

Thirty Years of *ScienceAsia*, *Journal of the Science Society of Thailand*

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The realization that *ScienceAsia*, *Journal of the Science Society of Thailand* (JSST) has just completed 30 years of operation is a sobering thought for someone of my generation, since we grew up scientifically alongside the journal, and perhaps it's as surprising to the young Thai scientists to think of a time when there was no JSST. In this Editorial, I would like to review the history of the journal, and summarize the current status of *ScienceAsia*, in relation to the scientific situation in Thailand.

JSST was founded in 1975, as result of a recommendation of a subcommittee, chaired by Dr. Kamchad Mongkolkul, who later became President of the Science Society of Thailand (SST) for three terms. The subcommittee noted that the society already had an educational and general interest Thai-language journal *Science* ("Witthaysart" in Thai), but needed another journal JSST to serve the interests of the research-oriented and professional section of the society, by publishing original research work done in the country and elsewhere. The journal was renamed *ScienceAsia*, in 1999, in the hope that it would extend coverage to the Asian scientific community, as well as to Thai scientists. Like Professor Yongyuth Yuthavong, the first Editor of JSST, I was involved from the start, not only as a member of the Editorial Board, but also as a contributor of one of the four research articles in the first issue.

The journal has maintained its editorial policy as an English-language quarterly journal for publication of original research work in science and mathematics. Articles should include scientifically useful data, observations or model predictions, and/or provide a new scientific concept or a new explanation of published results. However, other materials of scientific interest, especially of more applied nature such as engineering, may also be accepted if there is sufficient scientific merit. Over the 30 years of operation, there have been only five Editors: Yongyuth Yuthavong (1975-1984; 1999-2000); Jisnuson Svasti (1985-1987; 2001-present); Yodhatai Thebtaranonth (1987-1989); Prapon Wilairat (1990-1991); I-Ming Tang (1992-1998). The journal has had its ups and downs, with the number of articles published per year ranging from 13-55 articles per year (Fig 1).

ScienceAsia, JSST has always aimed at being international. For many years it was listed in the Institute for Scientific Information (ISI) Science Citation Index (SCI), but this was discontinued, presumably due to delays in publication in the early 1990's. However, the journal is still indexed in various international databases, such as PubMed, CAPLUS, and Thomson Master List of Journals. As science developed in Thailand and more scientists were trained, the number of publications in SCI-listed journals from Thailand increased by 12 fold in 25 years, from about 153 articles per year in 1977 to 1,822 articles per year in 2002. At the same time, many more journals are now being published, not only by professional societies, but also by universities and faculties. Unfortunately, a major interest of some educational establishments in starting their own journals recently, is to provide their staff with a vehicle for publishing papers, so that they can apply for academic advancement. However, it is not always easy to achieve impartiality when authors and reviewers come from the same institution.

As a result of the recent proliferation of local journals, various funding agencies, such as the Thailand Research Fund (TRF) and the National Science and Technology Development Agency (NSTDA) have tried to emphasize on quality, by requiring that grant recipients publish their results in "international journals". In particular, there has been greater awareness of the journal "Impact Factors", published

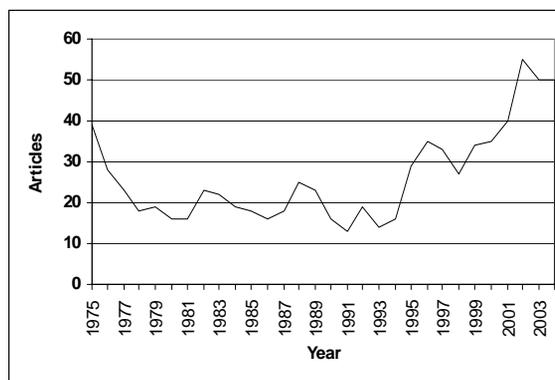


Fig 1. Number of articles published each year in Journal of the Science Society of Thailand and *ScienceAsia* between 1975-2004.

in the Science Citation Index, which have now become general considerations in the evaluation of grants, awards and academic positions. At the same time, it is not always easy to do research in Thailand, and often research problems are in niche areas of local relevance, which may be more suited to journals of international quality published in Thailand. Thus, TRF and NSTDA have established guidelines that allow a journal published in Thailand to be categorized as being "international". These are a) 25% of the Editorial Board should be of professorial level, or overseas researchers of equivalent level; b) Referees should be experts in the field, still active in research, of whom 25% should be from overseas; c) At least 10% of papers should be from overseas; d) There should be an evaluation of quality every 2 years.

This evaluation is actually helpful in making editors take stock of the status of their journal every two years. As an example, I would like to summarize the status of *ScienceAsia* for the period January 2003-December 2004. During this period, 195 papers were submitted to *ScienceAsia*, of which 143 completed processing by the end of 2004, and 52 were carried over until the following year. Of the 143 papers processed, 79 were accepted, representing an acceptance rate of 55.2%, while 39 (27.3%) were rejected, 18 (12.6%) had no response from the authors for 4 months, and 7 (4.9%) were withdrawn. Of the papers processed, decisions were made on the original manuscript in 34.5% of cases, while 44.8%, 17.2%, and 3.4% of the papers required 1, 2, or more than 2 revisions respectively.

Classification of subject areas is always difficult, especially in a multidisciplinary journal like *ScienceAsia*. A somewhat arbitrary classification has been applied to the papers published in *ScienceAsia* for the years 2003-2004 (Table 1). As can be seen, the major subject areas, which are Biological Science, Chemistry, Physics, Mathematics, and Engineering, cover some 77% of all papers. Biological Science continues to be the major area of focus (44%), but this is not entirely surprising, since it covers a very broad area, including classical biology, plant tissue culture, molecular biology, enzymology, immunology and virology. Interestingly, Engineering is now the second most popular field. In addition, other groupings are of interest, such as Agriculture, which draws papers from other Asian countries, as well as Environmental Science, which mainly covers waste remediation by both biological and chemical approaches, and the rather esoteric area of Geology/ Paleontology.

Examination of the addresses of the corresponding authors (Table 2) indicates that of the 195 papers submitted in 2003-2004, 31 (16%) came from 12 overseas countries, fulfilling the requirement of the TRF/NSTDA guidelines for international journals

Table 1. Number of articles submitted to ScienceAsia between 2003-2004 in different subject areas

Field	Number	%
Agriculture	17	8.7
Biological Science	86	44.1
Chemistry	16	8.2
Engineering	27	13.8
Environmental Science	14	7.2
Geology/ Paleontology	8	4.1
Mathematics	10	5.1
Physics	16	8.2
Other	1	0.5
Total	195	100

Table 2. Countries of origin of overseas corresponding authors submitting articles to ScienceAsia between 2003-2004.

Country	Number	Country	Number
Bangladesh	2	Jordan	2
China	1	Malaysia	5
Egypt	2	Pakistan	3
India	8	Sudan	2
Iran	1	Turkey	1
Japan	1	USA	3

Table 3. Institutional affiliation of local authors submitting articles to ScienceAsia between 2003-2004

Institution of Corresponding Author	Number
Asian Institute of Technology	2
Burapha University	6
Chiangmai University	24
Chulalongkorn University	20
Khon Kaen University	5
King Mongkut's Institute of Technology Ladkrabang	3
King Mongkut's University of Technology Thonburi	6
Kasetsart University	20
Mae Fah Luang University	1
Maharakham University	6
Ministry of Agriculture	2
Ministry of Information & Communication Technology	1
Ministry of Natural Resources and Environment	3
Mahidol University	21
Naresuan University	1
National Institute of Development Administration	1
National Science & Technology Development Agency	7
Prince of Songkhla University	10
Srinakarinwirot University	4
Suranaree University of Technology	8
Thammasat University	9
University of Thai Chamber of Commerce	1
Ubon Rajathanee University	1
Others	2
Total	164

published in Thailand. Perhaps, it is even more interesting that the remaining 164 papers came from 20 universities, 3 government ministries, and 1 semi-governmental science agency (Table 3). This clearly shows that *ScienceAsia* has won wide acceptance by the academic community throughout the nation, which would have been impossible with a journal published by any one academic institution.

In terms of operation, *ScienceAsia* has been fortunate in receiving support from various agencies. TRF, the Science Society of Thailand (SST), and the Commission for Higher Education have provided financial support for many years, while NSTDA have provided office space and operational assistance. In addition, web facilities (<http://scienceasia.tiac.or.th>) are provided by the Technical Information Access Center (TIAC). The Editor is appointed by SST for a renewable two year term, and has complete freedom (and responsibility) in arranging for all aspects of publication. Fortunately, support from the academic community has been tremendous. The editorial staff includes two Managing Editors and three Associate Editors. One Managing Editor, Dr. Soontaree Benjavongkulchai, handles manuscript processing, and the other Managing Editor, Mr. Supachai Lorlowhakarn, currently the Director of the National Innovation Agency, deals with lay-out and printing. Two Associate Editors, Drs. James Ketudat Cairns and Prachumporn Toonkool, are responsible for editorial and language corrections, and a third Associate Editor, Professor Worachart Sirawaraporn, has recently been appointed to assist with electronic publishing and internet aspects. The Editorial Board numbers 30 experienced and active researchers, 7 (23%) of whom reside abroad, and 28 (93%) of whom are full professors, greatly exceeding the TRF/NSTDA international journal requirement of 25% full professors. However, *ScienceAsia* relies heavily on other reviewers apart from the Editorial Board. Thus the 195 papers in 2003-2004 were subjected to some 463 reviews (an average of 2.34 reviews/paper), with 139 reviewers (30%) coming from abroad and 169 reviewers (36.5%) being professors. This also fulfils the TRF/NSTDA international journal requirement of having 25% of reviewers from abroad.

From the above analysis, *ScienceAsia* amply fulfils the requirements of the TRF/NSTDA guidelines for international journals published in Thailand. This has been done, not through any conscious effort to adhere to any guidelines, but more through an attempt to produce a high quality journal, published on time. After 4 years of my second term as Editor, it has become clear to me that good quality refereeing, efficient manuscript handling, and adherence to publication schedules is appreciated by our contributors. As a result, the journal now has sufficient numbers of papers to be more

selective. Moreover, a greater number of papers are being received from other Asian countries, so *ScienceAsia* has gained wider recognition within the Asian region. Understandably though, the best papers from Thai scientists are still being sent to overseas journals listed in SCI. Perhaps, we, the more senior and more accomplished Thai scientists, should consider sending part of our higher quality research work to *ScienceAsia*, instead of to more prestigious overseas journals, in a collective effort to enhance the status of "our journal". Then, perhaps, Thai and foreign scientists may send in their best work to *ScienceAsia* without reservations.

In the mean time, I will do my best as Editor to make *ScienceAsia* a truly international journal. Application has again been made for re-evaluation by Science Citation Index. Successful or not, I earnestly hope that *ScienceAsia* will continue as the flagship of Thai science journals. It has been a privilege to have served as Editor of *ScienceAsia*, at the time the journal celebrates its 30th anniversary. Soon, it will be the time for the next generation of Thai scientists to take over, not only as contributors, but also in editorial capacity, and ensure that *ScienceAsia* continues to develop and serve the future generations of Thai and overseas scientists.