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NATIONAL ACCOUNTS AND BALANCES: SYSTEM OF NATIONAL ACCOUNTS (SNA)

Report of the Economic and Social Commission for Asia and the Pacific Meetings on the revision of the System of National Accounts (SNA)

### SUMMARY

The present report contains a summary of the main conclusions and recommendations emanating from two meetings held by the Economic and Social Commission for Asia and the Pacific on the revision of the System of National Accounts. The first meeting was organized for countries of the Asian subregion and was held in Bangkok from 15 to 24 August 1990. The second meeting was organized for countries of the Pacific subregion and was held in Suva from 29 August to 7 September 1990. The full reports of both meetings are available in English only upon request.

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### INTRODUCTION

- 1. The two meetings organized by the Economic and Social Commission for Asia and the Pacific (ESCAP) on the revision of the System of National Accounts (held in Bangkok, from 15 to 24 August 1990, for the Asian subregion and in Suva, from 29 August to 7 September 1990, for the Pacific subregion) provided the opportunity for the statisticians in the region to reflect and comment on the main concepts and classifications recommended by the revised SNA. The main focus of the discussion was the document entitled "System of National Accounts (SNA) Review Issues" prepared by the member organizations of the Inter-Secretariat Working Group on National Accounts. This document contains the most updated information on the revision of the SNA. The preliminary draft chapters of the revised SNA are considered as work-in-progress, since not all of them have been discussed by the Expert Group on SNA Co-ordination and they do not reflect yet those issues which are still under discussion.
- 2. What follows is a summary of the comments and conclusions arrived at by the participants in both meetings. Introductory explanatory statements, along the lines of what is included in the discussion document mentioned above, were made for each topic discussed below, but are not reflected in this report due to lack of space. For more detailed information on the discussion of each individual meeting, reference may be made to the full reports of each meeting which are available in English. Copies of the individual reports may be obtained from the Statistical Division of ESCAP or from the Statistical Office of the United Nations Secretariat.
  - I. MAIN CONCEPTS AND CLASSIFICATIONS OF THE REVISED SNA
  - A. <u>Integrated analysis of production</u>, income generation and income distribution

### 1. Statistical units

- 3. Implementation of a cross-classification of value added components by activities and institutional sectors would be difficult because of the orientation of data collection towards value added compiled on the basis of establishment data.
- 4. Particular difficulties were mentioned with regard to identifying separate establishments of a homogeneous nature in the group of small-scale producers that would generally be included with the household sector. In some countries the majority of enterprises consisted of only one establishment. Furthermore, international recommendations on industrial statistics did not include any guidelines as to the institutional dimension of establishment data. These guidelines would have to be revised.
- 5. <u>Conclusion</u>: The importance of adopting the institutional unit as the basic unit for compiling the complete set of accounts was recognized. Also the need was recognized for the continuation of the use of establishments for measurement of output, intermediate consumption and value added by industry.

### 2. Alternative income concepts related to production

- 6. Participants commented on the coverage of the new income concepts. Some thought that if low-cost housing was provided as a result of rent controls, final consumption should reflect the market rent and not the low subsidized rent. In such circumstances implicit subsidies on low- or zero-interest housing loans to employees should be included in compensation of employees. This would particularly apply in circumstances of high inflation.
- 7. In one country where there were no funded pension schemes, instead of following the SNA treatment of imputing premiums as part of compensation of employees and then including premiums and claims in the secondary distribution of income account, national accounts included the pension benefits as part of compensation of employees and did not include any transfers in the secondary distribution of income account.
- 8. It was noted that as interest was not taken into account in the valuation of government services, interest payments on public external debt should not be included in the primary distribution of income accounts and thus should not affect primary and national income. They should be considered as transfers in the secondary distribution of income account and thus affect disposable income.
- 9. <u>Conclusion</u>: There was general acceptance of primary income, the concepts of entrepreneurial income and mixed income, which were particularly relevant for use in developing countries. However, further clarification was needed on the treatment of some transactions, such as interest on public debt, consumer debt, unfunded welfare and pension fund transactions, and housing benefits, such as subsidized rents.

### 3. Production boundary

- 10. Some participants preferred the 1968 SNA production boundary, which included goods production only if it were based on primary products as intermediate inputs. They thought that the distinction to include all goods, and services only if marketed, was based too rigidly on the distinction between goods and services, which still needed further specification.
- 11. A specific example was presented which indicated an anomalous consequence of the recommendation to include all goods production whether produced for the market or not, namely the catch of fish, which was in most instances consumed in the households carrying out the fishing activity. Prior to consumption, the fish needed to be treated in order to preserve it for a longer period of time. The output of the preservation activity, which was basically a service activity carried out within the household, would have to be added to the value of the fish, as that would be the value of the final product generally sold in the market.
- 12. Some participants thought that water carrying should not be included because it would unduly increase the value of gross domestic product (GDP) and the corresponding coverage of employment, and give the impression that the country was

better off than it really was. Some pointed out that the contribution to GDP of water-carrying activities might be very different from those of fruit and fuelwood gathering, where the contributions were computed indirectly through the valuation of output for which a market price might be available. On the other hand, the view was expressed that the purpose of including water carrying was to assess net product generated and not to imply any measurement of well-being.

- 13. Some participants argued that own-account production of household services might have to be included in production, in order to establish comparability of data series over time. Excluding household services from the production boundary would distort the comparison of GDP estimates for developed and developing economies.
- 14. Some thought that SNA should be more precise in describing what were major repairs in the case of owner-occupied dwellings, instead of leaving it to national accountants to apply those rules to the particular circumstances of their countries.
- 15. <u>Conclusion</u>: The participants expressed reservations on some of the suggested expansions of the production boundary. In particular, they did not agree to include in the production boundary the activity of carrying water for own use, as that was viewed as a service activity. The expert groups were asked to examine carefully the expansion of the production boundary in view of its implications for the measurement of employment and welfare.
  - 4. Quasi-corporations versus unincorporated enterprises, public and private
- 16. Some participants questioned why the term quasi-corporations was deleted from the title of the financial and non-financial corporations sectors. Instead of the term "corporation", the term "enterprise" might be used in order to distinguish between corporations as legal entities and institutional units that were delineated by economic criteria.
- 17. Some participants thought that in distinguishing private from public corporations, much more prominence should be given to the underlying criterion of control in addition to that of ownership, but at the same time stressed the need for greater clarity in the SNA documentation. Others suggested that the ownership criterion for distinguishing public from private corporations be given more prominence and that even the control criterion might have to be deleted entirely from the definition of public corporations as distinct from private ones.
- 18. Some participants suggested that the new guidelines on the coverage of private unincorporated enterprises would require that the coverage of surveys of household economic activities be adjusted to include, for instance, money-lenders.
- 19. Some participants wondered whether tax records would be adequate to identify quasi-corporations among private unincorporated enterprises. They wondered whether the use of that criterion identification through tax records could be treated

as equivalent to the availability of separate accounts and information on withdrawals of entrepreneurial income, which was stipulated as a condition for the identification of those units in the revised SNA.

20. <u>Conclusion</u>: The participants had no objections to including financial unincorporated enterprises with the household sector. While there were queries from some participants, the majority of the participants were indifferent to changing the title of the non-financial and financial corporate and quasi-corporate enterprise sectors to non-financial and financial corporate sectors.

# 5. Market and non-market production, including public versus private corporations

- 21. Several participants expressed the view that the criterion of intention to make a profit should be used as an important supplement to the rule of 50 per cent cost coverage. In some instances it might have to supersede that "mechanical" rule. In the same context, it was pointed out that public monopolies were clearly market producers if they derived large profits from their monopolistic position. The question was raised whether public monopolies should be treated as non-market producers, if as a result of government policy they made losses rather than profits. There was a further need for guidelines in those cases where most sales were made to the Government.
- 22. One instance was mentioned of an enterprise (a resort hotel) which had considerable losses in its operations, but where those were compensated by revenues (property income) from its investments; the question was asked whether property income receipts should be taken into account in assessing the cost coverage of producing units.
- 23. <u>Conclusion</u>: The classification of producers into market and non-market, based on the proportion of production cost covered by output, remained ambiguous to some participants. That ambiguity was partly due to the strong association of the terms "market" and "non-market" with whether the goods produced were actually marketed or not. It was also suggested that the criteria used in the distinction between market and non-market producers should be reviewed. In particular, the expert groups might consider classifying producers, including corporations, on the basis of their behaviour or objective instead of using the 50 per cent cost coverage criterion.

### 6. Financial intermediaries: bank and insurance services

- 24. One participant suggested that interest in the primary distribution of income account be recorded in terms of actual interest paid instead of showing only the pure interest flow after deduction of a service charge.
- 25. There was much discussion on the allocation of bank service charges. While some thought that they could be allocated on the basis of loans and deposits, others thought that they could be linked to the actual interest paid. There was

also a proposal to use the allocation of compensation of employees between different types of banking functions as a key in the allocation of the bank service charges between sectors. It was also pointed out that in circumstances when there was specialization of banks in different types of functions, there would be less difficulty in allocating the imputed service charge between different uses.

- 26. Other participants proposed that the output of banks be calculated on the basis of inputs. That would require that a link be established between profits of banks and their operating surplus, eliminating various elements, such as write-offs and provisions for bad debts, that banks might have included in the calculation of profits.
- 27. Questions were raised on the calculation of imported bank service charges. It would be difficult to arrive at such information, as it would require surveying foreign banks.
- 28. One participant suggested that the term bank service charge be maintained, because most users were familiar with it. It would be an additional difficulty to explain to users that the term had now changed to financial intermediation charges.
- 29. Some participants suggested that in calculating the output of insurance services, not only should interest on reserves be taken into account but also capital gains and losses. It was reported that in one country, insurance companies took such gains and losses into account in the calculation of their gross premiums.
- 30. Some participants questioned whether development banks would be included as financial corporations. Many of those banks were only distributing funds from the government and did not operate on the financial market.
- 31. There was considerable discussion with regard to the treatment of money-lenders, who fulfilled a very important financial function, especially in the rural areas where there was less access to formal banks. The expert groups were requested by the Seminar to review such cases and determine what their imputed output would be and which part of their revenues would be considered property income.
- 32. <u>Conclusion</u>: There was general agreement on the allocation of the imputed service charge of financial intermediaries to the various uses, that is, industries and final demand categories. The participants recognized that the change in terminology from "imputed bank service charge" to "imputed financial intermediation service charge" was necessary to include the output of both banks and other financial intermediaries. There was, however, no agreement on what criteria to use in allocating the service charges between uses.
- 33. With regard to the calculation of the insurance service charge, it was accepted as the difference between gross premiums plus interest on the reserves minus claims. The suggestion to incorporate capital gains and losses in the calculation of gross output was not accepted but was referred to the expert groups for further study. In addition, the SNA expert groups were requested to review the criteria for allocating the insurance service charge among uses.

## 7. Imputation of rent on government buildings

- 34. Several questions were raised on the coverage of government buildings to be included in the rent imputation. Some wondered whether buildings that were normally not rented, such as historical buildings, temples and prisons, would have to be included in the imputations. Others expressed reservations about introducing the concept of positive operating surplus as that would be inconsistent with the valuation of the other productive activities of the government sector. Also was mentioned the difficulty of finding appropriate rents for buildings that were normally not rented. Participants felt that the problem was a different one from the one encountered in the imputation of rent on owner-occupied dwellings.
- 35. Those in favour of making the imputations mentioned that in some countries Governments had increasingly constructed their own buildings, rather than rent them from the private sector. If no imputations were made, the contribution of the government sector to GDP would actually be reduced. Also, if no rents were imputed, outlays to construct government buildings would be treated as intermediate consumption of the government rather than as capital formation, a consequence which would be unacceptable. In another country, government-owned buildings were transferred to a government agency, which actually charged rents to other government agencies. For comparability over time, it would be appropriate to impute rents on government buildings for previous years. In the latter case, a separate establishment with an operating surplus, which would be classified separately from the units producing other government services, was preferred. It was also pointed out that if the government building rent imputation were introduced in the system, it should not be restricted only to the government sector, but should apply equally to non-profit institutions.
- 36. With regard to the introduction of consumption of fixed capital on roads, dams and government structures, it was pointed out that such treatment was already applied in one of the countries. The incorporation of such consumption of fixed capital was needed in order to account correctly for the cost of capital in the production of government services; there would be a consequent future need for international agencies to use net concepts of income instead of the present gross concepts of GDP and gross national product (GNP) for national and international policy purposes.
- 37. <u>Conclusion</u>: The majority of the participants favoured imputation of rent for government buildings. However, they pointed out the practical problems that might be encountered in the imputation of the rental value.

### B. <u>Valuation</u>

38. It was suggested that the separate identification of basic values and product taxes as components of market values of intermediate consumption and final demand should be explicitly incorporated in the central framework of institutional sector accounts and the supply and use table. Such separate identification of product taxes would facilitate input/output analysis which would require a common valuation of output and intermediate consumption in basic values.

39. <u>Conclusion</u>: The participants accepted the valuation options proposed for output and intermediate demand. They felt that they were flexible enough for use by countries with different systems of prices and taxation.

# C. Integration of stock analysis with traditional flow analysis of the national accounts

- 40. One participant emphasized that the asset classification in the revised SNA would have to be flexible enough to accommodate new assets when they became relevant in the future. As an example, the growing importance of fishing grounds as an economic asset because of the increasing scarcity of fish stocks was mentioned.
- 41. As regards the moment of recording of assets, some doubts were expressed concerning the appropriateness of the change of ownership criterion, since in some cases, for example, the construction of dwellings commissioned by an individual, no change of ownership took place.

### 1. Coverage and classification of produced assets

### (a) Software

- 42. Doubts were expressed about the feasibility of including in-house software as capital assets. There were problems of obtaining information on those activities and also problems of valuation, because the same persons might be involved in the development of software and other functions.
- 43. Some thought that in-house software development might be much more important than purchased software and that there might therefore be no justification for excluding it. Others felt that only systems software should be included and not application software.
- 44. Conclusion: There was general agreement to include outlays for the acquisition of software in capital formation. However, the expert groups were asked to further examine whether they should be classified as tangible or intangible produced assets. The experts were also asked to clarify whether software developed in-house should be included, and if so, how it should be valued.

### (b) Mineral exploration

45. There were many questions asked with regard to the coverage of mineral exploration expenditures, for example, whether they should include the studies that were being made prior to exploration, the excavation cost and the cost of geological surveys.

- 46. Some commented that inclusion of all exploration expenses as capital instead of only expenses for successful explorations would unnecessarily inflate gross fixed capital formation. They preferred that exploratory expenditures be classified as capital only if there was a reasonable probability of success, which was of course difficult to determine.
- 47. A problem specific to small island economies was that foreign companies were licensed on a year-to-year basis for exploration. Once it became clear that there was not much chance of success, they would abandon the exploration, and the knowledge gained by them remained without value for the country. On the other hand, for the country where the oil company was resident, unsuccessful exploratory expenditures could be very valuable as they generated knowledge which could be used in future explorations. There was an apparent conflict between the assignment of such expenses to capital formation in the country where the exploitation took place and in the country where the oil company was resident.
- 48. Conclusion: The participants were divided on how to treat mineral exploration expenditures. Some agreed to treat such expenses as capital formation, while others wanted to continue the present SNA treatment of including all such expenses in intermediate consumption. The third option of treating only the cost of successful exploration as capital formation was generally discarded, because of the difficulty of determining within the time frame of the national accounts whether such exploration would be successful or not.

# (c) Research and Development (R and D)

- 49. Data problems were mentioned as the major obstacle to including research and development as capital. The majority thought that it was difficult to identify expenses for R and D and to value the resulting asset.
- 50. One participant suggested that the output of research and development should be valued at the market value of the patents or copyrights if they existed.
- 51. Conclusion: The participants were undecided on the principle of treating expenditure on R and D as capital formation. They were also not clear on what would be the corresponding asset and whether such an asset would actually contribute to future production in the present circumstances prevailing in the countries of the region. Therefore, it was suggested that the expert groups provide further clarification on that point and on the coverage of R and D expenditures proposed to be classified as capital formation, before a final position was taken.

# Environmental accounting: links to SNA, environmental assets, and natural growth products

52. Suggestions were made with regard to the coverage of natural assets in the SNA asset boundary. These included natural forests, coral reefs, fish stocks, mangrove swamps, beaches and potable water. While inclusion of such assets might be advisable, it was pointed out that practical data problems existed in most of those areas.

- 53. Those in favour of extending the asset boundary to include natural assets mentioned, among others, that the cost of deforestation of virgin forests should be taken into account in the calculation of GDP. Though this would reduce GDP and probably lead to negative value added in the forestry sector, that would be precisely the message which needed to be given to policy makers.
- 54. The suggestion to include a depletion allowance in the calculation of net domestic product (NDP) was supported by some participants. Particular mention was made of the reduction in coral reefs which would have to be taken into account in proper accounting of NDP.
- 55. Others argued that the inclusion within SNA of environmental accounts, even as satellite accounts, would remain a long-term goal for their countries.
- 56. During the discussion, some participants favoured the proposal in principle to estimate output of natural growth assets on the basis of growth instead of harvest; they pointed out that the growth orientation would be the only feasible manner in which quarterly accounts could be set up. Others, however, thought that this would not resolve the links between output and input in agriculture. One participant pointed out that his country did not include growth of livestock in output and capital formation, mainly because of data problems. Another participant pointed out that in the calculation of output, not only reproduction of livestock but also growth in weight of livestock should be taken into account.
- 57. Some participants asked whether growth of fish in the ocean should also be included in output. Others thought that inclusion of that type of asset would be difficult because fish migrated from one territorial base to another. On the other hand, it was pointed out that studies of the stock of fish were being made as well as of their movements between different parts of the ocean. It was unlikely that estimates of national stock could be produced, although regional estimates would be. It was possible to consider shares of that regional stock as a national asset. Such treatment was already possible in the case of river and lake fish.
- 58. Conclusion: The participants accepted in principle the inclusion of developed and cultivated environmental assets in the asset boundary of the system. They were not, however, in full agreement with the proposed asset classification and coverage. Among the elements mentioned which would need further examination were the classification of land and assets on it, the inclusion of water and the treatment of natural growth products. It was furthermore suggested that the classification be made more flexible so that future changes in the coverage of assets could be easily accommodated. Finally, participants supported the idea of establishing environmental satellite accounts in the revised SNA.

### 3. Military durables

59. Data availability was mentioned as the main reason for not distinguishing between those military durables to be included as assets and those that would be part of final consumption. Opponents of extending the coverage of military durables in gross fixed capital formation thought, however, that they could accept

the inclusion of schools, hospitals and so on for the same reason as mentioned by the expert groups.

- 60. Those who argued in favour of including all military durables in gross fixed capital formation pointed out that non-inclusion of weapons and similar military hardware in capital formation, on the grounds that they were very much at risk during war, could not be easily defended as civilian assets could also be destroyed in wartime. It was also mentioned that treating large capital outlays of an irregular nature on military hardware as government final consumption expenditure would artificially increase government consumption from one period to another, particularly in small island countries.
- 61. Conclusion: There was general agreement that expenditure on construction by the military which could be used for civilian purposes should be treated as capital formation, although it would be difficult to obtain the required data in some countries. Some participants were in favour of treating all expenditures on military durables as capital formation.

### D. Role of the household sector in the economic process

- 62. One participant proposed an alternative hierarchy for breaking down the household sector into subsectors: agricultural and non-agricultural households at the first level of the hierarchy; within agricultural households a distinction between labourers and operators; within operators a distinction based on the size of the land owned; within non-agricultural households an urban-rural distinction; and further breakdowns based on the International Standard Industrial Classification of All Economic Activities (ISIC) and the International Standard Classification of Occupations (ISCO). Some suggested that own account workers in agriculture should be distinguished from those in other sectors. Most participants thought that subsector categories, such as the ones proposed in the revised SNA, would come at a lower level of the hierarchy.
- 63. Some participants argued that the use of the reference person as the one bringing in most of the income would not work well in the case of subsistence production activities.
- 64. Difficulties were mentioned in linking the classification of households by subsectors to the production accounts of the unincorporated units that are included in the household sector and that are classified by economic activities; hardly any survey would cover at the same time the household revenues and expenditures and production information.
- 65. <u>Conclusion</u>: The participants recognized the analytical value of the proposed subsectoral classification of households. However, some thought that the classification might not be sufficient for the needs of the countries. Also, operational difficulties might not allow them to adopt the classification readily.

### 1. Formal versus informal activities

- 66. Most participants agreed that there was a need to have a more specific distinction between formal and informal activities than the one based on the alternative distinction between corporate and unincorporated activities proposed so far by the expert groups.
- 67. Several criteria were mentioned for making an operational distinction. One suggestion was to include in the informal sector all production units that are unincorporated, have no legal basis, are managed by households and have a limited number of employees. Another was that such criteria would be also applied to quasi-corporate units which, therefore, could be included in the informal sector as well. There were also those who suggested to include in the informal sector only subsistence activities, while there were others who suggested to include all subsistence, non-market and non-monetary activities. On the other hand, there were alternative definitions of the formal sector, either consisting of the units that had business licenses, or alternatively as including all units that were legally constituted and/or were covered in establishment surveys.
- 68. <u>Conclusion</u>: On balance there was a general feeling that the distinction between corporate and unincorporated enterprises as proposed in the revised SNA might not be an adequate approximation of the distinction between the formal and informal sectors.

### 2. Non-profit institutions, including community activities

- 69. One participant argued that as a matter of principle private non-profit institutions should not be included with the household sector and should remain as a separate sector as recommended by the 1968 SNA.
- 70. Most participants thought that it was essential that imputations be made for the cost of voluntary labour. Some noted the anomalies which would occur if no voluntary labour cost was imputed and the capital good thus constructed was sold on the market at a much higher price. On the other hand, it was pointed out that there were many difficulties in getting the correct value for the labour input. Such valuation faced the same problems as would be encountered in valuing the labour involved in water carrying, firewood gathering and so on.
- 71. Conclusion: There was a general sentiment that non-profit institutions serving households should be included as a subsector of the household sector as was proposed. It was furthermore agreed that non-profit institutions would not be identified on the basis of their legal status but rather on the basis of their economic behaviour.

# 3. Final consumption expenditure, actual final consumption, disposable and adjusted disposable income

- 72. Some participants questioned the usefulness of the concepts of actual consumption of households and adjusted disposable income, except for the purpose of international comparisons of household consumption levels between countries and for comparisons over time. It was mentioned that adding individualizable final consumption expenditure by the government to that of households was not meaningful as households could not decide about its use.
- 73. Others thought that there were serious problems in allocating individualizable consumption from government expenses to individual household subsectors, even though they recognized that actual final consumption classified by household subsectors might be an interesting concept for the measurement of poverty between different groups of the population. While there may be allocation difficulties when government data are used, there may be measurement problems when the data are obtained directly from household surveys.
- 74. Conclusion: The participants were in favour of incorporating in the SNA the concepts of actual final consumption and adjusted disposable income.

## E. Transfer of resources between countries

- 75. Participants stressed the need for clarification of the definition of centre of economic interest with respect to the type of economic activity (production, consumption) involved, particularly for the classification of individuals.
- 76. Specific questions were asked on the residence status of individuals, such as refugees, contract workers or migrant workers, who might stay longer than one year in a country but never permanently. Some participants wondered why students were excluded from being residents of the host country because they did not contribute to production and income generation. If that were so, such an orientation of the residence criterion was criticized as being too production-oriented. Finally, questions were raised on the residence status of the Pacific Forum Line, which is a shipping company jointly owned and managed by several countries of the Pacific subregion.
- 77. More specific guidelines were requested on how to deal with direct investment of enterprises operating in the country but which were established as "paper companies" abroad in order to avoid taxes and the consequences of political uncertainty in the future. One participant wondered why a distinction was made between construction and installation companies which both stay only temporarily in the host country without establishing firm economic residence.
- 78. <u>Conclusion</u>: The participants accepted the centre of economic interest as the basis for determining residence. However, several found difficulty in accepting the one-year residence guideline in all cases as the operational criterion to define centre of economic interest. It was therefore suggested that the expert groups should review the operational one-year rule and refine it further in order

to give guidance on the residence treatment of specific individuals and also review the coverage of revenues to be included in GDP for expatriates who received a large part of their remuneration outside the host country, such as technical assistance personnel.

- 1. Exports and imports of goods and services: merchandise and factor/non-factor services
- 79. Several participants gave examples of difficulties related to using the change of ownership as the basis for recording external transactions, particularly because foreign trade statistics did not use this criterion in recording imports and exports. Furthermore, recording sale of goods on consignment on the basis of ownership change was difficult because it was not possible to determine which of those goods recorded in foreign trade statistics would return and which would actually be sold. Another difficulty mentioned concerned the purchase and sale of fuel that was imported into the country and subsequently sold to a foreign non-resident airline; a question was asked whether such a sale should be consolidated out of the external account.
- 80. One participant noted that while it was generally not too difficult to measure the export of services, it was very often not possible to measure their import.
- 81. Several participants questioned the feasibility and usefulness of changing imports from c.i.f to f.o.b. valuation; they thought that it would be better to align the manual on balance of payments (BPM) with the 1968 SNA rather than vice versa. Others mentioned that it might be difficult to estimate the global adjustment needed to convert commodity detail of import data in c.i.f. values to f.o.b. values for total imports. A special difficulty was mentioned with regard to the distinction between foreign and domestic insurance and freight charges on imports in the case of the earlier mentioned Pacific Forum Line, which was owned by several countries in the Pacific subregion.
- 82. Most countries represented in the meeting reported that they had been registering on a net basis goods for processing entering and leaving the country. The reason was that only the net value of such products was taxed and that recording the flows on a gross basis would be incompatible with past tax practices. It was pointed out that in that case the tax system would have an incorrect influence on the recording of national accounts flows.
- 83. Conclusion: No specific conclusions were reached as a result of the discussion.

### 2. Reinvested earnings

84. One participant opposed the introduction of an imputation for the flow of reinvested earnings of direct investment enterprises in the external transactions accounts of SNA. While he strongly supported the harmonization of SNA and BPM, he argued that this could be achieved without changing the present SNA treatment. He would prefer showing reinvested earnings as a memorandum item in the national

accounts. Others supported the recommended change of SNA in the direction of BPM as such treatment would better reflect the measurement of foreign interests in domestic enterprises.

- 85. A question was raised concerning how to treat the revenues of a fund that was invested outside the country and from which the government annually withdrew interest revenues; the capital itself could not be drawn down. Should such a fund be considered of a direct investment operation and should revenues generated by the fund be included as reinvested earnings even if the revenues are not used by the country in question?
- 86. <u>Conclusion</u>: Discussion was quite limited, but conflicting views were expressed with respect to the issue and therefore no final agreement was reached on whether to change SNA with regard to reinvested earnings.

# 3. Valuation of external transactions, multiple exchange rates

- 87. Some participants requested specific guidelines on which type of exchange rate should be used (actual, black market rate or other rate, and average rates or rates at a specific point in time), in particular for reinvested earnings, and to value foreign assets owned by residents in the balance sheets.
- 88. Most countries in the Pacific subregion reported that their currencies had close links to the currencies of Australia, New Zealand or the United States of America, and that there was as a result, very little variation over time in the value of the local currencies in terms of US dollars. Therefore, in most countries, average official exchange rates were used in the conversion of external transactions to local currencies. Black market rates and revenues resulting from those were of very little importance, and no special efforts were made to cover revenues thus obtained in GDP.
- 89. <u>Conclusion</u>: Without reaching any final conclusions, most participants felt that multiple exchange rates were a subject that would require further elaboration in the revised SNA as they reflected a very important element in the accurate measurement of economic activities in the countries of the region.

# F. Financial instruments, financial sector and financial accounts

- 90. The view was expressed that the inclusion of unincorporated financial intermediaries within the household sector might make it difficult to analyse capital and financial flows in the system as financial units are spread over two sectors. In the same context a question was asked where to classify credit co-operatives which mobilized funds for the rural sector.
- 91. One participant opposed to include financial auxiliaries in the coverage of financial corporations as those units had clearly very different functions from other units in the sector.

- 92. With regard to the classification of financial corporations, it was suggested that at the second level of detail a distinction should be made within "insurance companies and pension funds" between life insurance schemes and pension funds on the one hand and casualty insurance schemes on the other.
- 93. <u>Conclusion</u>: The majority of the group were in favour of the inclusion of financial auxiliaries within the financial sector. In general the proposed classification of the financial sector was found acceptable.

### Financial instruments: gold, financial leasing new financial instruments

- 94. It was pointed out that households in the countries of the ESCAP region often used household durables as an asset similar to financial assets. Therefore, it was questioned whether it would be sufficient to treat household durables as a memorandum item in the balance sheets as had been proposed, rather than as a full asset.
- 95. Another question was raised about the treatment of an aircraft which had recently been leased for a period of four years from a foreign lessor who charged 65 per cent of the operating cost to the lessee, with an option to buy the plane after the contract expired. Even though there was the option to buy the plane at the end of the contract, the lease had many of the characteristics of an operational lease.

### G. Analysis of inflation

### 1. Chain indices

- 96. Most of the participants stated that they were not familiar with chain indices and requested that literature on the subject, in particular with reference to country practices, should be made available to countries in the region.
- 97. Other participants mentioned that because of problems of additivity and the need for comparisons over a number of years, chain indices would be less useful.
- 98. Those not in favour of chain indices emphasized the use of a normal year as a base year. Averaging two or three years was suggested for some erratic series as a method for overcoming the choice of an abnormal base year.
- 99. Conclusion: The participants appreciated the introduction of chain indices in SNA. Nevertheless, they thought that there were serious practical difficulties in implementing them. Furthermore, it was stated that it would be very difficult to justify and explain to users the change to chain indices. The suggestion to publish both types of indices (fixed weights and chain) might confuse users.

### 2. Unique products

100. During the discussion it was pointed out that, especially in the case of some imported equipment, products might be unique to some countries but not to others. Hence, it might be possible to construct a price index which combined information from the producing country (output price indices) with an index reflecting changes in the exchange rate between the two countries.

## 3. Price and volume measures for non-market goods and services

101. It was suggested that further work needed to be carried out in determining the output of non-market services. For example, it was argued that it was too simplistic to assume that education should be extrapolated by teaching hours, as there was more to the output of education than simply hours of teaching provided (e.g., student counselling, organizing extra-curricular activities).

### 4. Terms of trade measures

- 102. Many countries did not estimate trading gains/losses. In one country the calculation was made by using the implicit price deflator of imports of goods and services to revalue the balance of trade.
- 103. One participant pointed out that using an arithmetic average of export and import deflators in the numeraire of the terms of trade measure could lead to biased results; he suggested the use of a weighted average.
- 104. Conclusion: While there was little experience in the region with regard to the estimation of trading gains and losses, most participants did agree with the suggested formula for the calculation of terms of trade effects. What was considered most critical was the choice of the appropriate price index to deflate the balance of trade.

### 5. Real national disposable income

- 105. It was suggested that in calculating the implicit price deflator for gross final domestic expenditure, it would be preferable to exclude changes in stocks from the calculation. Thus, the implicit price deflator would be calculated as the quotient of the nominal and constant price values of final consumption expenditure plus gross fixed capital formation. Experience had shown that any deflator which included changes in stocks was likely to be erratic.
- 106. Conclusion: While there was little discussion of the topic, it could be surmised that participants supported the proposed inclusion in the revised SNA of the real income measures mentioned. The Seminar in Fiji noted that the issue was not relevant for many of the countries present, as their national accounting development had not reached that stage.

### 6. Quality changes

107. One participant questioned whether the approach to quantifying quality change was correct. It was argued that as GDP was a measure of production, the value of quality change should be calculated on the basis of the base year resource cost. An example was mentioned of a motor car engine which had undergone a specification change to run on unleaded petrol. In order to correctly value the change in production, the increased cost of the car would have to be reflected in a volume change, even though the car was not different from the user point of view.

108. <u>Conclusion</u>: Participants felt that quality change should be accurately reflected in the measurement of output, but considered that further consideration needed to be given to the basis on which quality change should be valued.

### 7. Revaluation of changes in stocks, including work-in-progress

109. <u>Conclusion</u>: Most participants stressed the fact that they had serious difficulties in obtaining reliable stock data from producers and traders in the first place, and that they were generally not in a position to estimate the changes in stocks correctly.

### H. Role of the public sector

# Classification of taxes, social transfers and other public sector transfers

110. Many questions were raised on details of the modifications in the classification of tax and non-tax revenues. There was general support, however, for the changes that had been introduced in order to align SNA and government financial statistics (GFS).

### II. ACCOUNTS AND TABLES

- 111. There was very little discussion of the accounts and tables of the revised SNA. In this context, one participant reported on work that had been carried out on social accounting matrices in some countries in the subregion. The compilation of social accounting matrices (SAMs) had not generally been incorporated in regular statistical programmes, and as a result, there had been little impact on the development of national accounts in the subregion.
- 112. <u>Conclusion</u>: In general the participants found the accounts and tables of the revised SNA more comprehensive, integrated and of better analytical value than those of the 1968 SNA. Nevertheless, it was recognized that data collection must be strengthened in order to implement them. It was requested that countries should be provided with the complete set of tables, including the detailed supply and use table.

### III. SNA REVIEW FROM THE REGIONAL POINT OF VIEW

- 113. There were a few issues that participants particularly wanted to have incorporated in SNA and which they thought had not been given adequate attention in the review process. Those included the development of regional accounts and quarterly accounts, the further breakdown of the household sector by socio-economic groups, the development of definitions for the informal sector and the development of productivity measures.
- 114. There were other SNA-related issues that participants felt were particularly important to the Pacific subregion, including the extension of the asset boundary to such areas as fishing stocks and mangrove swamps, and more broadly defined environmental assets, such as clean air and water. The Seminar welcomed the efforts of the Statistical Office of the United Nations Secretariat and the World Bank in jointly preparing a Handbook on Environmental Accounting. It stressed the need for the concepts used in the environmental accounts to be as consistent as possible with SNA, but recalled its preference that environmental accounts be developed as satellite accounts rather than as part of the central national accounts framework.
- 115. Most participants agreed that the revised SNA provided a much clearer set of conceptual guidelines than the 1968 system. The revised system would contribute to the understanding of national accounting and would thus facilitate its implementation. It was noted that as a result of better understanding, available data could be used more effectively in a more extensive elaboration of the system than was done in the past. In particular, it was mentioned that due to the lack of clarity in the 1968 SNA, institutional sector accounts had never been properly developed by many countries, even though data might have been available. Further guidance through handbooks was still needed because the revised SNA included many new elements, extension of coverage of existing items and new treatments of transactions, on which there was no experience with implementation in the countries of the region or indeed anywhere in the world.
- 116. The view was expressed that the revised system should include sufficient flexibility in its classifications and definitions of concepts that would permit countries in transition which formerly applied MPS to use the revised SNA.
- 117. It was agreed that more time was needed for countries to study the revised system from the points of view of statisticians and users. It was suggested that countries send their comments on the revised system to the Statistical Office of the United Nations Secretariat. It was further proposed that two more seminars be organized, one to review the comments of countries as conveyed to the Statistical Office and the other to review the final draft before submission to the Statistical Commission.
- 118. The Seminar noted that a further round of regional and subregional meetings such as the present one might not be held before adoption of the revised SNA by the Statistical Commission, both for financial reasons and because of the tight schedule of the revision process. Instead, an interregional meeting in early 1992 was being planned to which several Asian and Pacific countries would be invited.

### IV. IMPLEMENTATION OF THE REVISED SNA

- 119. Many country participants felt there would be some difficulty in obtaining data to implement the revised SNA. However, it was generally agreed that the integrated framework of the revised SNA was more comprehensible and lent itself to a better understanding of the subject.
- 120. The view was expressed that in order to facilitate international comparability in national accounts statistics based on the revised SNA, it would be useful to establish a timetable for the implementation of the system.
- 121. The meeting was informed of the preparation by the Statistical Office of the United Nations Secretariat of a series of handbooks to assist national experts in the compilation of national accounts. It was suggested that the handbooks should highlight the issues which required different treatment from the 1968 SNA, and that it was necessary to have a methodology of data collection not only to obtain data for the future but also to impute data on the past in order to complete the time series. Countries were also asked to indicate the topics which were felt to be of priority and the level of detail contained in the handbooks. It was further mentioned that the compilers of the handbooks could greatly benefit from the experiences of some countries of the ESCAP region that had been actively engaged in national accounting. The Seminar recalled that a manual on non-monetary sector valuation had been prepared by ESCAP, the South Pacific Commission (SPC) and UNDAT in 1974. It suggested that the handbook should be updated and a further co-operative effort to hold a workshop on that topic should be undertaken.
- 122. The Seminar noted that technical assistance in various forms, such as regional advisory services on national accounts and organization of seminars, workshops and training courses, could assist countries in the implementation of the revised SNA. Mention was made of possible joint activities between ESCAP and the Statistical Institute for Asia and the Pacific (SIAP) or SPC in promoting the implementation of the revised SNA in the Pacific countries. It was also suggested that SIAP might consider conducting advanced workshops/seminars on national accounts. Quite apart from assisting in implementing the revised SNA, workshops focusing on the practical aspects of compiling national accounts were considered essential for the Pacific subregion.
- 123. Appreciation was expressed of the provision of advisory services in national accounts by the secretariat which would be even more essential in view of the SNA revision. It was suggested that one adviser was inadequate for the needs of the entire Asia-Pacific region. The Seminar noted with concern the critical inadequacy of travel funds for official missions by the current regional adviser and urged the secretariat to resolve the problem. It noted with appreciation that Australia and New Zealand were prominent in providing technical assistance to developing countries in the subregion. It welcomed the possibility of receiving help from the Statistical Office of the United Nations Secretariat and ESCAP in the formulation of proposals for funding support for projects designed to facilitate the adoption of SNA in countries.

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124. The Seminar noted with interest that the Statistical Office of the United Nations Secretariat had developed software for the compilation of national accounts. That software was not yet user-friendly but could be adapted to country analytical needs and statistical facilities. The Statistical Office could undertake further technical missions to assist countries in utilizing the software.

125. While considering technical assistance indispensable in the process of implementing the revised SNA, the participants also noted the importance of convincing national administrations of the uses and relevance of national accounts in the management and development of their economies. It was also stressed that international organizations using national accounts aggregates in their policy-making would need to be made aware of the new concepts and particularly of the income concepts act of the consumption of fixed capital now recommended in the revised SNA.

#### Annex

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