Ulaanbaatar, Mongolia Email: amar_tungalag@num.edu.mn tungalag0504@gmail.com	Tsolmon Rentshin , National University of Mongolia, Mongolia; tr112@psu.edu Ochirkhuyag Lkhajav , Mongolian Geospatial Association, Mongolia; ochirkhuyag@geomedeele.mn Elbegjargal Nasanbat , Information and Research Institute of Meteorology, Hydrology and Environment, Mongolia; n.elbegjargal@gmail.com Bayartungalag Batsaikhan , Korea University, ROK; bayartungalag@korea.ac.kr Alexander Jeffrey Hinde , University of Sydney, Australia; daijaiyo@gmail.com	Australia, Mongolia, Republic of Korea	15,000		15,000	N/A	4	None of the original proponents or collaborators have been engaged in an APN Proposal Development Training Workshop. Proposal is therefore ineligible for funding. NOT RECOMMENDED FOR FUNDING
CRYS2016-SP13-HASAN MUHAMMAD	CRYS2016-FP04-Abdullah	Quantifying the Land Dynamics of South Asian Coast Utilizing Remote Sensing for Sustainable Intensification of Agriculture in the Context of Climate Change	CCCV, RUSD, RRR	Dr. Abdullah Hasan Muhammad Bangabandhu Sheikh Mujibur Rahman Agricultural University BSMRAU, Gazipur-1706, Bangladesh Email: hasan.abdullah@bsmrau.edu.bd	Seema Sepat, PhD , Indian Agricultural Institute, India; seemasepat12@gmail.com Zia U. Ahmed , CIMMYT-Bangladesh & Cornell University-USA; z.ahmed@cgiar.org	Bangladesh, India, United States of America	14,990	14,855	29,845	10,000	5	Following comments by both internal and external reviewers, there were some issues on funding this proposal: 1. No study sites selected in 7-8 countries formation on policy relevance 2. This simple study will not enhance the research capacities of the young scientists. NOT RECOMMENDED FOR FUNDING
CRYS2016-SP102-SONG	CRYS2016-FP06-Song	Forest Degradation and Carbon Regulation Ecosystem Service Assessment in Korean Peninsula and North-East China	BES	Mr. Cholho Song Room 322, College of Life Science East, Korea University, 145, Anamro, Seongbukgu, Seoul, Republic of Korea Email: cholhosong@gmail.com; cholhosong@korea.ac.kr	Guishan Cui , Yanbian University, China; cuiguishan@ybu.edu.cn Prof. Shizhu Jin , Yanbian University, China; jinsz@ybu.edu.cn Jooyeon Moon , Korea University, ROK; mjy891024@gmail.com Chulhee Lim , Korea University, ROK; limpossible@korea.ac.kr Prof. Woo Kyun Lee , Korea University, ROK; leewk@korea.ac.kr	China, Republic of Korea	12,000	12,000	24,000	9,000	6	1. Regional data collection includes North Korea so considered too politically sensitive. 2. Not original and too vague in nature. NOT RECOMMENDED FOR FUNDING
CRYS2016-SP19-Chan	CRYS2016-FP07-Chan	Facilitating the transition to low carbon homes for Asian developing countries	RUSD	Dr. Hoy Yen Chan Solar Energy Research Institute, National University of Malaysia, 43600, Bangi, Selangor, Malaysia Email: hoyyen.chan@ukm.edu.my; hyen23@gmail.com	Prof. Dr. Kamaruzzaman Sopian , Universiti Kebangsaan Malaysia, Malaysia; ksopian@ukm.edu.my Dr. David Whaley , University of South Australia, Australia; David.Whaley@unisa.edu.au Mr. Steve Anthony Lojuntin , Sustainable Energy Development Authority (SEDA), Ministry of Energy, Green Technology and Water (KETTHA), Malaysia; Steve@seda.gov.my	Australia, Malaysia	14,936	14,990	29,926	84,408	7	Scored low, funding ran out and reviewers were not happy with the proposal. NOT RECOMMENDED FOR FUNDING



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Scientific Planning Group Meeting**

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New Delhi, India

Item 8 of the draft agenda¹

Item 8. CDC Report

Summary

This report from the Capacity Development Committee (CDC) includes information on the 2016 call for proposals under the capacity development programme (CAPaBLE) and the Collaborative Research for Young Scientists (CRYs). A summary of the proposals submitted under CAPaBLE is provided under Item 8-App.1 and a summary of the proposals submitted under CRYs is provided under Item 8-App.2.

¹ IGM/22/A.

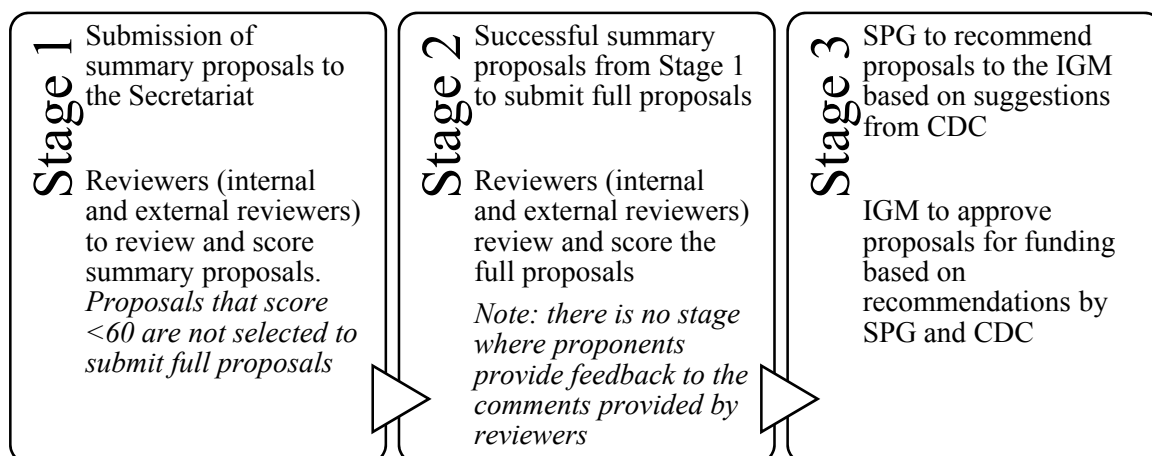
1. Call for Proposals for Capacity Development Programme

The 2016 call for proposals for CAPaBLE was launched in June 2016. The Secretariat received 53 summary proposals of which 15 were invited to submit full proposals. Thirteen proponents submitted full proposals and proceeded through the review process. The three-stage review process was applied to review proposals with reviewers consisting of SPG and CDC members, external reviewers from the global change community, and former and current project leaders of APN funded projects.

2. Call for Proposals for Collaborative Research for Young Scientists

Following the decision of the 21st IGM/SPG Meeting to support capacity development for young researchers to enhance their involvement and leadership in regional research, APN launched a pilot programme called Collaborative Research for Young Scientists (CRYS).

The call for proposals for CRYS was launched in September 2016. The call was opened to participants of the Proposal Development Training Workshops held in the past. The Secretariat received 8 eligible summary proposals of which 7 were invited to submit full proposals. The full proposals were then reviewed by internal and external reviewers, similar to the proposals submitted under the core programmes. The diagram below describes the review process for CRYS.



Appendices

- IGM/22/8-App.1 summary table of proposals submitted under CAPaBLE
- IGM/22/8-App.2 summary table of proposals submitted under CRYS



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New Delhi, India

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Item 8. Multi-Year Project Review

Summary

This paper provides information for the discussion on the continuation of project CBA2015-02NMY-Pushpakumara.

¹ IGM/22/A.

1. Project introduction

The project [CBA2015-02NMY-Pushpakumara](#) was selected for funding at the 20th IGM-SPG Meeting in 2015.

Project title	Scientific Capacity Development to Strengthen Informed-Decision Making for Improved Climate Policy Formulation and Implementation in South Asian Countries
Grant	USD 64,000 for two years <ul style="list-style-type: none"> • USD 32,000 for year one (remitted 80%, USD 25,600) • USD 32,000 for year two
Grantee	University of Peradeniya, Sri Lanka
Project leader	Professor Gamini Pushpakumara Faculty of Agriculture, University of Peradeniya, Sri Lanka ngpkumara@pdn.ac.lk
Project collaborators	<ol style="list-style-type: none"> 1. Prof. Buddhi Marambe Faculty of Agriculture, University of Peradeniya, Peradeniya 20400, Sri Lanka 2. Prof. Jeevika Weerahewa Faculty of Agriculture, University of Peradeniya, Peradeniya 20400, Sri Lanka 3. Mr Ajith Silva Director, Policy and Planning, Ministry of Environment and Renewable Energy, 82, Sampathpaya, Battaramulla, Sri Lanka; 4. Mr Ranga Pallawela Janathakshan Regional Office, No 05, Lionel Edirisinghe Mawatha, Colombo-5, Sri Lanka 5. Prof. MD. Giashuddin Miah Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur-1706, Bangladesh 6. Prof. Promod Kumar Jha Head of the Department, Central Department of Botany, Tribhuvan University, Kiritopur, Kathmandu, Nepal 7. Mr Karma C. Nydrup Head/EA Section, National Environmental Commission, Bhutan 8. Dr Rizvi Javed and Dr V.P. Singh Present and former Regional Coordinator, ICRAF South Asia Program, New Delhi, India 9. Dr Shamen Vidanage IUCN, Sri Lanka
Countries involved	Sri Lanka, Bangladesh, Nepal, Bhutan

2. Project progress since 2015

Below is a brief explanation on the progress of the project CBA2015-02NMY-Pushpakumara since 2015.

Timescale	Project progress
May 2015	The project CBA2015-02NMY-Pushpakumara was selected for funding in the amount of USD 64,000 for two years at the 20th IGM/SPG Meeting. The award letter was issued in May 2015.
1 July 2015	The first year contract was drawn with an official term from 1 July 2015 to 30 June 2016.
25 January 2016	The Secretariat requested a progress report of the project. There was no reply from the project leader despite reminder emails sent in February and March.
31 March 2016	Dr Pushpakumara requested a no-cost extension.
30 May 2016	The project leader submitted a request letter for a one year no-cost extension from July 2016 to June 2017.
October 2016	A Project Inception Workshop was held in Kandy, Sri Lanka, to finalize the project work plan.

Since the Project Inception Workshop held in 2016, there are no project activities implemented nor updates provided on the project progress despite continuous requests from the Secretariat to the Project Leader. In order to resolve the issue, CDC recommends the IGM/SPG Meeting to terminate the second year of the project. However, the Project Leader remains obliged to submit a final technical report and a financial report for year one, and to return any unspent funds to the Secretariat.

2016 Call for Proposals under CAPaBLE Programme

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP2015-PULHIN	CBA2016-FP01-Pulhin	Enhancing climate risk resilience through human security development and capacity development in the Province of Aurora, Philippines	2 years	80,000	81,372	RRR	<p>The Philippines is among the countries most at risk to climatic threats and weather-related loss events. The project site is proposed in the Province of Aurora which faces the Pacific Ocean and has no barriers to shield it from typhoons coming from the east. The Province of Aurora being a coastal community, (1) it is perceived to be highly vulnerable to sea-level rise and coastal flooding; and (2) people's livelihood (farming, fishing and tourism) is highly dependent on natural resources, which are already being adversely affected by climate change, thereby exacerbating the poverty situation in the area.</p> <p>Climate change adaptation has gained significant attention in the recent years with the varying impacts of changing climate, including variability and extreme weather events that were experienced in different parts of the world. The demands for adaptation have become immensely apparent especially with the current and predicted environmental risks.</p> <p>The proposed project will build the facilitation and implementation capacity of the 8 municipalities and 1 Provincial LGUs of Aurora to design and implement its landscape-based LCCAP. The capability-building activities will utilize the landscape approach characterized by multifunctionality, transdisciplinarity, participation, complexity and sustainability while focusing on LGU responsiveness, resourcefulness and capacity to learn.</p> <p>Landscape is applied in this project in the context of a "complex socio-ecological system, usually made up of mosaic of different land uses". The project follows a "landscape approach" which means taking both a geographical and socio-economic approach to managing the land, water and forest resources that are the basic components of natural resource management. It is based on the premise that this integrative approach maximizes productivity, improves livelihood and reduces negative impacts. Landscape approach also matches the resilience thinking.</p>	National	Philippines		Prof. Juan Pulhin Professor and Chair, INREM University of the Philippines Los Banos, College, 4031 Laguna, Philippines Phone: +63-49-536-5314 Fax: +63-49-536-5314	Male
CBA2016-SP2096-TSHERING	CBA2016-FP02-Tshering	Identification of wetland types in Bhutan with detailed documentation of carbon rich wetlands	1 year	40,160	10,200	CCCV, BES	<p>Implementation of ongoing REDD related projects in Bhutan has just started and it is evolving. Nevertheless it is surprising to note that there is not a single mention of wetland ecosystem in the latest national REDD+ readiness document. This clearly indicates lack of awareness and lack of data on potential role a wetland ecosystem can play in emission or sequestration of Carbon.</p> <p>Recent national policies of promoting rice cultivation at higher altitudes has converted hectares of natural wetlands to paddy cultivation. Many ongoing river course realignment projects has been degrading huge areas of riparian wetlands. Even Ramsar sites like Phobjikha is threatened by heavy grazing pressure and agriculture expansion. Wetlands at higher altitudes in the Himalayas are also under intense grazing pressure, rising temperature and increasing human activities.</p> <p>Currently, there is also limited national policy documents and literature on wetlands in Bhutan. Few available documents are mostly related to three recently identified RAMSAR sites. While only national wetland inventory was prepared in 2008, it was based on satellite images focusing only on high altitude wetlands. Thus there isn't any information regarding other types of wetlands in the country and no existence of data on Carbon rich wetlands. Thus one of the main objectives of the proposed study is to classify wetlands types and identify Carbon rich wetlands within all protected areas of Bhutan; and assess potential direct driver of change to Carbon rich wetland. Other key objective of the project is to train the research assistants in techniques of wetland classification and risk assessment. Thus the project is combination of research and capacity building project.</p>	National	Bhutan	The Netherlands	Mr. Kuenzang Tshering Lecturer, Royal Thimphu College, Royal University of Bhutan P.O. Box# 1122 Ngabiphu, Thimphu, BHUTAN Phone: (975) 02-351801 Fax: (975) 02-351806	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP2138-RAJ	CBA2016-FP03-Raj	Enhancing women farmers' adaptive capacity to address the challenges of climate change	2 years	39,000		CCCV	Climate information services and agro advisories are important tools in building the adaptive capacity of smallholding farmers. However, its uptake is slow due to the lack of awareness and scientific capacity among user groups as well as gap in providing need based information to farmers. In the context of changing agrarian systems, women farmers' role in farm management and decision making are increasing. However their access to climate information services, awareness, knowledge and skill are limited. Hence, integrated approach is needed to fill the gap both at the production and user levels. In both cases it is essential to build their capacity at the levels of production, dissemination and utilization of the climate information. In this context, it is proposed to demonstrate the above concept in organizational as well as farmer level with appropriate mechanisms for institutionalising the intervention in the view of sustainability dimension. The initiative will be embedded in the current system of agro advisory development and dissemination in India by the Indian Meteorological Department by demonstrating in one state with plans to upscale the impact through policy workshops towards the end. Thus, this project activity aims to foster links between science, practice and policy linkages to promote public awareness on climate information and resilience.	Local	India		Dr. Rengalakshmi Raj Principal Coordinator - Gender and Development M.S.Swaminathan Research foundation III Cross Taramani Institutional area, Chennai, Tamil Nadu, India Phone: 91-44-22541229 Fax: 91-44-22541319	Female
CBA2016-SP2013-LE	CBA2016-FP04-Le	Research and capacity building on Payment for Environmental Services (PES) livelihoods and vulnerability in Vietnam	1 year	40,000	-	CCCV, BES, RUSD, RRR	Asian forest politics seem to be characterized by waves of trends that last approximately a decade. The 80s saw much attention to so-called 'Integrated Conservation and Development Projects' that were supposed to link conservation to poverty reduction. The 90s saw enthusiasm for decentralization, with communities and households taking over the management of forests and conservation areas from previous state or private landowners. The 2000s saw a rise in market-based incentives, like payments for environmental services (PES), which were designed to arrest degrading forest processes by providing economic valuation of important ecosystem services. In Vietnam, on September 24, 2010, Decree 99/2010/ND-CP on PES was issued. It is recognized that income from PES could contribute to poverty reduction of forest-dwellers. However, very little attention at the policy level is made to understand the linkages between climate vulnerability and the development of forest policy. The term "payment for environmental services" is understood differently by different actors and organizations. The proposed project aim is to bring together policy makers and relevant stakeholders in a capacity building dialogue, grounded in a study on PES contribution to improved livelihoods and to provide tools for improved PES management.	Local	Viet Nam		Dr. Le Thi Van Hue Project Coordinator, Center for Environment and Community Assets Development (CECAD) No. 12 Lane 15 Bui Ngoc Duong Street, Hanoi, Vietnam Phone: +84-4-3625-4977	Female

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP2041-	CBA2016-FP05-Hofmann	Management strategy evaluation: Achieving transparency in natural resource management by quantitatively bridging social and natural science uncertainties	1 year	39,910	73,000	CCCV, BES, RUSD, RRR	Management Strategy Evaluation (MSE) is a modelling tool to evaluate sufficiently realistic simulations of potential policy choices in complex systems. As a contribution to the Integrated Marine Biosphere Research (IMBeR) project IMBIZO V, scheduled for October 2017, a workshop will be convened with the goal of developing a coherent understanding of best practice approaches to MSEs. MSEs are becoming standard approaches to characterizing risk across fisheries management organizations globally. The MSE workshop will consider case studies drawn from different fisheries, with associated cultural, societal, and management characteristics (including small and large scale fisheries in the Asia Pacific region) to better define best-practice principles of MSE development, implementation, and communication. MSEs are important tools that aid in delineating objectives, costs, and constraints that define risk and provide a possible mechanism to meet assessment challenges. Entraining early career APN scientists in the details of MSE development and implementation and the associated professional networks will provide the necessary tools to fully participate in decision-making process regarding marine resources. Networking and capacity building in MSE expertise in the APN region and synthesis papers describing the selected case study results represent long-term impacts from the workshop.	Regional	Australia, China, India, Japan, New Zealand, Philippines, Republic of Korea, Russian Federation, United States of America, Others	UK, Canada, South Africa, France, Norway	Prof. Eileen Hofmann Professor, Old Dominion University CCPO, 4111 Monarch Way, Old Dominion University, Norfolk, VA 23508 USA Phone: +1-757-683-5334 Fax: +1-757-683-5550	Female
CBA2016-SP2147-BUI	CBA2016-FP06-Bui	Improving adaptive capacity and risk reduction for coastal bivalve culture farms in Vietnam	2 years	59,600	25,000	RRR	Coastal bivalve culture in Vietnam has recently experienced unprecedented massive death of culture clams, oysters on account of serious climate-related extreme events (e.g. high temperature, heavy rain or drought leading to low/high salinity, flood ...) and artificial influences. This has highlighted the importance of assessing natural, artificial risks and vulnerabilities for coastal bivalve culture farms to propose appropriate strategies for increasing adaptive capacity and risk management for farmers. This study aims to use participatory approaches in conjunction with GIS-based techniques to assess risks, vulnerabilities from climate change impacts on coastal bivalve culture farms. Two concentrated clam culture areas in Thai Binh province (North Vietnam) and Ben Tre province (South Vietnam) will be selected as case studies. Guidelines for risk management and adaptation to climate change in coastal bivalve culture are developed based on scientific and evidence-based methodologies. Transferring project results through training courses and workshops helps coastal communities to cope better with risks and vulnerabilities identified. The project also aims to establish a comprehensive linkage among scientists, policy-makers, provincial/local authorities and coastal communities on developing, implementing measures in response to risks and vulnerabilities while ensuring a sustainable foundation of knowledge and knowledge transfer to effectively reduce impacts of climate change.	National	Viet Nam		Dr. Thuyet Bui Lecturer/Vice Dean, Hanoi University of Natural Resources and Environment 41A Phu Dien, Bac Tu Liem, Hanoi, Vietnam Phone: +84968051630	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP2185-SATANARACHCHI	CBA2016-FP07-Satanarachchi	Contributing for reflexive sustainability assessment in developing countries, by exploring diverse value-based narratives and mechanisms of sustainability change in local Sri Lankan contexts	1 year	30,000		BES, RUSD, RRR	Sustainability change engages often contradictory and conflicting system relationships that reflect human-nature issues, global-local narratives, urban-rural changes, expert-local knowledge, endogenous-exogenous values and so on. In a contextual setting these conflicting aspects could also generate rich, diverse and locally grounded meanings to sustainability. Although their role in sustainability change is theoretically explored with relation to global scale complex dynamic relationships across multiple scales and boundaries, studies on such role in specific local contexts, especially in developing country contexts are still lacking. Sri Lanka, similar to many other developing countries, has a strong window of opportunity to create its future pathways in ways that capture such rich spectrum of sustainability narratives. However, in order to do so, the policies and planning need to be sensitive for sustainability's diverse facets, change patterns, and mechanisms, and the meaning making processes across various boundaries and scales. In this regard it is important that diverse groups of experts and non-experts participate in a reflexive understanding process that recognize plural value-based interpretations of sustainability, and develop ways to co-create their future pathways that reflect cross-scale values. Addressing these aspects this research aims to explore and compare a set of sustainable development pathways in a participatory manner in selected development and environmental protection contexts in Sri Lanka, which reflect diverse and cross-scale sustainability narratives, value systems and their change dynamics. Finally, it aims to develop a policy relevant reflexive assessment framework. The project is organized in a manner that the capacity of the local experts, organizations and societies to impact sustainability pathways are improved through transdisciplinary efforts.	Regional	Japan, Sri Lanka		Dr. Niranji Satanarachchi Visiting Researcher, The University of Tokyo, Graduate School of Frontier Sciences (Department of Socio-cultural Environmental Studies and Graduate Program in Sustainability Science-GPSS-GLI) Rm 171, Environmental Studies Bld, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5, Kashiwa-no-ha, Kashiwa, Chiba, 277-8563 Japan Phone: +81-80-5682-3118	Female
CBA2016-SP2206-TANIMOTO	CBA2016-FP08-Tanimoto	Fostering of the next generation of scientists for better understanding of air quality and regional climate change in Monsoon Asia and Oceania region	2 years	80,000	20,000	CCCV, CATMD	The monsoon Asia region is home to many countries undergoing rapid industrialization due to demanding economic growth. Because it is located in a domain with copious amounts of water vapor and solar radiation, emissions associated with rapid urbanization lead to severe air pollution via complex atmospheric chemistry, causing critical environmental problems that are common among neighboring nations. In recognition of the common challenges, the International Global Atmospheric Chemistry – Monsoon Asia and Oceania Networking Group (IGAC-MANGO) was formed in October 2015. IGAC-MANGO uniquely brings researchers on atmospheric chemistry and environmental changes from East, Southeast and South Asia. Priority topics identified include air quality and health, atmospheric composition and monsoon, and trans-boundary air pollution. As the group is young, there is a need to strengthen working relationships among them. Furthermore, although monsoon Asia is a “frontier” for atmospheric chemistry research, the studies have been limited by scientists in the region as well as by the international community. Hence it is important to engage different countries from the monsoon Asia region by holding meetings and capacity building workshops to foster the community and enhance communications among scientists, as well as between scientists and policy-makers, and to establish close collaborations with the international community.	Regional	Japan, India, Thailand, Philippines, Bangladesh, Others	Taiwan, Germany	Dr. Hiroshi Tanimoto Head, National Institute for Environmental Studies 16-2 Onogawa, Tsukuba, Ibaraki 305-8506, Japan Phone: +81-29-850-2930	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP1845-HO	CBA2016-FP09-Ho	Using indigenous knowledge to enhance community resilience to climate change in mountainous region of Vietnam	1 year	69,489	14,864	CCCV, RUSD, RRR	Resilience in the face of change is embedded in indigenous knowledge (IK), diversified resources and livelihoods, social institutions and networks. However, in Vietnam, little official information exists on using IK for climate change adaptation among ethnic minority people. In addition, information and evidence of IK and climate change adaptation need to feed into policy making process. This project will support capacity development of IK research and use in climate change adaptation for early career researchers, development workers, local authorities and communities. This project will also build a methodology and detailed tools to identify IK based climate change resilient practices. Overall objective of this project is to increase the capacity of using IK to enhance community resilience to climate change in the mountainous region of Vietnam. This project will contribute to strengthening interactions among development practitioners, scientists and policy makers. This project recognizes the importance of building resilience to climate change through improved capacity of scientists, development workers and local communities to feed information into policy and decision making process at both local and central level. The methods used in this action will focus mainly on bottom up, grassroots democratic participation and empowerment to increase capacity for different actors.	National	Viet Nam		Dr. Ho Ngoc Son Agriculture and Forestry Research and Development Centre for Mountainous Region (ADC), Vietnam Group 10 Quyet Thang, Thai Nguyen City, Vietnam Phone: +84 (0) 2803851822	Male
CBA2016-SP2065-RIZVI	CBA2016-FP11-Rizvi	Capacity building of agroforestry stakeholders in Bangladesh and Nepal involving India as technical hub	1 year	39,870	13,000	CCCV, BES, CATMD, RUSD, RRR	Agroforestry is a natural resource management system which integrates trees and shrubs on farmlands and on rural landscapes to enhance productivity, profitability and diversity delivering multiple benefits for the people and ecosystem in the process. Climate change and food security challenges can be eased through increasing trees in the landscape. Both Bangladesh and Nepal are among the most vulnerable countries to climate change, and available scientific data shows this vulnerability can be significantly reduced through mainstreaming agroforestry. In a recent study, "The Agriculture Sectors in the Intended Nationally Determined Contribution: Analysis" by FAO, 21 countries have included agroforestry as a means to achieve their INDCs (http://www.fao.org/3/a-i5687e.pdf). In South Asian countries, especially in Bangladesh and Nepal, as a result of lack of knowledge, the tree species and the agroforestry practices used tend to be usually sub-optimal. The result is low productivity and poor benefits to farming communities and over all low national income. On the contrary, India has made tremendous progress at the policy, implementation, and at impact level. It is aimed to implement an integrated in-country and abroad (in India) capacity development program for the policy makers, researchers/ practitioners, and the farmers of Bangladesh and Nepal. Expertise and resources from India as well as from ICRAF will be used to support the project.	Regional	Bangladesh, India, Nepal		Dr. Javed Rizvi Regional Director of South Asia Program of ICRAF World Agroforestry Centre (ICRAF) C Block, NAS Complex, Dev Prakash Shastri Marg, Pusa Campus, New Delhi – 110012, INDIA Phone: +91-9999755192	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP2001-PARAMA	CB2016-FP12-Parama	Environmental awareness on Invasive Alien Species in the Western Ghats	1 year	25,000	-	BES	The threat to biological diversity due to invasive alien species is considered next to habitat destruction. Exotic species cause loss of biodiversity such as species extinction, changes in existing hydrology and ecosystem functions. As a result of this, changes in the structure of soil, nutrient contents of soil and moisture are observed. Therefore, invasive species is indeed an obstacle to biodiversity conservation and sustainable development. Biological invasions are now a global phenomenon and have direct impact on climate change in any country. Hence, control and management of invasive alien species requires a deep understanding on the ecology, morphology, phenology, biology, physiology and phytochemistry of exotic species. In India, the impacts of non native alien species are being studied and have attracted the attention of scientists and conservationists. Government of India is also concerned about the invasions. Invasive species are nonnative organisms that can cause economic, environmental, or human harm. Invasive species can alter the ecosystem balance, threatening the survival of indigenous species and impairing the ability of natural and managed ecosystems to provide services of significant economic value. The impact of invasive plants on mountain ecosystem is beyond control. Awareness generation is needed on the threats by invasive species.	Local	India		Mr. Anandan Parama Chief Functionary Foundation for Research and Sustainable Development (FRSD) RH239, Ellis Nagar, Madurai 625016, Tamil Nadu, India Phone: +91452-4368689	Male
CBA2016-SP2004-AKBAR	CBA2016-FP13-Akbar	Improving skills for promoting sustainable watershed management practices in South Asia	2 years	60,000	15,000	CCCV	Climate change is severely impacting the socio economic conditions of small watershed in south Asia thus leading to increasing poverty and food insecurity. The existing traditional practices are not capable to cope with the rapidly emerging climate change risks in these climate change risk vulnerable areas. Sustainable watershed management practices may enhance the resilience of natural resources to climate change risks (floods/droughts) but lack of knowledge, training, resources and awareness are the main impediments in changing the local community attitude and behaviour towards a positive change. Nevertheless, significant funding have been allocated by the international donors for climate research involving simulation modelling for forecasting and assessments of climate risks and impacts but promoting climate risk reduction/mitigation through adaptation practices on farm were largely overlooked. Therefore, stimulated adaption of climate risk resilient practices are urgently required to cope with the emerging climate risks. Addressing these issues, this project is aimed to pursue sustainable management practices on climate risk vulnerable watersheds of south Asia through capacity building of key stake holders (professionals, farmers and service provider) and sharing of regional knowledge, innovative practices and strengthening linkages for promoting sustainable management of climate change vulnerable watersheds in Pakistan, Sri Lanka and Nepal.	Regional	Bangladesh, Japan, Nepal, Pakistan, Sri Lanka		Dr. Ghani Akbar Senior Scientific Officer/Program Leader Climate Change, Alternate Energy and Water Resources Institute (CAEWRI), National Agricultural Research centre (NARC), Pakistan Agricultural Research Council (PARC) CAEWRI-NARC Park Road Chak Shahzad, Islamabad, Pakistan Phone: +92519255395 Fax: +92519255074	Male

Summary Proposal Reference Number	Full Proposal Reference Number	Proposed Project Title	Duration	Total Funding Request	In kind/cash contribution	Thematic Area	Abstract	Extent of Collaboration	APN Countries Involved	Other Country(-ies) involved	Proponent	Gender
CBA2016-SP2100-SETHI	CBA2016-FP15-Sethi	Evidence based decision making tool to build capacities for low-carbon spatial planning in Indian cities	2 years	76,135	10,000	CCCV, RUSD	Climate change and urbanization are the two of the greatest challenges facing humanity in the 21st Century, whose effects are converging in dangerous ways (UN Habitat 2011). By various estimates, cities are responsible for 71- 80% global GHGs (IEA 2008, IPCC 2014). The climate future seems testing as World's urban population would double and built-up area triple by 2050 (World Bank 2010). Paris Agreement and SDGs both recognize the value of cities in bringing a positive change, although there is limited empirical knowledge on developing cities' contribution to GHGs and appropriate means to mitigate them (Schroeder & Bulkeley 2009, Dhakal 2010). It is believed that improper GHG measurement and management promotes a huge science-policy gap (Gillenwater 2011, Pulles 2011). India, a rapidly growing economy is though 1/3 urbanized, its cities contribute to about 2/3 of national emissions. But insufficient data, methods, technical & financial capacities at city level mandate a systematic assessment of emissions and its implications to policy and local governance (Sethi & Mohapatra, 2013). Hence, this project aims to build capacities of local & national urban stakeholders – individuals, organizations and the society, through a science-enabled decision-making tool for low-carbon and energy-efficient spatial planning in Indian cities.	Local	India, Japan		Dr. Mahendra Sethi Research Advisor Indian Society for Applied Research and Development Joshi Sadan, M-90, Jagat Ram Park, Laxminagar, Delhi-110092, India Phone: +919811090564 Fax: +911122042039	Male



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Item 9 of the draft agenda¹

Item 9. APN Future Development

Summary

This document provides recommended actions from the Task Force on the Future Development of APN. The 22nd IGM/SPG Meeting is requested to consider and approve the recommended actions.

¹ IGM/22/A.

1. Background

In 2016, the 21st IGM/SPG Meeting established the Task Force for the Future Development of APN and assigned members to closely examine the effectiveness and efficiency of the current approaches of APN in achieving its goals. The IGM/SPG Meeting requested the Task Force to develop proposals of possible options on the future strategy of APN, and to report the outcomes of its work at the 22nd IGM/SPG Meeting for further discussion and final decision.

2. Action Requested

The IGM/SPG Meeting is requested to consider and approve the recommended actions of the Task Force that are presented under Item 9.1.

The recommendations are a result of the work of the Task Force throughout FY 2016, which includes two meetings held in August 2016 and February 2017. The consolidated report of these two meetings that contain the background, activities undertaken and findings of the Task Force are presented under Item 9.1-App.1 for IGM/SPG Meeting approval.



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Recommendations by the Task Force for APN Future Development on Improving the Effectiveness of APN

Summary

This document presents actions recommended by the Task Force for the Future Development of APN to improve the effectiveness of APN based on the findings indicated in the report of the first task force meeting held in August 2016 and the second task force meeting held in February 2017.

The 22nd IGM/SPG Meeting is requested to consider and approve these recommendations for action following the present Meeting.

¹ IGM/22/A.

Action Area A: Empowering National Focal Points

(Responds to Strategies 1 and 2 of the Task Force Report)

A1. Increasing the Value of IGM of Strategically Steering APN

Rationale

The Intergovernmental Meeting (IGM) should focus on strategic planning (such as the future direction of APN and its overall decision making processes, etc.) and continued evaluation of APN achievements against strategic action plans.

Suggested Actions

- Action A1(1)*²: The IGM may delegate “housekeeping” discussions and decision-making to the Steering Committee (SC), such as budget planning, approval of financial reports, annual proposals and project continuation approval, etc.
- Action A1(2): The IGM Meeting may allocate substantial time on strategic discussions and institutional review and planning (such as the structural foundation of APN for effectively responding to member needs).
- Action A1(3)*: The IGM Meeting may be held either biennially or twice per strategic phase.
- Action A1(4): The IGM Meeting may assign sub-committees to address important issues, whenever necessary.

Assumptions

The Framework Document is revised to accommodate the necessary changes. A revised and improved APN decision making process is in place.

A2. Strengthening Sub-Regional Committees

Rationale

Many national Focal Points (nFPs) are more proactive at Sub-Regional Committee (SRC) events. The SRCs are better tailored to respond to sub-region needs and priorities, as SRC-specific issues can be better addressed at the subregional level and countries within one sub-region share similar challenges.

Suggested Actions

- Action A2(1)*: The SC may increase SRC representation, for example in a way that each SRC has two elected nFPs on the SC (c.f. Action A3(1)).
- Action A2(2)*: The elected nFPs (members of SC) should report to their SRCs.
- Action A2(3): The SRCs may be mandated to take lead in developing and conducting Science-Policy Dialogues.
- Action A2(4)*: SRC meetings may involve policymakers and experts other than APN members.
- Action A2(5)*: SRCs may decide on topics of high importance for research and capacity development activities in their sub-regions and investigate potential partners for these activities.

² For each suggested action marked with an asterisk (*), the APN Framework Document (FD) must be amended for that action to come into practice. Other actions may require amendments depending on IGM decision.

A3. More Operational Responsibilities for the Steering Committee

Rationale

As the IGM is supposed to focus on discussion and decision on strategic planning and evaluation, the SC should be mandated by the IGM to perform more operational and decision making work.

Suggested Actions

- Action A3(1)*: The SC may consider electing two nFPs from each SRC plus one nFP from Oceania/Pacific as elected members to the SC, as a way to increase SRC engagement in the SC.
- Action A3(2)*: The SC may take over “housekeeping” discussions and decisions from the IGM, such as budget planning, approval of financial reports, annual proposals and project continuation approval, etc.

Action Area B: Improving Scientific Research and Capacity Development

Activities

(Responds to Strategies 1, 3, 4 and 5 of the Task Force Report)

B1. Explore New Schemes of Programmes

Rationale

Some projects within APN’s current portfolio are considered as to be of little policy-relevance. They produce little impact because of the limited project scale and scattered themes.

Suggested Actions

- Action B1(1): APN might consider introducing flagship projects (may be led by the SRCs) to increase the impact of APN activities.
- Action B1(2): APN might consider introducing country-based co-financing projects as a means to improve policy relevance of the activities.
- Action B1(3): APN might consider introducing single-country seed grant projects as pilots for more policy-relevant activities.

Action Area C: Establishing New Task Forces to Further Consider the Implementation of Changes

(Responds to areas that require more deliberation)

C1. Establishing Relevant Task Forces for Further Action

Rationale

Many issues require in-depth consideration by more people. Therefore, it is not possible to arrive at any concrete action plans for approval by the 22nd IGM. However, they are equally really important issues and should be addressed with urgency, ideally following the conclusion of the 22nd IGM.

Suggested Actions

- Action C1(1): The IGM may establish a task force on improved institutional arrangements of APN. This will include arrangements for all organs of APN, i.e., the IGM, SC, SRC, Scientific Planning Group (SPG), Capacity Development Committee (CDC) and the Secretariat.
- Action C1(2): The IGM may establish a task force on improved and/or new mechanisms for research and capacity development. This will include, without limitation: (1) streamlined review process for existing programmes; and (2) potential new programmes and activities to attract new funding that could include from non-member entities.



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Item 9 of the draft agenda¹

Consolidated Report of the Task Force for the Future Development of APN

Summary

This consolidated report provides information on the background, activities and findings of the Task Force for Future Development of APN, which was established by the 21st IGM/SPG Meeting. The 22nd IGM/SPG Meeting is requested to consider and approve the report.

¹ IGM/22/A.

1. Terms of Reference

The 21st IGM/SPG Meetings held on 21-22 April 2016 in Zhengzhou, China decided to establish the Task Force on the Future Development of APN and assign its members to closely examine the effectiveness and efficiency of APN in achieving its goals. The Task Force was requested to discuss the direction of the future development of APN and develop proposals of possible options of the future strategy of APN. Conclusively, the Task Force was requested to report the outcomes to the 22nd IGM/SPG Meeting for further discussion and final decision.

2. Members of the Task Force

The following members and alternates participated in one or both task force meetings, held on 22-23 August 2016 and 27-28 February 2017, respectively, in Kobe, Japan.

Steering Committee Members

- Mr Karma Tshering (nFP for Bhutan)
- Dr Md. Giashuddin Miah (SPG Member for Bangladesh and SPG Co-Chair)
- Dr Sundara Sem (former nFP for Cambodia)
- Dr Xian Zhang (nFP Alternate for China)
- Mr Marcial C. Amaro Jr. (nFP for the Philippines)
- Dr Kensuke Fukushi (SPG Member for Japan and SPG Co-Chair)
- Dr Akio Takemoto (nFP for Japan)
- Dr Koji Kumamaru (nFP Alternate for Japan)
- Ms Yuko Hoshino (nFP Alternate for Japan)
- Mr Ajay Raghava (nFP Alternate for India)
- Dr Luis Tupas (nFP for the USA)
- Dr W. Andrew Matthews (Invited Expert)
- Prof. Roland J. Fuchs (Invited Expert)

Non-Affiliated Invited Experts (NAIE)

- Dr Fariza Yunus (SPG Member for Malaysia)
- Mr Bayarbat Dashzeveg (nFP for Mongolia)
- Dr Madan Lall Shrestha (SPG Member for Nepal)
- Dr Monthip Sriratana (nFP for Thailand)

3. Structure of the Meetings

The first meeting, 22-23 August 2016

- Briefing on actions taken by the Secretariat prior to the task force meeting and organization of work.
- Breakout group sessions to address each of the “Discussion Points” identified below.
- Plenary report and discussions after each breakout group session.
- Plenary discussion on the way forward.

The second meeting, 27-28 February 2017

- Review and discussion of the report of the first meeting.
- Discussion on preparing a combined report of the first and second task force meetings.
- Preparation of recommendations for IGM/SPG Meeting consideration and approval.
- The way forward towards the 22nd IGM/SPG Meeting.

4. Main Discussion Points

The Task Force Members discussed the below points, which were identified as major and commonly shared awareness through the responses to the Questionnaire on the Future Development of APN.

- **Enhancing policy relevance:** While meeting the needs of each member country is difficult, how can APN as a regional network effectively and practically accommodate countries' policy needs?
- **Effective use of financial resources:** With the decreasing amount of budget, how can APN effectively and practically fund scientific research and implement activities?
- **Developing capacity and expertise:** While environmental challenges are increasing in complexity, how can APN as a network strengthen its expertise to address the challenges?
- **Strengthening communication and outreach:** With the lack of communication among scientists, policymakers and stakeholders, how can APN enhance common understanding of global change and sustainability among different groups?

5. Strategies Derived from the Key Messages and Recommendations by the Task Force

In the First Task Force Meeting, 58 key messages and recommendations were made². The messages and recommendations vary in practicality, complexity and timeframe, and, while some of them are well-deliberated and could immediately be implementable, others either require consensus or deeper discussion before any concrete recommendations could be presented for further consideration by the IGM. Subsequently, these messages were categorized into the following six “strategies” listed below, with examples of key messages under each strategy. Note that these strategies are not ranked in any way.

Strategy 1 (Responding to Discussion Point “Enhancing policy relevance”)	<p>Introduce a system to ensure that the development of APN's science agenda reflects specific policy needs of member countries, ultimately to ensure APN's activities address member countries' policy needs.</p> <p>Examples of actions that could be interpreted from the key messages:</p> <ol style="list-style-type: none"> Short term: Invite diverse government representatives, not limited to nFPs, to the IGM (expand policymakers' participation). Short term: Ensure information about APN activities are timely shared with nFPs, in order for members to identify opportunities for APN by comparing the needs of national research programmes. Medium term: Undertake a desktop study on how policy formulation works in each country so as to guide project leaders for delivering their outcomes to policymakers. Long term: Shift the main focus of SPG to engaging with the policy community in their respective countries and reduce SPG burden, including by strengthening external reviewer base.
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² The full list of key messages is available to APN members on request.

Strategy 2 (Responding to Discussion Point “Enhancing policy relevance”)	<p>Review and revise, as appropriate, the institutional arrangements of APN, including but not limited to its missions and goals, the mandates of APN's organs, and its legal status to enhance policy and societal relevance.</p> <p>Examples of actions that could be interpreted from the key messages:</p> <ul style="list-style-type: none"> a. Short term: Strengthen SRCs to ensure more proactive participation of nFPs in discussions relevant to the sub-regions as a means to contribute to the development of the science agenda of APN. b. Short/Medium term: Based on the present strategic plan, ensure that we have a strong definition of the uniqueness, strength and competitiveness of APN. c. Medium term: Expand the sub-regional mandate by engaging sub-regional organizations (e.g. ASEAN, SAARC, SPREP and NOWPAP) at the SRC level. d. Long term: Rewrite our goals (for example in the 5th strategic plan) so that they are outcome-driven, and have societal relevance by integrating the Sustainable Development Goals.
Strategy 3 (Responding to Discussion Point “Enhancing policy relevance”)	<p>Review and improve existing research and capacity development programmes to enhance APN's policy relevance (in particular investigate ways to better reflect member countries’ policy needs in APN calls for proposals); introduce new programmes if necessary.</p> <p>Examples of actions that could be interpreted from the key messages:</p> <ul style="list-style-type: none"> a. Short/Medium term: <ul style="list-style-type: none"> i. Improve SPDs so that policy needs identified at SPDs can be used to shape APN’s science agenda. ii. Improve the Proposal Development Training Workshop (PDTW) to ensure that the training leads to tangible outcomes, including successful proposals to APN that are relevant to national research priorities. iii. Consider seed grants or other mechanisms to develop research capacity, especially for young scientists, in developing countries. iv. Consider revising APN mechanisms to incorporate flexible flagship/larger-scale activities (smaller number of longer-term projects) and/or large-scale coordinated projects with pre-determined goals. v. Consider establishing iii and iv above on a pilot basis. b. Medium/Long term: If above actions under ‘short/medium term’ are successful, make them to APN core programmes.
Strategy 4 (Responding to Discussion Point “Effective use of financial resources”)	<p>Ensure a strong financial base for APN by (i) attracting new financial resources and (ii) ensuring more effective use of APN’s current financial resources using APN's (improved) mechanisms or activities. This could be, for example, by partnering with the business sector, private foundations, member countries, non-member countries, and international organizations, to leverage their financial resources. In particular, consider the following strategies:</p> <ul style="list-style-type: none"> 1. Conduct negotiated co-financed projects with countries, institutions and organizations that respond to priority policy needs. 2. Partner with non-member countries and organizations to implement item 1 above. <p>Examples of actions that could be interpreted from the key messages:</p>

	<ul style="list-style-type: none"> a. Short term: Establish item 1 above on a pilot basis. If successful make it an APN core programme. b. Short term: Initiate face-to-face communication with APN member country governments to negotiate possible funding for APN with a view to developing a mechanism for direct support in the medium to long term. c. Medium term: Explore opportunities to engage with foundations on project-based levels. d. Long term: Conduct negotiated co-financed projects where APN plays a supplementary role (for example, funding the communications and outreach components of other larger-scale projects).
Strategy 5 (Responding to Discussion Point “Developing capacity and expertise”)	<p>Develop and strengthen the multidisciplinary and transdisciplinary expertise of APN as a regional network, including by strengthening the external reviewer pool, and improving the review process.</p> <p>Examples of actions that could be interpreted from the key messages:</p> <ul style="list-style-type: none"> a. Short term: Invite nFP/SPG to nominate national experts with transdisciplinary background in an ad-hoc basis. b. Short term: Implement "distributed blind peer review" where project leaders also act as reviewers in a fair and open review process. c. Medium term: Utilize APN funds to provide long-term support for scientists to improve their capacity in communicating their research to policymakers, including IPCC.
Strategy 6 (Responding to Discussion Point “Strengthening communication and outreach”)	<p>Ensure more tangible and policy-relevant results are produced, and ensure these results are effectively communicated to appropriate levels of the policy community by strengthening communication and outreach, both at the organizational and project levels.</p> <p>Examples of actions that could be interpreted from the key messages:</p> <ul style="list-style-type: none"> a. Short/Medium term: Raise APN's policy-relevance credibility by visibly working alongside and in partnership with organizations ratified by governments. For example, UNFCCC, UNCBD, UNCSD, IPBES, IPCC, etc. b. Medium term: Organize open science conferences at regional and sub-regional levels to attract the media, NPOs and students, as well as the private sector. Invite high-level government officials to attract more journalists. c. Long term: Train a new generation of communication specialists and engage communication specialists in order to increase the exposure of APN to policy makers.

6. Acknowledgment

The Task Force would like to thank the anonymous respondents to the initial questionnaire circulated before the First Task Force Meeting. Their opinions have been very important in the development of this report and the Task Force Recommendations to the IGM.



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Item 10 of the draft agenda¹

Item 10.1. Steering Committee Election and Confirmation of Steering Committee Members

Summary

This paper provides background information to facilitate the IGM to elect three nFPs to serve on the Steering Committee (SC) for a two-year term starting from April 2017, immediately after the conclusion of the present Meeting.

¹ IGM/22/A.

1. Background of the Staggered Election System

The 21st IGM approved a staggered system for electing SC members. With the new system in place, elections will be held once every year to elect either two or three nFPs, while the term of elected members remains unchanged, i.e. two years. The 21st IGM also requested the SC to extend the term of two current nFPs by one more year so as to smoothly kick-start the staggered election system by opening three vacancies for election at the 22nd IGM. In November 2016, the five elected members agreed to extend the term of the nFP for China and the nFP for Russia Federation for one additional year, thereby opening three vacancies for this election.

2. Nominees for the Election

On 30 November 2016, the Secretariat Director invited all nFPs to nominate candidates for this election. In total, the Secretariat received six valid nominations. To date, five nominees have given their consent for the election (as required by the Framework Document), as summarized in the table below.

#	Nominee	Country	Region	Nominated	Consent Received	22nd IGM Attendance
1	Muhammad Ziaur Rahman	Bangladesh	South Asia	4 Jan 2017	Pending	
2	J. R. Bhatt ²	India	South Asia	4 Jan 2017	16 Jan 2017	Confirmed
3	Muhammed Irfan Tariq	Pakistan	South Asia	4 Jan 2017	11 Jan 2017	
4	Marcial Amaro Jr.	Philippines	Southeast Asia	11 Dec 2016 4 Jan 2017	13 Jan 2017	Confirmed
5	Luis Tupas	USA	Oceania and East Pacific	11 Dec 2016 14 Feb 2017	13 Jan 2017	
6	Monthip Sriratana	Thailand	Southeast Asia	14 Feb 2017	14 Feb 2017	Confirmed

The IGM is requested to elect three nFPs from the above list of nominees. The three elected nFPs will serve on the SC for a two-year term starting April 2017, immediately after the conclusion of the present Meeting.

3. Confirmation of Steering Committee Members

In addition to the nFPs elected by the IGM (China, Russian Federation and three newly elected nFPs), the SC includes the following members:

- Two Scientific Planning Group Co-Chairs (ex officio);
- NFPs of donor countries (ex officio);
- Invited experts (co-opted by the SC); and
- The host of the next IGM/SPG Meeting (to be announced).

² Dr J. R. Bhatt accepts election by consensus only and chooses to withdraw from the election in case voting is required.



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**The 22nd Intergovernmental Meeting/
Scientific Planning Group Meeting**

26–27 April 2017
New Delhi, India

Item 10 of the draft agenda¹

**Item 10.2. Ad Hoc Amendment to the Framework
Document for Decreasing the Quorum for Steering
Committee Meetings**

Summary

The IGM is requested to consider and approve a proposed ad hoc amendment to the Framework Document to decrease the quorum for convening future Steering Committee (SC) meetings.

¹ IGM/22/A.

1. Quorum of Steering Committee

The 21st IGM approved an amendment to the Framework Document that sets a quorum for convening SC meetings. The quorum was set to two-thirds of all SC members, i.e. 8 out of the current 12 members must be present for an SC meeting to convene. Due to this new requirement, the 34th SC meeting was under significant risk of cancellation until the final moment when the quorum was narrowly present.

In this connection, the 34th SC meeting decided to propose a decrease in the number of SC members to make a quorum to increase practicality and effectiveness of SC meetings. To do so, the SC hereby proposes an ad hoc amendment to the Framework Document for IGM consideration and approval.

2. Proposed Ad Hoc Amendment to the Framework Document

For paragraph 6.B.3.ii of the Framework Document (Page 8),

- ii. The quorum needed to convene a meeting shall be two thirds of the members present at the meeting.

The SC proposes an amendment so that it reads,

- ii. The quorum needed to convene a meeting shall be half of the total membership of the SC.

3. Action Requested

The IGM is requested to consider and approve the above proposal as an ad hoc amendment to the Framework Document.

Section 3

Mitra Award: Winning Poster and Presentation



Climate change and its impact on aquatic ecosystem in the central Himalayas



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INTRODUCTION

The Himalayas is considered as one of the most unstable ecologically fragile regions on earth. Due to their wide exposure to environmental stressors, lakes in the region are more susceptible to global warming.

Lakes at different altitudes can be used as a climatic gradient and could serve as models for predicting the possible impacts of climate change.

A high incident of UV-B irradiance and change of climate may transform not only on the physical characteristic of the aquatic ecosystem but also the chemical and biological parameter.

The adaptive strategies of aquatic biota may occur by developing specialized protective mechanism that pledges long-term survival and domination in the upland lakes.

The main objectives

- To identify planktonic group in aquatic ecosystem that could be used for monitoring the impact of climate change in the central Himalayas,
- To determine the adaptive strategies of aquatic organism to the changing climate.

MATERIAL & METHODS

Water and sediment samples were collected from seven lakes of the central Himalayas (2 sites; 2 seasons).

Water temperature, pH, DO, Conductivity, ORP, PO₄-P & NH₄-N, Turbidity, Transparency, Alkalinity & Hardness of water were determined using standard methods (USEPA, 2007 & APHA, 1999).

Total organic matter (TOM) was estimated by ignition loss method.

Humic compounds (HA) and Lignin like compound (LLC) were extracted using IHSS protocols & determine their concentrations & degree of humification.

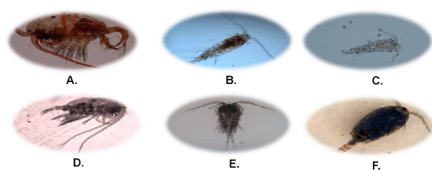


Fig. 1A-F Copepods collected from six lakes of the central Himalayas

Zooplankton species were collected by sieving water in plankton net (25µm mesh size) & identified under microscope. Abundance was estimated by enumerating under Sedgewick rafter.

Carotenoids pigments from was copepods was extracted using acetone: hexane (1:3) & determined their concentrations in UV-VIS spectrophotometer.

Statistical analyses through EXCEL, SPSS 16.0 & PAST3.

RESULTS

Water temperature and pH decreases with rises in elevation ($F = -0.891$, $p = 0.001$ & $F = -0.550$, $p = 0.042$).

TOM were low in high altitude shallow lake.

TOM influenced on the water transparencies (-0.660 , $p = 0.010$) and is lower with increasing altitudes ($F = -0.577$, $p = 0.031$).

Table 1. Physico-chemical parameters of seven lakes of the central Himalayas

Lakes	Depth	Temp.(°C)	pH	Transp. (m)	DO (mg/l)	Turbidity (NTU)	Hardness (mg/L)	TDS	NH ₄ - N (mg/l)	PO ₄ - P (mg/l)
HANUMANTAL	6	23.1 ± 1.1	8.7 ± 0.5	0.4 ± 0.1	8.0 ± 0.6	15.8 ± 1.6	47.5 ± 6.4	36.0 ± 2.8	0.020 ± 0.007	0.038 ± 0.004
GARUTAL	15	22.1 ± 2.3	9.7 ± 0.8	2.1 ± 0.4	7.6 ± 0.0	1.7 ± 0.4	44.5 ± 4.9	36.0 ± 1.4	0.010 ± 0.000	0.010 ± 0.000
MAHESHWARKUND E	7	15.1 ± 0.5	6.9 ± 0.3	2.5 ± 0.3	9.4 ± 0.1	0.6 ± 0.1	18.5 ± 2.1	59.0 ± 7.1	0.010 ± 0.000	0.050 ± 0.000
MAHESHWARKUND W	7	16.1 ± 1.5	8.5 ± 0.4	2.0 ± 0.1	9.1 ± 0.7	1.0 ± 0.1	17.0 ± 1.4	16.5 ± 0.7	0.010 ± 0.000	0.040 ± 0.000
SATTAL	20	23.1 ± 2.9	9.3 ± 1.2	1.2 ± 0.3	8.4 ± 0.1	1.7 ± 1.1	51.0 ± 7.1	41.5 ± 0.7	0.015 ± 0.007	0.015 ± 0.007
NAINITAL	29	20.8 ± 2.3	8.2 ± 0.5	1.4 ± 0.4	6.5 ± 0.1	3.0 ± 0.5	258.0 ± 55.2	290.0 ± 4.2	0.080 ± 0.071	0.060 ± 0.014
NAUKUCHIYATL	40	23.6 ± 2.5	8.1 ± 0.5	1.8 ± 0.3	10.3 ± 1.5	2.1 ± 0.4	85.5 ± 3.5	94.0 ± 2.8	0.043 ± 0.029	0.011 ± 0.001

In low altitudinal lakes, TOM are significantly high particularly during high flood (Fig. 1a).

Lake sediment generated higher amount of humic substance (Fig. 2a) & Lignin like compounds (fig 2b) in higher transparent lakes ($F = 0.693$, $p = 0.006$ & $F = 0.751$, $p = 0.002$).

High LLC deposited in the sediment of the shallow high altitude lakes (fig 2c). Aromatization & and condensation processes from plants leaves and twigs.

In turbid shallow lakes where high depositions of TOM occurs, concentration of humic compounds are greatly reduces & low degree of humification also (Fig.2c).

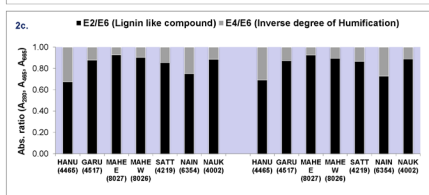
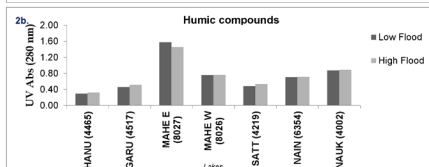
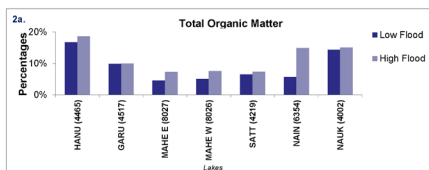


Fig. 2 (a). Total organic matter, (b) Humic substances, (c) Lignin like compound and degree of humification in seven lakes of the central Himalayas

Copepods were dominated in high altitude shallow lakes (fig 3a & b) while cladoceran in the deeper lakes. Copepods abundance showed significant positive correlation with amount of humic compounds ($F = 0.755$; $p = 0.002$).

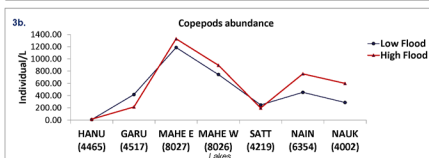
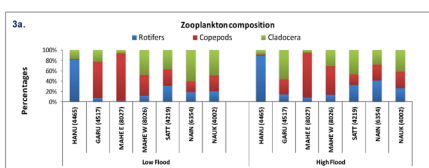


Fig. 3 (a) Percentage composition of Zooplankton groups (b) Abundance of copepods in seven lakes of the central Himalayas

The copepods of high altitude shallow lakes contain greater amount of carotenoid pigments (fig 4) & positively correlated with humic substances ($F = 0.652$, $p = 0.012$).

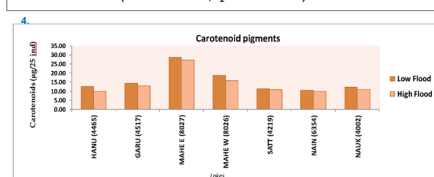


Fig. 4 Carotenoids concentration in seven lakes

From CCAs transparencies of water in elevated lakes augmented in formation of Lignin like compound.

Concentration of carotene in copepods were influenced by deposition of humic substances increased with the rises of elevation.

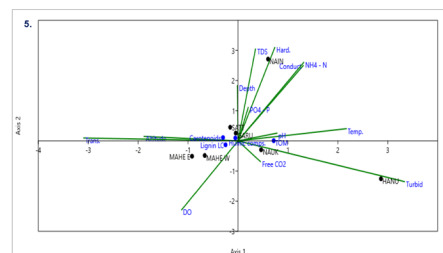


Fig. 5 CCAs biplot of physico-chemical parameter of water, sediment characteristics and carotenoids in seven lakes of the central Himalayas

CONCLUSION

In the high latitude lakes of the Himalaya, changes in climate influenced greatly on the species composition of aquatic biota.

Copepods of shallow lakes unable to migrated and appear to develop adaptive strategies by changing food habits. They adapted to persistently low temperatures and high transparency.

The remnants of leaf litter derived from the shoreline generated humic compounds.

The photoprotective compounds accumulated through the food chain helps in survival (against oxidative stress from ultraviolet sunlight) & adaptation of Copepods from high intensity UV irradiances.

Shoreline plantation in Lake Ecosystem augmented in survival and adaptation of the aquatic organism to climate change.

Acknowledgements

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- Dean Jr WE (1974) Determination of carbonate and organic matter in calcareous sediments and sedimentary rocks by loss on ignition: comparison with other methods. J Sediment Res 44(1).
- U.S. EPA. (2007) Quality Criteria for Water. EPA - 440/9 - 76 - 023, United States Environmental Protection Agency, Washington, D. C.

Climate change and its impact on aquatic ecosystem in the central Himalayas

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The Himalayas!!!!!!

- ❖ The Himalayas is considered as one of the most unstable ecologically fragile region on earth.
- ❖ The transparent aquatic ecosystems of the region has similar diffuse attenuation coefficients (Kd) to ice-covered Antarctic lakes (Morris et al., 1995; Sommaruga, 2001).
- ❖ Lakes at different altitudes of Himalaya can be used as a climatic gradient and could serve as models for predicting the possible impacts of climate change.

PROBLEMS!!!!!!

- ❑ Climate warming & acidification have greater influence on water column UV-R regime (Schindler et al., 1996; Sommaruga et al., 1999).
- ❑ With increasing elevation, zenith angles of the mountain get smaller leading to great UVR exposure.
- ❑ Due to wide exposure to environmental stressors, lakes in the region are more susceptible to global warming. (IPCC 2007a).

HYPOTHESIS!!!!!!

"High incident of UV-B irradiance and changing climate may transform not only on the physical characteristic of the aquatic ecosystem but also the chemical and biological parameter"

'The adaptive strategies of aquatic biota (Zooplankton) may occur by developing specialized protective mechanism that pledges long-term survival and domination in the upland lakes.'

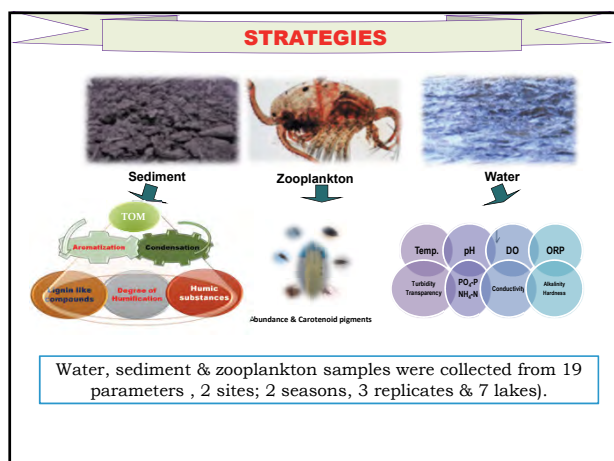
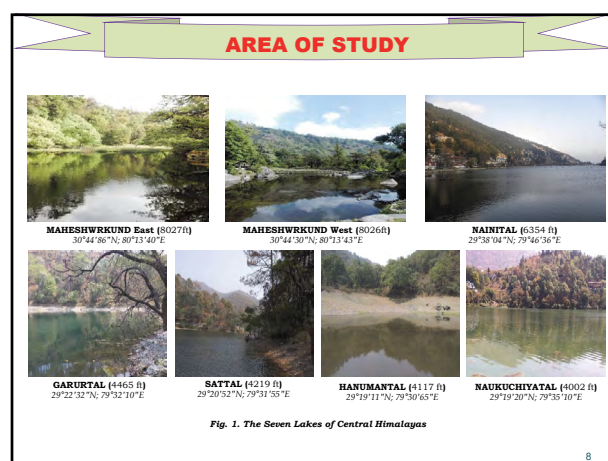
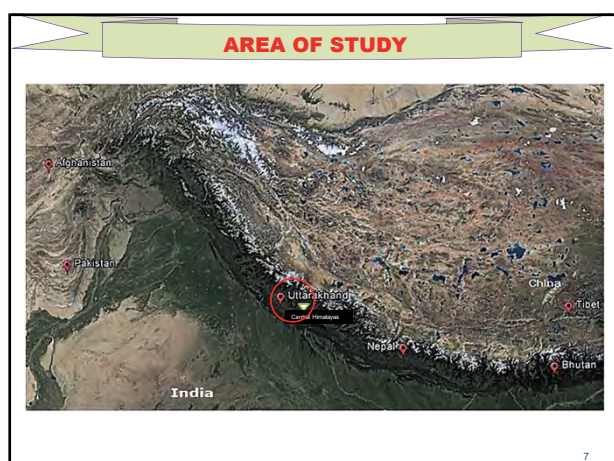
WHY ??? ZOOPLANKTON

❖ Inimitable characters of ZOOPLANKTON

- Present in the water column of most lakes throughout the world
- Occupy the intermediate trophic position in the aquatic food web
- Channeling resources from primary producers & heterotrophic microorganisms.
- Inhabit in the lakes with varying temperature, depth, colour, and composition.

OBJECTIVES

- ❖ To identify planktonic group in aquatic ecosystem that could be used for monitoring the impact of climate change in the central Himalayas,
- ❖ To determine the adaptive strategies of aquatic organism to the changing climate.



METHODOLOGY

ABIOTIC COMPONENTS

- ✓ **Water temperature, pH, DO, Conductivity & ORP** were measured using Probe (Hanna HI 9828).
- ✓ **PO₄-P & NH₄-N** in Spectroquant Multy (Merck, SN072414).
- ✓ **Turbidity** was measured in turbidity meter (HACH 2100Q).
- ✓ **Transparency** by Secchi disk.
- ✓ **Alkalinity & hardness** of water were determined by titration methods.
- ✓ **Humic compounds (HC) & Lignin like compound (LLC)** extracted from air-dried sediment samples & estimated concentration using International Humic Substance Society (IHSS) protocols.
- ✓ **Aromatization, condensation & degree of humification** by calculating absorbance ratios (E2/E4 (A280:A465), E2/E6 (A280:A665) & E4/E6 (A465:A665)) in UV-VIS double beam spectrophotometer (Systronics Model 2201).
- ✓ **Total organic matter (TOM)** was estimated by ignition loss method (Dean 1974).

All the procedures are standard methods of USEPA, 2007 & APHA, 1999.

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METHODOLOGY

BIOTIC COMPONENTS

- ✓ **Zooplankton** collected by sieving a known volume of water in plankton net (25µm mesh size) & identified under high magnification microscope.
- ✓ **Abundance** was estimated by enumerating under Sedgewick rafter.
- ✓ **Carotenoids pigment** (β -carotene & Asthaxanthin) was extracted from copepods using acetone: hexane (1:3) & determined their concentrations in UV-VIS double beam spectrophotometer (Systronics Model 2201).

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METHODOLOGY

STATISTICAL ANALYSIS

- ❖ Statistical analyses viz, **Pearson's correlation analysis, Canonical correspondence analysis (CCA)** through EXCEL, SPSS 16.0 & PAST3.
- ❖ **Log-transformation** was done for some variables to normalize the data before analysis

RESULTS

Lakes	Depth (m)	Temp.(°C)	pH	Transp. (m)	DO (mg/l)	Turbidity (NTU)	Hardness (mg/L)	TDS	NH ₄ -N (mg/l)	PO ₄ -P (mg/l)
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Water temperature and pH decreases with rises in elevation (Pearson Corr. $p = 0.001$ & $p = 0.042$, respectively).

RESULTS

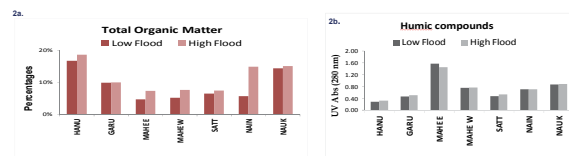


Fig. 2 (a). Total organic matter, (b) Humic compounds

- Sediment of high altitudinal shallow lakes have low % TOM & decreases with increasing altitudes ($p = 0.031$).
- Higher accumulation of humic compounds (Fig. 2b) in transparent lakes ($p = 0.006$). Greater aromatization & condensation in low depth transparent lakes.
- High level TOM observed during high flood in low altitude lakes (Fig. 2a). Water transparency is strongly influenced by TOM ($p = 0.010$). Degree of humification decreases (fig 2c) & humic compounds reduces considerably.

RESULTS

With the increases in altitude **greater degree of humification** observed (Fig. 2c).

The **lignin like compounds** are highly accumulated in the sediment of low turbid ($p = 0.002$) oligotrophic lakes (fig 2c).

High degree of **aromatization and condensation** in sediment of shoreline plantations.

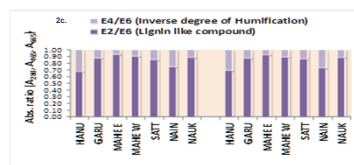


Fig. 2 (c) Lignin like compound & Degree of humification.

RESULTS

COPEPODS ABUNDANCES

Copepods dominated in high altitude & transparent lakes (fig 3a & b) & abundance has significant positive correlation with humic compounds ($p = 0.002$).

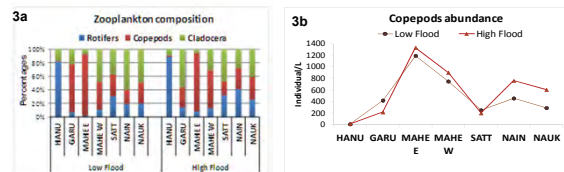


Fig. 3 (a) Percent composition of zooplankton groups (b) Copepods abundance (c) Carotenoids pigments

RESULTS

CAROTENOIDS (Photo protective compounds)

The copepods of high altitude shallow lakes contain greater amount of carotenoid pigments (fig 4) and positively correlated with amount of humic substances ($p = 0.012$) & LLC ($p = 0.001$).

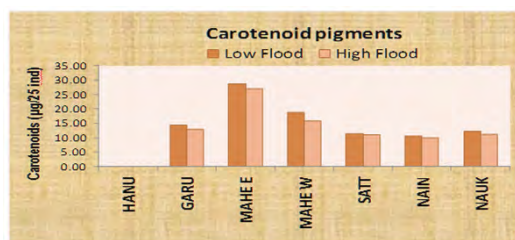


Fig. 4 Carotenoids pigments

Copepods from different lakes



RESULTS

Canonical Correspondence Analysis (A visualized matrix)

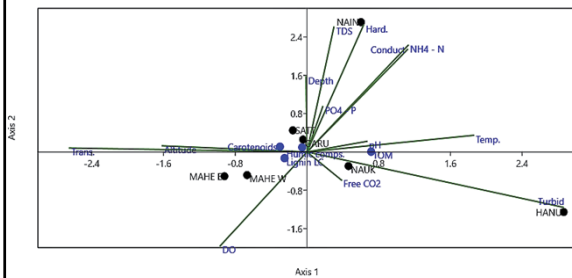


Fig. 4 CCAs biplot of water, sediment characteristics & carotenoids

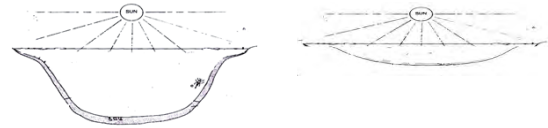
From CCAs, high transparency of water augmented in formation of LLCs (fig. 4). Carotenoids in copepods were influenced by LLC & humic substances which is increased with the rises of elevation.

DISCUSSION

➤ In high altitudinal lakes having altered UV regime, zooplankton are adapted to persistently low temperatures and high transparency.

They appear to migrate in deeper zones of lakes during daytime in avoidance of strong irradiances.

However, copepods of shallow lakes unable to migrate and appear to develop adaptive strategies which depend upon the characteristics of sediment.



DISCUSSION

➤ The amount of lignin like compound, aromatization and condensation features of the sediment shows that the remnants of leaf litter derived from the shoreline plantation.

➤ Decomposition of these substances help to generate photoprotective compounds (Beta-carotene & Asthaxanthin) accumulated through the food chain of planktonic organisms.



CONCLUSION

- ❖ The **species composition of aquatic biota** are significantly **influenced by changes in climate** at the central Himalayas of India.
- ❖ The **remnants of leaf litter generated LLCs & humic compounds** in lakes leading to greater production of pigments.
- ❖ The **photoprotective compounds** accumulated in the food chain helps in survival (against oxidative stress) & adaptation to UV irradiances.

Copepods can be a role model in predicting the impact and adaptation to climate change.

Recommendation



❖ Shoreline **plantation** in Lake Ecosystem augmented in **survival and adaptation of the aquatic organism** to climate change.

Well planning and proper management while tourism development is utmost important in the Himalayan region

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ACKNOWLEDGEMENTS

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- We also acknowledge the support & encouragement from
 - i. *Director ICAR-DCFR, Bhimtal, India,*
 - ii. *Ministry of Environment, Forest & Climate Change, Govt. of India,*
 - iii. *Asia-Pacific Network for Global Change Research.*

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