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REPORT OF THE ASIAN SEMINAR ON THE **REVISION** OF THE SYSTEM OF NATIONAL ACCOUNTS

Bangkok, 15-24 August 1990

PART ONE: ORGANIZATION OF THE SEMINAR

1. The **Asian Seminar on** the Revision of the System of National Accounts, organized by the secretariat of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), was held at Bangkok from 15 to 24 August 1990. Financial assistance was provided by the Government of the Republic of Korea with supplementary funds provided by the United Nations Department of Technical Co-operation for Development.

2. The Seminar was attended by 36 participants from 22 members and associate members of ESCAP: Australia, Bangladesh, Bhutan, Brunei Darussalam, China, India, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Maldives, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, Viet Nam and Hong Kong.

3. Representatives of the United Nations Statistical Office attended. The International Labour Organisation (ILO), the Food and Agriculture Organization of the United Nations (FAO), the World Bank, the International Monetary Fund (IMF) and the Asian Development Bank (ADB) were represented.

4. The Seminar was inaugurated by the Executive Secretary of ESCAP, who expressed gratitude to the Government of the Republic of Korea for providing financial support to the secretariat for organizing two subregional seminars on the same topic for the ESCAP region; the Pacific Seminar would be organized from 29 August to 7 September 1990. He felt that such support augured well for technical co-operation among developing countries in the region. He also thanked the Department of Technical Co-operation for Development for its financial support.

5. The Executive Secretary recalled that in 1986, the secretariat had organized the Seminar on the Review and Development of National Accounts to provide a forum for national accounts experts and statisticians in the ESCAP region to discuss the issues that needed to be considered in the current SNA revision process. He was pleased to note that the report of that seminar had been taken into account in the SNA revision process by the Intersecretariat Working Group on National Accounts. He noted that preliminary working draft chapters of the revised SNA had been prepared, though a number of technical issues were not yet resolved. He emphasized that the current seminar thus provided an opportunity for Asian statisticians to reflect on the issues concerned as well as to comment on the draft chapters. With the universal acceptance of the SNA as a framework for recording flows and stocks of the economy, the Seminar discussions would have global significance.

6. The Executive Secretary, noting the current SNA revision from the 1968 version, commented that the next SNA revision could only

be expected twenty-five years hence. He emphasized that it was important that contemporary social and economic issues relevant to national accounting, and the analytical and policy concerns of countries at different stages of development, should be duly considered and catered for in the current revision exercise. The Executive Secretary urged participants to bear the analytical needs and the statistical possibilities of the developing countries in mind during the deliberations.

7. The Seminar elected Mr. R.P. Katyal (India) as Chairman. Mr Sung-Man Lee (Republic of Korea) was elected Vice-Chairman, and Ms. Heidi R. Arboleda (Philippines), Rapporteur.

8. The Seminar adopted the following agenda:

1. Opening of the Seminar
2. Election of officers
3. Adoption of the agenda
4. Revision of the United Nations System of National Accounts (SNA): an overview
5. Main concepts and classifications of the revised SNA:

   (a) Integrated analysis of production, income generation and income distribution;
   (b) Valuation of value added;
   (c) Integration of stock analysis with traditional flow analysis of the national accounts;
   (d) Financial instruments, financial sector and financial accounts;
   (e) Transfer of resources between countries;
   (f) Analysis of inflation;
   (g) Role of the household sector in the economic process;
   (h) Role of the public sector

6. Accounting framework of the revised SNA
7. Other matters
8. Adoption of the report.

9. A last of the documents submitted to the Seminar is given in the annex to the present report.

DISCUSSION OF SNA REVIEW ISSUES

I. MAIN CONCEPTS AND CLASSIFICATIONS OF THE REVISED SNA

I.A INTEGRATED ANALYSES OF PRODUCTION, INCOME GENERATION AND INCOME DISTRIBUTION

I.A.1 Statistical units

I.A.1.1 (10) In introducing the topic, it was pointed out that as in the 1968 SNA, there were two main statistical units in the revised SNA, i.e., establishments and institutional units. Establishments were defined in principle as units with a homogeneous output and operating in one location, but in order to provide flexibility and link the concept with the more practical definition of establishments in the recently revised ISIC, Rev. 3, the SNA allowed for less homogeneous units of production, which might produce secondary products and have more than one location. Institutional units were units which could own goods and assets, incur liabilities, enter into contracts, take decisions for which they were directly responsible and accountable by law; complete sets of accounts existed or could be compiled for the institutional unit.

I.A.1.2 (11) Many participants commented on the data problems involved in linking value added classified by economic activity of establishments and value added classified by institutional sectors. They emphasized that there would be a continuing need for activity breakdowns of value added.

I.A.1.3 (12) During the training sessions it was pointed out that implementation of the above cross-classification would be difficult for two reasons. The first would be the orientation of data collection towards value added compiled on the basis of establishment data. The second reason would be the difficulty of users in understanding that value was not only connected with establishments but also could be linked to institutional units.

I.A.1.4 (13) One participant noted that one of the difficulties of establishing the link between the activity breakdown of production accounts by establishment and income and outlay and financial data by institutional sectors, was that establishment data were based on international guidelines on industrial statistics that did not include any recommendations as to the institutional dimension of the establishments. As those guidelines were used by agencies responsible for the collection of such statistics, which were separate from the national accounts agency, it was difficult for the national accounts compiler to convince such agencies to change their compilation specifications to the requirements of the national accounts. She urged therefore that the United Nations Statistical Office should revise those guidelines in accordance with the revised orientation of the SNA.

I.A.1.5 (14) Several participants were concerned that it might not be feasible to obtain information for each **establishment** that would permit reclassification of those data by institutional sectors. One participant pointed out that it might even be difficult to distinguish between establishments in the public and private sectors. There would be in particular much resistance from survey statisticians to incorporating additional information in the survey questionnaires that would permit such a link to be made.

I.A.1.6 (15) In response, it was pointed out that only general information was needed in survey questionnaires on the institutional identification of establishments. Furthermore, there was no need to link establishment data to an equally detailed institutional breakdown; it would be sufficient to have an institutional classification that would identify the main sectors of the SNA -- i.e., non-financial and financial corporations, households, government -- and distinguish within the group of non-financial corporations such main groupings as agriculture; mining, manufacturing, construction; and services. Such a link with broad institutional categories would require much less detailed information on the institutional dimension of establishment data.

I.A.1.7 (16) One participant noted that it would be most difficult to identify separate establishments of a homogeneous nature in the group of small-scale producers that would generally be **included** with the household sector. Many of those producers would **be** involved in several types of activities and it would be difficult to determine which would be their main activity.

I.A.1.8 (17) The FAO representative informed the meeting that a revised version
of the Handbook on Agricultural Accounts was being prepared by **FAO** in co-operation with ECE. Efforts were being made to reconcile the guidelines of the agricultural accounts with those of the revised SNA. Some further work was needed on reconciling the definitions of establishments and output regarding
icultural holdings between the SNA and the Handbook on Agricultural Accounts.

I.A.1.9 (18) Conclusion: The participants recognized the value of adopting the institutional unit as the basic unit for compiling the complete set of accounts. At the same time they saw the need for the continuation of the use of establishments for measurement of output, intermediate *consumption* and value added by industry. Linking the information on establishments and *institutional* units would contribute to the analytical value of the accounts. In support of that, it was recommended that the United Nations guidelines for collection of industrial statistics be correspondingly revised.

I.A.2 Alternative income concepts related to production

I.A.2.1 (19) In the presentation of the sequence of accounts during the training sessions, it was explained that in the revised SNA it was proposed to include two new income concepts, primary income and entrepreneurial income. Primary income referred to the balance in the allocation of value added and net taxes on production and imports, to labour, capital and government. Primary income thus would be the sectoral equivalent of national income for the national economy. Entrepreneurial income would be an intermediate concept between operating surplus and primary income. For corporations it would be obtained by deducting property income paid and adding property income received, and for households it would be derived by adding only property income paid in the context of running an unincorporated private enterprise. In both cases, entrepreneurial income would be close to profits before taxes. In the household sector no property income was added in the derivation of entrepreneurial income, because it was assumed that households would receive all property income in their capacity as households and not as owners of unincorporated enterprises.

I.A.2.2 (20) There were some questions on the coverage of compensation of employees. One question was whether implicit subsidies on low- or zero-interest housing loans to employees should be included in compensation of employees. The expert groups that had been convened in the context of the SNA review had agreed that if such implicit subsidies were important, they should be included with compensation of employees; that would particularly apply in circumstances of high inflation.

I.A.2.3 (21) Another participant thought that similarly 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. Income of households should be adjusted accordingly.

I.A.2.4 (22) One participant described the treatment in his 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, his country's 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.

I.A.2.5 (23) One participant thought that 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. The reason mentioned was that interest was not taken into account in the valuation of government services.

I.A.2.6 (24) The operating surplus of small unincorporated business in the household sector is a mixture of return to owner's labour, capital and entrepreneurship. Such income would be known as mixed income. Thus operating surplus in the household sector would refer only to that generated by owner-occupied dwellings.

I.A.2.7 (25) Conclusion: There was general acceptance of primary income the concepts of entrepreneurial income and mixed income, which were particularly relevant for use in developing countries. Further clarification, however, 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.

I.A.3 Production boundary

I.A.3.1 (26) In the introduction the topic, it was pointed out that the production boundary of the revised SNA was not substantially changed as compared with the 1968 system. Only further clarifications and specifications were introduced into the revised SNA. In particular, it was agreed by the expert groups that all goods production would be included in the production boundary and that services production would be included only if those services were rendered by one economic unit to another. In that definition, household services produced and used in the same household would be excluded from the production boundary.

I.A.3.2 (27) Many participants felt uneasy about the extension of the production boundary to all goods, whether for sale to the market or for own use. Some preferred the 1968 SNA restriction that goods production be included only if it were based on primary products as intermediate inputs. They also thought that the distinction made by the expert groups 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.

I.A.3.3 (28) In that context, there was much discussion about the inclusion of water carrying in the production boundary of the system. Some thought that that activity, and perhaps others, would not have to be included as they concerned activities necessary for survival which if included would unduly increase the value of GDP and give the impression that the country was better off than it really was. There was also a political dimension: national accountants might be accused of picturing the economic situation in the country as better than perceived by others and that might not be acceptable politically. Also, data on those activities would be difficult to obtain. Others pointed out that GDP was a production measure, which should not be confused with the measurement of welfare. It was also pointed out that water carrying was similar to the distribution of water in developed countries and therefore needed to be included for purposes of international comparability of GDP data.

I.A.3.4 (29) Others felt that one should refer not to goods but to services,
because water was a free good and the most important aspect of the activity was the carrying of water, which was a service activity. In response it was pointed out that the purpose of including water carrying was to assess net product generated and not to imply any measurement of well being.

I.A.3.5 (30) Several participants also felt that inclusion of activities such as water carrying would unnecessarily increase the coverage of employment, which would give a misleading measure of labour force and unemployment in the country. Others, however, thought that employment would not necessarily have to be increased if those activities were to be included in the production boundary, as there were many activities in the SNA which did not involve employment such as the ownership of dwellings.

I.A.3.6 (31) One participant noted that own account household services might have to be included in production, in order to establish comparability of data series over time. In his country, many of the household services had been replaced by those of outside domestic servants, which had resulted in increases in the contribution of that sector to GDP. Excluding household services from the production boundary would also distort the comparison of GDP estimates for developed and developing economies.

I.A.3.7 (32) Conclusion: 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 of 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.

I.A.4 Quasi-corporations versus unincorporated enterprises, public and private

I.A.4.1 (33) In the introduction to the topic, it was pointed out that quasi-corporations would be retained in the revised SNA. They would be added to corporations in the case of market producers to form the two sectors of non-financial and financial corporations in the system. The main criterion for distinguishing between quasi-corporations and unincorporated enterprises was that they kept separate accounts and withdrawals from entrepreneurial income could be separately identified. Those criteria would apply in principle to private as well as public unincorporated enterprises. It was also pointed out that unlike the 1968 SNA, unincorporated financial enterprises would be classified to the corporate or household sector according to the same criteria as unincorporated non-financial enterprises.

I.A.4.2 (34) One participant wondered why the term quasi-corporations was deleted from the title of the financial and non-financial corporations sectors. He suggested that instead of the term corporation, the term enterprise might be used in order to distinguish between corporations as legal entities and institutional units (enterprises) that were delineated by economic criteria.

I.A.4.3 (35) In response to a question it was pointed out that the term departmental enterprises would not be used any more in the revised SNA. Instead, reference would be made to government unincorporated enterprises. The GFS terminology would be aligned accordingly.

I.A.4.4 (36) Some participants suggested that the ownership criterion for distinguishing public from private corporations be given more prominence and some thought that even the control criterion might have to be deleted entirely from the definition of public corporations as distinct from private ones.

I.A.4.5 (37) Conclusion: 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.

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

I.A.5.1 (38) It had been proposed by the expert groups to distinguish between market and non-market producers and market and non-market products. Typically market producers would cover 50 per cent or more of their cost through sales, and non-market producers less than 50 per cent. The price of market products should be determined on the basis of a market price, while non-market products should be valued on the basis of cost. There were still open questions about whether or not to classify all corporations as market producers and also whether to apply in that case the 50 per cent criterion. The other outstanding issue was whether to allocate quasi-corporations which did not meet the 50 per cent criterion to the government sector or the corporate sector and when the latter option was taken, whether to value their output at prices actually paid with a subsidy to cover the shortfall, or at cost and treat the cost not covered by sales as government consumption.

I.A.5.2 (39) Some participants thought that instead of using 50 per cent cost coverage as a criterion for distinguishing between market producers and non-market producers, criteria should be used that were linked to the behaviour of the units in question. If units behaved like private or public enterprises they should be considered as such. Another participant pointed out that public monopolies were clearly market producers if they derived large profits from their monopolistic position. The question was raised as to why such monopolies should be treated as non-market producers, if as a result of government policy they made losses rather than profits.

I.A.5.3 (40) Clearer guidelines were needed in those cases where most sales were made to the government. It was pointed out that a private enterprise - e.g., a defence contractor - which sold all *or* most of its products to the government would never be treated as a non-market producer. Similarly, if the enterprise was a public one, such an enterprise might also be considered a market producer, even if it sold most of its output to the government.

I.A.5.4 (41) In response to a question, it was pointed out this agricultural production would usually be considered as market production, even if it was not marketed. In that context it was mentioned that the revised SNA should adopt the distinction between market and non-market production, which was not the same as that between marketed and non-marketed production . When non-marketed agricultural production was involved, it was considered to be market production and valued at a market price so that the cost would be more than 50 per cent covered by the price of the product.

I.A.5.5 (42) Conclusion: 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.

I.A.6 Financial intermediaries: bank and insurance services

I.A.6.1 (43) In introducing the topic, it was pointed out that a number of changes had been suggested with regard to the output and distribution of output of financial intermediaries, i.e., banks and insurance companies. In the case of banks it had been proposed that bank output was a real output, which was only approximated by adding to actual bank service charges, imputed charges based on the difference between property income received and paid. In other words, the character of the imputation had been changed but not the imputation itself . It had been furthermore recommended that the imputed charges be allocated to users together with the actual bank service charges. The imputed service charge to be allocated to each sector would be the difference between interest received or paid on the one hand, and a reference interest rate on the other. The imputed service paid by each user would be deducted from the interest paid by bank borrowers and added to the interest received by depositors in order to arrive at a pure interest rate. The latter would be recorded as property income received and paid in the Appropriation of Primary Income Account.

I.A.6.2 (44) One participant expressed a preference for recording interest in the primary distribution of income account in terms of actual interest paid and not showing only the pure interest flow after deduction of a service charge. In response it was pointed out that such a possibility was provided for in the complementary classification, in which the service charge and the nominal interest flow could be identified as separate components of the pure interest flow.

I.A.6.3 (45) There was much discussion on the allocation of bank service charges. While some thought that they could be allocated on the basis of the loan 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.

I.A.6.4 (46) One of the 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 etc. that banks might have included in the calculation of profits.

I.A.6.5 (47) 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.

I.A.6.6 (48) 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.

I.A.6.7 (49) In the case of insurance service charges, the expert groups had recommended that property income on technical reserves be added in calculating the service charge. That recommendation was based on the recognition that premiums of insurance companies had been reduced in recent years, as those companies drew part of their revenues from investments of their technical reserves. As that was the case for life insurance as well as casualty insurance, it was recommended that the amendment be applied to both types of insurance service charges.

I.A.6.8 (50) In response to a question, it was pointed out that there was no change proposed with regard to the allocation of insurance service charges between users. They remained allocated on the basis of gross premiums paid.

I.A.6.9 (51) 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 one country, insurance companies took such gains and losses into account in the calculation of their gross premiums. In response it was pointed out that the expert groups had not yet looked into that question. It was pointed out, however, that if such gains and losses were taken into account in the calculation of output, that would result in the incorporation of capital gains and losses in value added.

I.A.6.10 (52) Conclusion: There was general agreement on the allocation of the imputed service charge of financial intermediaries to the various uses, i.e., industries and final demand categories. The participation 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.

I.A.6.11 (53) Conclusion: The calculation of the insurance service charge as the difference between gross premiums plus interest on the reserves minus claims was accepted. 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.

I.A.7 Imputation of rent on government buildings

I.A.7.1 (54) The Seminar noted the proposal of the expert groups to introduce into the revised SNA imputations for rent on government owned buildings. That recommendations would effectively increase the contribution of the government sector to GDP, as it would introduce costs of capital into the calculation of output of government, which would be reflected in net operating surplus of that sector. The imputation would be in addition to another imputation recommended by the expert groups to introduce consumption of fixed capital on all government fixed assets including government buildings and also roads, dams and similar structures. In recording the imputations, two options had been advanced by the expert groups. One would be to add only consumption of fixed capital and cost of capital on owner-occupied buildings to cost in the calculation of output of government services. The other option was to create a separate establishment which would bring together all cost of government owned buildings and would have as output, building services which would be recorded separately from the output of government services.

I.A.7.2 (55) Several questions were raised on the coverage of government buildings to be included in the imputation. Some wondered whether buildings that were normally not rented such as historical buildings, temples, prisons etc., would have to be included in the imputations. One participant 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 general government sector.

I.A.7.3 (56) Others mentioned the difficulty of finding appropriate rents for buildings that were normally not rented. They felt that the problem was a very different one from that encountered in the imputation of rent on owner-occupied dwellings, because the latter were in many instances actually rented and the variety of dwellings was much less than that of government buildings.

I.A.7.4 (57) On the other hand it was pointed out that in some countries government had increasingly constructed its 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. Conversely, 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.

I.A.7.5 (58) One participant mentioned that if no rents were imputed, outlays to construct government buildings might have to be treated as intermediate consumption of the government rather than as capital formation. That consequence of not imputing government rents would be unacceptable.

I.A.7.6 (59) Some participants thought that imputing rents would unnecessarily increase GDP and growth of GDP, and that would be difficult to justify.

I.A.7.7 (60) *Conclusion:* The majority of the participants favoured imputation of rent for *government* buildings. They however pointed out the practical problems that might be encountered in the imputation of the rental value.

I.B **VALUATION**

I.B.O.l (61) During the training sessions participants discussed extensively the three valuation alternatives for output [(a) basic prices, (b) producers prices in the absence of VAT and (c) producers prices in the presence of VAT), the corresponding valuation of value added and the treatment of product taxes and also considered the proposed valuation of intermediate and final uses in purchasers' values.

I.B.0.2 (62) One participant suggested that one of the options to be included in the package should be to identify separately basic values and product taxes as components of market values of intermediate consumption and final demand.

I.B.0.3 (63) Some participants commented during the training sessions that a common valuation would be needed between the pricing of output and intermediate consumption, and that such a common valuation might be basic values. In response it was pointed out that such common valuation was not inconsistent with the recommendation by the expert group that the total value of intermediate consumption by activities or sectors, while indeed at purchasers' prices including product taxes, could be further broken down to identify the basic prices of intermediate consumption as was done in the present SNA.

I.B.0.4 (64) One participant commented that the separate identification of product taxes in intermediate and final demand should be explicitly incorporated in the central framework of institutional sector accounts and the supply and use table.

I.B.0.5 (65) Conclusion: 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.

I.0 INTEGRATION OF STOCK ANALYSIS WITH TRADITIONAL FLOW ANALYSES OF THE NATIONAL ACCOUNTS

I.C.0.1 (66) In introducing the various topics concerning the valuation, classification and coverage of assets, it was pointed out that the asset question as a whole was still an unresolved issue. All statements made by those introducing the topics reflected tentative views which might be altered after the discussion in the December 1990 Expert Group Meeting on SNA Co-ordination. In view of that, participants in the present meeting were urged to present their views so that they could be taken into account in recommendations by the Expert Group.

I.C.1 General principles: coverage, classification, valuation and moment of recording

I.C.1.1 (67) The revised SNA would distinguish at the first level of detail between non-financial and financial assets. Within the non-financial assets, a second-level distinction would be made between produced and non-produced assets, and within each at the third level of detail between tangible and intangible assets. An innovation that had been discussed in expert groups was to introduce into the system fixed assets that would be intangible but produced, including research and development, capitalized mineral exploration cost, computer software and literary artistic work. In the changes of assets, a distinction was made between gross capital formation, net purchases of land and other non-produced assets, other volume changes in assets and liabilities, nominal holding gains or losses, and changes in classification and structure (of assets and liabilities). The distinction between produced and non-produced assets was not necessarily the same between the classification of stocks of assets and the changes therein. Gross capital formation could take place, e.g., the use of a produced asset as improvement in land, which would not appear as an asset in the stock of assets, as it would be incorporated in the value of the land. Similarly capital repairs were a category in gross fixed capital formation, but did not show up as a separate asset in the stock of assets as their value was incorporated in the value of the buildings or structures which had been repaired.

I.C.1.2 (68) One participant noted that real estate transfers should be identified as a separate asset.

I.C.1.3 (69) Another participant suggested that the educational dimension of human capital should be included in the asset boundary of the SNA. He argued that education was one of the most important elements in the explanation of growth of production and income over time.

I.C.1.4 (70) Several participants thought that the revised SNA should include an asset classification that would be flexible enough to accommodate new assets when they became relevant in the future. As an example was mentioned the growing importance of fishing grounds as an economic asset because of the increasing scarcity of fish stocks.

I.C.2 Coverage and classification of produced assets: R & D, mineral exploration, software

I.C.2.1 (71) The revised SNA recommended the treatment of expenditures on systems and standard applications software - whether purchased at the time the hardware was purchased or independently, or developed "in-house" - as capital formation. It also recommended that a database - whether for sale to others or for internal use, or whether purchased or constructed "in-house" - should be treated as capital formation. The main reason for the new treatment was that software systems/applications and databases had long service lives and generated an income stream over several accounting periods.

I.C.2.2 (72) Many participants expressed doubts about the inclusion of in-house software. 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. On the other hand, in-house software development might be much more important than purchased software and therefore there might be no justification for excluding it.

I.C.2.3 (73) Conclusion: There was general agreement to include outlays for the acquisition of software in capital formation. However, the expert groups were asked to examine further 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.

I.C.2.4 (74) There had been a recommendation by the expert groups to treat all expenditures on mineral exploration as part of gross fixed capital formation, whether such exploration was successful or not. That would change the treatment in the present SNA which included all such expenses as intermediate consumption.

I.C.2.5 (75) There were many questions on the coverage of mineral exploration expenditures, for example, whether they should include the studies that were being made prior to exploration, the excavation cost, as well as the cost of geological surveys. In response it was pointed that in the case of mineral deposits there would be three types of assets: mineral deposits themselves, the capitalized exploration cost and finally equipment installed to carry out the subsequent extraction.

I.C.2.6 (76) Some participants wondered what asset was represented by the capitalized mineral exploration cost, and whether such an asset was not incorporated in the value of the mineral deposits after exploration.

I.C.2.7 (77) Many questions were raised with regard to the appropriate valuation of the mineral deposits and also the capitalized exploration cost.

I.C.2.8 (78) It was pointed out that if the cost of mineral exploration was treated as an asset, expert groups would also have to take a decision on related cases such as feasibility studies that were aimed at determining available resources, i.e., not only mineral resources, but also resources available for agriculture and other economic activities.

I.C.2.9 (79) 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.

I.C.2.10 (80) The revised SNA recommended to treat outlays and own-account production on research and development as capital outlays. The arguments for the change referred to the kinship with outlays on capital assets in that their purpose was to generate income in future periods, and that they were important in explaining economic growth. However, serious reservations had been expressed about that decision due to the difficulty of identifying the assets, the high degree of uncertainty of return, the major break in continuity of time series, and the practical difficulties of calculating capital consumption.

I.C.2.11 (81) Data problems were the major concern raised by participants when they commented on the issue of research and development. Most thought that it was difficult to identify expenses for R & D and to value the resulting asset.

I.C.2.12 (82) A participant suggested that the output of research and development should be valued at the market value of the patents or copyrights if they existed.

I.C.2.13 (83) Conclusion: The participants were undecided on the principle of treating expenditure on R & 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, as well as on the coverage of R & D expenditures proposed to be classified as capital formation, before a final position was taken.

I.C.3 Environmental Accounting: Links to SNA, environmental assets, natural growth products

I.C.3.1 (84) It was indicated in the introduction to the topic that environmental assets consisted of three main groups, (i) natural cultivated assets which were included under produced fixed assets, (ii) land and (iii) subsoil assets, both of which were included under tangible non-produced assets. The natural cultivated assets included all products including animals, for breeding, dairy, draught etc.; timber tracts and cultivated forests; plantations (orchards, vineyards etc.); and fisheries. It was proposed that all such products of controlled or cultivated natural growth be recorded as output at the moment of growth. Output of such controlled natural growth processes was considered as work-in-progress which added to changes in stocks and in some instances to gross fixed capital formation such as in the case of the growth of animals for breeding, dairy and draught. The output value might be based on market values.

I.C.3.2 (85) Some participants thought that the **SNA** asset boundary would have to be extended to include environmental assets such as air and water, which would reflect the environmental quality of life. In response it was pointed out that if such assets were included in the system, the corresponding cost incurred as a result of their deterioration would also have to be accommodated. Furthermore it was mentioned that care should be taken not to equate GDP with a measure of welfare. GDP reflected the production of goods and services and was only one of the factors which indicated the level of welfare in the country.

I.C.3.3 (86) The proposal to include growth of natural assets in output was supported by some participants, but not for all natural assets. For growth of livestock the idea was generally accepted and was actually followed by most countries.

I.C.3.4 (87) There was, however, much more difference of opinion with regard to other natural assets. Some thought that equating output with growth would not resolve the question of links between output and input in agriculture. In fact certain inputs, in particular wages and salaries, would only be paid when output was harvested and not before. An orientation on growth rather than on harvest would also cause problems with regard to the treatment of losses when output did not materialize as a result of drought or other natural disasters. One participant supported the growth orientation of output as it would be the only feasible manner in which quarterly accounts could be set up.

I.C.3.5 (88) Other participants thought that the cost of deforestation of virgin forests should be taken into account in the calculation of GDP. They agreed that that would reduce GDP and probably lead to negative value added in the forestry sector, but that would be precisely the message which needed to be given to policy-makers. Treating deforestation in that manner would result in a more adequate concept of capital formation, not only when deforestation took place, but also when reforestation replaced some of the trees that had been eliminated during the logging activity.

I.C.3.6 (89) The suggestion to include a depletion allowance in the calculation of NDP was supported by some participants. In particular, one participant mentioned the reduction in coral reefs which would have to be taken into account in proper accounting of NDP.

I.C.3.7 (90) There was some discussion on the treatment of land in the accounts. Some participants suggested that land should be treated separately from the assets on the land, i.e., building construction, growing timber etc.

I.C.3.8 (91) Conclusion: The participants accepted in principle the inclusion of developed and cultivated environmental assets in the asset boundary of the system. They were however not 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.

I.C.4 Military durables

I.C.4.1 (92) The expert groups had proposed that military durables to be included in gross fixed capital formation were to be extended as compared with the 1968 SNA. It had been proposed that all military equipment which could be acquired by civilian users for purposes of production and that the military actually used in the same way should be included. All destructive military weapons were to continue to be treated as part of intermediate consumption of the production of government services and thus included in government final consumption expenditure.

I.C.4.2 (93) Most participants commented that data availability would be too limited to allow for the distinction between those military durables to be included as assets and those that would be part of final consumption.

I.C.4.3 (94) One participant was in favour of including all military durables including the acquisition of weapons in capital formation. As military services were included in the production boundary of the SNA, there should also be capital formation related to the production of those services. The Seminar felt that there should be no confusion between economic analysis and moral issues.

I.C.4.4 (95) 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.

I.D ROLE OF THE HOUSEHOLD SECTOR IN THE ECONOMIC PROCESS

I.D.l Sub-sectoring of the household sector

I.D.1.1 (96) It had been proposed by the expert groups that the revised SNA would include in the household sector two main subsectors: (i) households excluding non-profit institutions serving households, and (ii) non-profit institutions serving households. A main breakdown of households would be based mainly on source of income criteria (employees, employers, own account workers, and recipients of transfers and property income). Alternative breakdowns would also be included in the system, such as the distinction between rural and urban; however, those breakdowns would only be used for special analyses of the household sector.

I.D.1.2 (97) Some participants mentioned that they would have difficulties in obtaining information for the household sector according to the subsectoring proposed in the revised SNA.

I.D.1.3 (98) The representative of the World Bank suggested that in order to implement the "principal earner" approach the revised SNA should emphasize the use of micro-data sets for establishing accounts for the household subsectors.

I.D.1.4 (99) One participant proposed a hierarchy of subsectoring the household sector. At the first level of the proposed classification a distinction would be made between agricultural and non-agricultural households. Within agricultural households a distinction would be made between labourers and operators and the latter group would be further sub-divided by the size of the land owned. Within non-agricultural households a distinction would be made between urban and rural households, with further breakdowns of both groups by categories based on a combination of ISIC and ISCO. Categories such as the ones proposed in the revised SNA would come at a lower level of the hierarchy.

I.D.1.5 (100) Some of the representatives mentioned that domestic servants were included in households in their household surveys. Others pointed out that if they were not separated for the purposes of the national accounts their contribution to GDP would be eliminated.

I.D.1.6 (101) Conclusion: 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.

I.D.2 Formal versus informal activities

I.D.2.1 (102) The distinction between formal and informal sectors was one that was made between units within the household sector and applied to all their accounts. It was a distinction which would be included in the SNA, but as yet no agreement had been reached on the criteria for making the distinction.

I.D.2.2 (103) Some participants indicated the need to have a more specific classification of formal/informal activities than the approximation to corporate/unincorporated activities proposed so far by the expert groups. The ILO representative questioned the view that "all" unincorporated activities should be considered informal.

I.D.2.3 (104) Several participants thought that it was very difficult to arrive at an operational definition for the distinction between formal and informal. One participant however proposed to include in the informal sector production units that were unincorporated, had no legal basis, were managed by households and had a limited number of employees. Another participant mentioned that even quasi-corporate units could be included in the informal sector.

I.D.2.4 (105) Conclusion: 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.

I.D.3 Non-profit institutions, including community activities

I.D.3.1 (106) There were two issues regarding non-profit institutions on which the Seminar was requested to give its views. The first was the recommendation that there should no longer be a separate sector for non-profit institutions serving households as in the 1968 SNA. The second issue concerned the criteria on the basis of which non-profit institutions were allocated to the household, government and corporate sectors. The expert groups had recommended to include with the government all such institutions that were financed and controlled by the government and to allocate the remaining ones to the household and enterprise sectors on the basis of which sector they serves.

I.D.3.2 (107) Several participants requested more specific guidelines on how to classify private non-profit institutions. Some institutions which for tax purposes were registered legally as non-profit institutions should actually be treated as part of the corporate enterprise sector. Also, non-profit institutions such as religious organizations might operate schools or businesses which generated profits that were used to finance the institution. In response it was pointed out that the unit generating the profit would have to be treated either as a separate corporate enterprise or as a separate market activity in the production accounts of the non-profit institutions subsector.

I.D.3.3 (108) One participant mentioned 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.

I.D.3.4 (109) 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.

I.D.4 Final consumption expenditure, actual final consumption, disposable and adjusted disposable income

I.D.4.1 (110) In the presentation of the sequence of accounts, it was explained that the revised SNA proposed to include two consumption concepts for households and government. One concept, called final consumption expenditure would refer to payments made by households and government for items of consumption. The second concept called actual final consumption, would include with households those expenditures made by government that could be individualized, such as on education, health and so on, while other final consumption expenditures by government of a collective nature such as for defence and police would remain in actual final consumption of the government sector. The distinction between individualized consumption and collective consumption paid for by government would be made on the basis of COFOG categories. To the two consumption concepts for the two sectors, corresponded two alternative income concepts, called disposable income and adjusted disposable income; the difference between the two would be transfers in kind from government to households that would constitute the difference between actual final consumption and final consumption expenditure of households. The total of final consumption expenditure and actual final consumption of households and government together would be the same. Also, disposable income minus consumption expenditure and adjusted disposable income minus actual final consumption for households and government would give the same savings for each sector.

I.D.4.2 (111) In response to questions raised during the training sessions it was pointed out that social transfers in kind, which constituted the difference between actual final consumption and final consumption expenditure and between disposable and adjusted disposable income, would include those between the government an households. Transfers in kind between government and corporations would be treated as transfers in cash, and benefits in kind given by employers to employees would be treated as part of compensation of employees.

I.D.4.3 (112) It was noted that estimation of transfers in kind as a global adjustment to arrive at actual final consumption and adjusted disposable income would be relatively easy in view of data availability from government records. However, if it was desired to allocate such transfers in kind by different household groups - which would be useful for an analysis of the impact of such government expenses on different population groups' incomes - it would be much more difficult to arrive at such estimates as data would have to be obtained from households.

I.D.4.4 (113) One participant asked what criteria should be used in the distinction between actual final consumption of households and government. In response it was pointed out that in general the distinction would be made on the basis of whom they served. It was also mentioned that the ICP would use the concept of actual final consumption instead of final consumption expenditure by households.

I.D.4.5 (114) Conclusion: The participants were in favour of incorporating in the SNA the concepts of actual final consumption and adjusted disposable income.

I.E TRANSFER OF RESOURCES BETWEEN COUNTRIES

I.E.1 Residence: individuals, enterprises, international organizations

I.E.1.1 (115) In the revised SNA, the basic principle of residence would be to assign residence to units on the basis of their centre of interest. That basic principle had been worked out by the expert groups in operational terms for individuals, enterprises and international organizations. In the case of individuals it was recommended that a one year residence in a country would be sufficient for an individual to be considered resident of a country, except for students who were proposed to be treated as residents of their country of origin. For enterprises it was recommended to treat them as resident if the purpose of the production unit was to carry out production in a country on a significant level over a longer period of time (broadly one year or more). The one year rule should be applied, however, in a flexible manner, particularly in the case of construction activity undertaken abroad. Generally not included as residents were operators of mobile equipment, ships with flags of convenience of the country in question, or enterprises engaged in installing equipment abroad. International and regional organizations remained treated as extra-territorial units as in the present SNA.

I.E.1.2 (116) Some participants indicated that the definition of centre of economic interest should be clarified with respect to the type of economic activity (production, consumption) involved, particularly for the classification of individuals.

I.E.1.3 (117) Several questions were asked on the residence status of specific individuals such as refugees who might stay longer than one year in a country but never permanently, contract workers whose stay abroad never exceeded eleven months per year but who might be contracted for several consecutive years, and migrant workers who stayed abroad for several years but were never socially accepted by the host country. In response it was pointed out that flexibility should be used in the application of the one-year rule and that the centre of interest criterion should be the guiding principle in those cases.

I.E.1.4 (118) Conclusion: **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.**

I.E.1.5 (119) One participant mentioned that with regard to enterprises operating in his country, "paper companies" were established abroad in order to avoid taxes and the consequences of political uncertainty in the future. More specific guidelines on how to report the direct investment of income flows, retained earning and capital flows in the external transaction account should be provided.

I.E.1.6 (120) One participant wondered why a distinction was made between construction companies and installation companies in the application of the residency principle. In both instances companies might stay only temporarily in the host country without establishing firm economic residence and therefore they should be treated in the same way. Another observation was made with regard to consulting firms that were only temporarily operating in the host country; they were required by law to register but could not be considered as economic residents of the host country. For some of those companies it would be impossible to move their residency to another country as information on their activities abroad could not even be obtained in their home country.

I.E.2 Exports and imports of goods and services: merchandise and factor/non-factor services

I.E.2.1 (120) A number of modifications had been proposed with regard to the treatment of exports and imports of goods and services. Goods sent for processing abroad would be treated gross - i.e., included in exports and imports - if there were significant changes in the characteristics of the goods in question as a result of the processing. Goods shipped between a parent company and its foreign subsidiary would be treated as if they changed ownership and therefore were to included in exports or imports. Repairs if applied to capital goods would be treated as foreign trade in goods. Direct purchases abroad by residents and direct purchases by non-residents in the domestic market would be treated as imports and exports respectively. The aggregate of imports would be valued fob, but when dealing with the details of imports in a supply and use table or input-output table, cif valuations would continue to be used and a global adjustment item would be included to link the two valuations of imports.

I.E.2.2 (122) Several participants pointed out examples related to the difficulties in using the change of ownership as the basis for recording external transactions which differed between BPM data and foreign trade statistics. One example mentioned concerned the sale of goods on consignment; at the time of recording the outgoing flows it was difficult to determine which of those goods would return and which would remain abroad and thus change owner.

I.E.2.3 (123) Another 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.

I.E.2.4 (124) Several participants questioned the feasibility and usefulness of changing imports from c.i.f. to f.o.b. valuation. Some thought 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.

I.E.2.5 (125) *Conclusion: No specific conclusions* were reached as a result *of* the discussion.

I.E.3 Reinvested earnings

I.E.3.1 (126) The proposed introduction of reinvested earnings in the SNA harmonized the SNA with the present treatment of the BPM. The reinvested earnings would be introduced as part of property income paid/received in the external sector and at the same time would be reflected as an increase in foreign assets/liabilities.

I.E.3.2 (127) One participant opposed the introduction of an imputation for the flow of reinvested earnings of direct investment enterprises in the external transactions accounts of the SNA. He strongly supported the maximum possible harmonization of the SNA and BPM but he believed that that could be achieved without changing the present SNA treatment. He would prefer to show reinvested earnings as a memorandum item in the national accounts.

I.E.3.3 (128) Others supported the change in the SNA in the direction of the BPM. They pointed out that such treatment would better reflect the measurement of foreign interests in domestic enterprises. One participant who supported the change conceptually found it difficult to implement as in his country it would not only require the imputation of reinvested earnings of domestic companies in which there was a foreign interest, but also the imputation of reinvested earnings of enterprises abroad in which there was a domestic interest.

I.E.3.4 (129) One participant presented a very complex but interesting example of a company operating in the domestic territory of the home country which was owned by a "paper company" registered abroad but owned by residents of the home country. In that case reinvested earnings would have to be imputed from the home country to the country where the company was registered, and, as the paper company was owned by residents of the home country, a reverse property income flow would have to be recorded as being received by residents of the home country.

I.E.3.5 (130) Conclusion: 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 the SNA with regard to reinvested earnings.

I.E.4 Multiple exchange rates

I.E.4.1 (131) It had been proposed by the expert groups to treat revenues obtained as a result of exchange rate differentials as a bank service charge if they constituted a normal margin between the purchase and sales price of foreign currency, as a capital gain or loss if revenues were obtained as a result of increases over time in the foreign exchange rate, and as a product tax in the presence of a multiple exchange rate system whereby the government or Central Bank obtained the exchange rate differentials. There had been no agreement yet on how to treat the exchange rate differential if it was received by black or parallel market dealers in foreign exchange.

I.E.4.2 (132) It had been furthermore proposed by the expert groups that the average between buying and selling rates of exchange should be used to convert transactions in foreign currency into domestic currency, and that thus the implicit bank service charge obtained in trading foreign currencies should be incorporated in the value of the external transactions and their domestic counterparts.

I.E.4.3 (133) Exchange rate differentials that were to be treated as product taxes/subsidies were not to be incorporated in the external and counterpart domestic transactions on which they were assumed to be levied. Instead, they were presented as global adjustment items in the external account. A unitary rate of exchange was used as a basis for the allocation of exchange rate differentials between different taxes. The unitary rate was used in computing the difference between the actual exchange rate of each transaction and the unitary rate, and thus in allocating the taxes/subsidies between product, income and wealth taxes that were presented as global adjustments in the external trade account, the external transactions accounts and the capital account of the external sector.

I.E.4.4 (134) Some participants requested more specific guidelines on which type of exchange rate should be used, in particular for reinvested earnings: actual, black market rate or other rate.

I.E.4.5 (135) Another problem emanating from multiple exchange rates with which participants expected to have difficulties lay in the valuation of foreign assets in the balance sheets owned by residents. One participant raised a question on the effects of multiple exchange rates in the input coefficients of industries which imported commodities using official exchange rates for import quotas which might change on a year-to-year basis. Specifically, a query was raised on whether average exchange rates should be computed over a period of time or at a specific point in time.

I.E.4.6 (136) Several problems were mentioned on valuation of actual rates of exchange by type of transactions. Those problems might affect the allocation of the adjustments on surpluses/deficits in the rest of the world account.

I.E.4.7 (137) One participant noted that income earned by a parallel market dealer in foreign exchange might be treated as normal trading revenue even if it was generated as a result of very large differences between the purchase and sale price of foreign currency. Such treatment would be in line with trading revenues by illegal merchants in drugs, alcohol etc. which might also be high. All such revenues could be considered as resulting from market imperfections.

I.E.4.8 (138) Conclusion: 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.

I.F FINANCIAL INSTRUMENTS, FINANCIAL SECTOR, AND FINANCIAL ACCOUNTS

I.F.1 Financial intermediaries: coverage and classification

I.F.1.1 (139) The revised SNA recommended that the financial sector should be expanded to include auxiliary enterprises that facilitated financial intermediation in addition to enterprises which were primarily engaged in financial transactions in the market consisting of both incurring financial liabilities and acquiring financial assets. The main reasons for that change were the increased provision of financial services* by financial intermediaries, the inappropriateness of placing a growing group of financial service enterprises in the non-financial corporate sector, the difficulty of drawing the line between auxiliaries and intermediaries, and the likelihood that further innovations in the financial industry would continue to blur that distinction.

I.F.1.2 (140) Questions were raised with respect to the classification of inter-group financing, property trusts and general insurance specialist enterprises. One participant expressed the view that the inclusion of unincorporated financial intermediaries within the household sector might dilute the value of financial intermediaries in the analysis of capital and financial flows in the system.

I.F.1.3 (141) In response to a question raised on where to classify credit co-operatives which mobilized funds for the rural sector, it was suggested that the main activity of the co-operative should first be determined, and that if it met the criteria of a financial intermediary it should be classified under "other depository institutions".

I.F.1.4 (142) In response to questions it was pointed out that in general moneylenders would be included as private unincorporated financial enterprises in the household sector. Consequently, an output would be imputed if such moneylenders were operating as financial intermediaries in the same manner as banks and other financial corporations. The implication would be that such money lenders could have deposits as liabilities.

I.F.1.5 (143) **Conclusion: 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.**

I.F.2 Financial instruments: gold, financial leasing, new financial instruments

I.F.2.1 (144) There were two aspects of financial assets and liabilities that were new in the revised SNA. In the first place it had been proposed that the revised SNA included a definition of a financial asset as an asset which involved a claim by a creditor on a debtor and which required a payment or repayment under fixed or contractually predetermined circumstances. Financial assets only included assets where there existed an unconditional relationship on the part of both debtor and creditor; financial assets therefore did not include contingent positions. In the second place the system would include a detailed classification of financial instruments reflecting the development of new financial instruments since the adoption of the 1968 SNA.

I.F.2.2 (145) Questions were raised on whether guarantees and banker acceptances should be classified as financial instruments or not. It was stated that guarantees should be treated as contingent instruments and bankers acceptances as financial instruments.

I.F.2.3 (146) It was also pointed out that households in the countries of the ESCAP region often used household durables as an asset similar to financial assets. Participants making those comments wondered whether it would therefore be sufficient to treat household durables as a memorandum item in the balance sheets as had been proposed in the revised SNA, rather than as a full asset.

I.G ANALYSIS OF INFLATION

I.G.1 Chain indices

I.G.1.1 (147) The question raised was whether fixed base Laspeyres volume indices would need to be replaced or supplemented by chain indices with moving weights which would change from year to year. The expert groups had suggested that the annually chained indices be presented as supplements to the fixed base volume indicators.

I.G.1.2 (148) 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. Only one participant mentioned the use of a form of chain indices in his country.

I.G.1.3 (149) *Conclusion:* The participants appreciated the introduction of chain indices in the 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.

I.G.2 Terms of trade measures

I.G.2.1 (150) It had been proposed that trading gains and losses from changes in the terms of trade be included as an integral part of the revised SNA. Those gains and losses would be added to GDP at constant prices to derive a new income aggregate to be referred to as Real Gross Domestic Income (GDI).

I.G.2.2 (151) Many of the participants stated that they did not estimate trading gains/losses in their countries. One participant indicated that in his country it was accomplished by using the implicit price deflator of imports of goods and services to revalue the balance of trade.

I.G.2.3 (152) 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.

I.G.3 Real national disposable income

I.G.3.1 (153) It had also been proposed to include in the revised SNA the concept of Real Gross National Income and Real National Disposable Income (both gross and net). They were to be derived from Real GDI by subsequently adding real net factor income from abroad (giving Real GNI), adding real net current transfers from abroad (giving Real Gross NDI) and subtracting consumption of fixed capital at constant prices (giving Real Net NDI). It had been proposed that real net factor income from abroad and real net current transfers from abroad be derived by deflating their nominal counterparts by the implicit price deflator for Gross Final Domestic Expenditure.

I.G.3.2 (154) One participant suggested that in calculating the implicit price deflator for Gross Final Domestic Expenditure, it would be preferable to include 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.

I.G.3.3 (155) 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.

I.G.4 Quality changes

I.G.4 1 (156) It was necessary that constant price estimates reflected changes in the quality of goods and services. It had been proposed in the revised SNA that the value of quality change be based on user value.

I.G.4 2 (157) One participant questioned whether that approach to quantifying quality change was correct. He argued that as GDP was a measure of production then the value of quality change should be calculated on the basis of the base year resource cost. He also gave an example of a motor car engine which had undergone a specification change to run on unleaded petrol, thereby resulting in a change to the value of production, but not in the value to the user.

I.G.4 3 (158) Conclusion: 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.

I.G.5 Revaluation of changes in stocks, including work-in-progress

I.G.5.1 (159) The Seminar noted that changes in stocks could be approximated under non-inflationary conditions by two methods which yield to approximately the same result. The first method was to calculate the difference between the opening and closing stocks in volume terms and apply an average price to arrive at the changes in stocks in current prices. The other method was to calculate changes in stocks as the difference between ongoing flows and outgoing flows valued at the prices at the time they occurred. In situations of high inflation, however, the two methods gave different results because there were considerable differences in the second method between the value of ongoing and outgoing flows. Under situations of high inflation changes in stocks should not only reflect volume changes but also price changes that occurred between the moment that goods entered stocks and left them. Changes in stocks under such circumstances could in fact be negative simply because the goods withdrawn had a much higher price than the goods entering the stocks, and not because there were negative volume changes in the stocks.

I.G.5.2 (160) 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.

II. ACCOUNTS AND TABLES

II..0.1 (161) The Seminar noted that the revised SNA would include a central framework of accounts and tables and supplementary accounts and tables linked to the central framework. The central framework would include a hierarchical classification of transactions, transactors and assets, a sequence of accounts for institutional sectors and a supply and use table. In addition, the central framework would include simplified accounts for the nation, integrated T-accounts for the national economy, an alternative matrix presentation of the system and finally sector accounts, input-output tables and three dimensional balance sheets and flow-of-funds tables. The supplementary accounts and tables would include applications of the system for special circumstances and analyses, satellite accounts and tables, and accounts and tables related to the links between SNA and other statistical systems such as GFS, BPM and MBS.

II..0.2 (162) Conclusion: 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 ASIAN POINT OF VIEW

III..0.1 (163) There were a few issues that participants particularly wanted to have incorporated in the 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.

III..0.2 (164) 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.

III..0.3 (165) 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 the MPS to use the revised SNA. In response it was pointed out that the specific requirements for flexibility or adaptation to the needs of those countries would have to be provided to the expert groups so that they could be taken into account in future revisions of the SNA draft chapters.

III..0.4 (166) It was agreed that more time was needed for countries to study the revised system from the points of view of statisticians as well as users. It was suggested that countries send their comments on the revised system to the United Nations Statistical Office. 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.

III..0.5 (167) A 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.

IV. IMPLEMENTATION OF THE REVISED **SNA**

IV..0.1 (168) Many country participants felt there would be some difficulty in obtaining data to implement the revised SNA. However it was generally agreed that each country would be compiling the national accounts at their own pace and according to their own needs. It was widely agreed that the integrated framework of the revised SNA was more comprehensible and lent itself to a better understanding of the subject.

IV..0.2 (169) The meeting was informed of the preparation by the United Nations Statistical Office of a series of Handbooks to assist national experts in the compilation of national accounts. The topics to be covered by the Handbooks included, inter alia: input-output tables; compilation methodology; environmental accounting; and use of national accounts for transition economies. 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 as well as 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 which had been actively engaged in national accounting.

IV..0.3 (170) 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 at regional and country levels, could assist countries in the implementation of the revised SNA. Appreciation was expressed, in particular, of the provision of advisory services in national accounts by the secretariat which would be even more essential in view of the SNA revision. However, it noted with concern the critical inadequacy of travel funds for official missions by the adviser and urged the secretariat to resolve the problem so that advisory services could be provided as required. Furthermore, the secretariat could assist in formulating proposals and obtain funding support for technical co-operation projects designed to facilitate the adoption of the SNA in countries.

IV..0.4 (171) A view was expressed that the rationale behind the recommendations in the revision of the SNA should be made available in order that national accountants could have a better understanding of the system. In that regard it was suggested that the minutes of all the expert group meetings on the SNA revision be made available to countries of the region.

ADOPTION OF THE REPORT

V..0.1 (172) The **Seminar adopted its report on 24 August 1990.**

Annex I
List of documents

STAT/ASNA/L.1	Provisional Agenda
STAT/ASNA/1	Discussion Paper for 1990 Regional Commissions Meetings on
SNA (provisional)	Chapter II: An Overview of the **ST/ESA/STAT/SER.F/2/Rev.4**
System	
	Chapter III: Institutional Units and Residence
	Chapter IV: Sector and Sub-sectors
	Chapter V: The production **A=mine**
	Chapter VI: Final Expenditures
	Chapter VII: The production accounts Industries
for and the Input-Output Tables	
	Chapter VIII: Taxes and other
Transfers	
	Chapter IX: Factor Incomes and
Property Incomes	
	Chapter X: The Capital and Accounts
Financial	
	Chapter XI:. Balance Sheets and Net
Worth	
	Chapter XII: Price and Volume
Measures	
	Chapter XIII: Application of the Integrated Framework to Various Circumstances needs
and	
	Annex 2: GFS-SNA Relationships
	Annex 5: Changes in Stocks and
Holding Gains	
	Annex 6: The Leasing of Equipment Renting of
and the Buildings	
CRP.1	Briefing Notes on SNA Review Issues by the Bureau of Statistics,
Fiji	

Annex II
List of Acronyms

BPM	Balance of Payments Manual
cif	Cost Including Insurance and Freight
CPC	Central Product Classification
COFOG	Classification of Functions of Government
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organisation of the United Nations
fob	Free on board ship or aircraft
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GNDI	Gross National Disposable Income
GNI	Gross National Income
IMF	International Monetary Fund
IPD	Implicit price deflator
ISIC	International Standard Industrial Classification of all Economic Activities
MBS	Money and Banking Statistics
MPS	System of Material Products and Balances
NDFE	Net Domestic Final Expenditure
NDP	Net Domestic Product
OECD	Organisation for Economic Co-operation and Development
SAM	Social Accounting Matrix
SIAP	Statistical Institute for Asia and the Pacific
SNA	United Nations System of National Accounts
SPC	South Pacific Commission
UNDAT	United Nations Development Advisory Team for the South Pacific
UNSO	United Nations Statistical Office
R + D	Research and Development