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Topic IV: Ways of making statistical information systems more responsive to users

**WEB SITES OF NATIONAL STATISTICAL ORGANIZATIONS OF COUNTRIES IN ASIA  
AND THE PACIFIC (ESCAP REGION)**

**Contributed paper**

Submitted by the United Nations Statistical Institute for Asia and the Pacific <sup>1</sup>

**I. INTRODUCTION**

1. In the last quarter of 2001 the United Nations Economic Commission for Europe published a Guide to the Websites of National and International Statistical Organizations together with a comprehensive methodological paper on Best Practices in Designing Websites for Dissemination of Statistics. The Guide contains -amongst others- a description of the 'online' situation of Statistical offices of ECE member countries. Conclusion was, that at the moment of writing (August 2001) 45 out of 55 (= 81%) offices were online and 72% of these agencies reported a 'regular' maintenance of their website, defined as 'at least once per month'. Exactly one third of the online countries provided database access via the World Wide Web to their users.

2. These ECE publications instigated SIAP to investigate more deeply the online situation in the national statistical organizations in the countries of Asia and the Pacific. As a study object was taken the same group of countries and areas which in an earlier report of the Secretariat of ESCAP on IT implementation by NSOs (National Statistical Organizations) was considered to be part of the regional statistical system<sup>2</sup>.

3. The underlying paper consolidates firstly the ESCAP findings with respect to statistical websites together with our own observations of the websites of the various organizations (see heading II). The second

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<sup>2</sup> See Annex. The list is not exactly comparable with the list of members and associate members of ESCAP and contains also some overlap with the ECE region. The latter especially with regard to the so-called Central Asian Countries.

part consists of the description of an experiment carried out by a group of SIAP course participants who got the assignment to trace statistical key-figures on websites (heading III). The third part gives the results of a recent survey under heads (or their representatives) of 12 statistical organizations of developing countries in the ESCAP-region. The outcomes of this survey are reported under the heading IV 'Expectations of NSOs for the near future'.

4. Section V, the last section of this paper, contains the Conclusions and Recommendations. The recommendations have to be considered as evocations (may-be provocations) for further discussions on how to address the evident 'digital divide' between the online situation of the statistical organizations in the developing countries and their more developed sister-organizations. Furthermore some suggestions are given for additional benchmarking criteria for future comparison of statistical websites.

## **II. INVENTORY OF ONLINE SITUATION ULTIMO 2001**

5. The Annex gives an overview of statistical organizations, that were online in December 2001, in addition to the countries who did not have a (known) web presence of the NSO. Some countries, who were indicated in earlier lists of ESCAP of having a web site, appeared to be continuously inaccessible or 'under construction' and were consequently not considered to be online.

6. Before going into the details of the inventory, we should emphasize that in the ESCAP region only 3 countries belong to the group of developed countries, namely Australia, Japan and New Zealand. This leaves unimpeded that several other countries are generally considered to be well advanced at the level of application of Information and Communication Technology. Obvious examples are Singapore, Malaysia, Republic of Korea and Hong Kong China. The fact that a large majority of countries in Asia and the Pacific has the status 'developing' (or even 'least developed') will -inevitably- be reflected in the results of the study.

7. Twenty-eight, being about half of the 57, national statistical organizations showed one or another way of web presence at the moment of writing of this paper. All these websites contained pages in English, besides eventual other (national) languages. In the cases of double, or even triple languages, the English texts and tables were for a substantial part (but not always completely) identical to the other linguistic versions.

8. The number of national statistical websites providing data base access is in the ESCAP region minimal, namely (as far as could be detected) three (the equivalent in the ECE is 15). Australia publishes its AUSSTATS that uses interfaces build with the application SuperCross. New Zealand has the INFOS (Information Network for Official Statistics), which is based on Lotus Notes. Finally the National Statistical Office of the Republic of Korea provides, in a ultimately professional way, access to its Oracle database KOSIS (Korean Statistical Information System). The Korean system is free for external users, while the two organizations only provide access on a paid subscription basis.

9. If we consider the guidance as given in the ECE paper on 'best practices in designing websites for dissemination of statistics', then we may (subjectively!) conclude that in the ESCAP region a mere 10 organizations comply to a large extend to the guidelines. Under these, obviously, those of the three developed countries of the region, of which Australia and New Zealand without any doubt belong to the 'top of the world'. Good (contents, navigation possibilities) and attractive (lay-out, addressing a large range of user groups etc.) websites are those of the national organizations of the Philippines, Singapore, Republic of Korea, Malaysia, Hong Kong China and Turkey. Under the Asian/Pacific best sites may, surprisingly, also be categorized that of the relatively small Institut Statistique of French Polynesia.

10. The category immediately below the top with 'reasonable' quality of the statistical websites is relatively small. This means, that we may conclude, that about half of all the momentary websites would

need more or less substantial re-structuring in combination with the introduction of procedures for more regular updating.

11. One of the criteria for quality of websites could also be the speed in which users can download the information from a web server. The ESCAP Secretariat has done an interesting test by measuring response times with ICMP (Internet Control Message Protocol) ping requests from Bangkok (see Survo, 2001). The reported difficulty with the interpretation of the measures, however, is that the distance between the ping request server and the accessed server appears to be a decisive element in the final outcomes. Therefore this type of experiment should preferably be executed from a variety of locations and on various moments.

### III. TRACING STATISTICAL KEY-FIGURES

12. A small experiment was carried out by the participants of SIAP's Third Training Course in Modules on Core Official Statistics (6 months course for official statisticians from developing countries in the ESCAP-region). The group of 32 participants out of 26 countries was divided in subgroups of 2 persons and each subgroup got the assignment to trace on 3 pre-selected websites the following statistical key-figures: Total Population, Life Expectancy of Women, Gross Domestic product (GDP) and Consumer Price Index (CPI). The most recent figure of each found variable had to be noted down together with the date or period over which the figure was reported. Each website had to be investigated by 2 subgroups; the subgroups and websites were selected in a way that eventual linguistic barriers were minimized.

13. On 13 of the 24 websites all four elements could be traced. One website did not disclose any of the variables and 3 other only gave only one of the variables. Most difficult to find was the Life Expectancy of Women (not found on 9 websites). As far as concerns a Consumer Price Index (CPI) number, the participants traced in 9 cases figures which were reporting over months in the second half year of 2001. It may be obvious, that the countries concerned belonged to the group of better classified ones. The most recent CPI reporting month is a good indicator for the timeliness of web-maintenance and could consequently be considered as one of the benchmarking criteria for future comparisons of statistical websites.

### IV. EXPECTATIONS FOR THE NEAR FUTURE

14. As indication of the expectations we may have with respect to the evolution of the websites of national statistical organizations of the developing countries in Asia and the Pacific, we will consider the results of a questionnaire filled out ultimo 2001 by the heads (or their representatives) of 12 of these country organizations.

15. With exception of 1 representative, everybody agreed on the necessity for their respective organizations to spend more effort in the dissemination of statistics. As target group for this extra attention nearly all heads indicated to give the highest priority to other governmental organizations in their own country. Other user categories (primary and secondary education excluded) scored for about fifty percent the same priority or -in other cases- somewhat lower. The first educational levels were only by 3 countries considered to be a priority group for extra dissemination efforts.

16. For the publication of statistical key-figures, the website and the public media are seen as the most important channels. Nearly all forms showed, however, a preference for websites above the public media. The internet is clearly regarded by everybody as a mean for a better spread of official statistics. As point of reference it is interesting to compare the answers concerning the importance of books and CDs as media for the dissemination of larger quantities of statistical data. All respondents agreed, at least to a certain extent, on the fact that CDs are a very good data carrier for statistical dissemination. But with respect to the preferred way for publication of extensive material, the answers were more divers. They varied from a light preference

for the traditional approach (printed publications) to more outspoken favoring of just the modern way of dissemination (CDs). A conclusion could be that the preference for internet above public media is less related to the implicated technology, than to more strategic policy considerations. It could be that in some countries the (own) internet publishing scores better because of the fact that the formulation of the provided information is better controllable by the statistical organization.

17. Nearly all countries expected either to start or to extend (substantially) their Internet publishing on the short term (within the coming 2 years). Half of the respondents indicated that on the longer term (5 years) Internet will certainly become the prioritized medium, while the other half agreed to a certain level with that statement. The latter results could also be noticed with regard to the expected increase of the effective access of the general public to the NSO's websites.

18. As a consequence of the growing interest for Internet publishing, 10 of the 12 countries indicated to expect a substantial increase of the manpower in their organizations for the set up and maintenance of the websites. Eventual hindrances to these extensions could be the lack of skilled staff or the lack of an adequate technical infrastructure. The same number of country representatives agreed, at least to a certain extent, with the statement that the availability of expertise could become a problem. The technical infrastructure was seen by 7 representatives as a potential critical success factor.

19. Finally, as far as concerns the contents of the websites, we may -on basis of this small survey- certainly expect a policy of extra attention for readability and accessibility of the information provided. Inclusion of downloadable statistical tables is also generally considered to be an asset of statistical websites. Slightly less significant is the agreement with the fact, that meta-data should form part of the sites.

#### **IV. CONCLUSIONS AND RECOMMENDATIONS**

20. The comparison between the two regional groups (ECE and ESCAP) results in an indisputable conclusion that the online situation of NSOs in Asia and the Pacific is -on average- much less bright than that of the 'European' sisters institutes. The percentage of national statistical organizations online is substantially lower, which may also be concluded for the percentage of websites providing database access via the web. The 'digital divide' manifests itself obviously in this specific area of official information dissemination. The major part of the large contrast can be explained by the development level of the countries concerned, which is in Europe on average substantially higher.

21. Before outlining the recommendations concerning the eventual possibilities for improvement, we should not forget to conclude, that some countries in the ESCAP region are the proud owner of official statistics websites with a quality which easily may compete with the top of the world. Various others may (subjectively) be classified as 'above average' in comparison with the situation in other continents of the world.

22. The first question to be asked is whether the implementation of websites by NSOs in developing countries should be promoted and, if the answer is affirmative, whether this deserves a high priority. The author of this paper would like to propose heartfelt positive answers on these two questions. The main argument is the fact, that web-publishing enables statistical offices to show, against relatively low costs, to the world (and more importantly even to their own nation) their existence and level of professionalism. Secondly the web enables in a very cheap way to disseminate to a larger audience the statistical outcomes.

23. On basis of the conducted survey under the heads of statistical offices may be concluded that there exists already at the level of the top management of NSOs in Asia and the Pacific a certain awareness that 'going online' is an inevitable and useful instrument for statistical dissemination. The intention to go online or

to expand the web-publishing activities clearly exists. However, effective realization is another and much more difficult issue. The ESCAP region lacks central, driving, coordinating and promoting forces at the level of official statistics like, for instance operating within the European Statistical System (ECE, Eurostat, CESD, CES etc). The financial and consequently the technical means of the national agencies are limited, as is also the educational level of their staff. Basic conditions for realizing a 'turning point' are not yet set and require further attention.

24. Initiatives as undertaken by the ECE by publishing the Guide on Websites and the paper on Best Practices and by ESCAP's secretariat and SIAP by organizing workshops/courses on the introduction of ICT for Statistical Processing (including the production of an awareness CD) will certainly contribute to an increase of the willingness and preparedness of NSOs in the ESCAP region to apply web-publishing. Extension of these actions in the near future are certainly recommendable. Demonstration of best practices by the more 'advanced' countries (and especially by the developing countries in this group with limited financial means) could take away eventual (more psychological) obstructions.



25. Technical support actions are obviously also a good means to help individual countries on their way in web-publishing. Consultants with extensive 'online' experience will be able to develop within very short periods the frameworks of professionally looking statistical websites. Additional (extensive) training of local staff in maintenance of the websites will, of course, always be necessary in order to realize sustainable projects.

26. The question could be posed whether the 'world of official statisticians' should not go even further in the promotion of statistical websites. With the application of modern technology, it is imaginable to host at a central level the statistical websites of a larger group of developing countries. The initial filling and the periodical maintenance of websites could be done on the basis of generic templates and database object types of building blocks. The advantage of such a solution would be that the countries involved are not subject to complex (and costly) technical issues and problems, while they still may realize professional, individualized websites. In the framework of 'digital divide' actions or other global statistical programs (think for instance on the dissemination standards of IMF and PARIS21) this could appear to be a great initiative.

27. As a final proposal, with somewhat less far-reaching implications, the statistical world (ISI?) could think on yearly benchmarking of statistical websites at the global level, with separate categories as far as concerns the development level. Publication of results, eventually supported by an award-system, could promote the level of professionalism demonstrated on the sites. As already mentioned earlier in this paper, useful (but certainly not decisive) criteria could be the measurement of response times and the actuality of specific key-figures, like the Consumer Price Index.

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**Annex. Web sites of National Statistical Organizations in the ESCAP region, December 2001**

Country/area	Organization	URL	Lang.
1 Armenia	State Registry and Analysis of the Republic of Armenia	<a href="http://www.armstat.am/">http://www.armstat.am/</a>	en+ru+am
2 Australia	Australian Bureau of Statistics (ABS)	<a href="http://www.abs.gov.au">http://www.abs.gov.au</a>	en
3 Azerbaijan	State Statistical Committee	<a href="http://www.statcom.baku-az.com/">http://www.statcom.baku-az.com/</a>	en+az
4 Bangladesh	Bangladesh Bureau of Statistics	<a href="http://www.bbstats.org/">http://www.bbstats.org/</a>	en
5 Cambodia	National Institute of Statistics	<a href="http://www.nis.gov.kh">http://www.nis.gov.kh</a>	en+kh
6 China	National Bureau of Statistics	<a href="http://www.stats.gov.cn">http://www.stats.gov.cn</a>	en+cn
7 Fiji	Bureau of Statistics	<a href="http://www.statsfiji.gov.fj">http://www.statsfiji.gov.fj</a>	en
8 French Polynesia	Institut Statistique de Polynésie Française	<a href="http://www.ispf.pf">http://www.ispf.pf</a>	en+fr
9 Guam	Department of Commerce	<a href="http://www.admin.gov.gu/commerce/">http://www.admin.gov.gu/commerce/</a>	en
10 Hong Kong, China	Census and Statistics Department	<a href="http://www.info.gov.hk/censtatd/">http://www.info.gov.hk/censtatd/</a>	en+cn
11 India	Ministry of Statistics and Programme Implementation	<a href="http://www.nic.in/stat/">http://www.nic.in/stat/</a>	en+hindi
12 Indonesia	BPS - Statistics Indonesia	<a href="http://www.bps.go.id/">http://www.bps.go.id/</a>	en+id
13 Japan	Statistics Bureau	<a href="http://www.stat.go.jp/english/1.htm">http://www.stat.go.jp/english/1.htm</a>	en+jp
14 Kazakhstan	National Statistical Agency	<a href="http://www.asdc.kz/kazstat/">http://www.asdc.kz/kazstat/</a>	en+ru+kz
15 Kyrgyzstan	National Statistical Committee	<a href="http://stat-gvc.bishkek.su/">http://stat-gvc.bishkek.su/</a>	en+ru
16 Macao, China	Direccao de Servicos de Estatistica e Censos	<a href="http://www.dsec.gov.mo/">http://www.dsec.gov.mo/</a>	en+cn+po
17 Malaysia	Department of Statistics Malaysia	<a href="http://www.statistics.gov.my">http://www.statistics.gov.my</a>	en+my
18 Maldives	Ministry of Planning and National Development	<a href="http://www.planning.gov.mv/index2.htm">http://www.planning.gov.mv/index2.htm</a>	en
19 Marshall Islands	Office of Planning and Statistics	<a href="http://www.rmiembassyus.org/stats.html">http://www.rmiembassyus.org/stats.html</a>	en
20 New Zealand	Statistics New Zealand	<a href="http://www.stats.govt.nz/">http://www.stats.govt.nz/</a>	en
21 Papua New Guinea	National Statistical Office	<a href="http://www.nso.gov.pg">http://www.nso.gov.pg</a>	en
22 Philippines	National Statistical Coordination Board	<a href="http://www.nscb.gov.ph">http://www.nscb.gov.ph</a>	en
23 Republic of Korea	National Statistical Office	<a href="http://www.nso.go.kr/">http://www.nso.go.kr/</a>	en+kr
24 Russian Federation	Russian Statistical Agency	<a href="http://www.gks.ru/">http://www.gks.ru/</a>	en+ru
25 Singapore	Department of Statistics, Ministry of Trade and Industry	<a href="http://www.singstat.gov.sg">http://www.singstat.gov.sg</a>	en
26 Sri Lanka	Department of Census and Statistics	<a href="http://www.statistics.gov.lk">http://www.statistics.gov.lk</a>	en
27 Thailand	National Statistical Office	<a href="http://www.nso.go.th">http://www.nso.go.th</a>	en+th
28 Turkey	State Institute of Statistics	<a href="http://www.die.gov.tr/ENGLISH/">http://www.die.gov.tr/ENGLISH/</a>	en+tr

*National Statistical Offices without (accessible) web site (29):*

Afghanistan, American Samoa, Bhutan, Brunei Darussalam, Cook Islands, Democratic People's Republic of Korea, Federated States of Micronesia, Georgia, Islamic Republic of Iran, Kiribati, Lao People's Mongolia, Democratic Republic, Myanmar, Nauru, New Caledonia, Nepal, Niue, Northern Mariana Islands, Pakistan, Palau, Samoa, Solomon Islands, Tajikistan, Tonga, Turkmenistan, Tuvalu, Uzbekistan, Vanuatu, Viet Nam.

Source: SIAP inventory based on the list of national statistical offices maintained by ESCAP,

<http://www.unescap.org/stat/nsos.htm>