APPLICATION FOR FULL MEMBERSHIP OF SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH (SCAR)

Submitted to: SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH

By:



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Dear Sir,

APPLICATION FOR UPGRADING FROM ASSOCIATE TO FULL MEMBERSHIP OF SCAR

The Academy of Sciences Malaysia is pleased to submit application for upgrading of its present Associate Membership to Full Membership of SCAR.

ASM, which is currently managing the Malaysian Antarctic Research Program (MARP), is a national member of ICSU. ASM has been accepted as Associate Member of SCAR in 2003.

Attached herewith is the short statement of MARP Achievements, proposed continuing program of scientific research in Antarctica. Also attached is statement of the organization's agreement to comply with the principles of protection of the environment recommended by SCAR.

We look forward your positive response. Thank you.

Yours sincerely,

ACADEMICIAN DATO' SERI DR SALLEH MOHD NOR FASc Chairman ASM Task Force on Antarctic Research

<u>Short statement of MARP Achievements, proposed continuing program of</u> <u>scientific research in Antarctica</u>

In the initial stage, scientists under MARP focussed on atmospheric events and biodiversity in Antarctica. This laid the groundwork for collaborations with foreign researchers well-versed in Antarctic sciences and led to the expansion of scientific exploration under MARP. Currently, researchers under MARP are conducting research in various fields like geology, remote sensing analysis, polar microbiology and ecology. The Programme is also responsible for coordinating Malaysian researchers' involvement in the International Polar Year (IPY) 2007-2008. Malaysia's contribution to the polar sciences has been recognised at the international level.

In SCAR, Professor Dato' Dr Azizan Abu Samah is entrusted to head a four year Action Group on Modelling and Observation of Antarctic Katabatics (MOSAK) working closely with atmospheric scientists from the British Antarctic Survey.

The Programme also functions to encourage the dissemination of information and participation of Malaysian scientists at international conferences. In the SCAR first open science meeting in Bremmen, Germany in July 2004 the Malaysian scientists from the programme presented 7 academic papers, a favourable comparison to New Zealand's scientists presenting about 19 academic papers at the same conference. At SCAR-COMNAP OSC Hobart in 2006, Malaysian scientists presented 14 academic papers.

In the pursuit of promoting research as well as foster scientific collaborations, MARP has been responsible for organising seminars, both at local and international levels. The first "Workshop on Malaysian Antarctic Research Programme" was held in October 1998 and was instrumental in consolidating the scientific cooperative spirit among Malaysian researchers in the field. Two years later, the outcome of the cooperation was presented in the "First Malaysian International Seminar on Antarctic Research: Challenges and Experience" held in May2002. The Malaysian International Seminar on Antarctica in 2004 has attracted many participants both locally and abroad with the support of various distinguished speakers. In 2005, a Seminar on "Antarctica Research in Universiti Malaya" was held in June in conjunction with the centennial celebration of Universiti Malaya. In March 2007, 3rd Malaysian International Seminar on Antarctica was held in Sabah Malaysia with participation of researchers from countries like New Zealand, UK, Australia, Thailand, China, Japan, Chile and Indonesia.

Members of MARP had been organised various workshops to help promote and improve technological innovations in Antarctic research. The workshops have been invaluable not just in disseminating the latest information in the field but also to train scientists and graduate students in the region in various significant technical skills. In 2005, a "Workshop on Pigments Analysis of Microorganisms" was conducted in Universiti Malaya with Dr Simon Wright from the Australian Antarctic Division and Dr Hideyaki Miyashita from Kyoto University invited to speak and demonstrate the latest techniques. A workshop on Antarctica Wind field was also organised by MARP scientist in Kuala Lumpur in 2005, with the collaboration of SCAR.

The Programme succeeded in fostering a group of resilient and dynamic world-class scientists in the country. The Programme continues to formulate steps to promote our scientists' contribution to the body of scientific knowledge and to encourage Malaysia's role in the international platform of Antarctic research and administration.

MARP is confident that with the support of the Malaysian government in RMK9 (2006-2010), the scientific strategy and planning can be undertaken to convince the rest of the ATCP countries that Malaysia is worthy of admission. At this stage a number of Malaysian scientists active in MARP are actively involved in the International Polar Year planning. These collaborations will not only enable Malaysia to promote its scientific capabilities in the international stage but take some leadership in a number area, such as tropical-polar interactions. One of the IPY projects that Malaysia will undertake is to look for teleconnections between the equator and the Polar Regions. We are also undertaking research in the upper atmosphere with the same theme, with view of scientific innovation in the field.

In the field of biology, Malaysia will be involved in studying the biodiversity of benthic organisms in collaboration with University of Tasmania undertaken by the research group in Universiti Sains Malaysia. The Universiti Malaya biology group are actively involved in algae biodiversity, effect of increased UV radiation on microalgae and soil bacteria of Antarctic. Effort is being made by MARP to integrate all our microbiology activities between all the participating universities so that specimen and resources will be shared. This will ensure that the resources allocated for the research is used in an optimum manner with maximum benefits.

A significant outcome of MARP activities is the cross-fertilisation of Malaysian and foreign researchers during the expeditions to Antarctica and laboratory postings to foreign laboratories. These exercises have a positive impact in gaining new techniques and knowledge in solving local problems. Not the least of which is the exposure of local researchers and postgraduate students to international research community and helps to improve the quality of the nation's human resource.

MARP is also looking into the feasibility of establishing an "Antarctica Research Institute" under the auspices of the Academy of Sciences Malaysia. This Institute will be the hub of Malaysia's polar research and is viewed for development to be a centre of excellence. The Antarctica Research Institute will provide a focus point for polar research in the region.

Although Malaysia is a relatively new player in polar research, the extensive collaborations that we managed to secure with research groups in Australia, UK, Germany, Korea and Japan has enabled us to leap-frog our polar science to be on par with the rest of the advanced scientific community active in polar research. Our presence is very much noticed in the small polar research community.

MARP has forged the way to bring Malaysia's research to world-class level as well as promote national and international cooperation to increase the nation's scientific capability and capacity. The support of the various ministries in the Government is vital in order for MARP to sustain its momentum to secure Malaysia's place in the international scientific community as well as the ATS. In essence, the future of MARP is geared towards strengthening Malaysia's scientific capability and innovation to entrench the nation's place as a developed nation in the year 2020.

<u>Statement of the organization's agreement to comply with the principles of</u> protection of the environment recommended by SCAR

The Academy of Sciences Malaysia being the institution responsible in coordinating the Malaysian Antarctic Research Program is hereby agreed to comply with the principles of protection of the environment recommended by SCAR as appears in Annex 1 of SCAR Constitution, SCAR Rules of Procedure, and Rules of Procedure for SCAR Subsidiary Groups.