

TEN YEARS OF SEAMS*

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0. INTRODUCTION

The Society was formed in 1972. It was the result of a South-east Asian tour by our founding president Professor Wong Yung Chow of the University of Hong Kong. With the support of the mathematicians in the region, the inaugural meeting of the Society was held in July 1972 in Singapore. After ten years of existence, it is now time to review what we have done and to look ahead what we should do in the next few years.

The difference in years between 1982 and 1972 as far as the Society is concerned is a "large number". The changes in the mathematical scene in the region are great and significant. We have come a long way from not knowing each other to knowing each other and working together. The Society is growing and is growing rapidly.

I apologize for the fact that this review has to be organizational and non-mathematical in nature. I look forward to the day when the presidential address will be strictly mathematical, then the Society will have come to age.

1. THE PAST

Each member country of the Society has very different historical background. Malaysia and Singapore were British before, Indonesia Dutch, and the Philippines Spanish and then later American. For a long time, London seems nearer to Singapore than Manila. A letter sent from Singapore would reach London faster than Manila. So we had to go through the process of getting to know each other, understanding each other and finally co-operation. It is by no means a short and easy process.

We must know each other first before we can talk about understanding. Unless and until we understand each other, there can be no

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co-operation. It took exactly ten years for us to get through all the three steps.

The past ten years can be roughly divided into three phases. For the first few years, we organized general conferences. This was necessary in order to get to know each other. Phase two started in 1977 when we conducted the first workshop on finite elements in Penang. The workshop was sponsored by UNESCO. Henceforth we organized many other workshops on different topics and received constant support from UNESCO.

Biennial meetings of the Society were held every two years at different places. These were the meetings where mathematicians came to report their research findings and to exchange their views on the development of mathematics and mathematical education. It also helped to generate local activities at the place where the meeting was held. Here is a list of the places where the biennial meetings were held.

1972	Singapore
1974	Penang
1976	Bandung
1978	Bangkok
1980	Hong Kong
1982	Manila
1984	Thailand (proposed)

There were several series of meetings going on in the last few years. One of them is the Southeast Asian Conference on Mathematical Education. The first one was initiated by Professor Yukiyosi Kawada who was the secretary of ICMI (International Commission on Mathematical Instruction) at the time. The conference was held in Manila in 1978. There were over one thousand teachers from the universities and schools participating in the conference. Most of them are from the Philippines. The impact was tremendous. It was not just the conference itself. It was also the amount of preparation that went into it before the conference and the number of projects following the conference afterwards.

The second conference was held in Kuala Lumpur in 1981. It was one of best attended regional conference. It led us to decide that a third conference be held. The time as proposed will be 1984 and the place Thailand.

Another series of meetings is the Franco-Southeast Asian

Mathematical Conference. The first was held in Singapore in 1979 with the participation of ten well-known French mathematicians. That meeting also established the format of many other meetings that followed, namely, two workshops for one or two weeks followed by a general conference. The second one was held in Manila in 1982. This series of meetings has made a significant contribution toward the mathematical research in the region. It is proposed to hold the third Franco-Southeast Asian Mathematical Conference in Kuala Lumpur in 1985.

We are now entering phase three. We shall have the first graph theory colloquium in 1983 in Singapore. This will be a research seminar. We call it colloquium just to differentiate it from all other meetings we had before. We should not only learn but must also after a while produce. The results of the colloquium will be published as a proceedings by an international publisher. If successful, this will be repeated in other research fields.

Over the years the two main objectives of the Society remain to be

- 1) upgrading mathematics teaching in the region;
- 2) stimulating mathematical research in pure and applied fields.

We have maintained the momentum of having two meetings almost every year for the past ten years. This surprised many of our friends and even ourselves. The number of participants benefiting from these meetings increases every year.

The two developed countries that helped us a great deal are France and Japan. They sent some of their best mathematicians to help conducting workshops and to speak at the general conferences. For example, six Japanese mathematicians were sent to a conference held in Singapore in 1981.

Other than the host countries which organized many conferences the Society received generous support on many occasions from Lee Foundation through the Lee Kong Chian Institute of Mathematics.

Several national societies were also formed during the period. The Mathematical Society of the Philippines was established in 1973. Since then, it has worked closely with SEAMS in building up Ph D programme in the Philippines. After the first regional conference held in Bandung in 1976, as a result the Indonesian Mathematical Society was formed. Also the Centre for the Promotion of Mathematical Research in Thailand was established in 1978, and recently the Hong Kong Mathematical Society.

2. THE ISSUES

The most important issue is, I am afraid, not academic but social. I am referring to the low salary of university teachers in some member countries, plus heavy teaching duties and lack of research facilities. It is essential to know the size of this problem and many other related problems because the size of the problem very often changes the nature of the problem.

Next is to have enough teachers with postgraduate degree. Sending them overseas for training is often one way traffic. For those who come back,, they are often promoted quickly to administration. However there is now a successful programme carried out in the Philippines to train Ph D students. So far five have graduated and more are to come.

It is not too difficult to obtain scholarships to send students abroad. After their return, it is then not so easy to keep them mathematically alive and to further their research.

Concerning research, we are still trying to reach a critical mass. For choice of research topics, we must select and then concentrate.

Despite of all our effort, we have not been able to solve the seemingly simple problem of having common holidays to hold our regional meetings.

3. THE PRESENT

Now each member country has its own national organization. They are all actively involved in the development of mathematics. SEAMS rely on the local support in the member countries for the organization of regional programme.

Financially, SEAMS is supported partially by UNESCO, Lee Foundation through the National University of Singapore, subscriptions from the members and the sale of the Bulletin.

As it stands now, I believe we have achieved at least the following :

- 1) We have brought together the mathematicians in the region.
- 2) We have organized many workshops and conferences.

- 3) We have generated local activities in member countries.
- 4) We published a quarterly Newsletter and a half-yearly Bulletin.

4. THE FUTURE

We work for a weak SEAMS but strong national societies. At the initial stage SEAMS did most of the planning and organization. Gradually the national societies were formed and became more involved in regional activities. Eventually we hope the national societies will take over most of the work presently done by SEAMS, and SEAMS will serve only as a coordinating body.

We also hope for better international link and possibly more support through the link. As far as I can see now, we shall still need such support in the near future until such time that we have strong national societies.

We shall carry on with our work in the two main directions, namely, upgrading mathematics teaching and stimulating research. To do that, we shall have more special topics colloquia and less frequent general conferences. We have discussed this in length at a recent council meeting in Manila. This will be our guideline for the phase three programme. We shall be implementing this in 1983 and thereafter.

The programme for the next few years is as follows :

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| 1983 | Graph Theory Colloquium
May 10 - 28 Singapore |
| | Regional Workshop on Engineering Mathematics
July 26 - August 2 Bandung, Indonesia |
| 1984 | Third Southeast Asian Conference on Mathematical
Education
Haad Yai, Thailand |
| | Workshop on Computer Programming
Manila (proposed) |
| 1985 | Third Franco-Southeast Asian Mathematical Conference
Kuala Lumpur |

1985 Analysis Colloquium
Hong Kong

1986 Colloquium
Singapore (proposed)

The theme of the educational conference in 1984 will be "mathematical education in the computer age". The emphasis of the Franco-Southeast Asian meeting will be on computer-related mathematics or mathematics in relation with computers.

As I have said elsewhere before, I have confidence that what we hope for will come true one day.

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