ISLAMIC WORLD ACADEMY OF SCIENCES

Newsletter

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Under the patronage of His Excellency Mr Mintimer Shaimiev President of the Republic of Tatarstan: IAS Convenes 16th Conference in Kazan

on

Science, Technology, and Innovation for Sustainable Development in the Islamic World: Policies and Politics Rapprochement

Tatar President Mintimer Shaimiev

Under the patronage of His Excellency Mr Mintimer Shaimiev, President of the Republic of Tatarstan, the Islamic World Academy of Sciences (IAS) convened its 16th Conference in Kazan, the capital of the autonomous Republic of Tatarstan in the Russian Federation, from 25-28 August 2008. The conference addressed the theme of *Science, Technology and Innovation for Sustainable Development in the Islamic World: Politics and Policies Rapprochement.* 7

Organized at the Kazan Korston Hotel, the conference was an open international scientific activity in which over 130 participants representing over 25 countries participated. Among the participants were the representatives of over 20 academies of sciences from around the world including the American, French and Russian academies of sciences; as well as the majority of academies of sciences in the OIC.

Alongside the conference, the IAS and the UNESCO organised a special symposium at Kazan State University on the 'History of Islamic Science, Technology and Innovation.'

The 17th Meeting of the General Assembly of the Islamic World Academy of Sciences as well as the 32nd and 33rd Meetings of the IAS Council were also arranged in conjunction with the conference.

The conference was jointly organised by the following organisations:

- Islamic World Academy of Sciences (IAS), Amman, Jordan;
- Tatarstan Academy of Sciences, Kazan, Tatarstan; and
- United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris, France.

It was sponsored by the following organisations:

- Islamic Development Bank (IDB), Jeddah, Saudi Arabia;
- OIC Ministerial Committee on Scientific and Technological Co-operation (COMSTECH), Islamabad, Pakistan;
- OPEC Fund for International Development (OFID), Vienna, Austria;
- Perdana Leadership Foundation, Putrajaya, Malaysia;
- Arab Gulf Programme for United Nations Development Organisations (AGFUND), Riyadh, Saudi Arabia;
- Fouad Alghanim & Sons Group of Companies, Safat, Kuwait;
- Saudi Basic Industries Corporation (SABIC), Riyadh, Saudi Arabia;
- Islamic Educational, Scientific and Cultural Organisation (ISESCO), Rabat, Morocco;
- Arab Potash Company, Amman, Jordan;
- World Islamic Call Society, Tripoli, Libya; and
- Royal Jordanian Airlines, Amman, Jordan.

Tatarstan is an autonomous republic that forms part of the Russian Federation. It is a Muslim-majority country that boasts a strong and diversified economy, as well as reputable science, technology and innovation system; at the heart of which lies a highly structured academy of sciences with a multifaceted role.

Apart from learning about the rich and often – ill presented – history of Tatarstan and the Tatar people, the 16th IAS Conference aimed to establish contact with the science and technology community in the country. The conference was also designed to showcase the status of science and technology in some of the republics of the Russian Federation and the various institutions that also belong to the Russian Academy of Sciences which are world leaders in a number of fields including nanotechnology.

Furthermore, an attempt was made to compare the views of politicians, scientists as well as academicians both from Russia and outside on the issue of 'Sustainable Development,' and its various components.

Another objective of the conference was to explore the strong link that should exist between the science community and the media.

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The inaugural session of the conference was held at the historic Tatarstan Academy of Sciences Building in Kazan. The chief guest was the President of the Republic of Tatarstan; Mintimer Shaimiev, who delivered his speech at the start of proceedings. That was followed by the speech of the President of the IAS and the messages of the two IAS Patrons; H E the President of the Islamic Republic of Pakistan and H R H Prince El-Hassan Bin Talal of Jordan. The inaugural session of the conference concluded with an award ceremony in which newly elected Fellows of the IAS received their Certificates of Fellowship from the President of the Republic of Tatarstan. That was followed with the President of Tatarstan receiving his Certificate of Honorary Fellowship of the IAS from the President of the IAS.

The first day of the conference included keynotes by; Prof. R. I. Nigmatullin, Director of the P. P. Shirshov Institute of Oceanology of the Russian Academy of Sciences, who presented a paper entitled *Ecology and Energy: Myths, Reality and Prospects*; Prof. A. H. Zakri FIAS, Director, United Nations University, Institute of Advanced Studies in Japan who presented a policy paper entitled *Science, Technology and Innovation for Sustainable Development*; and Prof. Maria da Graca Carvalho, Director General, Bureau of European Policy Advisers of the European Commission, who presented an overview paper on *Europe of Knowledge: The Knowledge Society and the Role of Universities.*

Two other keynotes were also presented on the first day of the conference; *The Kyoto Protocol: The Pros and Cons* which was presented by Prof. Mikhail Zalikhanov, Fellow of the Islamic World Academy of Sciences and Chairman of the Subcommittee on Sustainable Development in the Russian State Duma; and *Sustainable Development: A Global Imperative,* which was presented by Prof. Michael Clegg, Foreign Secretary of the US National Academy of Sciences and a regular participant in IAS Conferences.

The first day also included the Ibrahim Memorial Award Lecture which this year (2008) was delivered by the Award Laureate of 2007; Dr Mohammad Al-Qattan, who is an outstanding plastic surgeon from Saudi Arabia. It was mainly on his main field of research and carried the title *Obstetric Brachial Plexus Palsy.*

The second day of the conference included a special session on nanotechnology in which presentations were made by speakers from Russia, including Prof. Salambek Khadzhi Fellow of the Islamic World Academy of Sciences and former Minister of Petroleum Industries in the former Soviet Union; as well as speakers from Iran and Tatarstan.

A view of the Inaugural Session of IAS 2008 Conference.

The IAS has long realised that the relationship between scientists and journalists remains difficult, sometimes even hostile. There are complaints on both sides - scientists doubt the ability of journalists to report accurately and responsibly on their work, while journalists complain that scientists are bad communicators, hiding behind argot. It was principally for this reason that a special session was arranged on the second day of the conference in which a number of science journalists, including representatives of the World Federation of Sciences Journalists (WFSJ), presented short communications on how they thought science and the scientific endeavour were perceived by the media. The main conclusion drawn from the session was that scientists who used the media effectively saw advantages in having a media presence for themselves, their projects, and their research organisations. The media, it was reiterated, was an effective means to popularise science, reach research funders, bureaucrats, and other scientists around the world.

The 'Role and Functions of Academies of Sciences' was the theme chosen by the conference organising committee for an exciting session which was organised in the afternoon of the second day in which the representatives of no less than ten academies of sciences from around the world including the French, American, Malaysian, Pakistan, Palestine, Tatarstan, and the Romanian academies of sciences presented short overviews of their academies and their respective outlooks for the future.

The main objective of this session was to compare the different models of academies of sciences that exist worldwide; the Soviet style academy of sciences, the Anglo-Saxon model as well as the international or the global model as classified by the InterAcademy Panel; which includes the Islamic World Academy of Sciences and TWAS.

A major objective of the specialised symposium which was organised by the IAS in collaboration the UNESCO and the Kazan State University on the third day of the conference, was to address the question of why the Islamic civilisation – which enjoyed almost five centuries of scientific superiority – did not undergo a European type renaissance. This issue was addressed at this special symposium by a number of world-class speakers who represented a number of schools of thought and included; George Saliba, Mehdi Golshani, Charles Falco and Mazhar Qurashi. The symposium was chaired by a good friend of the IAS; Academician Dato Ir Lee Yee Cheong, who has been the force behind this series of ISSTI (International Islamic STI) Symposia, with IAS Fellow Prof. Shamsher Ali rapporteuring.

At the conclusion of the three-day conference, which also included a number of side-meetings and site visits, the IAS adopted the IAS 2008 Kazan Declaration on *Science, Technology and Innovation for Sustainable Development in the Islamic World: Policies and Politics Rapprochement.*

The declaration stressed that Islam promotes a balance between all living creatures and their life-sustaining environment and that realizing prosperity

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and socioeconomic advancement is at the core of the Islamic governance philosophy. It further emphasized that some Organization of the Islamic Conference (OIC) and developing countries have developed a vision that links their future to their STI development, while others have not given due priority to this issue.

The declaration emphasized that science and technology are not exogenous factors that determine a society's evolution independently from its historical, social, political, cultural, or religious backgrounds. They are *the* tool within humanity's reach for the fulfillment of human needs while maintaining the quality of the natural environment indefinitely, i.e. the means to master that socioecological process that has been defined as 'Sustainable Development.'

The significant obstacles to science and technology in OIC-Countries were again highlighted in the declaration, including; lack or inadequacy of up-to-date STI policies, lack or inadequacy of resources, infrastructure and institutions; and gender imbalance in science and technology. Steps to facilitate the transfer of resources to enhance domestic capacity building in developing economies were called for.

The declaration urged the international community to support opportunities for developing countries to grow in a way that reinforces environmental protection and social development by increasing their market access, especially in sectors where sustainable development is likely to benefit from economic liberalization.

The IAS Kazan Declaration moreover called on the international community to again address climate change describing it as an urgent challenge that requires international cooperation to achieve the mitigation levels envisaged under the Kyoto protocol.

The declaration acknowledged that the media has a significant role to play in promoting science and technology. Scientists need to communicate with the general public, policy-makers, and the media while scientific institutes need to open communication lines with the outside world. It called upon universities in OIC countries to examine the possibility of teaching science communication as a specialized discipline while science conferences and seminars need to engage more with journalists and the media.

On the topic of the 'History of Islamic Science,' the declaration recognized that historians of science have propagated a number of theories related to the rise and possible decline of Islamic science.

A need to revisit this issue has risen not only to highlight the contribution that the Islamic civilization has made to world civilization, but also to learn about the deep rooted underlying reasons for this decline in order to learn from the lessons of the past, as well as promote harmony between cultures and peoples in today's tension ridden world, the declaration re-iterated.

The IAS 2008 Kazan Declaration pronounced that it was imperative that the interest of the OIC science community, and ultimately the public, is rejuvenated in what has become known as the accepted narrative of the 'Rise and Decline of Islamic Science,' and perhaps to question what has been described as the classical narrative including some theories related to the subject.

Furthermore, the IAS, in the declaration, expressed its deep concern for the safety and well-being of all Iraqi scientists, academics and educationalists both inside and outside Iraq.

As part of the follow-up action to the conference, the IAS will circulate the IAS 2008 Kazan Declaration to concerned individuals and relevant agencies throughout OIC and developing countries, so that measures are taken to put into action the ideas proposed at the conference.

The Academy will also publish the complete proceedings of the conference in a quality volume that will be distributed internationally.

Through IAS Fellows, personal contact and correspondence, the IAS will promote the concepts promulgated at the conference among the decision making circles of the Islamic world, and will provide whatever help it can to get the various recommendations implemented.

16th IAS Conference, Kazan; August 2008.

16th IAS Conference, Kazan; August 2008.

IAS 2008 KAZAN DECLARATION

on

Science, Technology, and Innovation for Sustainable Development in the Islamic World: Policies and Politics Rapprochement

adopted at Kazan, Tatarstan
on
26 Sha'ban 1429 AH
27 August 2008

Participants in the 16th IAS Conference, Kazan; August 2008.

Preamble

(a) Islam upholds a balance between all living creatures and their life-sustaining environment, whereas realizing prosperity and socioeconomic advancement for humanity lies at the heart of the Islamic governance philosophy.

(b) Organisation of Islamic Conference (OIC) and other developing countries differ in their science, technology and innovation (STI) outlooks. Some have linked their advancement to their STI development. Others, due to a number of considerations including the lack of political will, have not given due priority to this issue.

(c) Science, technology and innovation are not exogenous factors that determine a society's evolution independently from its historical, social, political, cultural, or religious backgrounds. They are *the* tools within humanity's reach for the fulfillment of human needs while maintaining the natural environment indefinitely, i.e. the means to master the socioecological process that has been defined as 'Sustainable Development.'

(d) Vision 1441 and the various resolutions of the Organisation of the Islamic Conference (OIC) accentuate that OIC-Member states must strive to become a community that values knowledge; a community that is competent in utilizing S&T to achieve the socioeconomic well-being of the '*Ummah*.'

On the theme of 'Sustainable Development,' the participants in the Islamic World Academy of Sciences (IAS) 2008 Kazan Conference declare that:

(i) The linkage between economic growth and the natural environment that supports it lies at the heart of sustainable development. Economic growth contributes to higher levels of human welfare, and provides the resources to tackle a range of environmental objectives. However, economic expansion can also lead to excessive degradation of environmental resources. Today, maintaining functioning ecosystems that can support economic and social development is recognized as crucial for development to be sustained;

(ii) A coherent approach is required to address the environmental threats that face humanity today. Due to the global nature of some of the challenges, such as global warming, individual countries cannot reverse adverse trends. For other challenges, such as biodiversity and water shortages, consequences of continued degradation spill over national borders;

(iii) Policies in place in many OIC and other developing countries have failed to match the urgency of some of the environmental challenges. Measuring progress towards sustainable development has addressed specific issues such as climate change; rather than measuring sustainable development at an aggregate level which requires an integration of indicators of economic, environmental and social changes;

(iv) An immediate comprehensive strategy is needed to overcome the various knowledge and implementation divides. Governments of OIC countries need to show leadership as progress requires a focused agenda, with special priority given to areas where the risks of non-sustainable patterns of development are highest – such as climate change and sustainable use of natural resources,

And recommend the following measures to OIC and other developing countries' decision-making community:

(a) OIC and other developing countries' governments must lead by example in promoting sustainable development and should focus their internal policy and implementation processes on effectively integrating the three dimensions of sustainable development (economic, environmental, and social); and improve

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their own capacity to support sustainable development; and develop transparent mechanisms for interacting with civil society;

(c) Improve the capacity for policy integration at all levels of government by:

- *Ensuring that key economic, environmental and social considerations are integrated into sectoral policy analysis, design and implementation, before decisions are taken;*
- *Ensuring that the best scientific advice - as for example may be provided by academies of sciences - on sustainability issues is coordinated at the highest level within government, and communicated to decision-makers;*
- *Cooperating internationally to develop common approaches for making economic, environmental and social policies mutually supportive; and*
- *Clearly identifying sustainable development policy targets and timetables and conducting regular reviews of progress.*

(c) As new technologies offer significant promise for de-coupling economic growth from long-term environmental degradation, then OIC and other developing countries' governments need to create an environment that is favourable to innovators, to fund basic research, provide incentives to innovate and diffuse technologies that support sustainable development objectives,

The participants in the Islamic World Academy of Sciences (IAS) 2008 Kazan Conference moreover call upon the international community to:

(i) Support opportunities for developing countries to develop in a way that reinforces environmental protection and social development by increasing market access to developing countries, especially in sectors where sustainable development is likely to gain from economic liberalization;

(ii) Review economic and environmental policies from the perspective of the goal of poverty reduction;

(iii) Promote universally accepted development yardsticks such as the MDGs and to allocate sufficient resources to help developing countries achieve these goals;

(iv) Continue to help poor countries to improve their capacity to participate in the sustainable development of the global economy, including launching the policy and institutional frameworks required to attract private capital to those countries while minimizing adverse environmental or social impacts associated with such flows;

(v) Address again climate change as this is a particularly pressing challenge that requires international cooperation, a challenge that must be addressed rapidly to achieve the mitigation levels envisaged under the Kyoto protocol;

(vi) Improve the knowledge base for decision making by promoting research on environmental thresholds from renewable resources, and on technologies that more efficiently use or recycle natural resources; and

Additionally, the participants in the Islamic World Academy of Sciences (IAS) 2008 Kazan Conference acknowledge that:

(a) A salient feature of modern science is its greater autonomy from the public. This has resulted in the codification and institutionalization of the scientists' professional role and the emergence of a divide between scientists on the one hand, the polity and well as the media and the public on the other;

(b) The media has a considerable role in promoting science and technology and scientists need to communicate with the general public, policy-makers, and the media while scientific institutes need to open communication lines with the outside world;

(c) Universities in OIC countries have to examine the possibility of teaching science communication as a specialized discipline while science conferences and seminars need to engage more with journalists and the media;

(d) Newspapers and broadcasters should employ more science graduates, while scientists and science graduates should be encouraged to undertake media training;

(e) The role, functions and activities of academies of sciences are multifaceted and multilayered; at the heart of which lies the promotion of science and technology and the application thereof to increase knowledge, improve socioeconomic conditions in society;

(f) Academies of sciences ought to be further involved in promoting science and the scientific endeavour and act as active advocates of science and technology to overcome the array of problems that humanity faces;

(g) Academies of sciences are expected to act as 'sovereigns' of science in their catchment area, unequivocally taking the moral high ground on all issues that face humanity;

(h) It is imperative that OIC countries establish national academies of sciences, or where such entities exist strengthen them;

(i) Historians of science have propagated a number of theories related to the rise and possible decline of Islamic science. A need to revisit this issue has developed not only to highlight the contribution that the Islamic civilization has made to world civilization, but also to learn about the deep rooted underlying reasons for this decline in order to learn from the lessons of the past and, in today's tension ridden world, promote harmony between cultures and peoples; and

(j) It is imperative that interest of the OIC science community, and ultimately the public, is rejuvenated in what has become known as the alternative narrative of the 'Rise and Decline of Islamic Science,' and the need to question what has been described as the classical narrative related to the subject and the various theories related thereto,

Furthermore, the Islamic World Academy of Sciences:

Expresses its deep concern for the safety and well-being of all Iraqi scientists, academics and educationalists both inside and outside Iraq;

Reaffirms its support for the implementation of the recommendations and action plan of Vision 1441, urges all OIC-Member countries to contribute generously to the OIC Science and Technology Fund, and commends the efforts of the OIC Standing Committee on Scientific and Technological Co-operation (COMSTECH) in launching this and other similar initiatives; and

Extends its appreciation to the Republic and President of Tatarstan for hosting the conference; to the Tatarstan Academy of Sciences, for undertaking local arrangements; the Islamic Development Bank, COMSTECH, OPEC Fund for International Development (OFID), Perdana Leadership Foundation, Arab Gulf Programme for United Nations Development Organisations (AGFUND), Fouad Alghanim & Sons Group of Companies, Saudi Basic Industries Corporation (SABIC), Islamic Educational, Scientific and Cultural Organisation (ISESCO), United Nations Educational, Scientific and Cultural Organisation (UNESCO), Arab Potash Company, World Islamic Call Society, Tripoli, Libya; and Royal Jordanian Airlines, for generously supporting this international scientific congregation.

Prof. Kamal H. Batanouny (Egypt)

Prof. Batanouny was born on 30 January 1936 in Egypt. He is married.

He obtained a BSc (Hons.) in Chemistry and Botany (1956), an MSc in Ecology (Botany) (1960), a PhD in Ecology (Botany) (1963), all from the University of Cairo (UoC), Egypt. He obtained a DSc in Ecology – Eco-physiology from UoC (1985).

He started his career as a Lecturer in the Department of Botany in the Faculty of Science at UoC (1964-1971), Assistant Professor (1971-1974), Head of the Department of Botany (1987-1993), Director of the Centre for Environmental Research and Studies at UoC (1993-1996), and Vice-Dean of the Faculty of Science for Community and Environmental Development (1994-1996). He is currently Emeritus Professor of Ecology at UoC.

Prof. Batanouny has been President of the International Organisation for Human Ecology in Vienna, Australia (1984-1989), President of EBS (1987-present), a member of the Executive Board of the Sahara and Sahel Observatory (OSS) in Paris, France (1995-1996), and a member of the Board of the Egyptian Environmental Affairs Agency (1997-1999).

He has a large number of scientific publications to his credit, and has authored a number of books, including *Plants in the Deserts of the Middle East* (publ. Springer Verlag), *Plants in the Sayings of the Prophet (PBUH),* and *Plants in the Holy Qur'an*.

He has been awarded the State Prize for Environmental Sciences (1981), the Prize of Arab Ministers for Environment - Achievement in Biological Diversity in Arid Lands (1997), the State Prize for Basic Sciences (2002), and the ISESCO Prize in Biology (2003). He was enrolled by the UNEP in its *Global 500* Roll of Honour for Environmental Achievement (1989).

Prof. Batanouny was elected as a Fellow of the IAS in 2006.

Prof. Ramazan Demir (Turkey)

Prof. Ramazan Demir was born in 1947 in Keban-Elazig (Turkey). He is married with two children.

He is graduated in 1968 form Istanbul University specializing in Biological Sciences. During 1969-1972, he was a teacher of Biology, High School, Elazig. From 1972 to 1974, he was a lecturer of Biology at the Institute of Education, Diyarbakir.

From 1974 to 1978, he was a teaching assistant of Histology and Embryology, Faculty of Medicine, Dicle University, Diyarbakir.

He then became a lecturer of Histology and Embryology, Faculty of Medicine, Akdeniz University, Antalya, until 1982.

Dr Demir was a graduate Fellow, Department of Histology and Embryology, Istanbul Medical Faculty, Istanbul University, 1975-1978.

Starting in 1983, he became Lecturer, Head of Department of Histology and Embryology, Faculty of Medicine Akdeniz University, Antalya. In 1988, he was promoted to the rank of Professor.

In 1989, Dr Demir was appointed Chairman and Head, Department of Histology and Embryology, Faculty of Medicine, Akdeniz University, Antalya.

He is a member of the Turkish Electron Microscopy Society; Turkish Histology and Embryology Society; American Association for the Advancement of Science (AAAS); New York Academy of Sciences; and European Placenta Group (EPG).

His publications have received more than 405 citations, and 0 of his articles were referred to in textbooks on 19 occasions.

Prof. Ramazan Demir was elected a Fellow of the Islamic World Academy of Sciences in 2000.

Prof. Adnan Hamoui (Syria)

Prof. Hamoui was born on 20 December 1932 in Damascus, Syria. He is fluent in Arabic, English and French.

He obtained a BSc in Mathematics from the University of London, UK (1956), an MSc in Differential Geometry and Relativity from Imperial College, the University of London, UK (1957); and a DSc in Mathematics (Differential Geometry and General Relativity) from the University of Paris, France (1969).

He started work in the Syrian Ministry of Education in Aleppo, Syria (1957-1959), and then became the Syrian Representative at the Directorate of Planning of Secondary Mathematics Education in Cairo, Egypt (1959-1960), Assistant at the University of Damascus (UoD), Syria (1960-1961); Assistant in the Faculty of Science at the University of Paris, France (1963-1964), Research Fellow at the French National Centre for Scientific Research (CNRS) (1964-1971); and Assistant Professor (1971-1974) and Associate Professor (1974-1975) at UoD. He has been Professor at the University of Kuwait, since 1987.

Prof. Hamoui has been President of the Society of Arab Friends of the ICTP (1983-1993), a member of the Editorial Board of the *Journal of the Tensor Society of India* (1983-present), a Corresponding Member of the European Academy of Arts, Sciences and Humanities in Paris, a Fellow of the International Information Academy (1996), and a member of the Editorial Board of *Kuwait Journal of Science and Engineering* (1991-1998). He has been Editor-in-Chief of the Arabic language section of *Scientific American* (Majallat Al-Oloom) at the Kuwait Foundation for the Advancement of Sciences (1986-present). He became a Corresponding Member of L'Académie Arabe - Damascus (2000).

He has written or co-written around 20 articles, and authored or translated ten books in Syria and Kuwait.

Prof. Hamoui was elected as a Fellow of the IAS in 2006.

Prof. Hamza El-Kettani (Morocco)

Prof. Hamza El-Kettani was born on 28 September 1942 in Morocco.

He was awarded a Bachelor of Science degree in physics and chemistry, Faculty of Science, University of Damascus, 1962.

He was awarded a doctorate in mineral chemistry from the Faculty of Science, University of Paris (1965), and a State Doctorate in physics (chemistry option), Faculty of Science, University of Paris, 1968.

Prof. El-Kettani became a Lecturer, Faculty of Science, Mohammed V University, in 1968. He went on to become head of the Department of Mineral Engineering, Mohammedia Engineering School, 1970-1975, and visiting professor, Laval University, Quebec, Canada, 1970. He was a visiting professor, University of Berkeley (California, USA), 1972.

He served as President of the town Council of Rabat from 1983 to 1992, and then as the Minister of Post and Telecommunications, Morocco (1995-1998).

He was head of delegation of the Moroccan delegation at the fifth conference on Arabization, Amman, 1985; and head of the Moroccan delegation to the seventh conference, which was held at Khartoum, 1994.

Prof. Hamza El-Kettani has been the Director of Studies at the Institute for Studies and Research on Arabization (IERA) since 1982, and the permanent representative of Morocco in the Basic Arabic committee of the ALECSO since 1985.

Prof. Kettani was honoured by the World Organization of Capitals and by the Organization of the Arab Towns. He is the recipient of the Moroccan Al-Arch (the throne) medal in the rank of an officer (1995).

Prof. Kettani has around 50 publications to his credit that address a wide range of topics including Arabization in Arab countries.

Prof. Kettani was elected a Fellow of the Islamic World Academy of Sciences (IAS), in 2000.

Islamic World Academy of Sciences (IAS)

The IAS is an independent, non-political, non-government and non-profit making organisation of distinguished scientists and technologists dedicated to the promotion of all aspects of science and technology in the Islamic world.

The establishment of the IAS (then the "Islamic Academy of Sciences") was recommended by the OIC Standing Committee on Scientific and Technological Co-operation (COMSTECH), and approved subsequently at the Fourth Islamic Summit in Casablanca in 1984. The IAS' Founding Conference was held in Jordan in October 1986.

The government of Jordan hosts the IAS at Amman, where the Secretariat started functioning in 1987.

The IAS General Assembly decided to rename the IAS as the "Islamic World Academy of Sciences" in March 2005.

The main objectives of the IAS are:

- *To serve as a consultative organisation for the Ummah and for institutions in the field of science and technology;*
- *To initiate science and technology programmes of benefit to the development of Islamic countries;*
- *To promote research on major problems facing Islamic countries and to identify future technologies of relevance for possible adoption and utilisation; and*
- *To formulate standards of scientific performance and attainment and to award prizes and honours for outstanding scientific achievement to centres of excellence in all science and technology disciplines.*

IAS Newsletter

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The Secretariat welcomes the submission of any articles for publication in the newsletter (publication to be at the Secretariat's discretion).

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IAS - N36 - 09

New IAS Fellows Elected

Membership of the IAS is made up of Founding and elected Fellows. They are eminent scientists with sizeable contributions to the development of science and technology and related topics, in their countries and internationally.

The Secretariat of the IAS organises an election every year through which existing Fellows nominate and then elect new members to the Academy Fellowship. Since its establishment in 1986, 82 Fellows have been elected through annual postal ballots, the results of which are announced at the end of year General Assembly.

At its Kazan meeting, the General Assembly of the Islamic World Academy of Sciences ratified the results of the 2008 Fellowship elections. The elections resulted in 4 candidates, winning the required number of votes, and thus becoming newly elected Fellows of the Islamic World Academy of Sciences (IAS).

The newly elected IAS Fellows are:

1. Prof. Mohammad Abdollahi — Iran
   Toxicology/ Pharmacology.
2. Prof. Rabia Hussein — Pakistan
   Microbiology.
3. Prof. Mohammad Salimullah — Bangladesh
   Physics
4. Prof. Khatijah Mohd Yusoff — Malaysia
   Microbiology.

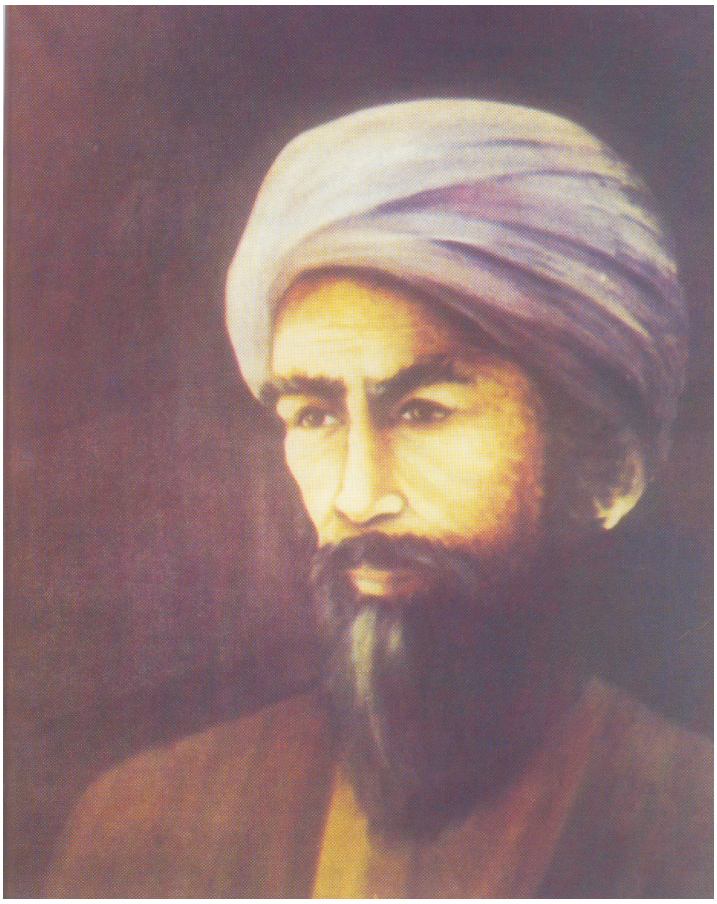
With the 2008 Fellowship election over, the number of IAS Fellows stands at present at 102.

The Editorial Board congratulates the new members of the IAS on their election and wishes them success in the service of the Islamic World Academy of Sciences.

*Muslim Scholars**

IBN AL-BITAR

(Died AD 1248)



Abu Muhammad Abdullah Ibn Ahmad Ibn al-Bitar Dhiya al-Din al-Malaqi was one of the greatest scientists of Muslim Spain and was the greatest botanist and pharmacist of the Middle Ages. He was born in the Spanish city of Malaqa (Malaga) towards the end of the twelfth century. He studied botany at the hands of Abu al-Abbas al-Nabati, a learned botanist, with whom he started collecting plants in and around Spain. In 1219 he left Spain on a plant-collecting expedition and travelled along the northern coast of Africa as far as Asia Minor. The exact modes of his travel (whether by land or sea) are not known, but the major stations he visited include Bouaghia, Constantine, Tunis, Tripoli, Barqa and Adalia. After 1224, he entered the service of al-Kamil, the Egyptian Governor, and was appointed chief herbalist. In 1227, al-Kamil extended his domination to Damascus, and Ibn al-Bitar accompanied him there and that provided him an opportunity to collect plants from stations located there. He died in Damascus in 1248.

Ibn Bitar's major contribution, *Kitab al-Jami fi al-Adwiya al-Mufrada,* is one of the greatest botanical compilations dealing with medicinal plants in Arabic. It enjoyed a high status among botanists up to the sixteenth century and is a systematic work that embodies earlier works, with due criticism, and adds a great part of original contribution. The encyclopaedia comprises some 1,400 different items, largely medicinal plants and vegetables, of which about 200 plants were *not known* earlier. The book refers to the work of some 150 authors mostly Arab, and it also quotes about 20 early Greek scientists. It was translated into Latin and published in 1758.

His second monumental treatise *Kitab al-Mughni fi al-Adwiya al-Mufrada* is an encyclopaedia of medicine. The drugs are listed in accordance with their therapeutical value. Thus, its 20 different chapters deal with the plants bearing significance to diseases of head, ear, eye, etc. On surgical issues, he frequently quoted the famous Muslim surgeon, Abul Qasim Zahrawi. Besides Arabic, Ibn Al-Bitar, had given the Greek and Latin names of the plants, thus facilitating transfer of knowledge.

Ibn Bitar's contributions are characterised by observation, analysis and classification and have exerted a profound influence on Eastern as well as Western botany and medicine. Though the *Jami* was translated/published later in the western languages as mentioned above, yet many scientists had earlier studied various parts of the book and made several references to it.

*** Hakim Mohammad Said (Editor), 2000. Personalities Noble, National Science Council of Pakistan. Second Revised Edition (English and Arabic). Published by the Islamic World Academy of Sciences.**