Models of Statistical Systems

Partnership in Statistics for Development in the 21st Century (PARIS21)

October 2005

Acknowledgements

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Introduction

"Official statistics provide an indispensable element of the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information". [1]

1.   This quote sets out the first of 10 fundamental principles of official statistics that have been formulated by the United Nations Statistical Commission[2] to codify the manner in which national statistical offices operate. The remaining principles set out good practice, emphasising the need for integrity and transparency and the use of scientific principles to underpin the methods and procedures used for the collection, processing, storage and presentation of statistical data. A copy of these principles is annexed at the end of this paper.

2.   There is good reason for doing this. Official statistics are used both to inform the development of public sector policy and to monitor their impact and effectiveness. In as much as official statistics are used to evaluate the success or otherwise of Government policies it is essential that not only are they accurate, balanced, relevant and free from political manipulation but, and possibly even more important, perceived by the electorate as being so. This concept is at the heart of democratic accountability. If, for whatever reason, people believe the information being published by government statisticians lack integrity then they are an expensive irrelevance. By publishing these principles the Statistics Commission has set out an objective and ethical standard against which national statistical systems can be judged.

3.   Casual inspection indicates that statistical systems can be set up in different ways to serve national needs and that some countries have systems that are notably more successful than others. The objective of this paper is to describe the main models and characteristics of a range of existing national official statistical systems with the aim of producing guidance that will enable those working in, and with, developing countries to decide how the principles and practice can be adapted and applied in these countries and whether any particular grouping of attributes leads more directly to a successful and productive system. The work draws on the experiences of developed and developing countries using published information on national government websites.

4.   Twenty countries from Africa and Asia and OECD members are reviewed in the study based on information available from their websites. This is not a representative sample, excluding for instance Arab States and Latin American countries for which neither English nor French web-based information is available. The study could be expanded in the future, and intensified, as suggested in the section 'Proposals for Further Work'.

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[1]   United Nations Statistics Division, 'Fundamental Principles of Official Statistics,' http://unstats.un.org/unsd/methods/statorg/FP-English.htm.

[2]   The UNSC is one of ten functional commissions of the UN system and is the paramount authority on statistical policy for member states. It agrees statistical standards and nomenclature and sets out methodological best practice. As well as its normative function it is responsible for championing statistics in the UN system, for coordinating the international statistical system and for promoting the development of national statistical systems worldwide. Further details can be found at http://unstats.un.org/unsd/statcom/commission.htm.

Models of a Statistical System and Explanation of Terms

5.   The UN fundamental principles do not define a national statistical system, although a working definition could be the 'totality of statistics produced and published by National Government'. Neither is there a blue print for a statistical system that all countries follow. As well as the ethical issues of integrity, accountability and transparency identified by the fundamental principles there are various practical issues that help shape the structure and processes that will together define the system.

6.   The statistical system is usually steered and coordinated by a central organisation, such as the 'Office for National Statistics' in the UK, 'INSEE' in France and the 'General Statistics Office' in Vietnam. The roles of these organisations will vary according to national needs and the wider administrative environment and will usually be defined by law. At a minimum they will be responsible for producing a range of statistical information and charged with providing leadership, policy direction and forward planning for the system as a whole; for setting operational standards and methodological criteria; and for international liaison such as reporting obligations to the UN system and others. Often they will be supported in their coordination role by formal committees which bring together the main data producers and users to agree priorities and the development of work programmes.

7.   Statistical systems are described as either centralised or decentralised depending on the extent to which responsibility for delivering official statistics across the range of government activities lies with the central institution. There are strengths and weaknesses to both the centralised and the decentralised models. The rest of this section explains these models in more detail and sets out some of the legal and institutional arrangements used to mitigate the impact of the weaknesses.

- **Degree of centralisation**   Statistical systems are said to be centralised when all, or most, of the products of the statistical system are produced and disseminated by the central organisation. A good example of this is the Australian Bureau of Statistics which produces almost all of the country's statistics. The Bureau is an independent agency and has been given full authority by the Government to determine what should be produced and in what manner. Conversely systems are said to be decentralised when statistics are produced by many different Ministries and Agencies according to which has responsibility for that sector – such as health statistics being produced by the Health Ministry. A striking example of a decentralised system is the United States of America where some eighty Federal agencies produce statistics and where there is no central statistical agency as such, although the Office of Management and Budgets takes on some of the coordination and policy roles. Most national systems lie between these two extremes: such as Mozambique where education and health statistics are produced by the respective Ministries but the central statistics office produces a large swath of the country's statistics and has overall responsibility for the statistical system.

  Bill McLennan, when head of the Australian Statistical Service, concisely described the basic dilemma facing official statistics as "policy relevance versus statistical integrity"[3]. Generally speaking, centralised systems are inherently strong on integrity but sometimes struggle on relevancy, particularly in social sectors, as they are remote from the policy debate. For decentralised systems the reverse holds, as statistical services based within sector ministries are exposed to policy makers and often responsible to them for ensuring their products are relevant,

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[3]   McLennan, Bill, "The role and position of the national statistical office in the overall government structure", presentation delivered at a UN Workshop on 'Selected Good Practices in the organisation and management of Statistical Systems' held in Yangon, Myanmar in December 2002, see http://www.unstats.un.org/unsd/methods/statorg/yangon.htm.

timely and appropriate. However this exposure and line accountability leaves them susceptible to political interference and pressure to present statistics relating to Ministerial policies and outcomes in a favourable light. Even if the statisticians involved act impartially and with integrity their location counts against them in the eyes of outsiders who can treat them as guilty by association.

The advantages and disadvantages of the two models can be summarised as shown in the following table. Note that in addition to those factors explicitly mentioned there is bilateral symmetry in that factors which are an advantage to one model are often a disadvantage in the other, and vice versa.

	Centralised	Decentralised
Advantages	Ability to plan and coordinate across whole statistical system Ability to set long term priorities and divert funding to them 'One stop shopping' for statistics Organisational focus on statistical issues emphasises integrity and impartiality and common work ethos	**Policy relevance** **Strong statistical linkage to administrative management and information systems**
Disadvantages	**Divorced from main Government users, perceived lack of responsiveness**	**Difficult to coordinate and plan system wide, sectoral interests take precedence over common good** **Open to political pressure, perceived if not actual** **Difficult to set common standards.**

- The fundamental instrument for safeguarding official statistics and minimising the disadvantages is the **legislative framework** that sets out the statistical system and governs its operation. The collection of official statistics is always legally regulated. Most countries have an all-embracing Statistics Act that defines the statistical system and the roles and responsibilities of the various players within the system. Of the twenty countries examined this is the case for seventeen, as with the Statistics Act of 1967 for Botswana. The exceptions are the United States and the United Kingdom, where statutory authority for the collection of statistics is spread across a number of different acts, many of which do not have statistics as their primary purpose, and Russia, which simply identifies statistics as a federal responsibility under article 71 of the Russian Constitution. As well as identifying roles and responsibilities, Statistics Acts usually set out ethical guidelines and codes of conduct for statisticians and data providers including penalties for misuse of the information collected under the terms of the act and for non compliance.

The IMF[4] believes that strong legislation is a prerequisite for an effective statistical system. Particularly for developing countries where the vicious circle of lack of resources leading to inferior statistics which lowers the status and image of the statistical agencies and thence reduces budgets even further can be broken by strengthening the statistics legislation and raising the status of official statistics. This is probably an over-statement but ensuring that legislation is

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[4]   Sarmad Khawaja and Thomas K. Morrison, 'Statistical Legislation: Towards a more General Framework', IMF Working paper, WP/02/179, 2002.

appropriate and up to date is important in providing the underpinning for what the statistical agencies can and cannot do and giving them the necessary authority, legitimacy and credibility.

By defining roles Statistics Acts usually dictate whether a system is centralised or not. However this is not always the case. Ivan Fellegi in his Morris Hansen lecture of 1995[5] noted that the centralised statistical system of Canada did not derive from its Statistics Act but had evolved over time in response to the levers and incentives given to the Chief Statistician – notably in the setting of priorities and flexibility to mobilise resources in support of these and blanket access to all Government records – which favoured Statistics Canada over other institutions.

More generally, legislation can only set the framework for the statistical system. Its effectiveness, for both centralised and decentralised systems, will in practice depend on the quality of the operational tools used to implement the act, the management skills and calibre of the Government Statistician leading the statistical agencies and the quality of the staff as well as the general regard and value placed on factual statistics by politicians and key public sector administrators.

A useful reference guide to the details of the legislative framework for most European countries and a brief description of their statistical systems can be found on the website of the UN Economic Commission for Europe[6].

- As well as the law there are other mechanisms that countries use to promote statistics. Rising awareness of the importance of maintaining integrity, both real and perceived, in the eyes of the public coupled with increasing emphasis placed on official statistics as a means of auditing the effectiveness of Government Policies has underlined the benefits of making Central Statistical Offices **independent Government Agencies** rather than keeping them as part of a Government Ministry. The arm's length relationship with government that agency status implies bolsters the credibility of statistical products as they are then perceived as being less open to political manipulation. This is true whether the statistical system is centralised or not. Another means of buttressing the integrity and impartiality of the statistical system is by introducing rules of appointment for the head of the national statistical service which are seen to be fair and transparent and demonstrably non-political. Open competition and limited term appointments will protect the impartiality of the post. Conversely, opaque mechanisms of government patronage will raise suspicions of an unhealthy closeness between statistician and policy maker.

- In centralised systems, statisticians can provide peer advice and support to each other, increasing joint ethical and professional standards and a common sense of purpose. In a decentralised system this effect is much less marked and statisticians working in smaller ministries can feel isolated and vulnerable to inappropriate political pressure. The decentralised systems of France and the United Kingdom have acted to minimise this by creating a **statistics cadre** across Government which have common professional standards and codes of conduct. In the UK the cadre is a fairly loose association and statisticians working outside the Office for National Statistics are employed by their parent Ministry. In France the association is tighter and statisticians working in Ministries remain INSEE staff and are paid by INSEE. The French statistics cadre is further strengthened as the majority of professionals are graduates of the 'école supérieure administrative' system which trains the French Civil Service. The system of cadres has been replicated elsewhere, in India and Kenya for example, and particularly in Francophone

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[5] Fellegi, Ivan, Chief Statistician of Canada, 'Characteristics of an Effective Statistical System', Morris Hansen Lecture, 1995 given to the Washington Statistical Society, October 25, 1995.

[6] See http://www.unece.org/stats/handbook/countries/

Africa which has its own 'école supérieure' such as that in Abidjan. In the latter case, though, the graduates do not find the Government statistical service an attractive place to work as they can attract bigger salaries in other areas of Government and elsewhere.

- Both the centralised and decentralised systems face **communications problems**, although the nature in each is different. In centralised systems the need is to build communications with users, especially those elsewhere in Government, to better understand their information needs and provide a flexible response. Some centralised systems, Australia and Botswana for example, 'outpost' their statisticians where necessary to support other Government Agencies. In decentralised systems the need is for better communication to improve cross system coordination, harmonisation and planning. The central office will also encourage strong linkages and a tight regulatory environment to promote standards and reduce what it sees as departmental statisticians placing departmental interests over professional integrity (but note that departmental statisticians will perceive the same behaviour as an intelligent response to legitimate departmental interests over narrow professional concerns and both viewpoints are valid). The typical response to communications problems is to set up fora, usually committees, where interested parties can meet and thrash out areas of common ground and areas where further work will be needed. These committee structures and coordination mechanisms go some way to improving linkages and reducing the negative aspects of the chosen system, but in neither case do they fully compensate for the inherent shortcomings of that system.

  Increasingly those countries with more sophisticated statistical systems are introducing an **independent authority** charged with verifying the standards and integrity of the entire statistical system and the central organisation in particular. The Statistics Commission in the UK is one such example. These bodies complement the internal technical standards and oversight committees which most developed countries have had in place for many years to continuously improve methodologies. Both management systems (Statistics Commissions and oversight committees) are designed to help build trust and public respect for the outputs of the statistical system.

8. **Support for sub-national administrative layers with devolved responsibilities** Government functions and services that have been delegated by central government to local authorities such as provinces, regions and districts are said to be devolved responsibilities. Central Statistical Offices vary in the extent to which they support the statistical needs of the sub-national government administrative layers that handle these devolved responsibilities. Almost all offices produce statistics which can be geographically disaggregated for use at regional, provincial or county level. And many have a network of regional statisticians who are used to support data collection activities. However some go beyond this to provide dedicated support to sub-national government administrations or have an integrated service combining statistical services for both national and sub-national authorities. France is an example of the former as INSEE has twenty-two regional offices in Metropolitan France (that is mainland France and Corsica) that are responsible for meeting all government statistical needs within their own geographical areas. Another example is China. Australia and, to a lesser extent, Canada are examples of integrated services. The UK national statistical system is integrated across the four countries of the union – England, Northern Ireland, Scotland and Wales – but does not support sub-national administrations directly, although there are operational linkages between national statisticians and those employed by regional authorities and county councils.

Unless the statisticians working in devolved layers of government are directly responsible to the national Central Statistical Office, problems of coordination and harmonisation arise in a similar way to a decentralised system. Similar methods are used to mitigate these problems but again with mixed results – McLennan at the same Myanmar event referenced earlier admitted to 'some tender relationships with the State statistical processes' although Fellegi was generally positive about the national / state relationships in Canada.

Theoretical Framework

9.   The statistical system is there to serve the communal needs of both Government and the wider populace. The administrative, political and legal context of the country in which it operates will have an impact on the statistical system and it is worth exploring the extent to which this interaction is the sole or major factor governing the design. In other words is there any evidence that different statistical models – centralised vs. decentralised, national only vs. national and devolved – can work effectively with the same administrative arrangements or do the latter restrict choice in the design and operation of an effective system?

10.   We can outline three possible models. The first can be thought of as a 'full matrix'. That is, for all different possible political systems and administrative structures all variations of a statistical system and supporting structures are equally possible and equally plausible. This implicitly suggests there is no strong interaction. The second model is 'deterministic' and assumes that the political and administrative structures will severely restrict the freedom of design of the statistical system. This implies that for each administrative structure we will find only one statistical system that works successfully – acknowledging that there will be minor variations in practice – and there should be clear evidence which is more appropriate. The third model lies in between the first two and suggests that whatever legal / administrative structures are in place in a country there will be a limited number of possible statistical systems that can work effectively but there will be no obvious reason why one option is to be preferred to another. If this 'reduced' model holds then one would expect to see a fair degree of variation in the statistical systems that countries put in place and no obvious pressure to move from one to another.

Analysis

11.   Based on this framework and the set of issues mentioned above we note the following in an analysis of a cross section of statistical systems in different regions of the world (see Annex II for details):

- As described above France, the UK and the USA all have decentralised statistical systems. In addition the French national statistical office, INSEE, provides support to local government authorities with devolved responsibilities. This is not the case in the UK or the USA.

- Australia, Canada, New Zealand and Sweden are widely acknowledged as having amongst the best statistical systems in the world. Those of Australia and Canada are largely centralised. New Zealand's is mainly centralised but health, education and justice statistics are decentralised – similar to arrangements in many African countries. Sweden centralised its system during the 1960's but after thirty years of experience with this approach decentralised it in the mid 1990's to give responsibility for sectoral statistics back to the Agencies responsible for those sectors.

  Canada and Australia have a federal state structure with the states having wide powers and responsibilities. Australia's statistical system strongly reflects this and their system has an integrated statistical service covering the state and federal levels. Canada has close links between the two levels but no formal integration. New Zealand and Sweden have a politico-administrative system which is less devolved, although Sweden is transferring responsibilities from central to municipal authorities. The national statistical system for New Zealand is not responsible for supporting sub-national authorities, whilst Statistics Sweden does provide support from its central offices. Note that Statistics Sweden receives only half of its funding from a direct government subvention. The other half it earns from providing statistical services on contract to other Government Ministries, Agencies and elsewhere in Sweden and internationally.

There are two common threads. Firstly the central statistical organisations of all four countries have Agency status. Secondly a lot of political support is given to the central institutions and a wide range of users are prepared to maintain a sustained involvement with the system through both coordination and user committees.

Despite the high regard in which they are held internationally, both New Zealand and Sweden have areas of concern themselves about their systems. Even the best need constant improvement and refinement, and openness to well informed and positive criticism is probably the best guard against complacency. For example Australia's centralised system provides for a well coordinated system that produces a comprehensive set of integrated statistics. It has a strong image and is well respected by the general public. However as already mentioned it is not close to users and is perceived in some quarters as unresponsive to user needs. On the other hand the decentralised system of the UK, from the viewpoint of a previous insider (myself), appears to work well. But McLennan, who is better placed to comment, believed that the UK system had no effective planning across the statistical system and was coordinated in name only. Statistical integrity was often sacrificed to political expediency. Clearly there are different perceptions and expectations at work here. This underlines the importance that perception, as well as fact, plays a role in assessing the integrity of statistical systems.

Fellegi, in his Hansen lecture, spoke highly of the Canadian system that he headed at the time. He emphasised the need to keep the statistical system relevant to evolving user needs, exploiting existing data to the utmost to keep down the respondent burden whilst maximising credibility of the organisation and its outputs. Public trust and support was crucial and was something that had to be worked on constantly and not simply assumed to be present. Key means of achieving this were a reputation for good management of the office and a high public profile both to raise awareness of the statistical service and its products and to encourage mutually beneficial user / systems interactions. Other fundamental prerequisites of a successful system were high status for its head – to fight for resources and to fend off challenges to its integrity – a strong professional ethos amongst the staff, objectivity and sound methodological skills.

- The statistical systems of the three newly industrialised countries investigated – Malaysia, the Philippines and Singapore – are all decentralised, heavily so in the Philippines' case along the lines of the USA model. Although the governments of Malaysia and the Philippines are centralised, they have a federal structure and both statistical systems have devolved structures responsible for supporting administrative layers below the national level.

  Singapore's Department of Statistics is based within the Ministry of Trade and Industry, Malaysia's is an Agency under the Prime Minister's Department and the Philippines' is an Agency headed by a management board chaired by the Director of the country's independent economic authority which in turn is chaired by the country's President.

- China, India, Pakistan and Russia have evolved separate ways of meeting the statistical needs of their big countries which tend to mirror the administrative arrangements. All have a federal structure and in many cases the subordinate administrative levels have populations as big as or bigger than many European nations. China's statistical system is decentralised and devolved with subordinate offices collecting data and providing services at state level. India is also decentralised but states have their own independent statistical offices. Both have separate organisations responsible for national surveys. Pakistan's system is mixed with the federal office having responsibility for providing information to Ministries and provincial authorities. That said, sectoral ministries produce their own statistics and at least one state has its own independent, statistics office. Russia's system is in a state of flux as the federal Statistics Service changes to

respond to the needs of a market economy. At present it is relatively centralised with subordinate institutions providing statistical services to sub-national administrative levels.

- The statistical systems of developing countries in Africa tend to fall somewhere in the centre. In most the central organisation is responsible for economic statistics and national surveys. Sectoral Ministries are usually responsible for producing statistics from their own (administrative) sources. This set up may well reflect the colonial past of these countries given the similarity between these systems and those of the old colonial powers France and the UK.

  The central offices in these countries are usually a government department although there is a trend towards giving them Agency status, a key driver being administrative reasons including improved schemes of service and the ability to pay higher salaries and so retain skilled staff. The offices often have regional staff that help with data collection activities but these rarely appear to have any role in providing advice to sub-national administrations.

- In almost every country, professional standards and integrity are mandated by legislation and if applied rigorously the actions foreseen in Statistical Acts are sufficient to maintain credibility. One exception is Vietnam where statistical authority is vested by law in the Prime Minister. It is not to question the integrity of the Prime Minister to consider that this arrangement does not allow for full independence of the statistical system. China too has an interesting clause in its act which forbids the use of statistical investigations to reveal state secrets and again it is not too difficult to see how this could be misused by Government authorities. Both cases reflect an authoritarian government system.

Conclusions …

12.   This analysis does not provide a clear-cut picture but some conclusions can be drawn. The most obvious is that there does seem to be a strong link between the structure of administrative systems and whether or not the statistical systems put in place to serve it are responsible for devolved layers of government. This is clearly apparent in those countries with large populations where the statistical systems support federal administrative structures that give states and provinces a substantial degree of autonomy and responsibility for providing services. However smaller developed and newly industrialised countries with federal structures also tend to put in place statistical systems that support the lower administrative levels as well as national government.

13.   Another conclusion is that it is difficult to pinpoint any unambiguous reason why countries should put in place either centralised or decentralised statistical systems. Three of the most highly regarded statistical systems, those of Australia, Canada and New Zealand, are centralised but Sweden which also has a highly regarded system has actively chosen to move from centralised to decentralised. Elsewhere, the French, UK and American systems are decentralised and although the UK has seen some recent centralisation of functions to the Office for National Statistics there is no substantial pressure for any further change in any of them. Interestingly the newly industrialised countries examined all have decentralised systems. There is no obvious reason why this is so although there is a possibility that history has left all three newly industrialised countries with a preference for decentralised systems in the manner of the old colonial powers. Whether this is the reason or not there is no obvious pressure for any of them to change.

14.   Mandatory standards for professionalism and statistical integrity are already widespread because of the prevalence of Statistics Acts. There are variations between them but these are in degree rather than a fundamental difference of approach. The Statistical Acts of some countries may need updating,

for example to cope with the increasing trend towards Agency status and decentralisation, but these reflect administrative concerns and changes rather than any general concern about ethical lapses. That said, there is often a considerable difference in the less developed statistical systems between what should happen and what does happen in practice. The IMF is concerned about this and has put in place its Special Data Dissemination Standard (SDDS) and the General Data Dissemination System (GDDS) to improve statistical practice and transparency[7].

15.   Relating these conclusions back to the three theoretical models for statistical systems outlined earlier we can discount the 'full matrix' model given the evidence that some aspects of statistical systems are linked to administrative structures. It is less easy to distinguish between the 'deterministic' and the 'reduced' model as the comparisons above demonstrate examples of both. In practice it seems that there is no compelling reason why we should assume that there is only one right statistical model to fit a particular governance structure. It is more likely that different approaches could be made to work in any given circumstance and one needs to look beyond structure to determine what factors makes for a successful system.

16.   Funding is clearly a consideration. The figures are not completely comparable but Australia, Canada, New Zealand and Sweden all spend more than US $10 per head of population on their statistical services each year. Figures for developing countries are hard to find but compare this with Burkina Faso which spends roughly 20 cents per head, $1 if donor funding is included, and Pakistan which spends 42 cents per head. There is insufficient information here to assess what would constitute a minimum level of funding for an effective statistical system or even what is affordable for the countries concerned. But, even if purchasing power parities are taken into account, a funding gap of this magnitude will inevitably constrain what countries can do.

17.   It is also noticeable that the four OECD countries mentioned in paragraph 16 benefit from strong political support and continuing involvement from a broad range of stakeholders in user networks and coordination mechanisms. This investment by the wider community brings two benefits: (1) pressure on the statistical system to develop and maintain high standards and (2) a high profile for statistics ensuring that the system and statisticians are seen as doing a worthwhile job and are both valuable and valued.

… but note!

18.   The information underpinning this paper has been drawn from published sources available on the web. These set out the law and mission statements and in general advertise the strengths of statistical systems and central offices. However in practice things are different and usually not as effective as the published information suggests. New Zealand and Sweden acknowledge that the systems for these countries still need improvement but it is not often that countries elsewhere are so open. India is one such. A 2001 report of the National Statistics Commission was severely critical of the Indian statistical system and commented adversely on data gaps, publication delays, large and frequent revisions of published results, gross discrepancies between official statistics from different sources and the general lack of transparency in statistical operations. Formal coordination mechanisms had withered. All things which the legislation should guard against.

19.   The National Statistics Commission report went on to argue that a key problem was the general decline of standards in Government Departments. Again this is a common problem and one which has a

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[7]   For further information on the SDDS and the GDDS, see http://dsbb.imf.org/applications/web/dsbbhome/. See also the website on the Data Quality Assessment Framework at http://dsbb.imf.org/applications/web/dqrs/dqrsdqaf/.

serious knock-on effect on statistical offices which are dependent on good record keeping across government as a basic building block for compiling statistics on the economy and the delivery of public services. If these are failing then it is understandable why the timeliness and quality of the statistics suffers.

Many of the problems picked up in this report are common in other developing countries and underline the discrepancy between what should happen and what actually does. It is not always clear why things do not work. Clearly many African statistical services are starved of resources but they could do better with what they have. Motivation is an issue and one suspects that development agencies have not focused enough on the incentives which drive behaviour and which may not be immediately obvious to the outsider. Individual staff can be highly competent and would fit easily within a more developed system. However management skills tend to be weak in African statistical systems and accountability for actions and for maintaining standards often seems to be present as lip service only. Donors also play a negative role in distorting priorities to service their own information needs. For example by funding a health survey which supports their own aid investment programme but does not fit well with national priorities. The financial attraction of survey field allowances paid by donors diverts the best staff to data collection activities and marginalises analysis and dissemination. Effective strategic planning will help countries take a considered view on their statistical priorities and bind donors into a more 'national-centric' view of development and the recent emphasis on supporting better planning by multilateral donors, amongst others, is welcome. As always the benefits of this support will be directly related to its relevance to country circumstances and the degree of local ownership.

Specific Issues Facing Developing Countries

20.   Increasing weight is being given in development programmes to devolving government functions and services to local government authorities because of the improved links with popular democracy and increased accountability of authority that it potentially brings. However both these objectives depend crucially upon an active statistical system at sub-national level (see paragraph 8) that can monitor events and disseminate information in a form that meets the needs of a range of users, including the illiterate and innumerate. As things stand most statistical systems in developing countries will be hard pressed to meet this demand and greater consideration is urgently required on meeting the information needs of decentralisation. This will require improving the status and professionalism of statisticians outside the central statistical office which in turn means resolving cost and human resource constraints.

21.   One interesting approach to resolving cost and resource constraints is the AFRISTAT Foundation in Francophone West Africa which has formed a team of statisticians based in a regional organisation. Funding comes from both participating countries and donors and by employing economies of scale provides statistical advice to very poor countries which otherwise could not afford them.

22.   Statistics legislation in developing countries is often powerful and far reaching. Despite this statistical institutions typically lack voice and are unable or unwilling to enforce their authority. There is often low interest and involvement of non statisticians in statistical issues. For example despite the central role foreseen for them in Statistics Acts user committees meet infrequently if ever – something which can be contrasted with the huge investment given by lay persons to statistics in countries such as Australia and Sweden. It is also noticeable that whereas in developed countries there is great interest in key statistical indicators leading to lengthy debates on the effectiveness of government policy this does not happen in developing countries where anecdotal evidence is much more powerful. Why? This marginalisation of statistics is correlated with performance and regard. However it is not clear whether there is a causal link and further research would be needed to investigate this and if so in which direction.

Proposal for Further Work

23.   This work to date has been based on information available on the world wide web. As noted above this often reflects what should happen rather than what does in practice. The report of the Indian Statistics Commission suggests that the problems statistical systems face relate to implementation and the context in which they operate rather than a failure in design or legislation. Does this hypothesis hold more widely? And if so are there remedial steps that statistical capacity building programmes can take?

24.   It is proposed that more detailed studies of a range of countries be undertaken to explore these questions and the issue of voice and marginalisation mentioned above more deeply. The choice of countries would be for agreement but could include countries already covered – such as Mali, Mozambique, Pakistan, and Tanzania – or other countries known to have particular difficulties. The study could also be widened to include more countries, including from regions that are currently not represented.

Annex I: Fundamental Principles of Official Statistics

Preamble [8]

The Statistical Commission,

- Bearing in mind that official statistical information is an essential basis for development in the economic, demographic, social and environmental fields and for mutual knowledge and trade among the States and peoples of the world.

- Bearing in mind that the essential trust of the public in official statistical information depends to a large extent on respect for the fundamental values an principles which are the basis of any society which seeks to understand itself and to respect the rights of its members.

- Bearing in mind that the quality of official statistics, and thus the quality of the information available to the Government, the economy and the public depends largely on the cooperation of citizens, enterprises, and other respondents in providing appropriate and reliable data needed for necessary statistical compilations and on the cooperation between users and producers of statistics in order to meet users' needs.

- Recalling the efforts of governmental and non-governmental organizations active in statistics to establish standards and concepts to allow comparisons among countries,

- Recalling also the International Statistical Institute Declaration of Professional Ethics,

- Having expressed the opinion that resolution C (47), adopted by the Economic Commission for Europe on 15 April 1992, is of universal significance,

- Noting that, at its eighth session, held in Bangkok in November 1993, the Working Group of Statistical Experts, assigned by the Committee on Statistics of the Economic and Social Commission for Asia and the Pacific to examine the Fundamental Principles, had agreed in principle to the ECE version and had emphasized that those principles were applicable to all nations,

- Noting also that, at its eighth session, held at Addis Ababa in March 1994, the Joint Conference of African Planners, Statisticians and Demographers, considered that the Fundamental Principles of Official Statistics are of universal significance,

Adopts the present principles of official statistics:

Principle 1. *Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.*

Principle 2. *To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.*

Principle 3. *To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.*

Principle 4. *The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.*

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[8] United Nations Statistics Division, 'Fundamental Principles of Official Statistics,'
     http://unstats.un.org/unsd/methods/statorg/FP-English.htm.

Principle 5. *Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.*

Principle 6. *Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.*

Principle 7. *The laws, regulations and measures under which the statistical systems operate are to be made public.*

Principle 8. *Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.*

Principle 9. *The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.*

Principle 10. *Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.*

Annex II: Summary of National Statistical Systems

Country	Income Group	Statistics Act?	External user councils and/or coordination committees?	Administrative Structure of Country	Statistical System Centralised?	National statistical system supports devolved administrations?	Agency Status for Central Statistical Office?	Statistics cadre?	Rules of appointment for head of the statistics office	Subscribes to IMF data standards?
Australia	High	Yes	Yes, several, all active	Federal	Yes	Integrated service combining national and regional statistical services	Yes	No, but statisticians out-posted to other Government Departments when needed	Appointed by the Governor General for limited period of 7 years, can be re-appointed	SDDS
Botswana	Upper Middle	Yes	Yes, both user committees and a priorities advisory committee	Centralised	Yes, but sectoral statistics produced by relevant ministries	No	No, Government department within Ministry of Finance and Development Planning	No, but statisticians out-posted to other Government Departments	Civil Service rules	GDDS
Burkina Faso	Low	Yes	Yes, national coordination council	Republic, 45 provinces	No, a hybrid system with both centralised and decentralised elements	No	Yes	No	Appointed by the council of Ministers on the advice of the Minister for statistics	GDDS
Canada	High	Yes	Yes, National Statistics Council	Federal	Yes	Integrated system, national and regional statisticians work closely together	Yes	No	Appointed by the Governor General in Council	SDDS
China	Lower Middle	Yes	No	Republic, 23 provinces, 5 autonomous regions and 3 cities	No	Yes	No	No	Civil Service rules	GDDS

Country	Income Group	Statistics Act?	External user councils and/or coordination committees?	Administrative Structure of Country	Statistical System Centralised?	National statistical system supports devolved administrations?	Agency Status for Central Statistical Office?	Statistics cadre?	Rules of appointment for head of the statistics office	Subscribes to IMF data standards?
France	High	Yes	Yes, Conseil National de l'Information Statistique	Republic, 22 regions	No	Yes	No	Yes	Civil Service rules	SDDS
India	Low	Yes, but needs updating	Yes, but ineffective as advisory only, recommendations not binding	Federal	No	Integrated system intended to combine national and regional statistical services.	No	Yes, at national level	Civil Service rules	SDDS
Malaysia	Upper Middle	Yes	No	Centralised	No	Yes	Yes	No	Civil Service rules	SDDS
Mali	Low	Yes	Yes, Comite de Coordination Statistique	Republic, 8 regions plus capital district	No	No	No	No	Appointed by Council of Ministers on the advice of the Minister for Statistics	GDDS
Mozambique	Low	Yes	Yes, Technical Council for Methodological Coordination	Republic,11 provinces	Yes	Yes	Yes	No	Appointed by the President of the Republic	GDDS
New Zealand	High	Yes	Yes, Advisory Committee on Official Statistics	Parliamentary democracy, centralised	Yes, some sectoral statistics produced by relevant Government Departments	No	Yes	No	Civil Service rules	Neither
Pakistan	Low	Yes	Yes, Federal Statistics Council	Parliamentary democracy, federal	Yes	Yes	No	No	Appointed by Government through notification in the Official Gazette	GDDS
The Philippines	Lower Middle	Yes	Yes, technical coordination committees as	Republic, 17 administrative regions	No	Yes	No	No	Appointed by the President	SDDS

Country	Income Group	Statistics Act?	External user councils and/or coordination committees?	Administrative Structure of Country	Statistical System Centralised?	National statistical system supports devolved administrations?	Agency Status for Central Statistical Office?	Statistics cadre?	Rules of appointment for head of the statistics office	Subscribes to IMF data standards?
			required							
Russia	Lower Middle	No, under article 71 of the Constitution statistics are a Federal Govt responsibility	Yes, Scientific and Methodological Council	Republic, federal	No	Yes	No	No	Civil Service rules	SDDS
Singapore	High	Yes	No	Republic	No	No	No	Yes	Appointed by the Minister of Trade and Industry	SDDS
Sweden	High	Yes	Yes, Council for Official Statistics	Parliamentary democracy, decentralised	No	Yes	Yes	No	Appointed for limited period	SDDS
Tanzania	Low	Yes	Yes, Statistics Board	Republic, 25 regions plus Zanzibar	No	No	Yes	No	Appointed through a competitive process directed by the Statistics Board	GDDS
United Kingdom	High	No single all embracing act	Yes, including the Statistics Commission and National Statistics Methodology Advisory Committee	Parliamentary democracy, centralised	No	No	Yes	Yes	Appointed for limited term through open competition	SDDS
United States	High	No single all embracing act	Yes, Inter Agency Council on Statistical Policy. Each component of the statistical system has its own arrangements	Republic, federal	No	No	No	No	Civil Service rules	SDDS
Vietnam	Low	Yes	No	Socialist	No	Yes	No	No	Civil Service	GDDS

Country	Income Group	Statistics Act?	External user councils and/or coordination committees?	Administrative Structure of Country	Statistical System Centralised?	National statistical system supports devolved administrations?	Agency Status for Central Statistical Office?	Statistics cadre?	Rules of appointment for head of the statistics office	Subscribes to IMF data standards?
				Republic, 58 provinces and 3 municipalities					rules	

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