

**UNITED NATIONS STATISTICAL INSTITUTE FOR ASIA AND THE PACIFIC**

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in Asia and the Pacific**

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**A NETWORK FOR PARTNERSHIP OF NATIONAL STATISTICAL AGENCIES AND  
NATIONAL STATISTICAL TRAINING INSTITUTES OF COUNTRIES IN THE  
ASIA-PACIFIC REGION**

*By the Staff of the Statistical Institute for Asia and the Pacific embodying comments and suggestions made on a First Draft by the 2<sup>nd</sup> Workshop on Forging Partnerships in Statistical Training in Asia and the Pacific held in Bangkok in November 2004, with contributions from Gonzalo M. Jurado, Consultant.*

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## I. BACKGROUND

### A. Terms of Reference

The First Workshop on Forging Partnerships in Statistical Training in Asia and the Pacific held in Bangkok in November 2002 noted the ever mounting need of national and international statistical offices and organizations for official statistics to satisfy requirements of local development and global relations. To fully meet such demand, the Workshop proposed the establishment of a network among national statistical agencies (NSAs) and national statistical training institutes (STIs) of the countries of the Asia Pacific region. Such network must specifically (i) improve the efficiency and effectiveness of national statistical systems, (ii) facilitate coordination and communication between national statistical agencies (NSAs), (iii) strengthen the STIs' individual training capabilities, (iv) align their statistical training programs to international priorities without prejudicing their right to carry out programs specific to their own country needs, and (v) disseminate best practice and exchange expertise amongst them. Success in achieving these ends, as the Workshop observed, will help enable the national statistical system, and specifically the NSAs, in responding efficiently and effectively to national and international obligations.

### B. Objectives of the Paper

This paper, in response to the proposal of the Workshop, puts forward an operational framework for the establishment of a network among the national statistical agencies and statistical training institutes of the countries of the Asia Pacific region, with tasks as described above. The paper begins with a description of the current state of statistical training in the region in Section II. It then lays down the building blocks for a network to link NSAs and STIs of the countries of the region in Section III, outlines the basic features of participating agencies and institutes in Section IV, describes the critical elements of the network in Section V, and explores financing options for the network in Section VI. In the Concluding Section, the paper anticipates that the Workshop may want to implement in the next year or two some of tasks described to move networking from the world of ideas to the world of action.

## II. CURRENT STATE OF STATISTICAL TRAINING\*

### A. National Statistical Agencies in the Asia-Pacific Region

Central to the national statistical system (NSS) of the countries of the Asia-Pacific region, where the NSS is defined as consisting of all agencies, public and private, national and local, that have responsibility for collecting quantitative information indispensable to the formation of official statistics, the national statistical agency (NSA) is the country's premier institution for collecting, compiling, and disseminating statistics on the various dimensions of the national society for use of government for policy-making, of business for decision-making, of academe for research, and of the public for

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\* For a detailed summary of the current state of statistical training in countries of Asia-Pacific as gleaned from the responses of the 11 countries to SIAP's questionnaire, see Appendix 1: "Statistical Training Programs in Countries of the Asia-Pacific Region: A Consolidated Summary."

self-enlightenment. The technical quality of its personnel is vital to the success of the NSA in attaining its goals. Thus, in carrying out its mandate, the NSA continuously trains its personnel in the various aspects of statistical work to enable them to contribute more effectively to the agency's efforts and programs to achieve its mandate.

## **B. Statistical Training Institutes**

The majority of countries in the Asia Pacific region have statistical training institutes (STIs) that serve as adjuncts to the national statistical agency. In a few cases, the STIs were established independently of the NSA. The institutes tied-up to the NSA are mandated to specifically serve their NSA though they also can and do accommodate non-NSA personnel. The mandate of the independent minority is broader – to accept every candidate, whether NSA or non-NSA staff, in their training programs, so long as such admission is permitted by the institutes' operative constraints. On the other hand, several of the countries had no training institutes and relied mainly on international agencies for assistance in conducting training programs.

The institutes are common in their objective: to provide statistical training to people in the statistics and related professions to improve their ability to contribute to the strengthening of the country's statistical system. In practice they differ in their capabilities for attaining this objective. Some are large in terms of staff and equipment but some others are modest in physical capability. Constraints, including the size and availability of budgetary funds, are tighter in some institutes than in others.

## **C. Current Training Programs**

### **1. Scope**

The courses or subjects taught in the Institutes are wide-ranging, beginning from introductory theoretical statistics, to official statistics, to information technology subjects. A partial listing includes:

- Turning Data into Information \* Basic Statistical Analysis \* Introduction to Sampling Techniques \* Basic Survey Design \* Understanding Demographic Data \* Principles of Questionnaire Design \* Data Management \* Quality Informed Decisions \*
- SAS Operation and Data Analysis \* SPSS Operation and Data Analysis \* Price Surveys \* Statistical Interview Methods \* Understanding Financial Statements \* Classifying Industries \*
- The System of National Accounts \* Environmental Statistics \* Prices and Cost of Living Indexes \* Small Area Estimation \* Time Series Forecasting and Modeling \* Classificatory Analysis \* Market Research \* MS Office XP \* Visual Fox Pro \* Visual Basic Net \* Oracle 9i \* Website Design and Management \* Poverty Estimation and Evaluation \*
- Basic Interpersonal Skills Course \* Course for Enumerators \* Statistical Seminar for High School Students \* Statistical Seminar for University Students \* Statistical Seminar for Government Agencies

- Demographic Statistics \* Economic Statistics \* Statistics of the Gross Domestic Product \* Input-Output Tables \* Social Accounting Matrices \* Labor Statistics \* Agricultural Statistics \* Social Welfare Statistics
- Descriptive Statistics \* Statistical Methods for Research \* Data Processing \* Database Management \* Statistics for Project Monitoring and Evaluation \* Statistical Projection and Forecasting Techniques \* Statistics for Local Development Planning \* Econometric Modeling \* MS Excel and Powerpoint for Effective Presentation

The subjects overlap but the overlapping is ignored here for the purpose of showing the breadth and variety of the coverage of the training courses. .

## **2. Training Materials**

Except major references like books and manuals, all materials necessary to the elucidation of the courses or subjects taught in the institutes are produced by the institutes themselves and distributed free of charge to participants. These materials include course notes, pamphlets, and booklets. Participants are also provided with pencils, ball pens, and pad paper, free of charge. Similarly, all materials and paraphernalia needed by the instructors are produced and made available to them by the institutes.

## **3. Participants**

As a rule, participants are selected on the basis of the relation of their employment duties to the courses offered. Priority is given to those actually working in the subject matter area covered by the course. When applicants' employments have equal direct relevance to the courses offered, the possession of academic degrees in statistics or even any degree at all at the tertiary level is an advantage. Other applicants are accepted to the limits allowed by the institutes' physical capacity.

## **4. The Teaching Staff**

In the majority of cases, the institutes muster their instructional staff from people in the academic sector who have distinguished themselves in the study of applied statistics, especially of official statistics. Most of these personalities have master's degrees in statistics, economics or related fields, a few have doctoral degrees. Some are outright professors of statistics or economics in the universities. Officials of other public departments or bureaus knowledgeable in official statistics, because of the theoretical or applied proximity of their duties to the subject matter of given courses, are also invited to give lectures to those courses.

Still and all, the institutes for the most part have cores of home-grown lecturers – officials of the institute who have achieved high degrees of knowledge and familiarity with various aspects of collection, compilation, and dissemination of official statistics arising from long experience in official statistics work. They constitute the core academic staff that outlines course coverage, writes course notes, and prepares related academic requirements.

## **5. In-House Course Evaluations**

The institutes almost without exception evaluate their courses at the end of their delivery through questionnaires accomplished by participants. In general these questionnaires aim at judging the relevance of the subject course, the suitability of the teaching materials, and the effectiveness of the instructors. The responses of participants, tempered with judgments of the teaching staff and directors of the training courses, then serve as basis for improving or strengthening future courses. In the case of invited lecturers, their tenure hinges on the results of these evaluations. Their services are retained or terminated depending on whether they are rated well or badly by all concerned.

### **D. Challenges**

The training institutes see the challenges confronting them as basically springing from the need to strengthen the technical capacity of the country's statistical manpower and the need for additional resources to get the job done. It's the classical constrained optimization problem except that its solution acquires an urgency brought about by the imperatives of development requirements.

The institutes summed up these challenges in words as follows: \* to expand the population of statistically well-trained personnel in the national statistical system considering the continuing and intensifying loss to the corporate sector \* to be able to provide appropriate training courses to all statistical personnel prior to their ascension to their jobs \* to accelerate human resource development \* to launch cyber education among the population \* to continuously improve the training institutes capacity for instruction at a high level of competence, given the speed of technology change in statistical processes and analysis.

### **E. Expectations**

The institutes fully expect to derive benefits from the network, not least by learning new or better ways of meeting the challenges confronting them. They expect to benefit from the network by making it a channel for interaction with their equivalents in other countries for the improvement of the technical knowledge of their statistical staff, the broadening of the institutional capacity of national statistical agencies and other elements of the national statistical system, the enhancement of statistical agencies' receptiveness to technological change, and the systematization of administrative and organizational procedures and processes.

Specifically through the Network the institutes expect \* to exchange ideas and information, even resources, on statistical training \* to share experience in the development and handling of specialized courses \* to facilitate exchange of instructors and experts \* to learn best practice from neighbors \* to facilitate the establishment of distance- or e-learning nationwide through digital networks by learning from the experience of neighboring countries \* to inter-visit with neighbors at various levels to learn better ways of statistical administration.

The institutes hope in other words that the Network will provide that vehicle for the realization of some if not all of their expectations, in addition to promoting and achieving more encompassing objectives such as cooperation and coordination among institutes. .

### **III. STRUCTURE OF THE PROPOSED NETWORK**

#### **A. Goals of the Network**

The first obvious requirement of any Network is to have an agreement on its objectives. This agreement is vital and indispensable to the smooth functioning of the Network. The objectives should represent the goals common to all members, supportable by all of them. This matter is not a problem, because these objectives have been identified and laid out by the First Workshop, and these are as spelled out in the first section of this paper.

#### **B. Participating Agencies and Institutes**

The next requirement is to have members in the Network. Membership should consist of all NSAs, whether or not they have adjunct statistical training divisions, and independently mandated STIs. NSAs with adjunct training divisions may or may not bring along such division into separate membership in the Network. Those without must designate themselves as the training division themselves or else create such a division to backstaff them in their participation in the Network. Independently mandated STIs must be brought into the network to enable them to contribute the wisdom of their experience and ensure the alignment of their training activities to the objectives of the Network. Fortunately, again, most of these agencies and institutes are already in existence, and need only to be made aware of the necessity of participating actively in the Network.

Membership in the Network may include regional bodies.

Henceforth this paper will no longer make a distinction between NSAs and STIs. It will use the term "statistical training Institute" to refer to all NSAs with or without adjunct training divisions and to all independently mandated STIs.

#### **C. Institute Staffs**

Statistical training institutes must have small but hard-hitting staffs each to consist of officers, an academic staff, and an administrative support staff.

The Officers. These will be the Director and his Deputy, who must possess appropriate academic qualifications and command the respect of their peers. They may come from the academe or as in most instances from the NSA. They may be NSA's chief training officer, to begin with. They must have experience in official statistical work at senior levels of responsibility. Their basic duty is to provide the intellectual leadership to the Institute, to lay out its vision, to formulate medium- and long-term development plans, and to ensure the institute's functioning at the highest levels of efficiency and efficacy.

The Academic Staff. This will consist of the instructors and lecturers of the training institute. They will have to be specialists in the various statistical groups, say, in demographic statistics, economic statistics, national accounts, social statistics, environmental statistics, etc. Their duty is to plan out training programs, identify themes or subjects of training, outline the curriculum, prepare the course notes, reference

articles, power-point presentations, etc., and deliver lectures. Most of these instructors will be from the NSA, local universities, and the training institute itself. In exceptional cases, they will be reinforced by experts invited from outside, including experts hired on a contract basis from other member countries and international agencies. It is they as a group who set the standards and define the quality of the training courses

Central to the academic staff will be the IT (information technology) group which will consist of computer specialists. They will be responsible for the computerization of all relevant academic literature and the operation of the Institute's website.

The Administrative Support Staff. This will consist of program administrators and administrative assistants. Their duties will consist of providing all the administrative services necessary to the successful implementation of all training courses or programs.

#### **D. A Steering Committee**

While the training institutes stand at the country level, there must be, at the international level, at the top and center of the Network, a Steering Committee, a kind of board of directors, that will provide the intellectual leadership to the network and ensure high levels of cooperation and coordination among its members. The specific duties of the Committee, flowing out of the general duties of leadership and coordination, will include the charting of the development plans of the Network, outlining the role of each member in the implementation of development programs, and otherwise ensuring that actions and decisions of members promote the realization of the Network's over-riding goals.

Membership in the Committee should come from the ranks of STIs and NSAs. While membership of the Committee must be as broad as possible to ensure widespread program implementation, it must not be so broad as to become unwieldy. Therefore it might be proper to limit membership to regions or groups of countries and by rotation within these regions and groups. Special consideration can be given to countries that already are well-developed statistically or already have well-developed training institutes.

Membership should reflect disciplinary balance (say, among demographers, national accounts specialists, social statisticians, etc.). There should not be any over-concentration on any particular statistical specialization. On special occasions, as when specific issues require it, guest statisticians or statistical authorities may be invited into the Committee from outside.

#### **E. International Agencies**

To benefit from an explicitly global perspective, the Steering Committee shall include in its membership representatives of international statistical organizations, specifically of the United Nations Development Program (UNDP), the UN Statistical Division, UN Economic and Social Commission for Asia and the Pacific (ESCAP) Statistics Division, the Asian Development Bank, and non-governmental technical statistical organizations. These international agencies can contribute to the network by being a source of knowledge, information and assistance on international needs and concerns.

The Statistical Institute for Asia and the Pacific (SIAP) should serve as the Secretariat of the Committee.



#### **IV. BASIC FEATURES OF PARTICIPATING TRAINING INSTITUTES**

To be able to develop the quality training that the Network expects its members to deliver, the Statistical Training Institute must have certain components, the most important of which is the library, and must generate a flow of activities that include publications, training programs, and national conferences, seminars and workshops on official statistics of interest to national authorities and international statistical organizations.

##### **A. The Library**

Of the needs of the Institute to build capacity for training and sustain progress in staff development, perhaps the most fundamental – and indispensable – is the Library. For the library is the depository of wisdom, past and present, and the prospective receptacle for all new knowledge, now appearing or yet to emerge. The Institute's library should have as extensive as possible: (i) a collection of works on statistics, whether methodological or applied; (ii) official publications of the United Nations Statistical Commission on official statistics whether these pertain to demographic statistics, the national accounts, or other statistical sets, (iii) works on current statistical concerns of the global community such as the Millennium Development Goals and the Human Development Index, (iv) statistical publications of members of the network, (v) learned statistical journals, (vi) data-based archives, and (vii) other relevant statistical publications.

In full complement, the library can be very expensive. However, so that all members, including those not well-endowed with finances, can establish a library, they can begin with a modest collection consisting of downloaded titles from the SIAP library, expanding this gradually in an incremental way with collections from other member countries.

The library shall be accessible to the public with priority given to official statistical personnel, statistical scholars, and statistical researchers.

The library catalogue should be made available electronically.

##### **B. Publications**

Given a library, the Institutes must prepare and publish papers on statistical issues, with such titles as – for instance -- “Methodological Notes on the National Accounts of ..... (name of country)” and “Problems and Solutions of the Demographic Census of 2004 of ..... (name of country).”

The term “papers” should be interpreted broadly to include “learning resources” such as handbooks, course notes, tests, exercises, question and answer and related materials and paraphernalia.

Needlessly stated, these materials should be written in simple and unambiguous language for easy reading and understanding by non-specialists. They should be consistent with UN publications on the matter to ensure international comparability. Where they depart from UN publications, the revisions must be explained carefully in a

separate note or material. In this context, international comparability is not jeopardized or rendered impossible.

The library collections should include publications of such international statistical organizations as PARIS21.

### **C. Training Programs**

The center-piece of activities of Training Institutes must of course be the training program itself. This training program must be made an integral component of the country's human resources development program. The Institute must initiate, develop and carry out training programs on the different subjects of official and methodological statistics on a regular basis and for different levels of participants. Thus, it must have a training program in each of demographic statistics, economic statistics, the national accounts, social statistics, environmental statistics, sampling as a core subject, census taking, and others, at a higher level for senior officials, at a technical level for technical statistical staff, and at a general level for non-specialist personnel.

Then also the Institute must be ready to schedule training programs in statistics of current international interest, as in the indicators of the millennium development goals and the human development index.

To meet the needs of member countries with small staffs and limited equipment, it should place emphasis on practical courses.

To broaden the impact of its programs, the Institute must introduce e-learning.

As a rule programs must pay for themselves but to the extent possible they must be made "affordable" to all who need them.

### **D. National Conferences, Seminars, and Workshops**

The Institutes must also initiate conferences, workshops, and seminars on statistical subjects of interest to the national agency. It goes without saying that the Institutes should prepare all the necessary learning materials for this activity, designate lecturers, screen participants, lay out timetable, etc.

## **V. ELEMENTS OF THE NETWORK**

The dissemination of the contents of the training programs of members will have to be a central concern of the Network. This is the only way the expectations of members –the exchange of ideas and information, the facilitation of learning from each other, for instance -- can be met. There are several mechanisms for the dissemination of benefits and these include (i) the internet, (ii) regional conferences, seminars, and workshops, (iii) exchange of technical personnel, (iv) temporary attachment of faculty, and (v) high-level visits.

In the initiation and implementation of all activities that have region-wide or international significance, it is understood that the Steering Committee has a participation if not the leadership, direct or indirect.

## A. The Internet

The internet will be the most powerful and at the same time the least expensive means for generating and disseminating benefits to Network members. Through the internet network members can publicize local statistical developments and events for the information and use of other members. Conversely, members can also benefit from the internet by making use of information disseminated through it by other members.

To maximize their power of dissemination and inter-action, the members should set up websites in their agencies. Such website should provide important information on the national statistical agency, its organizational features, its activities, and plans and programs. Specifically the website should have information on:

1. The National Statistical Agency
  - a. Its mandate
  - b. Its leadership
  - c. Its organizational arrangement
  - d. Personnel size
  - e. Geographic location of offices
  - f. Other
2. Current Events (a general example)
  - a. Workshop just concluded
  - b. Visit by foreign dignitaries
  - c. Chief Statistician speaking before business group
  - d. Other
3. Plans for Implementation
  - a. The Strategic Statistical Development Plan
  - b. Proposed staff training
  - c. Proposed training programs
  - d. Other
4. The Agenda of the Training Institute (illustrative only)
  - a. Two-week training in the statistics of the MDG
    - (i) The training schedule
    - (ii) Description of specific statistics
    - (iii) Other
  - b. 10-Days training in national accounts
    - (i) The training schedule
    - (ii) Description of specific accounts
    - (iii) Other
  - c. Two-week training in demographic statistics
  - d. One-week training in the Human Development Index

5. Recent Publications by local authors
  - a. Lecture Notes on the MDGs
  - b. Workshop Materials on Environmental Statistics
  - c. Other
  
6. The Library
  - a. Recent acquisitions
  - b. List of books, journals, etc available
  - c. The Archives

The website should be profusely illustrated, with photographs of agency building, top leaders, agency personnel in action, recent visitors, etc. It should be in color. It should be designed in such a way as to be attractive to all surfers.

One or two computer staff should be assigned the responsibility of keeping the site up-to-date and attractive.

As described above, the website is ambitious. Members need not start big. Rather they can begin with a small and simple website by publicizing whatever information they already possess. They can then expand this gradually until they attain a more or less full-blown window to the outside world.

The e-mail is another efficient way of communicating with colleagues across international boundaries. Members of the Network must maximize its use in conveying to or obtaining information from international colleagues.

In sum, the Network should make the internet the main vehicle for bringing together supply and demand availabilities (of training courses, services, materials, etc.) to all interested parties within and outside the Network.

For its part, the Steering Committee, as well as of course individual members of the Network, will find its work immensely facilitated if it is done through the website and the electronic-mail.

## **B. Regional Conferences, Seminars, and Workshops**

The Network must consider as one of its principal duties the promotion of interaction among its members. Not all members will have the capacity to initiate activities but all will benefit from participation in them.

The Network must hold regular or occasional conferences, seminars or workshops among its members. Such meetings must deal with topics of common interest or respond to some urgent international request or concern.

## **C. Exchange of Technical Personnel**

Under exceptional circumstances, the Network may promote the exchange of technical personnel of member-countries on a comparative advantage basis. Thus, countries each with specialization, say, in economic and social statistics may exchange students so that each country can benefit from the comparative advantage of the other.

#### **D. Temporary Attachment of Faculty**

Where a need of member countries cannot be satisfied with locally available personnel, the Network may encourage the temporary attachment of faculty and other experts from other member countries to fulfill that need.

#### **E. High-Level Visits**

High-level visits, e.g., to promote close cooperation between and amongst statistical agencies, may also be encouraged. For this objective to be accomplished, visits must be preceded by serious and systematic discussions, perhaps through the internet, of probable topics to be taken up, of relevant arrangements, and preparations for the visit by both sides. Being non-technical although working, visits of this type will have to be of a rather short duration.

One dimension of high level visits is that they can serve as a stimulus to the increase of the level of funding of host institutions to enable them to perform their role adequately.

#### **F. Expected Overall Results**

For them to derive maximum benefits from the Network, members must continuously keep in touch with each other through the internet. It is difficult to over-emphasize the importance and centrality of the internet to the success of the Network. It is through the internet where communication is facilitated.

Through the internet, members can discover what courses or programs are on offer in the other member countries, what course materials are available, what best practice can be learned, and so forth. They can download teaching materials of their choice. They, or rather, the scholars in their staffs, can even cooperate with their counterparts in other member-countries to write learned papers on topics of interest to them.

Through personnel exchanges and inter-visitations facilitated by the Network, high level officials and technical personnel are made aware of advanced administrative processes and technical procedures in other countries, for adoption in their own.

To make these gains and benefits possible, members must comply with their basic responsibility —i.e., keep their own websites comprehensive, intensive, and up-to-date. This underscores the importance of the IT staff in the member institutes. The IT staff must be provided with all vital information on a continuing basis. It is by embedding these in the website that they enable the institute to comply with its responsibility. Finally, the institutes must continue to keep their doors open to interaction with colleagues in the Network, through exchanges and visits.

In sum, through the Network, member statistical training institutes are able to benefit from each others' capabilities and specializations and as a group enhance their capability for promoting and implementing stronger and more comprehensive training programs. They thus become better able to respond not just to their own national statistical needs but to international statistical obligations as well.

The goals of the Network must be made deliberately ambitious so that they can be measured. In this manner, the Network can be judged as to whether it is delivering real value.

## **VI. FINANCING THE NETWORK**

The operability and viability of the Network must inevitably rest on its financial capability. With adequate capability, it can plan and carry out programs it considers important to the growth of its members free from “external” influence. Without such capability, it can become donor-driven.

Two ways of financing the Network and its activities come to mind: burden-sharing with external assistance in the immediate- and medium- term and self-reliance for the long-term.

### **A. Burden-Sharing with External Assistance**

As a beginning the Network should charge a modest membership fee. Contributions may also be sought from international agencies for seed money.

For specific activities in the immediate- and medium-term, a number of financing options can be explored. If the activity is wholly national in scope, the entire cost of the activity may be financed by the member concerned. On the other hand, if the activity has a regional or international dimension, with some participants coming from some other member countries or some lecturers coming from some international organization, regional or even international assistance may be sought.

For activities that are straightforwardly regional in scope and are sponsored by the Steering Committee, burden-sharing among members would seem to be the most practical approach, where the burden is shared on an ability-to-pay basis, that is, perhaps by all members, or only by some, or only by a few. Contributions can be mobilized from leading donor agencies. Sponsors can also be sought for specific activities of institutional interest to them

As in local training programs, fees for region-wide courses should be made affordable to all who are interested in the programs.

### **B. Self-Reliance**

While there is nothing fundamentally objectionable to counting on international assistance in the financing of the Network and its activities in the course of time, self-reliance is certainly the most preferable option. Self reliance, as has been said, will give the Network, particularly the Steering Committee, greater certainty and wider leeway in planning and pursuing Network activities, and freedom from external donor-driven pressures. It will also ensure stability and sustainability for the Network in the long-term.

## **VII. MOVING FORWARD**

To move the idea of the Network forward from the world of planning to the world of implementation, the Second Workshop may want to determine which of the tasks described above (forming the Steering Committee, encouraging prospective member countries to begin setting up their websites, etc.) they would want to implement in the next year or two.

**STATISTICAL TRAINING PROGRAMMES IN COUNTRIES OF THE  
ASIA-PACIFIC REGION: A CONSOLIDATED SUMMARY****GENERAL INFORMATION**

This is a consolidated summary of the reports of 11 countries of the Asia-Pacific region on the state of statistical training in their countries. The countries are Australia, Brunei Darussalam, Fiji, India, Indonesia, Iran, Macao (China), Maldives, the Philippines, the Republic of Korea, and Samoa. The summary is organized around several topics: (i) the names and mandates of statistical training institutes, (ii) features of the statistical training programs, (iii) qualifications for participation, (iv) qualifications of lecturers, (v) source of funding, (vi) evaluations, (vii) challenges facing the statistical system, and (viii) benefits expected from participation in a regional training network. The names of specific countries are mentioned whenever the activity they are sponsoring is unique to them or is deemed indispensable to the strengthening of a regional statistical training network. Otherwise, the summary uses the terms “all” to refer to all 11 countries, “the majority” or “most” to seven or more countries, “half” or “several” to six or five, “a few” to three or two, and “one” to one country.

**I. NAMES AND MANDATES**

The majority of the countries have statistical training institutes. In Australia, there is the National Statistical Training Institute (NSTI), which is a section of the Australian Bureau of Statistics (ABS). In India, there is the Central Statistical Organization (CSO), under the Ministry of Statistics and Programme Implementation (MOSPI). There is, in Indonesia, the Education Training Center (ETC), which is a related organization to BPS Statistics Indonesia; in the Islamic Republic of Iran, the Statistical Center of Iran (SCI); in Republic of Korea, the Statistical Training Center (STC) affiliated to the Korea National Statistical Office (KNSO); and, in the Philippines, the independent Statistical Research and Training Center (SRTC).

In several of the countries, there is no separate statistical training institute. Rather, the statistical agencies themselves carry out the necessary training program for their personnel. This is true to Brunei Darussalam, Fiji, Macao (China), Maldives and Samoa, where the Department of Statistics (DOS Brunei), the Fiji Islands Bureau of Statistics, the Macao (China) the Statistics and Census Service, the Maldives Statistics Section of the Ministry of Planning and National Development, and the Samoa Statistical Services of the Ministry of Finance, respectively, serve as their own training institutes.

All have basically the same mandate: to provide comprehensive training in statistics to statistical personnel in the government mainly in the national statistical agency and secondarily to personnel employed in the other agencies of the national statistical system.

Several of the countries have strategic statistical development plans, which are in alignment with the country's over-all national development plan. These statistical plans



define activities for the short- and medium-term as well as for the long-term, for the purpose of producing the statistical manpower that are expected to be required by the developing national economy in various plan periods.

## **II. FEATURES OF TRAINING PROGRAMMES**

### **A. Coverage**

The majority of the countries collect, compile, and disseminate demographic, economic, social, environmental and related components of official statistics, including the national accounts. After years of experience in actual compilation work, the countries have developed general familiarity with the practice of collecting and reporting these statistics. For this reason, the training programs of the countries, except in a few cases, are not focused on these statistics per se but on the various aspects of statistical work pertaining to statistics in general. On the other hand, due mainly to personnel constraints, several of the countries compile only a limited range of statistics and continue to need international assistance to comply with their national and international statistical obligations.

The courses offered by the countries are listed in Attachment. Of these courses, several had been conducted with international assistance. In the countries that had no training institutes all courses that had been conducted had been carried out under the sponsorship of international agencies.

### **B. Duration and Frequency**

The courses vary in duration and frequency. Most cover a 5-day or 1-week program, others last for 2-weeks; still others for one to three months. Several are held once or twice a year, especially those that are required for advancement by government statisticians, but most are conducted only occasionally.

### **C. Reference Materials**

The majority of countries use relevant United Nations publications as main references for all official statistics. They refer, however, to academic publications for matters pertaining to statistical methods. Course notes by lecturers are based on these publications.

### **D. Language Used**

The majority of the countries use English as medium of instruction; hence, use United Nations and academic publications in the English language in which they are written. Several of the countries carry out their courses in the native tongue and translate external publications to the native language before they are used. All countries use relevant UN publications as principal references but utilize materials prepared by their own staff for instructional purposes.

## **E. Curriculum Development**

Most of the training institutes have experts that are specialized in curriculum development. Courses are planned, first at the level of institute specialists, and then fleshed out with the active participation of outside stakeholders like officials of concerned agencies. The actual preparation of course notes and syllabi is done by designated lecturers, when these are academics, or by the in-house staff.

### **III. QUALIFICATIONS FOR PARTICIPATION**

#### **A. Employment**

In all countries, the direct pertinence of the candidate's employment is the determining factor in the selection of training participants. Applicants working in the relevant fields are given first priority in the admission process. Such applicants must of course be nominated by the specific agency concerned.

#### **B. Academic Preparation**

Next to employment, academic preparation is a criterion for selection in all the countries. Among degree holders, those who hold bachelor's or master's degrees in statistics are given preference, especially in higher level statistical courses. Still, nobody is barred from participation on account of lack of academic qualification.

### **IV. QUALIFICATIONS OF LECTURERS**

#### **A. In-House Staff Members**

Because detailed knowledge of official statistics is fundamental to successful instruction, the core of lecturers in all the countries comes from the agencies that are directly responsible for the collection, compilation and dissemination of official statistics. These agencies are the training institute itself and the national statistical agency. Academically, lecturers tend to have at least a bachelor's degree in statistics or a related field in addition to a mastery of the subject matter of the given course.

#### **B. Outside Lecturers**

All institutes bring in lecturers from outside, mainly from academic institutions, to augment their teaching staffs. The retention of outside lecturers (and, for that matter, in-house lecturers) hinges on the result of evaluations that are carried out prior to or at the completion of a course.

## **V. SOURCE OF FUNDING**

### **A. Government**

In the majority of countries, the government funds the statistical training activities undertaken by the institute through, in most cases, the regular budget of the institute or the national statistical agency and, in some cases, the budgets of the agencies' requesting the training.

### **B. International Organizations**

In several countries, funding comes mainly from international agencies concerned with capacity-building in the developing countries, notably the United Nations Development Programme (UNDP), the United Nations Fund for Population Activities (UNFPA), and the Japan International Cooperation Agency (JICA). Such financial assistance is supplemented by funding from the government.

## **VI. EVALUATION**

In all countries, courses prior to or at their completion, course materials and the lecturers are evaluated by participants. The evaluation of course refers to the relevance and usefulness of the course to the work of participants, that of course materials to the adequacy of their coverage, the appropriateness of their breadth and depth, their level of difficulty, while that of lecturers to the clarity of their presentations.

In all countries, participants are not formally graded but are evaluated, after the completion of the course, by the lecturers and other officials responsible for the delivery of the training programme. Evaluation focuses on the level and intensity of the participants' participation in discussions, the quality of their practical exercises, and the regularity of their attendance.

The evaluation procedure followed by Australia is particularly noteworthy because it can be adopted to reinforce the evaluation guidelines that are currently being developed for the training institutes in the Asia-Pacific network. The Australian evaluation procedure (taken from Kirkpatrick) focuses on four levels and entails considerations as follows:

1. Reaction – measures the participants' reaction and overall satisfaction with
  - Course relevance
  - Delivery methods and assessments
  - Presenter performance
  - Materials
  - Environment and provisions.
2. Learning – measures knowledge, skills and abilities gained from participating and completing the course. Methods used include:

- Pre-course questionnaire
  - Individual questionnaires
  - Focus groups
  - Interviews
  - Written tests
  - Practical tests
  - Computer-based learning
  - Self analysis
3. Behaviour – measures any behavioural changes, application of skills and knowledge gained from the course back in the workplace. It is an assessment of work behaviour prior to and after the course, where after the course generally refers to a time frame of three months after course completion.
  4. Results – measures the business impact of the course and involves the analysis of work programme performance indicators, individual reviews and work group reviews.

## **VII. CHALLENGES AHEAD**

All of the countries feel the need to respond to various challenges to their training capabilities in the years ahead. The countries see the challenges as coming in the form of an urgent need to carry out one, several or most of the following activities:

- (i) to continue broadening and deepening the statistical knowledge of government statistical personnel, given continuing losses to the corporate sector and the intensifying competition for university graduates in recent years,
- (ii) to expand statistical training services to cover all statistical workers from various levels,
- (iii) to expand and modernize training facilities, including libraries,
- (iv) to speed-up capacity-building including human resource development to cope with increased demand for statistical services of local government units,
- (v) to promote long-distance learning or e-learning utilizing multi-media and communication technology to reach statistical workers in various parts of the nation,
- (vi) to offer new training opportunities by launching cyber education,
- (vii) to raise training efficiency by expanding seminar-based and project-based discussions in classes,
- (viii) to secure better faculty through a variety of means,
- (ix) to accelerate human resource development,
- (x) to add the concept of recreation to education,
- (xi) to increase budgetary resources for statistical training,
- (xii) to serve as a catalyst for change in statistical training by introducing novel approaches to and applications of statistical methods,

- (xiii) to expose the statistical staff and faculty to best practice so that they can bring this to bear on their work and in future training programs, respectively.

### **VIII. EXPECTATIONS FROM A NETWORK**

All of the countries expect to derive clear benefits from participation in a regional network of statistical training institutes. They hope to derive these benefits through one, several or most of the following activities:

- (i) exchanges of information, ideas and experiences with neighboring countries,
- (ii) sharing or pooling of resources,
- (iii) gaining knowledge of statistical practices and techniques from neighbors,
- (iv) collaborative product development,
- (v) fostering innovation and creativity,
- (vi) gaining knowledge of a theoretical and practical nature of the design and delivery of training,
- (vii) positioning of training as a business strategy,
- (viii) joining in interactive and participatory mechanisms in the network,
- (ix) improved trainers' training through exchange of experts and sabbatical programmes,
- (x) learning the use of digital networks across geographic boundaries,
- (xi) exchange of instructors and experts,
- (xii) learning best practice from neighbors,
- (xiii) exchange of technical know-how,
- (xiv) visits to neighbor training institutes,
- (xv) improved data presentation, dissemination and publication
- (xvi) sharing of information on management of statistical education,
- (xvii) benchmarking of efficient course management,
- (xviii) conduct of research on statistical training,
- (xix) sharing of expertise in the handling of specialized courses, and
- (xx) cross-posting of resource persons.

**STATISTICAL COURSES OFFERED ALONE OR WITH ASSISTANCE OF  
INTERNATIONAL AGENCIES BY STATISTICAL TRAINING INSTITUTES IN  
COUNTRIES OF THE ASIA-PACIFIC REGION, AS OF 2004**

**In Australia:**

Turning data into information  
Basic statistical analysis  
Introduction to sampling techniques  
Basic survey design  
Understanding demographic data  
Principles of questionnaire design  
Data management  
Managing statistical consultants  
Quality informed decisions.

**In Brunei Darussalam:**

Basic statistics  
The use of information-communication technology (ICT)

**In India:**

*For probationary training:*

Official statistics  
Software engineering  
Sample surveys and small area statistics  
Operations research  
Macro and micro economic theory  
Econometrics  
Time series analysis and forecasting  
Planning and evaluation  
Organization of sample surveys  
Large scale data processing management techniques  
Poverty estimation

*Refresher for in-service officers:*

Official statistics  
    System of national accounts  
    Environmental statistics  
    Prices and cost of living  
Theoretical and applied statistics  
    Small area estimation  
    Time series forecasting and modeling  
    Quantitative economics  
    Classificatory analysis  
    Market research

Information technology  
MS Office XP  
Visual Fox Pro  
Visual basic net  
Oracle 9i  
SPSS  
Website design and management  
Geographic information system

*Other subjects of interest*

Communication and presentation skills  
Management  
Management including WTO issues  
Financial management  
Mass communication  
Mass communication  
Poverty estimation and evaluation.

*For other statistical personnel:*

Statistical systems and basic statistics  
Agricultural statistics  
Industrial, trade and services statistics  
Labour, employment and price statistics  
Social statistics  
Population statistics  
National accounts and national resource accounting  
Sample surveys and organization of large-scale sample surveys  
Computer level I-- Foundation course on information technology  
Computer level II-- Electronic data processing  
Computer level III – Advanced IT Technology on networking.

**In Indonesia:**

Basic statistics  
Demographic statistics  
Economic statistics  
National and domestic products  
Input-output analysis  
Social accounting matrices  
Labor statistics  
Social welfare statistics  
Agricultural statistics  
Price and distributive statistics

**In Iran:**

Sampling techniques and applications  
Basic statistics  
Introduction to STATA software  
Economic statistics and policy-making  
Administrative records

Demographic statistics  
Statistics of NHDRs  
Small area estimation  
Introduction to SPSS software  
Data analysis workshop  
Conduct of statistical surveys  
Applied statistics  
Sample design and application  
Research methodology  
Quasi-independent concepts and applications in statistics  
Probability-characteristics of bi-variant normal distributions  
Special English course for statisticians  
Short-term course on indicators  
Course on sample surveys  
Survey non-response reduction, weighting and imputation

**In Korea:**

Basic SAS operation  
Basic SPSS operation  
Basic statistics  
SAS data analysis  
SPSS data analysis  
Excel data analysis  
Statistical administration  
Economic statistics survey  
Social statistics survey  
Statistical database and application  
Understanding financial statements  
Price survey  
Agricultural-fisheries statistics survey  
Industry classification  
Job classification  
Statistical interview methods  
Statistics for children  
Statistics for university students  
Statistics for journalists  
Survey practice  
Statistical education for teachers

**In Macao (China):**

Basic interpersonal skills course  
Project-based training  
In-house presentation  
Statistical seminar for high school students  
Statistical seminar for university students  
Statistical seminar for government agencies.



**In the Philippines:**

Descriptive statistics  
MS Excel and power-point for statistical reports  
Statistical research methods  
Webpage development for statistical dissemination  
Statistical report writing  
Data processing and tabulation using IMPS  
Database management using MS access  
Processing and analysis of administrative records  
Design and operation of socio-economic surveys  
Advanced database management using MS access  
Effective statistical presentation techniques  
Statistics for project monitoring and evaluation  
Statistical projection and forecasting techniques  
Database management using MS Visual basic  
Statistical techniques for socio-economic data analysis  
Statistics for local development planning  
Econometric modeling  
Advanced database management using MS Visual basic  
Sampling designs for surveys.

The list for each country is not exhaustive. It does not include courses specific to requesting agencies and courses administered jointly with other institutions.