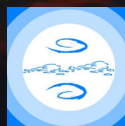


The International Association of Meteorology
and Atmospheric Sciences

STRATEGIC PLAN

2019-2027



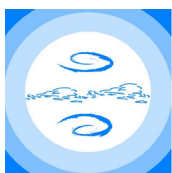
Introduction

The International Association of Meteorology and Atmospheric Sciences (IAMAS) is one of the eight associations of the International Union of Geodesy and Geophysics (IUGG), which is a member of the International Science Council.

IAMAS traces its history back to 1919 as the Section of Meteorology of the newly created IUGG. From the earliest days, the Section of Meteorology was concerned with important scientific questions in the fields of meteorology and geophysics, a goal that has persisted throughout the 100-year lifetime of the organisation. The first meeting of the Section of Meteorology took place during the first IUGG General Assembly in Rome, Italy in 1922, with 14 nations sending delegates to the meeting. Because of organisational changes and the broadening of the scope of science dealt with by the organisation, the Meteorology Section became the International Association of Meteorology in 1933, and evolved further into the International Association of Meteorology and Atmospheric Physics in 1957 and finally IAMAS in 1993.

Since the middle of the Twentieth Century, a major element of IAMAS has been its commissions. These have been a focus for research in specific areas of the atmospheric sciences, with the number of commissions growing as the atmospheric sciences evolved. The commissions have their own officers and members, organise scientific meetings, and publish monographs and other reports. The first two commissions were formed by incorporating existing international committees into IAMAS in 1948 and were concerned with radiation and ozone. Subsequently, commissions were formalised from interest groups that had formed that dealt with clouds and precipitation (1953), atmospheric chemistry and global pollution (1957), polar meteorology (1963), dynamical meteorology (1967), climate (1977), planetary atmospheres and their evolution (1977), the middle atmosphere (1979) and atmospheric electricity (1989).

The scientific activities of IAMAS are complementary to those of the World Meteorological Organization (WMO), with IAMAS taking its scientific leadership from the national academies of science and the WMO providing a route for governments to coordinate meteorological services in a number of areas, including public safety, national security and health. There is considerable scope for collaboration between IAMAS and its commissions, and the WMO and its commissions and scientific and technical programmes.



IAMAS

Mission

IAMAS is committed to promoting the study of the Earth's atmosphere and the atmospheres of other planetary bodies, along with the interactions of the Earth's atmosphere with other components of the Earth system. IAMAS conveys the collective views of atmospheric science communities to other organizations and the public. It initiates, promotes, facilitates and coordinates international cooperation in research. IAMAS and its commissions promote understanding by facilitating the education, development and participation of early career scientists, and atmospheric scientists from less affluent countries. We recognize leading scientific accomplishments and the scientists who make them.

Vision

An association that is highly relevant to the current and next generation of atmospheric scientists, that is adaptable and responsive to changing needs of the science and wider society and which promotes international cooperation in all areas of the atmospheric sciences, including climate and environment, and complements government-led atmospheric research.

Background to the strategic plan

As IAMAS approaches its 100th anniversary it is timely to review the state of the Association and consider how it may develop over the next few years. The Association has a unique place within the atmospheric sciences, with very active commissions; good links to organisations such as the WMO, the World Climate Research Programme (WCRP), the Scientific Committee on Antarctic Research (SCAR) and the Scientific Committee on Oceanic Research (SCOR); well-attended highly cross-disciplinary meetings; and has good financial reserves. However, the atmospheric sciences are developing rapidly, with an increasing number of tightly focused groups, which can be useful for advancing a particular project, but can diminish the interdisciplinary linkages, which are becoming increasingly important as the international community seeks to advance sustainability goals. There are also many large conferences taking place that compete with IAMAS and each other for the attention of busy, active scientists. While our future looks good in the short term, it is essential that IAMAS develops to remain a relevant, independent body where the scientific community can conduct and present research that complements the government-oriented activities.

Recent discussions regarding the future development of the Association started at the IAMAS Scientific Assembly in Cape Town, South Africa in 2017 when IAMAS held a plenary session for all members of the Association who were present. At this meeting there was a wide-ranging discussion regarding the Association's role in complementing government-led atmospheric research programmes, outreach, engagement with early career scientists, development of the commissions, as well as the more practical aspects of the organization of our assemblies. Building on the ideas put forward in Cape Town, there was an extended discussion regarding the future of IAMAS at the IAMAS Bureau meeting in Cambridge, UK in April 2018.

The objectives of IAMAS (see the Appendix) provide a strong foundation for the Association and are felt to still be very relevant to the atmospheric sciences today. This strategic plan therefore focuses on how IAMAS could develop within the framework of these broad objectives and considers the structural evolution of the Association.

Main developmental targets

Organisation and structure

The structure of IAMAS is largely based on that of IUGG with a Bureau consisting of the President, the Secretary-General (SG) and two Vice-Presidents. Five Members-at-Large (MaL) promote the work of IAMAS. The Executive Committee consists of the members of the Bureau, the MaL, the Presidents of the commissions and the Past President of the Association. Each member country of IUGG can appoint a Delegate to attend the IAMAS General Assemblies, with the Delegates voting on major policy matters that affect the Association. The Bureau members currently have a monthly teleconference to discuss the day-to-day business of the Association and planning of future assemblies and other forthcoming meetings. The present structure works well, but we propose to make the following changes:

- The Past President provides an essential element of continuity in the operation of the Association and has provided valuable input at recent Bureau meetings. We therefore propose to make the Past President a full member of the Bureau.
- It is increasingly difficult to find scientists who can commit to an initial 8-year term as SG of the Association. We propose that the initial term be changed to 4 years, with a possible extension for another 4 years. This will better reflect the heavy workload of active scientists.
- We will encourage greater gender parity in the selection of the officers and membership of IAMAS and the commissions.
- A clearer role is required for the MaL. New guidelines will be prepared in conjunction with the existing MaL regarding their duties that can be issued when new officers are appointed. One or more of the MaL will periodically be asked to take part in the monthly Bureau teleconference.
- We will investigate introducing an electronic voting system similar to that used by IUGG, in order to allow policy changes to be voted on between assemblies.

Finance

The IAMAS financial reserves are split between the main account in Germany and a working sum at the IAMAS office in Tokyo. Access to the main bank account is restricted to the current honorary treasurer in Germany and the IAMAS President in the UK. We propose to make the following changes:

- IAMAS receives about \$35K a year from IUGG, which it distributes to the commissions to fund their activities after IAMAS has issued a call for bids. The Association also receives a 'head tax' from attendees at the assembly, which it uses to support the participation of early career scientists and scientists from less affluent countries. Clearly, the Association could benefit from additional income to support further activities by the commissions and to obtain some part-time assistance for the IAMAS office. We will explore various funding opportunities, including applying to foundations, obtaining local, regional or global sponsorship and crowdfunding. We will work with the commissions on examining means by which their funding could be increased, such as through having a 'head tax' at some of their meetings.
- In the past, the IAMAS funds have periodically moved around the world and been located in the same country as the SG. There are significant costs in moving large sums of money between countries and we will seek a semi-permanent home be found for the main IAMAS reserves, with the location hopefully spanning the terms of several SGs.
- The IAMAS SG is the treasurer of the Association and is responsible for the overall management of the IAMAS funds. This situation should continue. However, once the bulk of the IAMAS funds are kept in one country we will identify a designated 'honorary treasurer' in that country to control the account. This could be the IAMAS Deputy SG or an officer of one of our commissions.
- Currently, the IAMAS funds are held in current/checking accounts that earn no interest and our reserves are decreasing in value in real terms because of inflation. It is essential that the Association is financially responsible, but there is scope for investing a portion of our reserves in low-risk accounts or funds that give some interest.

- Currently, financial decisions regarding the IAMAS funds are made by the SG and the Bureau. Consideration will be given to the establishment of a Finance Committee that will monitor the financial state of the Association in more detail. This could involve one of the IAMAS Vice Presidents with designated responsibility for finance, along with the SG and possibly one from the MaL.
- IAMAS currently has significant financial reserves and this will be reduced to a more appropriate level over the coming years. The funds released will be used to enhance and promote the activities of early career scientists and the commissions.
- Officers of IAMAS and its commissions are receiving an increasing number of emails that attempt to fraudulently obtain funds from the Association and the commissions. These messages are becoming ever more sophisticated with the perpetrators clearly researching the structure of our organisation and the officers who have access to funds. We will therefore provide advice on good financial practice to the commission officers who deal with significant amounts of money. The Bureau will work with the IUGG Treasurer and other officers of IUGG on developing guidelines for the management of IAMAS and commission funds.

The commissions

The 10 IAMAS commissions are the bedrock of the Association and deal with many important and topical areas of the atmospheric sciences. Some have large, world-leading conferences that attract a large number of scientists from specific fields. Others hold smaller, but nevertheless important workshops on more focused topics.

- The number of IAMAS commissions has not changed since 1989 despite major new and important areas of the atmospheric sciences emerging. We will investigate the creation of one or more new commissions in fields such as tropical meteorology, atmospheric prediction, modelling on a range of scales, synoptic and mesoscale meteorology and atmospheric modelling, which are not covered in detail by the current 10 commissions. We will also investigate the establishment of joint commissions with such bodies as WMO and WCRP. However, the community must lead such initiatives and it will be essential to find scientists who can drive new commissions forward.
- To improve the communications between the Bureau and officers of the commissions, and to highlight issues facing the Bureau, selected officers will be invited to take part periodically in sections of the monthly Bureau teleconferences. We will investigate how frequently this should take place.
- Bureau members will be encouraged to attend the meetings of the commissions, possibly giving a presentation or poster that highlights the work of the Association, with the goal of encouraging the attendees to come to our assemblies.

Recognition of scientific achievements

- The IAMAS Early Career Scientist Medal has been a great success and has raised the profile of the Association amongst the next generation of atmospheric scientists. We will therefore consider establishing additional IAMAS medals to be awarded periodically. This will include examining the possibility of awarding a medal for promotion of the atmospheric sciences in less affluent countries, nations that have not previously been active within IAMAS.

Communications and outreach

- The rapid development of social media offers great possibilities to promote the work of IAMAS and of our commissions, especially amongst Early Career Scientists (ECSs). We will therefore ensure that there are more frequent posts about IAMAS activities on Twitter, Facebook, Instagram and other emerging systems. This should preferably be led by an ECS. This could be the ECS who is an observer on the Bureau or a student close to the location of the SG.
- The IAMAS website (www.iamas.org) and the commission websites (see <http://www.iamas.org/commissions-within-iamas/>) are the main online presence of the organization. The commission websites are currently being brought into the structure of the main IAMAS site so that the commissions do not have to establish and maintain their own sites. Once completed the commission officers will be able to securely update their web pages using standard tools. This will greatly aid the transfer of responsibilities when the officers of a commission change.
- To raise the profile of IAMAS, the MaL will be encouraged to make presentations on the work of the Association and the commissions at regional meetings of other bodies. We will consider making templates of IAMAS presentations that can be used by the MaL and others.
- Consideration will be given to building on existing initiatives to have senior scientists associated with IAMAS mentor scientists from countries with low per-capita GDP.

Collaborations with other organisations and bodies

- In consultation with IUGG, IAMAS will review how to develop its links with other international organisations and bodies. An officer of IAMAS is a member of the Executive of SCOR, which has proved to be a valuable means of contributing to a number of international programmes and raising the profile of the Association. We will therefore examine developing better links with other organisations in order to promote the atmospheric sciences and the work of IAMAS.
- IAMAS and the commissions will raise scientific issues with bodies concerned with atmospheric observation, such as the ESA Space Advisory Committee on Earth Observation, the Group on Earth Observation and the Committee on Earth Observation Satellites.
- In 2015, IAMAS entered into an agreement whereby *Advances in Atmospheric Sciences* (AAS) became IAMAS's associated journal, publishing meeting reports, IAMAS news and papers from our medal winners. This relationship has proved very successful and raised the profile of the Association. We will encourage scientists associated with IAMAS to submit more papers to the journal and explore the other IAMAS-related material that could be published.
- Since the time of its formation, IAMAS has had close links with the International Meteorological Organization and its successor the WMO. Cooperation has been maintained via a scientist who acts as the formal IUGG contact to the WMO. In conjunction with IUGG, we will seek to build this cooperation through promoting the WMO-IAMAS links via reports in the AAS journal, featuring articles on WMO activities in the IAMAS Newsletter and encouraging WMO involvement at our assemblies.
- IAMAS is a member of the International Forum of Meteorological Societies and we have taken part in a number of their meetings. We will contribute to the development of IFMS and promote their work. However, we are not a society in the same sense as the many national meteorological societies and we have no plans to take part in professional meteorology accreditation schemes.

Early career scientists

- We will work closely with the members and leaders of ECS organisations, such as Young Earth System Scientists (YESS) and the association of Polar Early Career Scientists (APECS), on ensuring that the views of ECSs are taken into account when planning the activities of IAMAS. Consideration will be given to establishing a group for ECS involved in the atmospheric science, either of our own or with some other organization involved with ECSs.
- In order to have better engagement with ECSs and to obtain their input on management of the Association, an ECS will be found to take part in Bureau meetings as an observer.
- As noted above, an ECS will be employed for a few hours a week to drive forward IAMAS communications via social media and other means. This could be a student, possibly of communications, and preferably located close to the SG or one of the other Bureau members.
- The commissions will be encouraged to bring ECSs into their membership and management groups to ensure that the views and requirements of the next generation of scientists are taken into account.
- We will hold ECS events at all our assemblies and also encourage the commissions to do likewise at their workshops and symposia.
- We will maintain an email list of scientists who are active within the Association and the commissions so that assemblies can be promoted from the first announcement onwards.
- Consideration will be given to having an IAMAS booth at large meteorological meetings, such as the annual American Meteorological Society conference. This could possibly be shared with staff from the AAS journal.
- We will work with the assembly local organizing committees to ensure that the meetings are relevant to the working practices and expectations of the current generation of scientists. This will involve ensuring that there are adequate childcare facilities, the meetings are secure and there is a suitable accompanying person's programme. We will also consider other ways we can help conference participants with children.
- While we would encourage scientists to attend our assemblies in person, we are aware that many scientists do not have the financial resources for this to be possible. We will therefore make selected presentations, and especially keynote talks, available online via free services such as YouTube. Efforts will be made to stream some presentations in real-time where possible.

The assemblies

Our scientific assemblies are the highest profile activities of the Association, bringing together a large part of the atmospheric sciences community for world-leading scientific symposia, workshops, and IAMAS and commission business meetings. The attendance at these meetings remains high but we must keep them relevant to the needs of the community and promote them by all possible means.

- We will ensure that world-leading scientists are invited to give keynote addresses at our assemblies, as these are seen as a major draw by many attendees.
- We will attempt to schedule the assemblies so as not to clash with other major atmospheric sciences-related events.
- Senior officers of organisations with a strong involvement in the atmospheric sciences, such as EGU, AGU, COSPAR and AOGS will be invited to participate in our assemblies, with the goal of further developing collaborations at the IAMAS and commission levels.
- IAMAS and the commission officers will attempt to solicit topics for symposia from a wider range of atmospheric scientists, such as members of the commissions, university departments and research institutes.

Implementation

We suggest that these changes be implemented following agreement of the strategy at the 2019 General Assembly in Montreal, with the goal of implementing the changes by 2027. Some changes will require the IAMAS statutes to be revised, but this could be done via email once there is agreement on electronic voting.

- The implementation will be coordinated by the Bureau and progress will be monitored via a standing item on the agenda of the monthly Bureau teleconference.
- Advice will be sought on the implementation priorities from the Delegates and the Executive Committee.
- We will work closely with IUGG through the implementation and we will provide updates at the IUGG Executive Committee meetings.
- Biennial updates on the progress of implementation will be provided at the Executive Committee meetings.

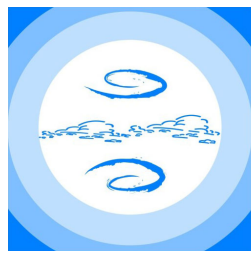
Summary

The atmospheric sciences are developing rapidly, alongside the means by which scientific information is disseminated and scientists interact. It is essential that IAMAS and its commissions maintain their central position within the atmospheric sciences, with high profile and topical activities, and relevant and well-attended scientific meetings. It is hoped that the changes proposed within this Strategic Plan can be implemented over the coming years to keep IAMAS at the forefront of the atmospheric sciences as the Association moves into its second century.

Appendix

The objectives of IAMAS as stated in the Statutes:

1. To promote study of the sciences of the atmospheres of the Earth and other celestial bodies, and of the interactions of the Earth's atmosphere with society and with other components of the Earth system.
2. To initiate, encourage, facilitate, and coordinate international cooperation in scientific research.
3. To stimulate discussion, presentation and publication of scientific results.
4. To facilitate the education, development, and participation of early career scientists and atmospheric scientists from countries with low per-capita GDP (hereafter referred to as resource-limited countries) in international scientific assemblies and conferences.
5. To recognize leading scientific accomplishments and scientists.
6. To promote communication about the atmospheric sciences within and across the international scientific community.
7. To convey the collective views of the atmospheric science community to other organizations.
8. To promote public education and awareness of the role and importance of the atmosphere and atmospheric sciences.



IAMAS

The International Association of Meteorology and Atmospheric Sciences