

# International Statistical Education Newsletter

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## EDITORIAL

A number of important questions have arisen recently, particularly through the Education Committee, but space is short in this issue of ISEN, and they must be kept for a future issue. In view of the possible expansion of ISEN, however, readers are encouraged to submit articles of general interest for possible publication to the editor.

## EDUCATION COMMITTEE

### REPORT ON THE MEETING OF THE ISI Statistical Education Committee Voorburg 7-8 December 1984.

This meeting was attended by V. Barnett, H. Ben-Amor, J. Gani (Chairman), R. A. Horvath, R. M. Loynes, R. P. Mentz, L. Råde, C. R. Rao, M. H. Regier, and E. Lunenberg.

The meeting began with the approval of the minutes of the Madrid meeting in September 1983. Some discussion followed concerning the relations of the Education Committee with the ISI Research Centre; some well-defined projects might in future be submitted by the Committee to the Centre for implementation.

The Committee considered International Statistical Training Centres, and in particular the Chairman's recent recommendations about ISEC Calcutta. For example, the ISEC Certificate of Merit was currently being replaced by a Diploma of Statistical Training. The Committee wished to encourage regular meetings of Directors of Training Centres, and hoped to prepare a revision of the current list of Centres.

Some recent and forthcoming meetings were reviewed, among them ICOTS II which was to be held at Victoria, Canada in 1986. The Canberra Round Table Conference proceedings would appear shortly. Dr. Mentz reported on the progress of the Latin American Regional Committee and mentioned its plans for a regional

meeting. The Committee agreed to meet in Amsterdam in August 1985 on the occasion of the 45th Session of the ISI.

The Committee discussed publications. ISEN was to be expanded slightly, and would include articles of general interest. The possibility of producing monographs, an annotated bibliography of publications on the teaching of statistics, and directories of statistical groups and short courses was raised. Teaching aids were also considered, as was also the new edition of the Directory of Statistical Terms by Kendall and Buckland.

The Committee reviewed its activities with IASS and heard Dr. Loynes' report on the Statistical Training Programme for Africa. Dr. Rao also reported on recent developments in the Philippines.

The Committee considered the allocation of available funds for 1985 and agreed to support the purchase of a micro-computer for ISEC, Calcutta and provide some seed money for the Latin American Programme. Appreciation was expressed to Dr. Ben-Amor for UNESCO's continuing support of the ISI Statistical Education Programme.

The Committee agreed on some terms of reference for its functions, and discussed its future organization before concluding its deliberations. A full report of the Committee's activities will be placed before the ISI at Amsterdam in August 1985.

J. Gani, Department of Statistics, University of Kentucky.

## REPORTS FROM ROUND THE WORLD

### STATISTICAL EDUCATION IN TANZANIA II

3. Eastern Africa Statistical Training Centre (formerly the East African Statistical Training Centre) The East African Statistical Training Centre was established in July, 1965 under the joint sponsorship of the United Nations Economic Commission for Africa and the East African Common Services Organization (EASCO) which was later transformed into the East African Community. Its main objectives are to train sub-professional statistical personnel of the East African region at various levels.

In its beginning, the two sponsoring agencies agreed that the United Nations would provide fellowships, equipment and the Director for the Centre, while EASCO would arrange for the remaining requisites i.e. offices, lecture rooms, student accommodation, lecturers and supporting staff. However, this joint sponsorship came to an end in 1972 when the United

Nations withdrew its support and handed the Centre to the East African Community. When the East African Community dissolved, the Centre became dependent on the support of the Government of Tanzania.

In recognition of its regional and international nature, the name of the Centre was changed in April, 1978, to the present one: Eastern Africa Statistical Training Centre. Its Advisory Board includes as its members the Directors of Statistics for Kenya, Uganda, Sudan, Seychelles, Zambia and other participating governments.

The Centre runs two ten-month courses, one at the Certificate level and the other at the Diploma level. They are open to statistical personnel of government offices and parastatal organizations of the East African region. Requests to admit students from other parts of the continent are also considered. Candidates who intend to join the Certificate and Diploma courses must pass an entrance examination set by the Centre

each November and they must be sponsored by their respective governments.

### 3.1 The Certificate Course

This 10-month course covers the following subjects: statistical theory, applied statistics, mathematics, economics, practicals and field project.

The entrance requirements are the holding of the ordinary level certificate of education with passes in Mathematics and English (the equivalent of the secondary school graduation diploma), and at least one year's working experience in statistical assignments.

From 1965 to 1980 the Centre has trained 461 Certificate-level statistical personnel from 12 countries, though the great majority have been from Tanzania, Kenya, and Uganda.

In the 1984/85 academic year there are 48 students from 8 countries, with about half from Tanzania.

### 3.2 The Diploma Course

This 10-month course covers the same six subjects listed above for the Certificate-level course but they are taught at a more advanced level. The entrance requirements are the possession of the Centre's Certificate or its equivalent (e.g. Stage I certificate of the Institute of Statisticians in the U.K.). The Diploma Course is considered as equivalent to Stage II of IOS.

From 1966 to 1980 184 students were admitted to the Diploma Course from 8 countries.

In the 1984/85 academic year, there were 36 diploma students from 9 countries.

Each year, the trainees of both Certificate and Diploma courses take part in a 4-week field work exercise comprising a statistical survey on a special project which includes data collection and statistical analysis of the data. For example, in 1981/82 the field project was a statistical survey of squatter settlements in Mbeya urban area in southern Tanzania.

### 3.3 8-week Short Course

Each year from mid-April to mid-June the Centre also runs an 8-week short course on basic statistical methods and applications for personnel without prior knowledge of statistics who may be required to perform non-complicated statistical assignments. The 8-week course offers a good preparation for those who aspire to join the certificate course.

### 3.4 Teaching Staff and Facilities

Since its inception, the Centre has been accommodated at the main campus of the University of Dar es Salaam where it occupies 4 offices and 2 lecture rooms. The students are housed at the University's halls of residence and are free to utilize the University library and other socio-cultural facilities.

However, increasing enrolment at the University of Dar es Salaam has made it almost impossible for the University to continue accommodating the Centre. The Centre has an urgent need to acquire or construct its own premises which should include an office block, lecture rooms, staff houses and student accommodation.

The full-time staff in 1985 numbers seven, of whom 3 are on study leave. Assistance in teaching Official Statistics is provided by the Tanzanian government statisticians, and there is a Demography Expert from the UNECA.

In 1979 the syllabus for the Certificate-level course was reviewed with the assistance of a representative of the Institute of Statisticians. As reported in the Professional Statistician (October 1982), it was found that "the lower, or Certificate, level is in fact rather higher in standard than other similarly-named courses." The syllabus for the Diploma course was also thoroughly revised. "The revised Certificate and Diploma syllabuses were the foundation of recently-agreed syllabuses for the whole of the ten-year Statistical Training Programme for Africa" reported the Professional Statistician.

### 4. The Needs for Assistance Towards Further Development

We hope that it is evident from the previous paragraphs that the Eastern African Statistical Training Centre

and the University of Dar es Salaam have the foundation and potential to become excellent regional centres of statistical education. However, further progress is difficult to achieve without external help as Tanzania has been living through the most severe financial strains in the last few years.

In the "Report of the International Statistical Institute Committee on the Integration of Statistics", reference is made to "gaps between statisticians in developed countries and those in less developed countries". The gaps are indeed very wide! Yet with some concerted efforts by the international organizations these gaps can also be much reduced in size.

In conclusion it is intended to mention briefly some of the urgent needs of both institutions.

(i) The students need textbooks in all statistical subjects beginning with first courses in statistical theory and methods.

Because of the acute shortage of hard currency, Tanzania has been unable in recent years to import foreign textbooks and there are no locally published books in statistics. Students have therefore been studying without textbooks. While the United States of America and Britain have many discarded older-editioned textbooks in first courses in statistical theory and methods, Tanzanian students would be happy to secure these books to facilitate their studies.

In fact with the rising prices of textbooks published in the United States becoming a serious burden even for Canadian Students, a better solution to the problem of textbook shortages for lower-level courses in Tanzania is to have them written by Tanzanian lecturers and printed for local use. But the Tanzanian university departments are even short of good typewriters and copying machines. Photocopying costs more than U.S. 50c per page! One possible solution lies in cooperation between Tanzanian lecturers and interested lecturers in the developed countries to jointly prepare texts in specific subjects. One such attempt is being made by the authors to write a text in statistical theory with financial assistance from Carleton University and the Canadian International Development Agency. Statistical Theory I has been prepared by Tan and Mwasele, (1983).

(ii) The University Library needs recently published books and research journals.

The University of Dar es Salaam Library has had very few new books in the last five years. Research journals are strikingly missing. When a lecturer was recently urged to include a research proposal in an application for a fellowship for Ph.D. studies abroad, he was at a loss to find relevant information on recent advances in his field of speciality because of the lack of current journals in the library.

Tanzania has been given financial and technical aid by several European and Canadian international development agencies. It would be most helpful if every donor country could also provide support to the university library for subscriptions to foreign books and journals. On his recent visit to Canadian universities, the Vice-Chancellor of the University of Dar es Salaam stated that "the shortage of foreign currency in Tanzania has made book and journal purchases very difficult for the University of Dar es Salaam".

(iii) The University and the Eastern Africa Statistical Training Centre are both in need of specialists in certain areas of statistical education for the improvement of their programs. For the Department of Statistics, specialists are needed in the areas of sample survey, design of experiments, statistical theory and statistical computing.

(iv) The Tanzanian lecturers need contacts and links with specialists in the developed countries for their professional advancement.

The four major needs listed above are probably shared by many developing countries. But why is help so slow in coming from the international statistical community?

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Carleton University, Ottawa, Canada,  
and

M.G.Y. Mbago, Department of Statistics, University of  
Dar es Salaam, Tanzania.

Corrections: (1) The 4th line of section 2.1 of Part I of the article by Tan and Mbago was omitted, and should read 'East Africa for students of economics', (ii) The Ph.D. mentioned later in section 2.1 was not the first in any subject - the Editor apologises for this misunderstanding.