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Functioning of AASA Towards the Sustainable Development in AASA Countries[*]

Abstract

Considering the challenges in Asia in the 21st century, AASA lunched a sustainable development project, which will be beneficial not only to AASA member countries but also to the world scientific community. Objective of this Project can be summarized as to investigate common problems in the areas of energy, environment, culture and resources in Asia and to seek counter measures against these problems; to provide advice to the governments of member countries for sustainable Asia; to promote the joint cooperation among Asian academies and capacity building of young academies in Asia, and to help build up the name of IAP and AASA in Asia.

[*] The paper is a Power point presentation delivered at the Conference.

Association Academies of sciences in Asia, AASA

- AASA is an International non-profit Organization established in 2000
- To promote cooperation in S&T among Asian and Australasian Countries
- To contribute to the development of member-countries by providing advice and counter measures on issues related to science and technology through international cooperation.

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AASA, 26 Member-Academies representing 26 Countries

Afghanistan, Armenia, Azerbaijan, Bangladesh, China, Georgia, Indonesia, Iran, Israel, Jordan, Kazakhstan, Korea, Kyrgyzstan, Malaysia, Mongolia, Nepal,Pakistan, Philippines, Russia, Sri Lanka, Tajikistan, Thailand, Turkey, Uzbekistan, Vietnam, Saudi Arabia

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The Vision of AASA

- The vision of AASA is to provide a forum to discuss and provide advice on issues related to science and technology, and the application of technology for national development

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What is Done?

- To carry out the mission and realize the vision of AASA, AASA has supported various joint projects, such as ‘Clean Water: A Step Forward’, ‘Cultural Heritage’ , Reneweble Energy etc
- It was agreed that it is the time for AASA to take next step on joint projects to better contribute to scientific community not only in Asia but also around the world

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What is next?

- AASA requested its member academies for proposals for joint projects on topics of common interests; some academies submitted thirteen proposals
- Most of the proposals are to provide advice and suggestions for our sustainable future by performing joint research on energy, environment, resources and culture

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Submitted Proposals

- SB-RAS: Disaster Mitigation + Seismic Risk Mitigation in Asian Countries
  Ethnic and Cultural Interaction of Nations in Eurasia
- MAS : Establishing of S&T Forecasting in Eurasia
- Nepal AS: Paleoseismological Trenching in the Nepal Himalaya
  Utilization of bio fuel resources as substitute of traditional biomass
  Study of virus and virus like diseases of agricultural crops in Nepal
  Molecular characterization and Bioprospecting of swertia spices
- Royal SS: Monitoring of Chlorinated Hydrocarbon Pesticides in waste water treatment
- Preservation of Cultural Heritage at Amman City
  Seismic Hazard Mitigation in Asian Countries
- TUBA : Neolithisation Process in Asia: The impact of Diverse Environments and Cultural Settings n the Emergence and Development of Sedentary Farming Communities
- Academy of Sciences Malaysia :Renewable Energy
- KAST:Construction of Herbal Network among Asian Countries

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Sustainable Development in Asia

- We had a meeting during 25-26 February 2008 in Beijing and discussed all these projects
- As seen submitted projects are mostly related to energy, environment, resources and cultural heritage
- Under the name of "**Sustainable Development in Asia"** Project will cover all of the ideas given above

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Scope of the project

Energy: renewable energy for Sustainability, resource utilization, exploitation and management

Environment : natural disasters, artificial and natural environment, climate change

Natural Resources

Social development&Culture: Science education, cultural heritage, historical traditions and Human resources

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Objectives of Sustainable Development in Asia Project

- To seek counter measures against problems mentioned above
- To provide advice to the governments of member countries for sustainable Asia
- To promote the joint cooperation among Asian Academies & capacity building
- To organize workshops, seminars, conferences in different AASA countries on mentioned areas

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Resources?

- Facilities and resources available from each participant Academies
- The participating academies will appoint experts in respective areas for this project
- The workshops and meetings will be hosted by the participating academies covering part of expenses
- It is expected that FASAS will join in every step of this project, with men power and financial support
- We are expecting to receive financial support from IAP and other organizations

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Anticipated outcomes

- Establishment of website, relevant research and workshops
- Publishing of the results in AASA and other Journals
- Reports to be published and distributed to related academies and organizations
- Statement to be provided to the governments of member countries through respective member academies

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25-27 April 2008 Beijing Meeting

- 4-6 experts selected for each group, to set-up detailed work plan in their field
- Write reports on recommendations and guideline
- Title of workshops, where and when ?
- Possibility of any experimental work at any laboratories in any country?
- Joint projects?

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Energy Project

- Asia concentrates most developing countries in the world, economic developments with many nations in this region are quick, the energy needs increase very fast
- The first 30 years of 21 centuries the energy need in Asia will increase 8%-10%
- Asia occupies the important position of the energy supply and demand in the world
- There is good opportunity of cooperation on the sustainable energy development in Asia, strengthening the energy cooperation is a demand for energy safety that guarantees Asia and promotes economic development in all Asia countries

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Energy Project

- The coal and petroleum are the most important primary energies in Asia
- The amount of coal in Asia is about 300 billion tons, 190 billion tons in China, 100 billion tons in India, but the efficiency of using coal in Asia is lower usually
- Can the percentage of using coal be reduced?
- Asia is the most abundant region where petroleum resource contains 49% of whole world, but also is the region where increase of petroleum consuming

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Workshop in Beijing,16-17 November 2008

- Discussions on subjects:
- Energy saving and efficiency-improvement in industry, building, transportation, electric appliances
- Renewable energy, all kind
- New energy resources,Gas hydrates and others
- The conventional energy resources, oil, gas, coal, nuclear, Hydroelectric, nuclear waste
- Dam construction; multi-stage small dams
- Distribution of natural energy resources in Asian countries

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Environment and Resources

- Asia has not only main resources producing countries in the world, but also the main resources consuming countries
- There is good opportunity of cooperation on the sustainable use of resources in Asia
- Strengthening the cooperation is a demand for resources safety and environmental sustainability that guarantees Asian environmental health and promotes socio-economic development in all Asian countries

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Workshop in October 2009 (Turkey, China or others)

- Database establishment and data sharing in AASA,
- Natural resource assessment, exploration and mapping
- Future consumption and demand forecasting based on global climate change and population profile (structure, growth rate, education, employment)
- Active cooperation on natural resource and environmental management within AASA

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Workshop in October 2009

Subjects will be discussed:

- Resource saving and efficiency-improvement
- Coastal resource protection and integrated management of delta wetland
- Land reclamation and restoration
- Water conservation
- Clean coal technology and mineral resource development

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Asian Perspective in Defining Evolutionary Stages in Cultural Heritage

- The geographical and historical diversity in Asia create the basis for the understanding of complex super-regional entities and their impact on cross-cultural changes
- Many of the countries are on corridors of cultural exchanges thus representing influences, which need to be researched and evaluated
- This gives the unique opportunity for understanding the interaction between nature and man with their environment and civilization

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Cultural heritage

- We are witnessing that the cultural heritage is under heavy pressure from global developments resulting in alteration and mass destruction
- The wealth and diversity of our cultures should be considered as a regional asset and at the same time a part of the knowledge of all humanity
- Thus, in this reality, scientific efforts should be made that the documentation on these assets be available, shared and protected as a social and economic entity

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Food-producing village-life

- The emergence of food producing communities, or the Neolithic period, is conventionally accepted as the most significant turn in the history of civilization
- For this reason, the Neolithic Period is often referred to as the Neolithic Revolution
- Even if the term Neolithic has been derived from archaeology, the implications and the understanding of this transitional period requires a close collaboration of a wide range of disciplines, working together on a supra-regional level

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Scope of the Project

- To bring together experts in different fields to compare models of neolithisation, the impact of diverse habitats and the interaction between culture and environment
- Working for new definitions that would cover supra-regional formations
- Exchange of information among member academies in developing and implementing new techniques in archaeological recovery, preservation, restoration and presentation, eventually working for capacity building in participating groups

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Science Education Project

Main objectives:

- to collect information about on-going activities on science education sponsored by the academies
- to discuss roles of science academies in science education – sharing of experiences from FASAS and AASA members and IAP members representing the following geographical areas: Asia, Australasia and Pacific region
- to deliver and share reports on experiential or inquiry-based learning and science teacher education
- to generate the components and initiatives of a regional program that could be supported by IAP

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AASA- FASAS - IAP Science Education Program

- 27 November, 2007, Bangkok, Thailand
- Supported by:
- Association of Academies of Sciences in Asia (AASA)
- Federation of Asian Scientific Academies and Societies (FASAS)
- InterAcademy Panel on International Issues (IAP)

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