

Chapter 4

Integrative Framework for Sustainable Development Monitoring and Evaluation

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1 The need for monitoring & evaluation of sustainable development

Systematic policy planning, design and implementation for the purpose of improving the quality of policy outputs and outcomes in government will be to no avail if one is unable to assess whether one has achieved the intended goal; or whether one missed it, and by what margin? Assessment or evaluation is needed in order to decide whether to continue with a policy project or programme, or to curtail it, terminate it or expand it. Even governments in highly developed systems do not always know to what extent they have been successful with their policy programmes, as a result of insufficient or inappropriate attempts at measuring and evaluating the consequences of their policy processes and the policy products that result from those processes.

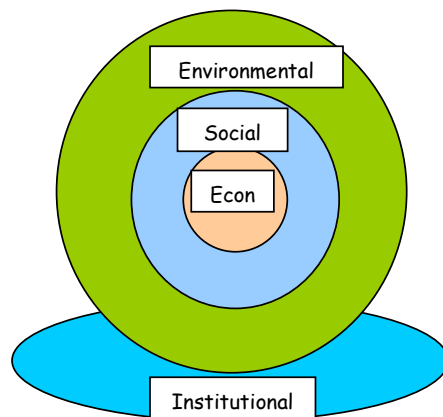
In order to achieve effective integrated policy assessment, it is necessary to link strategic policy issues to policy objectives, outputs and outcomes. In practice, the linkage of policy objectives with budgets, delivery outputs and outcomes, have always been complicated by the absence of the appropriate analytical tools. It was therefore not generally feasible except in big organisations, as a result of the costs involved to access sophisticated technologies and expertise for data compilation, analysis and assessment.

Policy monitoring is a continuous managerial function that aims to provide managers, decision-makers, stakeholders and the public with regular feedback and early indications of progress or lack thereof in the achievement of intended results and the attainment of goals and objectives (SA-PCAS 2005). It uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds (OECD 2002:27). The results of the monitoring process are normally regularly reported in prescribed standardised formats.

Policy evaluation should be viewed as a judgmental process to compare explicit and implicit policy objectives with real or projected outcomes or results or impacts. Conceptualised in this way, policy evaluation or assessment is a hybrid of applied social science research and practical policy planning. It therefore uses and applies the normal available approaches, methodologies and procedures of social research to practical policy issues in society (Cloete 2000:211).

A balanced and integrated programme of development in all policy sectors is a prerequisite for the sustainability of policy implementation (Noll 2002:58). Skewed development does not contribute to sustainability. It obstructs it. The negative consequences of high gini coefficients in states like Brazil, South Africa, India, etc, illustrate the point. Sustainability should therefore not be interpreted as only of environmental and socio-economic relevance as originally conceived by the Brundtland Commission, but should be conceptualised holistically to include also political, institutional and managerial dimensions. This is happening increasingly (eg UN-CSD 2001, OECD 2001 & 2002). Sustainability has become an integral part of good governance.

The integrative, trans-disciplinary nature of sustainable development that has been explained and assessed in previous chapters, necessitates that co-ordinated efforts are undertaken across different policy sectors to ensure that the goals of durable development over time are achieved in those sectors. This entails systematic and continuous processes of policy monitoring and evaluation of sustainable development. The sectors concerned include the three traditional vertical 'pillars' of sustainability, namely social, economic and environmental sectors, embedded in a horizontal layer of good governance that enables the achievement of durability over time.



Social, economic and environmental sustainability do not emerge spontaneously. These conditions only emerge through deliberate strategic and operational interventions by government to achieve longer term durability of its policy programmes aimed at reshaping society in a more desired form. This can only be achieved through systematic attempts by government to achieve good governance outcomes that integrate the desired longer term social, economic and environmental outcomes. These four integrated dimensions of sustainability must be clarified before one can develop a strategy to achieve sustainable governance.

As stated earlier, the concept of *sustainability* is based on the original idea of a more appropriate use of environmental socio-economic resources to enable future generations to also enjoy those resources instead of exhausting them in the short term. The concept was immortalised by the Brundtland Commission in 1982, but must be applied now with a wider focus. From a managerial perspective, however, sustainability should be seen as institutional and functional durability of public policy programmes. Sustainable governance refers to durability of service of a required quantity and at a required level of quality over an extended period. It therefore implies a thorough assessment of all resource implications of service delivery, the incorporation of the results of such assessments into the design of service delivery strategies, and continuous access to the resources needed for sustainable service delivery.

Sustainability in this sense includes the availability of finances to provide the services needed, but also refers to the overall capacity of the organisation to deliver such services and adapt to changing circumstances over an extended period of time, maintaining and improving the service concerned. Sustainability, therefore, also includes the notions of flexibility and resilience in the face of setbacks. The term is also applicable in a political context. Political sustainability refers to dedicated democratic political commitment: continuous support by political decision makers for the programmes concerned, not only through consistent rhetoric, but also backing their words up by consistent actions.

As stated above, good governance is the horizontal dimension that forms the basis of sustainability. The generally accepted role of the State in society is to protect, regulate, develop, maintain and sustain its citizens, or to see to it that this happens. It is an all-encompassing task, which is difficult to execute because inevitably insufficient resources will be available to achieve all of these objectives simultaneously. The state therefore has to prioritise its objectives, and to put together policy programmes that will have the best chance of achieving a combination of these goals not only in the short term but also in the medium and long terms. Governments differ on the combinations/permutations of protective, regulatory, developmental and growth interventions that they make into their societies. These differences in approach can usually be explained in ideological terms: from liberal individualism through nationalistic patriotism to collectivistic socialist approaches to governing. Some governing recipes have proved more successful in achieving a government's goals over time than others. Successful achievement of a government's policy goals and durability of policy outcomes over time have been labelled "sustainability".

Governance means more than government. It is the style of interaction between a government and the society that it governs (World Bank 1994). Olowu & Sako unpacks this concept of governance as "*a system of values, policies and institutions by which a society manages its economic, political and social affairs through interaction within and among the state, civil society and private sector*" (2002:37). The authors also summarise a number of criteria against which one can measure the elements of governance in the political, economic, social, environmental and moral dimensions of society (2002:38).

Styles of governance are frequently judged as good or bad. Hyden & Braton suggests that four criteria can be used to assess the style of governance in a society: the degree of trust in government, the degree of responsiveness in the relationship between government and civil society, the government's degree of accountability to its voters and the nature of the authority that the government exercises over its society (1993:7). Against this background, **good governance is therefore the achievement by a democratic government of the most**

appropriate developmental policy objectives to sustainably develop its society (Cloete 2000). This is done by mobilising, applying and coordinating all available resources in the public, private and voluntary sectors, domestically and internationally, in the most effective, efficient and democratic way.

Achievement of the following general policy goals will, in the context of the above discussion, contribute significantly to the achievement of governance outcomes (see also PRC 1998):

- Representivity & equity in resource control & allocation
- Developmental & growth focus
- Participatory, responsive, people-centred strategies
- Democratic rights, stability, legitimacy & transparency of processes
- Political and financial accountability
- Professionalism & ethical behaviour
- Flexible, effective, efficient & affordable processes
- Co-ordination, integration & holism of services
- Creative, competitive and entrepreneurial practices
- Literate, educated, participating & empowered citizens as products
- Sustainable outcomes

These principles for sustainable, democratic public service delivery are further applicable both in so-called industrial societies and developing societies. The need and effort to ensure that services are democratic, transparent, accountable, etc, will only differ in degree from one to another society or type of society. The South African government has in principle accepted the PRC report. This includes the objectives of good governance that the PRC identified and summarised. The degree to which good governance outcomes are achieved, is crucial in assessing governments' performance.

In terms of the prevailing focus on sustainable developmental outcomes, scholars are generally in agreement that more attention should be given to the results of government activities than to the resources that are converted into those outputs and outcomes. To ensure optimum results, it is therefore more important to enhance policy implementation and evaluation processes that attempt to convert current resources into appropriate governmental outputs and outcomes than to improve policy inputs and decision support. This is especially the case in more developed societies, where long periods of experimentation with different policy options have resulted in optimal policy programme designs. Policy implementation can in most cases be improved.

It is essential to develop a more systematic framework for assessing governance for sustainability. The following classification of separate indicators for policy input, resource conversion, output and outcome measurement can be regarded as a good policy practice guide to achieve governance for sustainability (Poate 1997:53). The indicator guide is not intended to develop specific concrete indicators, because such indicators will differ substantially in different contexts. The guidelines contain generic topics that should be considered and customised to fit the policy context concerned. The guidelines are contained in annexure 6.1.

Resource inputs consist of an adequate capacity or resources for policy design to achieve strategic policy goals (UNDP 2003:4). Adequacy of policy design and contents refer to feasible goals and action plans consistent with a clear vision, acceptable levels of benefits, costs and risk involved, and adequate fall-back contingency plans. Other resource inputs

include adequate quantities and quality of financial, human, logistical and other resources to complete the job as required. Poate identifies input variables as labour, capital, materials and management (1997:18).

The next assessment dimension is the nature of the *resource conversion or policy implementation process*. Here, utilitarian values like process efficiency, effectiveness, productivity, flexibility, accountability, transparency, coordination and innovation are measured (UNDP 2003:4, Poate 1997:17). Normative values like the participatory, democratic, equitable and ethical nature of government processes are also relevant here.

The third assessment dimension is the easiest of all. It consists of determining the quantity and quality of government *outputs* (Poate 1997:18). Here one literally counts or measures changes in public services.

The most difficult of all of the governance dimensions is the *outcome dimension*. Poate distinguishes between outcomes and impacts. He conceptualises outcomes as only referring to objective short term changes as a result of the project concerned, as well as the subjective reaction of the client (1997:18). Poate sees impacts as the long term economic and social consequences of interventions (1997:18). It is possible to make this distinction, but normally it is not necessary, depending on whether it is salient for some or other reason. These two analytical categories are collapsed for purposes of this paper.

In this category the degree to which the original policy goals have been achieved, is the main focus (ie product effectiveness). In addition, similar to the short term attributes that are regarded as salient during the resource conversion process phase, the question is how democratic, stable, equitable, fair, empowering, affordable etc is the end result in the long term. Other questions that have to be answered in this phase is how subjectively satisfied the recipients, customers, clients and other target groups of these public services are with the end result, irrespective of the quality of the products. Lastly, and perhaps most importantly the question is how objectively durable or sustainable will the results be over time.

Result sustainability does not only depend on the prudent use of natural resources to enable future generations also to use them to satisfy their future needs. One of the defining characteristics of sustainability is the long term integrated impact of development programmes on the empowerment and upward mobility of communities (eg Hart 1999, Roche 1999). This conclusion implies durable results from a financial, political, social, cultural, technological and environmental perspective. It implies inter-sectoral durability. Sustainability, however, does not only refer to end product durability, but also to the continued availability and durability of resource input provision, and conversion processes. Sustainability assessment therefore has to focus on all dimensions of the policy process in order to determine the durability of each of those dimensions as well as how effectively lessons have been learned and applied in consecutive policy cycles (OECD 2000 & 2001, IISD 2000, SDI 2002, Prescott-Allen 2001, Poate 1997:6, Hezri 2004, Hart 1999).

It is also necessary to contextualise briefly the practical dilemma with measuring intangible issues like sustainability and how indicators can be used for this purpose. An indicator is a measuring instrument used to give a concrete, measurable but indirect value to an otherwise unmeasurable, intangible concept (Miles 1989:16). The "quality of life" of a family can for example be measured by subjective as well as objective indicators. Observable impacts can be measured and assessed directly through the application of various quantitative and qualitative

analytical techniques. Symbolic or intangible impacts cannot be measured directly. Subjective indicators are their own internal perceptions of their life quality, while objective indicators are externally measurable levels of their educational, health, cultural, social, income and expenditure levels as well as the accommodation, infra-structure and other facilities available to them (Schneider 1976:297).

Indicators can be devised in different policy sectors (social, environmental, cultural, economic, financial, etc) (Carley 1981:3). An indicator therefore gives an approximate value or indication of what one is looking for. It is a more concrete, but indirect operational substitute for an intangible concept (Carley 1981:2). . An indicator also does not have a life of its own. It is inextricably intertwined with the more abstract or intangible concept which it has been designed to clarify (Carley 1981:2).

Multi-dimensional concepts like “quality of life”, “poverty”, “inflation”, “consumer price index”, etc, cannot be measured by single indicators. They need combinations of indicators in the form of composite indices, leading to “social accounting” (Carley 1981:31, Miles 1989:115, UNDP 1997). These evaluation techniques are sometimes controversial, as a result of the potential for normative and statistical misuse which they open up.

Like any other quantitative technique, an indicator can be selected, designed or applied with or without normative or statistical biases (Carley 1981:89). If the concept that is to be measured is a normative or emotive concept (eg modernisation, civilisation, development, poverty, etc) it is probable that indicators devised to measure this, will also contain normative biases. Obviously, the smaller the bias involved is, the greater is the validity of the indicator.

Policy indicators are useful tools in the evaluation process, but should be applied in a circumspect way to avoid criticism related to possible normative bias or quantificationism (Carley 1981:89, 173). If indicators comply with the following practical criteria, it will maximise their success for policy evaluation purposes (see also Carlin & Weinstein 1998, Moffatt, Hanley & Wilson 2001:36, SA-DEAT 2003 and SA-DPLG 2001) :

- The indicator should be clear, unambiguous, simple and easy to understand and explain;
- It should highlight an important quality or characteristic that is the focus of the enquiry;
- It should be measurable (quantitatively or qualitatively);
- It should be appropriate for the context within which it is applied;
- It should be widely accepted as a scientifically valid indication of what it is supposed to measure;
- Sufficient historical, current and future data of a sufficient quality to apply the indicator should preferably exist or be readily available in a cost-effective way;
- The data should be comparable to other data in different bigger or smaller geographical areas (ie it should be appropriate for different levels of aggregation),
- It should be internationally comparable;
- Different types of indicators should be used as needed to highlight characteristics of resource inputs, conversion processes, product outputs and impacts / outcomes in separate policy sectors or integrated across policy sectors;
- Dynamic indicators are more useful than static ones;
- Multi-dimensional indicators are more useful than uni-dimensional ones;

- Isolated indicators, indices or accounting systems are all valid measuring instruments but need to be applied correctly in the correct context and for the correct purpose;
- Both existing data-driven approaches and conceptual model-driven approaches to indicator measurement are valid, but model-driven approaches are more accurate and useful if the required datasets are available or can be developed;
- Indicators should be developed in participation with stakeholders, and
- The populated indicator set should include metadata information stating explicitly the quality of the data, its sensitivity, uncertainty, variability, accuracy and error margins.

There is an increasing realisation that not only policy outputs should be measured, but also developmental outcomes that are sustainable in the long term, and not only improve conditions in the short term (Cloete 2003). This realisation has spurred a new policy impact indicator industry to develop the most appropriate sustainability indicators in addition to traditional sectoral output indicators (Bell & Morse 2000, Hart 1999, OECD 2000, SCN 2002, SM 2002, RMC 2002). This industry is currently in a strong development phase, but has not yet produced satisfactory results in all areas (OECD 2001, European Union 2002, IISD 2002, RP 2002, SDI 2002, WRI 2002).

Complications with the use of indicators include the fact that it is difficult to develop indicators that are applicable to diverse contexts, there are many ideological and other normative obstacles that have to be overcome, and the validity of indicators to measure exactly what is intended to be measured, is not always accepted in different schools of thought on this matter (see UNDP 1997, UN-CSD 2001). Each national government further has its own contextualised developmental needs, problems, objectives and resource constraints. This means that policy impact indicators must be adapted to include these context-specific issues. A good example of the context-specificity of indicators can be found in the potential complications presented by the level of aggregation of indicators. Crucial differences can be found among indicators at global, national, regional and local levels. Output indicators of local service delivery or governance focus for example on typical municipal issues like electricity, housing, water, refuse removal, etc. These services are in many contexts specific to the local community level, and indicators designed for these purposes will not be useful to assess for example national service delivery systems like roads, telecommunications, welfare and education services. Similarly, certain macro level policy output indicators may not be applicable to grassroots community level services, or they might not be suitable for a breakdown into smaller aggregates to identify regional or even local variations and similarities.

On the other hand, more generic outcome indicators measuring the sustainability of rises in the quality of life in a community or society, might be more appropriate at different levels of aggregation because they focus on integrated outcomes and are usually cross-sectoral indicators.

As a result of these and other conceptual and practical complications, insufficient use is currently made of policy impact indicators by governments to effectively assess the longer term impacts of their policy programmes. Attempts to develop policy impact indicators have so far taken place mainly in North America and Europe, where the availability of data and the technological advances in software applications in the public sector have made such specialised foci possible and feasible. Malaysia and Singapore are virtually the only

developing countries outside of these continents that have already demonstrated in practice the commitment to do this. They have allocated significant resources to install the required levels of new management support technologies to achieve the desired analytical outcomes, and do this as integral parts of their normal business operations (Accenture 2001).

The next section summarises selected international good practices with the monitoring and evaluation of sustainable development inputs, resource conversion, outputs and outcomes

2 International indicator frameworks for measuring sustainable governance

The most comprehensive international indicator framework for governance that is available at the moment, is a composite governance index developed by the World Bank. The 2003 version of the framework is summarised in annexure 6.2. It is based on 2002 data, but it has been updated in 2005 (World Bank 2005).

Another authoritative compilation of different governance indicator frameworks has recently been published by the UNDP (2005). These frameworks include the work in progress within the Global barometer, Afrobarometer, Eurobarometer, East Asia Barometer, Latinobarometro, World Governance Assessment, World Values Survey, World Bank Institute, Public Integrity Index and other initiatives (UNDP 2005). The German Development Agency GTZ has also developed a comprehensive framework to measure governance (Faust & Gutierrez, 2004, **annexure 6.3**).

A third important governance network is the African Governance Inventory (AGI) network, an online gateway to governance-related information in Africa. The AGI was originally developed in 1999 by the Division for Public Administration and Development Management (DPADM) of the Department of Economic and Social Affairs of the United Nations (UNDESA), with financial support from the United Nations Development Programme (UNDP) and the Government of Italy (<http://www.unpan.org/agiportal>). The AGI is a flexible management tool to assist African governments and their development partners to improve programming, coordination, monitoring, evaluation and mobilization of resources in governance (**annexure 6.4** contains the governance focus areas of the database). It is also useful for sharing governance experiences and promoting regional partnerships. In addition it is a dynamic tool evolving according to the needs of its users. The goal of the Portal is to encourage governments, the donor community, the private sector, and civil society organizations to enter and update information online on governance projects and activities.

The most authoritative ongoing international experiments in measuring sustainability is the the UN Commission on Sustainable Development (UN-CSD). The UN-CSD was created in December 1992 to ensure effective follow-up of the UN Rio conference on the Environment and Development, and to monitor and report on implementation of those agreements at the local, national, regional and international levels. Its main objective is to make indicators of sustainable development accessible to decision-makers at the national level. In 1996 the UN-CSD started to promote the linear Pressure-state-impact-response (PSIR) model of the OECD, and developed a working list of 134 indicators that were distributed to selected countries worldwide for voluntary testing to measure global and national progress towards sustainable development (UN-CSD 1996, 2001:312-313). The model's logic is that social and economic driving forces underlying human actions put pressure on the ecological system, bringing about changes both in the natural environment and in the human environment. These changes

have longer term impacts again both in the natural and human environments that necessitates more human intervention in response to these impacts to redress these negative consequences for sustainable development. The CSD, however, relinquished it five years later in favour of another approach, not because the model was flawed, but because it was in fact too rigid and sophisticated and needed data that just was not available, especially in developing countries (see also Bell & Morse 2001 for an analysis of some of the complexities involved in this approach, and Rotmans & de Vries 1997 for an interesting application of the PSIR model in a context of global change).

In 2001 the CSD changed its approach to a non-linear, open ended “shopping list” of product output and outcome indicators in the form of a systematic framework of four dimensions of accumulated capital (social, environmental, economic and institutional – see also Serageldin 1996 for a slightly different set of accumulated capital : natural, human, social and economic). The framework is reproduced as **Annexure 6.5**, with a number corresponding to the equivalent indicator in the Agenda 21 initiative indicated in brackets (UN-CSD 2001:30-31). The UN-CSD indicator framework uses an integrated approach to sustainable governance and deals with both selected resource inputs and product outputs and outcomes. It also contains indicators based on both normative and utilitarian issues relevant for an exercise of this nature. The most glaring weakness in the framework, however, is its superficial treatment of process-related indicators of efficiency and productivity. This is a serious flaw that needs to be remedied in future.

The UN Millenium Plan is basically a pro-active political strategy document, in contrast to the CSD framework that comprises a reactive, expert-driven, technocratic programme to measure sustainable development. The Millenium Plan incorporates most elements of the CSD framework, but comprises rather an abbreviated selection of certain elements from the CSD framework. It is intended to influence and drive national governments’ policy programmes towards achieving the targets identified in the Millenium Plan. It is quite conceivable that the different contexts and policy priorities that exist in national governments across the world will make it very difficult for all governments to achieve these targets and goals as envisaged.

The most recent progress in the development of systematic sustainable development frameworks can be found in Latin America. The Economic Commission for Latin America and the Caribbean (ECLAC) in Santiago, Chile has pioneered a programme on sustainability assessment that resulted in a conceptual systems model for sustainable development that is also applicable in other developing contexts (Gallopín 2003). Gallopín’s model conceptualises sustainability as the durability of what he calls the essential identity of a whole socio-ecological system over time (Gallopín 2003:15, 19, 35). This implies the interaction between all sectors of human society and the natural environment within which humans live. Gallopín contrasts strong sustainability (where minimum critical values or capital must exist in each separate sector of society and the natural environment), with weak sustainability (where manufactured capital may in some cases be substituted for natural capital (Gallopín 2003:16). Sustainable development is conceptualised as systemic improvements in a desired direction over time (Gallopín, 2003:35).

ECLAC also assisted the government of Argentina to develop the most comprehensive systematic national Framework of Indicators for Sustainable Development yet devised for a single country, based on the CSD indicator framework (Argentina 2005). This report takes the systematic assessment of sustainability one step further by not only identifying concrete

policy indicators for social, economic, environmental and institutional development, but also explicit indicators to measure the inter-relationships among these sectors (Argentina 2005:103). In contrast to other attempts that developed recommended integrated frameworks of indicators (eg OECD 2000 & 2001, EC 2001), this exercise has resulted in an authoritative measuring instrument that was designed on the request of the government of Argentina (and published under the name of the President of the Nation), for application throughout the Argentinian public sector. The report has only been published in August 2005, and the extent to which it will be implemented in Argentina will only be clear in due course. This instrument has provided the Argentinian government with a potential regulatory framework blueprint with the authority and the legitimacy to drive national sustainability strategies in that country in a coherent and effective way if it is applied appropriately, A summary of the Argentinian sustainable development indicator framework is contained in **annexure 6.6**.

Another interesting application of the CSD indicator framework is in Brazil, where the most comprehensive National Sustainable Development Programme developed so far, can be found (Brazil 2004). In contrast to Argentina, the Brazilian government has developed and started to implement its programme in a pragmatic, bottom-up experimental approach over a number of years (Brazil 2002), and has only now realised the need for a systematic integrated measuring instrument. The strength of the Brazilian approach is that it is driven and coordinated by the Ministry of Planning, Budget and Management, and resulted in a very effective linkage of strategic sustainable development goals with governmental action plans and budgetary allocations for those action plans (Brazil 2002:46). A strong policy research and assessment culture in that Ministry (with the assistance of 400 full-time researchers), also provides systematic data compilation and evaluation capacity for the government, that can be used for strategic and integrated policy review and redesign experiments.

This organisational culture has resulted in the incremental emergence of a comprehensive integrated national sustainable development policy and programme monitoring and evaluation system that is very advanced even compared to those of highly developed nations in the first world. The social and economic dimensions are, however, dealt with in much more detail than the environmental and institutional dimensions of Brazilian society. The expansion of the Brazilian indicator framework in these sectors and the more effective integration of these sectors with the social and economic ones are at the moment the focus of attention (Brazil 2002:64).

Other authoritative international attempts to develop systematic indicators for measuring sustainability include the following:

- The Environmental Performance Measurement Project of Yale University in the USA with its Environmental Sustainability Index (ESI 2005),
- The Global Reporting Initiative for businesses and civil society (GRI 2006),
- the OECD (2000 & 2001),
- the European Commission (European Commission 2001),
- Agenda 21 (UN-Agenda21 1992),
- the Network of Regional Governments for Sustainable Development (nrg4SD 2004),
- the Community Indicators Project, Redefining Progress (RP 2002),
- the International Institute of Sustainable Development's Dashboard of Sustainability (IISD 2002),
- the International Conservation Union's Barometer of Sustainability (IUCN 1997), and
- the World Bank's Performance Monitoring Indicators (World Bank 1996).

- Various attempts have been made in the past to keep track of these diverse developments, eg by Hardi, Barg & Hodges 1997 and Bossel 1999:13.

Both ESI and GRI are recent initiatives that have achieved much legitimacy over the last few years, and they are both expanding their foci and databases. They have both developed and refined sustainability indicators for their respective constituencies that are very useful and compatible with other major international initiatives like those of the CSD and the World Bank (ESI 2005, GRI 2006).

Agenda 21 is the global programme of action that resulted from the UN Conference on the Environment and Development in Rio de Janeiro in 1992, and comprises a series of steps to be taken to promote integrated and sustainable environmental and developmental management across the globe (see also Spangenberg 2002). The OECD and European Commission initiatives are not significantly different from the UN initiatives (as the references to Agenda 21 indicators in the UN-CSD list indicate), and will not be discussed here. The OECD and European Commission exercises are also both of a regional nature, while the UN initiatives and Agenda 21 have global legitimacy and are accepted widely throughout the world, both in highly developed and lesser developed countries. The IISD's Dashboard of Sustainability and the IUCN's Barometer of Sustainability are both largely based on the UN-CSD initiative, while the Community Indicators Project's focus is aimed at the grass-roots community level only.

The World Bank's Handbook of Performance Monitoring Indicators (World Bank 1996) has been developed mainly for internal use in the Bank's operations. It is based on a logical framework of project objectives and end-means relationships and help generate more thoughtful, logically constructed project designs. The indicators also serve as benchmarks against which to measure project progress toward development objectives and result in more meaningful project monitoring and evaluation by the Bank (World Bank 1996). The handbook is divided into three sections. The first section explains why menus of indicators were developed and provides the background on the logical framework and typology of indicators. It also describes how indicators are developed and applied in project design, supervision, and evaluation, and discusses important issues related to the meaningful use of indicators. The second section describes the sectoral use of indicators. The third section provides examples of performance indicators developed for Bank-financed projects and shows how the indicators were developed on the basis of each project's development objectives (World Bank 1996).

The Network of Regional Governments for Sustainable Development (nrg4SD) was formed at the Johannesburg World Summit on Sustainable Development by a group of regions committed to policies of sustainable development to be a voice for, and to represent regional governments at the global level, promoting sustainable development and partnerships at the regional level around the world (nrg4SD 2004a). They include 23 urban and regional governments across the world who are sensitive to the demands of sustainable development, including the government of the Western Cape. They have suggested a core set of 10 sustainable development indicators for approval by their members. Although they have produced a policy paper on sustainable development strategies that explicitly includes the principle of good governance and participation (nrg4SD 2004b), these indicators are only social and economic and environmental ones, with a total absence of institutional indicators (nrg4SD 2004a). This in itself detracts from the integrated sustainability that they aspire to achieve.

The next question that needs to be dealt with, is of what relevance is the above discussion for South Africa?.

3 Public policy monitoring and evaluation in South Africa

Against the above background of different international conceptions of governance, governance in the South African context has to do with the style of interaction of the state with civil society, and with the internal processes within the state through which resource inputs are converted into government outputs and outcomes.

A coherent good governance measurement programme is envisaged as an integral part of a more encompassing M&E programme in South Africa (SA-PCAS 2005). The international examples of good governance summarised here, should be used as inputs into that process. The dimensions of governance already used in the African context (AGI 2005, annexure 6.4) and in the Ten Year review (Cloete, Moller, Dzengwa & Davids 2003, UNDP-SA 2003, SA-PCAS 2003, annexure 6.6), could be very useful to pursue in SA, because of the regional, continental and global benchmarking and comparability opportunities that they provide. This points in the direction of a deliberate conceptual model of sustainable governance that should be pursued rather than an ad hoc approach of utilising existing datasets that might be deficient in reflecting crucial attributes that need to be assessed.

A number of international good practices in terms of integrated policy assessment have so far been adopted and implemented by the South African Government. The South African government has recently adopted an implementation plan to establish a Government-wide Monitoring and Evaluation System (GWM&ES) (SA-PCAS 2005). The GWM&ES will coordinate a systematic programme of policy monitoring and evaluation throughout the public sector in South Africa, aimed at improving general public management in the country (SA-PCAS 2005:5). The implementation plan for the GWM&ES deals with the following activities:

- Identification of the users of the system and their needs;
- clarification of the system's aims, objectives and intended results;
- sources of information and data collection;
- presentation and use of system reports;
- clarification of stakeholder roles and responsibilities, and
- rollout and implementation of the system (SA-PCAS 2005:6).

This M&E system will not only monitor internal governmental performance processes but is also aimed at determining the nature of external governmental outcomes and impacts on South African society. It is therefore also aimed at determining the eventual longer term results of policy and service delivery interventions or a lack thereof. An important departure point of the GWM&ES is that existing monitoring and evaluation capacities and programmes should as far as possible be retained, linked and synchronised within the framework of the GWM&S (SA-PCAS 2005:8-11). The following existing government-related monitoring and evaluation programmes will be synchronised under the auspices of the GWM&ES:

- **National and provincial line function departments:** These organisations will be primarily responsible for the monitoring and evaluation of resource input conversion processes and outputs, as well as for primary, baseline data collection;

- **StatsSA's National Statistical System:** The NSS is also in the process of being established, and will be the main data collection and assessment agency of government, also tasked with coordinating regular reports on South Africa's progress in achieving the UN Millennium Development Goals and Targets. StatsSA does not only rely on government-related information and databases to compile its datasets. It extensively uses business sector, civil society and other data sets to compile comprehensive and inclusive datasets that provide holistic information for utilisation not only by government but also by other sectors of society.
- **Department of Public Service and Administration (DPSA):** The DPSA will remain responsible for human resource management assessment in the Public Service. Performance agreements with managers include *inter alia* key performance areas for managers, output assessment criteria that will be used to evaluate performance, and time frames within which assessment and progress reports will be done (SA-DPSA 2000). The DPSA further focuses largely on human resource management issues, although e-government issues also fall within the jurisdiction of this Ministry. In practice, the autonomous State Information Technology Agency (SITA) is responsible to monitor and assess the progress with the digitisation of government's services delivery programme. Systematic and regular assessments will in future have to be undertaken in this regard;
- **The South African Public Service Commission (PSC):** The PSC has identified a range of mainly good governance process orientated indicators to measure the degree to which the main values or principles that the PSC has identified in the 1996 Constitution, has been achieved by government departments and agencies at national and provincial levels. The PSC sees its task as monitoring the compliance of government departments with these values. The PSC also reports regularly on the compliance of departments with the Batho Pele White Paper on Transforming Public Service Delivery (SA-PSC 2000), and the satisfaction levels of citizens with selected public services (SA-PSC 2003);
- **Treasury:** The **National Treasury** has also already accepted the need for systematic performance assessment as part of its upgrading of financial management processes in the South African public sector (SA-Treasury 2003). The Treasury approach takes a comprehensive financial management focus and monitors departments to establish value for money processes & programmes. It requires a prescribed financial reporting format linking policy objectives to action plans, programmes, projects, budgets and time scales. Line function departments' assessments of their departmental responsibilities therefore form the basis of these reporting requirements. Departments need to develop measurable objectives and related performance measures and targets that capture strategically important aspects of what they are doing or delivering so as to be able to monitor performance;
- **The Auditor General (AG):** The Office of the AG works in close co-operation with National Treasury in the development of a national performance management framework for the public service in South Africa. The performance management systems of the National Treasury and the Auditor General are already embodied in established policies, but are being gradually phased in as the information management systems in departments become more sophisticated. They are therefore not yet fully operational. Departments are still devising appropriate performance indicators and

information management systems to link their inputs, conversion processes, outputs and outcomes to their budgets and implementation projects (SA-AG 2003);

- **Department of Environmental Affairs and Tourism (DEAT).** DEAT became involved with indicators of sustainability in February 1996, when co-operation with the UN-CSD's indicator testing process commenced. DEAT was involved in testing the 134 indicators of sustainability (55 of these were environmental indicators), and reporting to the UN-CSD on the relevance and potential applicability of all the CSD's original sustainability indicators in South Africa. In October 1999, DEAT launched the first National State of the Environment (SOE) report on the Internet for South Africa, together with State of the Environment reports for four South African cities: Cape Town, Durban, Johannesburg and Pretoria. Since then numerous city and provincial level State of the Environment reports have been produced as well as several sector-specific initiatives such as the State of Rivers report, the State of Human Settlements report, the State of Estuaries report and the State of the Coast report (SA-DEAT 2002 & 2003). DEAT initiated a project at the end of 2000 to develop a core set of indicators for state of the environment reporting, termed the National Environmental Indicators Programme (NEIP) (SA-DEAT 2003). This project stemmed from the realisation that a commonly agreed core set of indicators and access to good quality data to support the indicators was one of the major obstacles for reporting on the status of the environment in South Africa. This project also enabled the South African Government to partially fulfill certain of their international and national obligations to report on environmental conditions and trends, and the implementation of sustainable development in the country. The first comprehensive State of the Environment report for South Africa has just been completed and is in a final editing stage before publication by DEAT during 2006 still.
- **Department of Provincial and Local Government (DPLG):** Local governments in South Africa are the main implementation agencies for government policies and programmes in the country, and their developmental obligations have been clearly spelt out in various policy documents (eg SA-DPLG 2001a). The PSC also explicitly *"...supports a cluster-based approach to articulating a comprehensive national development strategy. Of particular importance would be recognition of the lead role local authorities need to play. If undertaken in a participatory and inclusive fashion the process of developing the strategy could help with the identification of imaginative and innovative approaches that may escape the sterility of many current debates on the issue"* (SA-PSC 2002:32). Municipalities are required by the Municipal Systems Act, No 32 of 2000, to implement integrated development plans. These initiatives have only started to be implemented over the last 2 years, and are therefore still mostly in the design stages. The DPLG has provided municipalities with extensive prescriptions and guidelines to implement performance assessments as part of their statutory obligations regarding integrated development planning at local government level (eg DPLG 2001a, 2001c, 2003). It also published a series of general key performance indicators for local government that is based on international comparative experience (SA-DPLG 2001b, UK-DETR 2000). Metropolitan regions like Cape Town, Durban and Johannesburg are also in the process of implementing systematic performance assessment systems to comply with the requirements of the Municipal Systems Act of 2000. The DPLG's Municipal Planning and Performance Management Regulations, 2001 requires that a *"...municipality must set key performance indicators, including input indicators, output indicators and outcome*

indicators, in respect of each of the development priorities and objectives...” that it must specify in terms of the Municipal Systems Act of 2000 (SA-DPLG 2001c). The current implementation of GIS-based corporate enterprise management systems in the main metropolitan regions will facilitate the implementation of these policy evaluation objectives. In smaller municipalities the design of such systems has also started, but implementation is still problematical. The main constraints in this regard are a lack of the required levels of technological infrastructures, a lack of appreciation by politicians and managers of the need for such systems, and also as result of a general lack of resources allocated for this purpose;

- **Provincial governments:** At provincial level, performance assessment programmes are an integral part of the strategic management plans of the nine provinces, but none have yet been put into practice in a systematic way (SA-DPLG 2001d). One example of such a situation is the draft performance assessment blueprint complete with a detailed series of policy output and outcome assessment indicators that independent consultants have drawn up for the Free State Provincial Government’s Development Plan. The draft framework links the strategic goals, strategies and projects of the government to its budget, and to practical policy indicators. Few senior managers in the Provincial Government are, however, aware of the details of the programme, and implementation has not started yet (SA-Free State 2002). Policy assessment designs exist in other provinces, but none has been implemented in a systematic way. As happens in national government departments, sporadic and ad hoc attempts to assess isolated projects and programmes can be found in different provinces. They are, however, also exceptions to the rule that do not form part of a systematic and co-ordinated strategic exercise to assess progress with policy implementation, outputs and outcomes at provincial level.

The GWM&ES will be managed from the Policy Coordination and Advisory Services Unit in the Presidency. It will be a secondary data assessment system that will not undertake primary research or data collection itself. It will rather draw on information gained from the above and other agencies. The GWE&MS implementation plan contains a detailed implementation strategy and time frames to establish the GWE&MS fully in South Africa between 2005 and 2007 (SA-PCAS 2005:Appendix A). It also spells out the roles and responsibilities of the various stakeholders and agencies involved in this programme.

The PCAS in consultation with StatsSA has also established a National Indicator Initiative (NII) that is still under development. A series of preliminary generic policy assessment indicators has been attached to the GWM&ES plan, in the form of a Framework of Development Indicators for SA. This indicator framework will be disseminated for public comment and further refinement. The NII is based on the research undertaken for purposes of the Ten Year Review (SA-PCAS 2003, attached as **annexure 6.7**). The current indicator framework does not contain explicit policy sustainability indicators, but it does contain numerous indicators that can be used constructively for measuring the longer term durability/sustainability of government programmes.

4 Towards an integrative monitoring and evaluation framework for sustainable development in SA

It is clear that the current state of knowledge of and experience in public management, and the tools and technologies that have been developed in support of better management over the past few years, have made it not only possible but imperative to engage in regular integrated policy evaluation exercises in order to assess governance performance systematically. There is further a clear trend developing towards the measurement of not only governance inputs, but also governance conversion processes, outputs and outcomes. Annexure 1 contains a summary of a general good governance indicator guide that can be used for this purpose.

It is also clear that several international good practices in measuring sustainable development are applicable to South Africa while others have already been adopted and implemented by the SA government. The principle of a GWM&ES and the NII that has been launched as part of this M&E system are two examples of good international practices that are already applied in SA. The provisional Framework of Development Indicators of the GWM&ES is further based on the CSD model and is probably the best current international practice. That framework, however, needs to be refined to include more specific sustainability indicators. The integrative, trans-disciplinary nature of sustainable development makes it necessary to devise special measuring instruments in the form of sustainable development indicators that can measure the durability over time of not only general developmental outcomes but also resource conversion processes and outputs.

The GWM&S implementation plan does not refer to the NSSD project, although a number of its provisional indicators are useful for this purpose, as stated above. The weak and in some cases absence of coordination between the GWM&ES and the NSSD project will have to be improved in future. Any m&e system for sustainability, will have to be synchronised with and implemented as integral part of the envisaged GWM&ES. The GWM&ES's implementation strategy and time frames are therefore also applicable to the NSSD M&E strategy. This also includes the finalising of the NII that now will have to be broadened to include explicit sustainability indicators. This revision is crucial because the current provisional indicator framework of the GWM&ES does not include certain core environmental indicators.

Another issue that needs to be clarified explicitly is who should take primary responsibility for the measurement of longer term policy programme and project outcomes. The ideal strategy in this regard is that each line function agency should be responsible to compile data and to measure not only its short term activities in terms of resource conversion processes, and short term outputs, but also take responsibility for monitoring the longer term outcomes and impacts of its work. This fits into the approach suggested by the GWM&ES.

5 A Framework of Sustainability indicators for SA

The current focus of world attention on the longer term sustainability of governance outcomes, necessitates greater clarity on the objectives of sustainable governance and appropriate measuring instruments for this purpose, because general international agreement on standardised indicators of this nature does not exist at the moment at the level of national governments. The World Bank's governance indicators and the CSD's sustainability indicator framework, supplemented by the ESI and GRI frameworks, are the most appropriate

and authoritative templates of instruments for measuring sustainability that has been developed so far. These dimensions of sustainable development have already been applied in an innovative way in the new Argentinian indicator framework summarised above. They should also be refined, customised and applied in South Africa because they have been tested comprehensively in different regional settings and they provide regional, continental and global benchmarking and comparability opportunities together with an opportunity to measure particular South African conditions that may not apply elsewhere.

As stated above, the GWM&ES's NII processes are also applicable to the NSSD. The provisional Framework of Development Indicators of the GWM&ES (SA-PCAS 2005: Appendix C) needs to be refined and expanded to include more explicit sustainability indicators relevant to South African conditions. This process of identifying appropriate sustainability indicators has to be a broad-based participatory and consultative process, as envisaged in the GWM&ES. It is also clear that a model-based approach rather than a data-based approach to sustainability indicators will have to be adopted, in order to measure the attributes of sustainability as needed in comparative international context. An important consequence of this approach is obviously that those datasets that do not exist for these indicators or that are defective, will have to be supplemented over time in order to populate the indicator framework appropriately.

The 3rd Consultative Workshop of the NSSD on 23 February 2006 will take this process one important step further, by deliberating, assessing and customising the attached potential indicator framework for measuring sustainable development in South Africa against the background of the above discussion. For this purpose various background documents are also attached to stimulate discussions and deliberations.

Another issue that will have to be addressed at the 3rd Consultative Workshop is the role of business and civil society in the monitoring and evaluation of sustainable development. Many such organisations already report through the internationally recognised ESI and GRI processes, and the question is how these processes could be synchronised with government-initiated processes of monitoring and reporting on sustainability.

Annexure 6.8 contains a draft sustainable development indicator framework for discussion at the 3rd Workshop.

Annexure 6.1: Good Policy Practices Indicator Guide

6.1.1 Policy Input Indicator Guide

Measurement objective	Indicator guide
Policy design & content	<ul style="list-style-type: none"> • Strategic policy goals & prioritizations consistent with national vision and needs determination ? • Existence of an appropriate sectoral policy programme/project design to counter perceived problems & achieve the strategic objectives of the programme/project • Feasibility of programme and risk levels within specified time frames satisfactory (all sectors) • Adequate cost-benefit assessment undertaken of possible alternative courses of action before current policy design was approved ? • Contingency / fall back / crisis management planning strategy satisfactory prepared ?
Financial resources for programme/project	<ul style="list-style-type: none"> • Quantity (capital & operating budget allocations in real numbers & as % of total budget) • Quality (adequacy & re-allocation flexibility of all required financial resources over time & between projects)
Human resources skills for programme/project	<ul style="list-style-type: none"> • Quantity (number of people allocated full & part time over programme life) • Quality (skills types & levels required & available (ie supply & demand))
Support for programme/project	<ul style="list-style-type: none"> • Quantity (number of people committed to support: polit, bureauc, community) • Quality (legitimacy, authority, constituency represented: polit, bureauc, community)
Other required resources (eg supplies & technology)	<ul style="list-style-type: none"> • Quantity: as required (eg books, pencils, cement, bricks, tools, vehicles, instruments, computers, time, data). • Quality as required (eg compliance with industry standards)

6.1.2 Policy Resource Conversion Indicator Guide

Measurement objective	Indicator guide
Process efficiency	<ul style="list-style-type: none"> • Real cost-benefit ratio (including all costs and benefits) • Efficiency improvement ratio (optimization ratio, increase in savings)
Process effectiveness	<ul style="list-style-type: none"> • Goal achievement (change in gap between service demand & supply at end of programme / project cycle, eg reduction or enlargement). See also Kirkpatrick, George & Curran 2001)
Process productivity	<ul style="list-style-type: none"> • Combined efficiency & effectiveness ratio to achieve biggest output & impact with smallest input • Use of mechanization & technology to increase productivity
People-centred, participatory & responsive processes	<ul style="list-style-type: none"> • Implementation style (top down, decentralized bottom-up), • Level of community acceptance of, participation in & support of processes (Bell & Morse 2003:24)
Process equity, fairness, representivity	<ul style="list-style-type: none"> • Levels of & improvement in inter-ethnic/racial/gender and disability access to, distribution of & control over resources
Process transparency	<ul style="list-style-type: none"> • Existence of adequate public information about project/programme (eg the number of free bulletins issued by the local government per 1000 inhabitants, number and comprehensiveness of public information meetings, hearings and forums); • Ease of access to information about programme contents, processes & progress (– Poate 1997:2), (eg public notices of information sessions)
Accountability	<ul style="list-style-type: none"> • Existence of effective political, legal, social & financial accountability frameworks • Effectiveness of activities of legal & other oversight agencies (– Poate 1997:2)
Democratic nature of processes (tolerance, rights-based, legitimate)	<ul style="list-style-type: none"> • Constitutional / legislative approval of programme/project • Media reporting on controversial issues (eg the number of locally available information sources that have regular coverage on local issues and are independent of each other; & the total number of pages / number of hours covering local issues in printed / non-printed media) • Citizen access to & expectations of fair treatment by courts to challenge perceived irregularities • Proven independent & fair judicial outcomes of legal challenges.
Project management	<ul style="list-style-type: none"> • Project management objectives achieved ? (eg time, quality & cost) • Quality of project management processes
Process flexibility	<ul style="list-style-type: none"> • Ease of changes in design specification & implementation strategies for more optimal results (eg volumes produced & delivery speed). • Ease of re-allocation of resources for more optimal results (Poate 1997:2)
Co-ordination, integration & holism of services	<ul style="list-style-type: none"> • Existence of a clear national vision and feasible implementation programmes. • Existence of effective strategic management coordinating mechanisms to synchronise the prioritization of strategic goals • Existence of effective coordinating mechanisms for inter-sectoral projects/programmes at operational levels • Effective operational linkages of programme objectives, resources, time scales and action plans.
Professionalism & ethical nature of processes	<ul style="list-style-type: none"> • Prevalence of corruption, nepotism, fraud & unethical behaviour • Existence of professional standards control agencies / practices • Existence of an appropriate codes of conduct • Effective application & enforcement of codes of conduct & service standards by professional standards control agencies
Creativity, competitiveness & entrepreneurship	<ul style="list-style-type: none"> • Levels of creativity and innovation benchmarked internationally • Levels of entrepreneurship benchmarked internationally • Levels of competitiveness benchmarked internationally

6.1.3 General Policy Output Indicator Guide

Measurement objective	Indicator guide
Results / outputs achieved	<ul style="list-style-type: none"> Quantity of products / results Quality of products / results (eg compliance with industry standards, meeting user needs/demands: reliability, aesthetics, tidiness, comfort, user-friendliness, access, security)

6.1.4 General Policy Outcome Indicator Guide

Measurement objective	Indicator guide
Achievement of national vision (relevance & effectiveness of outcome)	<ul style="list-style-type: none"> Contribution to achievement of national vision Goal achievement (change in gap between intention and achievement, or demand & supply at end of programme / project cycle, eg reduction or enlargement).
Affordability of outcome	<ul style="list-style-type: none"> Ratio of service cost to individual income compared to cost of life
Equity, fairness, representivity of outcome	<ul style="list-style-type: none"> Improvement in inter-ethnic/racial/gender and disability access to, distribution of & control over resources
Development & growth focus of outcome	<ul style="list-style-type: none"> Developmental level maintained or achieved (1, 2, or 3) Improvement or deterioration of status quo ante ?
Contribution to stability (regulation & protection focus) of outcome	<ul style="list-style-type: none"> Stability & orderly behaviour levels maintained, improved or reduced ? (ito levels of consensus, protest, conflict, violence, crime, etc at community, regional & national levels as required)
Democratic nature of outcome (free participatory, legitimate tolerance, accountable outcomes)	<ul style="list-style-type: none"> Levels of citizen & community acceptance of outcomes Constitutional / legislative oversight & accountability of programme/project outcomes Free media reporting of controversial views regarding outcome Citizen access to & expectations of fair treatment by courts to challenge perceived irregularities Proven independent & fair judicial outcomes of legal challenges.
Empowerment of citizens as outcome (informed, participating, activist citizens as outcome)	<ul style="list-style-type: none"> Social, cultural, economic, political, technological empowerment (improvement in literacy levels, skills levels participation in activities, existence of interest groups & networks, etc)
Citizen satisfaction	<ul style="list-style-type: none"> Levels of explicit expressions of satisfaction via polls & other data (– Poate 1997:2)
Project/programme sustainability (social, economic, political, managerial, technological, environmental), both objectively and subjectively determined in short, medium & long term time frames)	<ul style="list-style-type: none"> Adequacy of policy design to meet required sectoral needs at each outcome level in such a way that overall, integrated strategic policy objectives of policy are achieved over time as scheduled (policy input) Adequacy & future availability of recurrent sectoral capital & operating budgets as required for various outcome levels over time (financial resources input) Adequacy & future availability of human resources for different sectors as required for various outcome levels over time (human resources input) Adequacy & future availability of other resources as required for various outcome levels over time in specific sectors (other resources input) Adequacy of resource conversion & implementation processes to meet required sectoral needs, demands, expectations & undertakings sufficiently in order to achieve desired or satisfactory levels of development, growth, stability & democracy over time at each outcome level, (see other outcome indicators above) Lessons learnt over time from policy failures and successes through separate sectoral as well as integrated policy monitoring, evaluation and review initiatives

Annexure 6.2: 2002 World Bank Composite Governance Index

Source	Indicators
1 Voice & Accountability (representative sources)	
State Failure Task Force State Capacity Survey	State sponsored repression of citizens State tactics commonly considered illegitimate in international community Orderly transfers Vested interests
Economist Intelligence Unit	Accountability of public officials Human rights Freedom of association
Freedom House	<i>Civil liberties</i> (freedom of speech, of assembly and demonstration, of religion, equal opportunity, of excessive governmental intervention) <i>Political Rights</i> (free and fair elections, representative legislative, free vote, political parties, no dominant group, respect for minorities) Freedom of the press Domestic and foreign travel restrictions
Human Rights Database	Freedom of political participation Imprisonment on basis of ethnicity, race, political or religious beliefs Government censorship
Political Risk Services	Risk of military interference in politics <i>Democratic Accountability</i> (Govt responsiveness to its people, free and fair elections)
Reporters Without Borders	Press Freedom Index <i>Institutional permanence</i> (mature and well-established political system, destabilising role of political opposition, levels of external interference, stability of transition to new incumbents, clearly established relationship between the executive, legislative and judicial branches of government).
World Markets Online	<i>Representativeness</i> (degree of interest articulation in the political system, & fairness of treatment of representations to govt)
Voice & Accountability (non-representative sources)	
Afrobarometer	Satisfaction with democracy <i>Political Process</i> (elections, referenda, party configurations, conditions for political competition, popular participation in elections) <i>Civil Society</i> (existence & effectiveness of volunteerism, civic organizations, trade unionism and professional associations)
Freedom House	<i>Independent Media</i> (press freedom, public access to a variety of information sources, and the independence of those sources from undue government or other influences).
Gallup International	Trust in national government Trust in national parliament Clarity & transparency of information by government to organisations on changes in policies affecting them
World Economic Forum	Editorial freedom without fear of censorship or retaliation Government officials' preferences for well-connected firms for policies and contracts Direct influence of legal contributions to political parties on specific public policy outcomes Effectiveness of national parliament as law making and oversight institution

**2 Political Stability
(representative sources)**

State Failure Task Force State Capacity Survey	Decline or collapse of central political authority Political protest or rebellion Ethno-cultural &/or religious conflict External military intervention <i>Military Coup Risk</i> : A military coup d'etat (or a series of such events) that reduces the GDP growth rate by 2% during any 12-month period. <i>Major Insurgency/Rebellion</i> : An increase in scope or intensity of one or more insurgencies/rebellions that reduces the GDP growth rate by 3% during any 12-month period. <i>Political Terrorism</i> : An increase in scope or intensity of terrorism that reduces the GDP growth rate by 1% during any 12-month period. <i>Political Assassination</i> : A political assassination (or a series of such events) that reduces the GDP growth rate by 1% during any 12-month period. <i>Civil War</i> : An increase in scope or intensity of one or more civil wars that reduces the GDP growth rate by 4% during any 12-month period. <i>Major Urban Riot</i> : An increase in scope, intensity, or frequency of rioting that reduces the GDP growth rate by 1% during any 12-month period.
Global Insight	Armed conflict Violent demonstrations Social Unrest International tensions Frequency of political killings Frequency of disappearances Frequency of torture <i>Internal Conflict</i> : political violence and its influence on governance. <i>External conflict</i> : Risk to the incumbent government and to inward investment.
Economist Intelligence Unit	<i>Ethnic tensions</i> : Tension in country attributable to racial, nationality or language divisions. <i>Civil unrest</i> : Scope and intensity of political unrest
Human Rights Database	<i>Terrorism</i> : Nature & sources of sustained terrorist threats
Political Risk Services	
World Markets Online	

**Political Stability
(non-representative sources)**

Business Environment Risk Intelligence	Fractionalization of political spectrum and the power of these factions. Organization and strength of forces for a radical government. Restrictive (coercive) measures required to retain power. Fractionalization by language, ethnic and/or religious groups and the power of these factions. Societal conflict involving demonstrations, strikes, and street violence. Instability as perceived by non-constitutional changes, assassinations, and guerrilla wars. <i>Country terrorist threat</i> : Costs of terrorism threat to firms? <i>Country terrorist threat</i> - Is terrorism a serious problem ? Risk of political instability
World Economic Forum Latinobarometro Institute for Management Development	

**3 Government Effectiveness
(representative sources)**

State Failure Task Force State Capacity Survey	Administrative and technical skills of middle and higher management in civil service Efficiency of national bureaucracy overall Efficiency of local-level government bureaucracies overall Effectiveness of coordination between the central government and local-level government organizations State's ability to formulate and implement national policy initiatives
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	State's effectiveness at collecting taxes or other forms of government revenue.
	Regular & timely production of national budget by central government
	Regular & timely production of budget by local governments
	State's ability to monitor socioeconomic trends, activities, and conditions within its borders
	State's ability to create, deliver, and maintain vital national infrastructure.
	State's ability to respond effectively to domestic economic problems.
	State's ability to respond effectively to natural disasters.
	<i>Government Instability</i> : Increase in government staff turnover rate at senior levels that reduces the GDP growth rate by 2% during any 12-month period.
	<i>Government Ineffectiveness</i> : Decline in government staff quality at any level that reduces the GDP growth rate by 1% during any 12-month period.
Global Insight	<i>Institutional Failure</i> : Deterioration of government capacity to cope with national problems as a result of institutional rigidity that reduces the GDP growth rate by 1% during any 12-month period.
Economist Intelligence Unit	Quality of bureaucracy Excessive bureaucracy / red tape
	<i>Government Stability</i> . Government's ability to carry out its declared programs, and its ability to stay in office (type of governance, the cohesion of the government and governing party or parties, the closeness of the next election, the government's command of the legislature, and popular approval of government policies).
Political Risk Services	<i>Bureaucratic Quality</i> . Institutional strength and quality of the civil service (capacity and expertise of bureaucrats, service delivery stability during regime transitions)
World Markets Online	<i>Policy consistency and forward planning</i> : Degree of long term strategic coherence & stability of economic policy framework
Government Effectiveness (non-representative sources)	
Afrobarometer	Trust in police
Business Environment & Enterprise Performance Survey	Level of satisfaction with telecommunications infrastructure Level of satisfaction with transport infrastructure Level of satisfaction with electricity infrastructure
Business Environment Risk Intelligence	Bureaucratic delays Management of external debt
Country Policy & Institutional Assessment	Management of development programs Quality public administration
Freedom House	<i>Government and Administration</i> : Government decentralization, autonomy and responsibilities of local and regional governments, legislative and executive transparency Competence of public sector personnel
World Economic Forum	Degree of effective implementation of government decisions Quality of public schools
Latinobarometro	Time spent by senior management dealing with government officials Trust in police
	Responsiveness of public policy change to economic changes Quality of general infrastructure
Institute for Management Development	Degree of independence of public service from political interference Degree of bureaucratic obstruction of business activities Efficiency of goods and services distribution infrastructure
4 Regulatory Quality (representative sources)	
	<i>Export Regulations</i> : A 2% reduction in export volume as a result of a worsening in export

	regulations or restrictions (such as export limits) during any 12-month period
	<i>Import Regulations</i> : A 2% reduction in import volume as a result of a worsening in import regulations or restrictions (such as import quotas) during any 12-month period
	<i>Other Business Regulations</i> : An increase in other regulatory burdens that reduces total aggregate investment in real LCU terms by 10%
	<i>Non-Resident Ownership of Business</i> : A 1-point increase on a scale from "0" to "10" in legal restrictions on ownership of business by non-residents during any 12-month period.
Global Insight	<i>Non-Resident Ownership of Equities</i> : A 1-point increase on a scale from "0" to "10" in legal restrictions on ownership of equities by non-residents during any 12-month period.
	Unfair competitive practices
	Price controls
Economist Intelligence Unit	Discriminatory tariffs
	Excessive protections
	Regulation
Heritage Foundation/Wall Street Journal	Government Intervention
	Wage/Prices
	Trade
	Foreign investment
	Banking
Political Risk Services	<i>Investment Profile</i> : Risk to operations (scored from 0 to 4, increasing in risk); taxation (scored from 0 to 3), repatriation (scored from 0 to 3), and labor costs (scored from 0 to 2)
	<i>Tax Effectiveness</i> : Efficiency of tax collection system, clarity & transparency of rules, enforcement consistency, effectiveness of corporate and personal, indirect and direct taxation)
	<hr/> <i>Legislation: Existence of appropriate business laws, extent to which legislation is compatible with and respected by other countries' legal systems</i>
World Markets Online	
Regulatory Quality	
(non-representative sources)	
Business Environment & Enterprise Performance Survey	Information on laws and regulations is easy to obtain Interpretations of the laws and regulations are consistent and predictable Unpredictability of changes of regulations Restrictiveness of labor regulations for business growth Restrictiveness of tax regulations for business growth Restrictiveness of custom and trade regulations for business growth
Country Policy & Institutional Assessment	Competitive environment Factor and products markets Trade policy Price liberalisation Trade & foreign exchange system Competition policy
European Bank for Reconstruction and Development	Commercial Law Extensiveness Commercial Law Effectiveness Financial Regulations: extensiveness Financial regulations: effectiveness Restrictiveness of administrative regulations Distortionary effect of tax system Import barriers as obstacle to growth Degree of competition in local market Ease to start company
World Economic Forum	Effectiveness of anti monopoly policy Frequency of clusters Restrictive impact of environmental regulations on competitiveness Cost of tariffs imposed on business

Artificial survival of uncompetitive industries through government subsidies
 Impact of exchange rate policy on competitiveness of enterprises
 Impact of protectionism on conduct of business
 Effectiveness of competition legislation to prevent unfair competition
 Impact of price controls on pricing of products in different industries
 Adequacy of legal regulation of financial institutions for financial stability
 Access of foreign financial institutions to domestic markets
 Access of foreign companies to local capital markets
 Access of domestic companies to foreign capital markets
 Transparency of financial institutions
 Facilitation of efficient transit of goods by Customs' authorities
 Impact of legal framework on competitiveness
 Freedom of foreign investors to acquire control of domestic companies
 Access of foreign bidders to public sector contracts
 Distortionary nature of real personal taxes
 Distortionary nature of real corporate taxes
 Impact of banking regulation on competitiveness

Institute for Management Development

**5 Rule of Law
 (representative sources)**

State Failure Task Force State Capacity Survey

Legitimacy of State as institution representing its citizens
 State's adherence to rule of law

Global Insight

Losses and Costs of Crime : A 1-point increase on a scale from "0" to "10" in crime during any 12- month period.
Kidnapping of Foreigners : An increase in scope, intensity, or frequency of kidnapping of foreigners that reduces the GDP growth rate by 1% during any 12-month period.
Enforceability of Government Contracts : A 1 point decline on a scale from "0" to "10" in the enforceability of contracts during any 12-month period.
Enforceability of Private Contracts: A 1-point decline on a scale from "0" to "10" in the legal enforceability of contracts during any 12-month period.

Economist Intelligence Unit

Violent crime
 Organized crime
 Fairness of judicial process
 Enforceability of contracts
 Speediness of judicial process

Heritage Foundation/Wall Street Journal

Confiscation/expropriation
 Black market
 Property Rights

Human Rights Database
 Political Risk Services

Independence of Judiciary

Business Environment Risk Intelligence

Law and Order : Strength and impartiality of the legal system, popular observance of the law

World Markets Online

Direct Financial Fraud, Money Laundering and Organized Crime
Judicial Independence : Capacity of state and other outside actors to influence and distort the legal system
Crime : Threat for businesses from crime (eg kidnapping, extortion, street violence, burglary)

**Rule of Law
 (non-representative sources)**

Fairness of court system
 Affordability of court system
 Enforceability of court decisions
 Honesty of courts
 Quickness of court decisions

Business Environment & Enterprise Performance Survey	Property right protection Impact of organized crime on business growth Judicial restrictions on business growth Impact of street crime on business growth Enforceability of contracts Property rights
Business Environment Risk Intelligence Country Policy & Institutional Assessment Freedom House Gallup International	Rule of Law : Legal and de facto status of legislative framework Trust in the Legal System Impact of common crime on business Impact of organized crime on business Prevalence of money laundering through banks Prevalence of money laundering through non-banks Quality of Police Prevalence of insider trading
World Economic Forum	Independence of judiciary from political influences of members of government, citizens or firms Efficiency of legal framework to challenge the legality of government actions Efficiency of intellectual property protection Efficiency of protection of financial assets Frequency of illegal donation to parties Percentage of firms which are unofficial or unregistered Prevalence of tax evasion Fairness of administration of justice
Institute for Management Development	Adequacy of protection of personal security and private property Impact of parallel economy on economic development Prevalence of insider trading in stock market Adequacy of patent and copyright protection enforcement

6 Control of Corruption : Representative Sources

State Failure Task Force State Capacity Survey	Severity of corruption within the state Extent of patterns of nepotism, cronyism and patronage in activities of primary political decision makers (eg chief executive and cabinet members) Extent of patterns of nepotism, cronyism and patronage in activities of top public officials (occupying middle and higher management roles) Impact of patterns of nepotism, cronyism and patronage on the state's ability to exercise the basic functions of government effectively Distortion of broad patterns of economic development by patterns of nepotism, cronyism and patronage Impact of Corruption : A 1-point increase on a scale from "0" to "10" in corruption during any 12-month period.
Global Insight Economist Intelligence Unit	Corruption <i>Corruption.</i> Distorting impact of corruption on the economic and financial environment, reduction of efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and introduction of inherently instability in the political system.
Political Risk Services	Indirect Diversion of Funds
Business Environment Risk Intelligence World Markets Online	<i>Corruption</i> : Intrusiveness of the bureaucracy (red tape & corrupt officials and other groups)

Control of Corruption : Non-representative Sources

Afrobarometer	Prevalence of corruption among public officials?
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	Prevalence of irregular additional payments by firms to get things done Unofficial payments of firms to public officials as % of total annual sales
Business Environment & Enterprise Performance Survey	Frequency of payments by firms to influence the content of new legislation Extent to which firms' payments to public officials to affect legislation impose costs on other firms
Business Environment Risk Intelligence Country Policy & Institutional Assessment Freedom House	Impact of corruption on business growth <i>Internal Causes of Political Risk</i> : Mentality, including xenophobia, nationalism, corruption, nepotism, willingness to compromise Transparency / corruption
	Corruption Public trust in financial honesty of politicians
	Extent to which legal contributions to political parties are misused by politicians Prevalence of diversion of public funds due to corruption
World Economic Forum	Frequency of extra payments by firms for import/export permits Frequency of extra payments by firms connected to public utilities Frequency of extra payments by firms connected to tax payments Frequency of extra payments by firms connected to loan applications Frequency of extra payments by firms connected to awarding of public contracts Frequency of extra payments by firms connected to influencing laws, regulations, decrees Frequency of extra payments by firms connected to getting favourable judicial decisions Extent to which firms' illegal payments to influence government policies impose costs on other firms % of corrupt public employees
Latinobarometro Institute for Management Development	Existence of bribing and corruption in the economy (Source : World Bank 2003:53, 82-86)

WB 2003 indicator sources :

Afrobarometer (AFR) (<http://www.afrobarometer.org>)
Business Environment & Enterprise Performance Survey (BEEPS) (<http://info.worldbank.org/governance/beeps2002/>)
Business Environment Risk Intelligence (BRI, QLM) (<http://www.beri.com>)
Country Policy & Institutional Assessment (CPIA) (<http://www.worldbank.org>)
Economist Intelligence Unit (EIU) (<http://www.eiu.com>)
European Bank for Reconstruction and Development (EBRD) (<http://www.ebrd.org>)
Freedom House (FRH, FNT) (<http://www.freedomhouse.org>)
Gallup International (GAL, GMS) (<http://www.gallup-international.com>)
Global Insight (DRI) (<http://www.globalinsight.com>)
Heritage Foundation/Wall Street Journal (HER) (<http://www.heritage.org>)
Human Rights Database (HUM)
Institute for Management Development (WCY) (<http://www.imd.ch>)
Latinobarometro (LOB) (<http://www.latinobarometro.org>)
Political Risk Services (PRS) (<http://www.prsgroup.com>)
PriceWaterhouseCoopers (PWC) (<http://www.opacityindex.com/>)
Reporters Without Borders (RSF) (<http://www.rsf.org>)
State Failure Task Force State Capacity Survey (CUD) (<http://www.columbia.edu>)
World Business Environment Survey (WBS, WDR) (http://www.worldbank.org/privatesector/ic/ic_ica_resources.htm)
World Economic Forum (GCS, GCSA) (<http://www.weforum.org>)
World Markets Online (WMO) (<http://www.worldmarketonline.com>)

Annexure 6.3: GTZ Governance Focus Areas

Political arena 1: Relationship between state and society

Subarena 1: Enforcement capacity of the state

- 1.1 Sectoral scope of state enforcement capacity
- 1.2 Territorial scope of legitimate monopoly of power
- 1.3 Mode of enforcement of monopoly of power
- 1.4 Homogeneity of monopoly of power
- 1.5 Competition between various regulatory systems

Subarena 2: Acceptance of state

- 1.6 Relationship between citizens and state
- 1.7 Recognition of state institutions
- 1.8 Assumption of obligations
- 1.9 State protection of citizens

Subarena 3: Society's expectations concerning state services

- 1.10 Opportunities for citizens to express opinions
- 1.11 Opportunities for citizens to participate
- 1.12 How citizen-friendly is the state
- 1.13 State identification of the needs of the population
- 1.14 Intrastate conflict management

Political arena 2: Political system

Subarena 1: State organisation

- 2.1 Separation of powers
- 2.2 Relationship between executive and legislative branches
- 2.3 Elections
- 2.4 Active and passive electoral law
- 2.5 Manipulation of elections
- 2.6 Changes in the electoral system or voting districts

Subarena 2: Legal system

- 2.7 Effects of the constitution on the promotion of identification
- 2.8 Constitutional values and state action
- 2.9 Constitutional reform - compliance with rules and regulations
- 2.10 Proportionality of state action
- 2.11 Positive discrimination
- 2.12 Human rights standards
- 2.13 Judicial protection against state violence
- 2.14 Legal regulation of important areas of life
- 2.15 Knowledge of law

Subarena 3: Legislative bodies and political parties

- 2.16 Capacity
- 2.17 Popular perception of representation
- 2.18 Immunity from prosecution for political representatives
- 2.19 Forms of pressure for internal party discipline
- 2.20 Ethnic differences as political argument
- 2.21 Structure and diversity
- 2.22 Orientation of political parties
- 2.23 Quota systems in political parties
- 2.24 Party programmes
- 2.25 Access to political parties

2.26 Bans on political parties

Subarena 4: Executive power

- 2.27 Legitimation of government
- 2.28 Decentralised government structures
- 2.29 Intention of government action
- 2.30 Implementation of government programmes
- 2.31 Compliance with government directives in administration
- 2.32 Capability to control the military
- 2.33 Trustworthiness of government
- 2.34 Capacity of the administration
- 2.35 Constitutionality of legal directives
- 2.36 Resistance to corruption in the administration
- 2.37 Internal structure of the administration
- 2.38 Discrimination in the administration
- 2.39 Popular confidence in the administration
- 2.40 Comprehensibility of administrative decisions
- 2.41 Access to the administration
- 2.42 Communication between population and administration
- 2.43 Transparent organisation of the military
- 2.44 Relationship between the military and the government
- 2.45 Relationships between the military and civil leadership
- 2.46 Prosecution of human rights violations by the military
- 2.47 Financing the military
- 2.48 Responsibilities of the military and the police
- 2.49 Separation of military and police
- 2.50 Training and payment of military and police
- 2.51 Democratic political education of police and military
- 2.52 Gender-specific violence as a topic in police training
- 2.53 Control of police action
- 2.54 Representation of military interests in government
- 2.55 Reputation of the military
- 2.56 Reputation of the police
- 2.57 Proportion of women in the military and the police
- 2.58 Discrimination in the military and police
- 2.59 Civil jurisdiction over members of military
- 2.60 Control of secret security forces
- 2.61 Misuse of secret security forces by executive and legislative branches
- 2.62 Political neutrality of the secret security forces
- 2.63 Legality of activity by private security and military forces

Subarena 5: Judiciary

- 2.64 Constraint of executive power by judiciary
- 2.65 Decisions against government positions
- 2.66 Protection against unlawful conduct by the executive
- 2.67 Independence
- 2.68 Influence on judges
- 2.69 Discrimination in the judiciary
- 2.70 Access to the judiciary
- 2.71 Confidence in the judiciary
- 2.72 Plurality of legal institutions
- 2.73 Public access to legal process
- 2.74 Legality of judicial actions
- 2.75 Discrimination in judicial decisions
- 2.76 Review process of judicial rulings
- 2.77 Training of personnel
- 2.78 Human and material resources of the judiciary
- 2.79 Enforcement of judicial rulings

Political arena 3: Political culture, change agents and development paradigms

Subarena 1: Political culture

- 3.1 Debate on the role of the state
- 3.2 The role of the state as seen by the population
- 3.3 The role of the state as seen by the government
- 3.4 Debate on the powers of the state
- 3.5 Popular interest in political events
- 3.6 Freedom of opinion
- 3.7 Prominence of civil society actors by topic
- 3.8 Collective memory guiding action
- 3.9 Force as a means of conflict resolution
- 3.10 Opportunities for exercising influence
- 3.11 Readiness to participate in elections
- 3.12 Organisation of society
- 3.13 Integration of migrants and refugees

Subarena 2: Centres of power

- 3.14 Domination of individual actors
- 3.15 Integration of civil society actors
- 3.16 Access to high decision-making positions
- 3.17 Influence of foreign actors
- 3.18 Status of formal decision-making channels
- 3.19 Transparency of personnel ties
- 3.20 Government response to actors critical of government
- 3.21 Mobilisation capacity of actors
- 3.22 Calculability of actions of dominant actors
- 3.23 Securing opportunities to influence

Subarena 3: Development paradigms

- 3.24 Contents of development paradigms
- 3.25 Orientation of the predominant development paradigms
- 3.26 Representatives of development paradigms
- 3.27 Agreement between nonstatal and state development paradigms
- 3.28 Goals of statal development paradigms
- 3.29 Goals of non-statal development paradigms
- 3.30 Influence of foreign NGOs on development paradigms

Subarena 4: Media

- 3.31 Access to media
- 3.32 Diversity of media
- 3.33 Exclusion of individual groups from the media
- 3.34 National reporting
- 3.35 International reporting
- 3.36 Existence of state media
- 3.37 Existence of private media
- 3.38 Role and protection of media
- 3.39 Censorship by the state
- 3.40 Censorship by nonstatal actors

Political arena 4: Politics and gender

Subarena 1: Legal position of women

- 4.1 Women's rights
- 4.2 Knowledge of law
- 4.3 Awareness of law
- 4.4 Access to law
- 4.5 Statutory equality of men and women
- 4.6 Exercising rights
- 4.7 Competing legal systems
- 4.8 Dependence on male approval
- 4.9 Protective legislation specific to women

Subarena 2: Women and political institutions - political culture

- 4.10 Role of women
- 4.11 Division of responsibilities between men and women
- 4.12 Women in political and public office
- 4.13 Political leadership competence of women
- 4.14 Social commitment of women (norms)
- 4.15 Social commitment of women (activity)
- 4.16 Relevance of women's commitment
- 4.17 Gender-sensitive reforms
- 4.18 Strategies of women's promotion programmes
- 4.19 Gender budgets

Subarena 3: Women in the economy

- 4.20 Social recognition of women in employment
- 4.21 Recognition of women's professional competence
- 4.22 State promotion of women's employment
- 4.23 Credits for women

Subarena 4: Women and educational and training institutions

- 4.24 Attitudes towards women's education
- 4.25 Specific training services for girls and women

Political arena 5: Economic policy and the political framework of markets

Subarena 1: Transparency and predictability of economic policy

- 5.1 Predictability of economic policy measures
- 5.2 Transparency of economic decisionmaking processes
- 5.3 Confidence in contracts
- 5.4 Difference in confidence in contracts with state and private actors

Subarena 2: Influence of special interests on state economic policy

- 5.5 Vested interests of particular economic groups
- 5.6 Vested interests of state actors
- 5.7 Promotion of state corporations
- 5.8 Level of influence of vested interests
- 5.9 Sectoral influence of vested interests
- 5.10 Vested interests in specific areas of policy
- 5.11 Constraints on economic competition
- 5.12 State organisations dependence on the government

Subarena 3: Social participation in economic policy decision-making processes

- 5.13 Participation in economic policy decisions
- 5.14 Delaying necessary reforms

Subarena 4: Economic integration into international markets

- 5.15 Dependence on the structure of foreign trade
- 5.16 Regulations for foreign companies
- 5.17 Difference in rules for national and international companies
- 5.18 Impact of development aid and credits on state reform
- 5.19 Influence on economic policy of external interests in natural resources

Political arena 6: International integration

Subarena 1: Foreign policy, international policy

- 6.1 Influence on international events
- 6.2 Influence on regional events
- 6.3 Conflicts with other states
- 6.4 Strategic importance of the state
- 6.5 Coalition building - international
- 6.6 Coalition building - regional
- 6.7 Threat of force as an instrument of foreign policy
- 6.8 Orientation of foreign policy positions

Subarena 2: Transnational relations

- 6.9 Impact of foreign NGOs on state action
- 6.10 Cooperation between domestic and foreign NGOs
- 6.11 Relationship between indigenous and foreign cultures
- 6.12 Interdependence through migration
- 6.13 Influence of diaspora
- 6.14 Crossborder crime

Subarena 3: International institutions

- 6.15 Compliance with international obligations
- 6.16 Integration into regional and international institutions
- 6.17 Incentives to reform through international integration

Source: Faust & Gutierrez 2004

Annexure 6.4: African Governance Inventory Network focus areas

- Socio-economic management
- Rule of law and human rights
- Leadership building
- Electoral system
- Communication, press and media
- Public administration
- Civil society empowerment
- Peace and stability
- Decentralization
- Parliamentary system

Source: AGI 2005, <http://www.unpan.org/agiportal/> .

Annexure 6.5: CSD Indicator Framework

<u>SOCIAL</u>		
Theme	Sub-theme	Indicator
<u>Equity</u>	<u>Poverty (3)</u>	<u>Percent of Population Living below Poverty Line</u>
		<u>Gini Index of Income Inequality</u>
		<u>Unemployment Rate</u>
	<u>Gender Equality (24)</u>	<u>Ratio of Average Female Wage to Male Wage</u>
<u>Health (6)</u>	<u>Nutritional Status</u>	<u>Nutritional Status of Children</u>
	<u>Mortality</u>	<u>Mortality Rate Under 5 Years Old</u>
		<u>Life Expectancy at Birth</u>
	<u>Sanitation</u>	<u>Percent of Population with Adequate Sewage Disposal Facilities</u>
	<u>Drinking Water</u>	<u>Population with Access to Safe Drinking Water</u>
	<u>Healthcare Delivery</u>	<u>Percent of Population with Access to Primary Health Care Facilities</u>
<u>Immunization Against Infectious Childhood Diseases</u>		
<u>Contraceptive Prevalence Rate</u>		
<u>Education (36)</u>	<u>Education Level</u>	<u>Children Reaching Grade 5 of Primary Education</u>
		<u>Adult Secondary Education Achievement Level</u>
	<u>Literacy</u>	<u>Adult Literacy Rate</u>
<u>Housing (7)</u>	<u>Living Conditions</u>	<u>Floor Area per Person</u>
<u>Security</u>	<u>Crime (36, 24)</u>	<u>Number of Recorded Crimes per 100,000 Population</u>
<u>Population (5)</u>	<u>Population Change</u>	<u>Population Growth Rate</u>
		<u>Population of Urban Formal and Informal Settlements</u>
<u>ENVIRONMENTAL</u>		
Theme	Sub-theme	Indicator
<u>Atmosphere (9)</u>	<u>Climate Change</u>	<u>Emissions of Greenhouse Gases</u>
	<u>Ozone Layer Depletion</u>	<u>Consumption of Ozone Depleting Substances</u>
	<u>Air Quality</u>	<u>Ambient Concentration of Air Pollutants in Urban Areas</u>
<u>Land (10)</u>	<u>Agriculture (14)</u>	<u>Arable and Permanent Crop Land Area</u>
		<u>Use of Fertilizers</u>
		<u>Use of Agricultural Pesticides</u>
	<u>Forests (11)</u>	<u>Forest Area as a Percent of Land Area</u>

		<u>Wood Harvesting Intensity</u>
	<u>Desertification</u> (12)	<u>Land Affected by Desertification</u>
	<u>Urbanization</u> (7)	<u>Area of Urban Formal and Informal Settlements</u>
<u>Oceans, Seas and Coasts</u> (17)	<u>Coastal Zone</u>	<u>Algae Concentration in Coastal Waters</u> <u>Percent of Total Population Living in Coastal Areas</u>
	<u>Fisheries</u>	<u>Annual Catch by Major Species</u>
<u>Fresh Water</u> (18)	<u>Water Quantity</u>	<u>Annual Withdrawal of Ground and Surface Water as a Percent of Total Available Water</u>
	<u>Water Quality</u>	<u>BOD in Water Bodies</u> <u>Concentration of Faecal Coliform in Freshwater</u>
<u>Biodiversity</u> (15)	<u>Ecosystem</u>	<u>Area of Selected Key Ecosystems</u> <u>Protected Area as a % of Total Area</u>
	<u>Species</u>	<u>Abundance of Selected Key Species</u>

<u>ECONOMIC</u>				
Theme	Sub-theme	Indicator		
<u>Economic Structure</u> (2)	<u>Economic Performance</u>	<u>GDP per Capita</u> <u>Investment Share in GDP</u>		
	<u>Trade</u>	<u>Balance of Trade in Goods and Services</u>		
	<u>Financial Status</u> (33)	<u>Debt to GNP Ratio</u>		
		<u>Total ODA Given or Received as a Percent of GNP</u>		
<u>Consumption and Production Patterns</u> (4)	<u>Material Consumption</u>	<u>Intensity of Material Use</u>		
	<u>Energy Use</u>	<u>Annual Energy Consumption per Capita</u> <u>Share of Consumption of Renewable Energy Resources</u> <u>Intensity of Energy Use</u>		
		<u>Waste Generation and Management</u> (19-22)	<u>Generation of Industrial and Municipal Solid Waste</u> <u>Generation of Hazardous Waste</u> <u>Management of Radioactive Waste</u> <u>Waste Recycling and Reuse</u>	
			<u>Transportation</u>	<u>Distance Traveled per Capita by Mode of Transport</u>
	<u>INSTITUTIONAL</u>			
	Theme		Sub-theme	Indicator
	<u>Institutional Framework</u> (38,39)	<u>Strategic Implementation of SD</u> (8)	<u>National Sustainable Development Strategy</u>	
<u>International Cooperation</u>		<u>Implementation of Ratified Global Agreements</u>		

<u>Institutional Capacity (37)</u>	<u>Information Access (40)</u>	<u>Number of Internet Subscribers per 1000 Inhabitants</u>
	<u>Communication Infrastructure (40)</u>	<u>Main Telephone Lines per 1000 Inhabitants</u>
	<u>Science and Technology (35)</u>	<u>Expenditure on Research and Development as a Percent of GDP</u>
	<u>Disaster Preparedness and Response</u>	<u>Economic and Human Loss Due to Natural Disasters</u>

Source : UN-CSD 2001:30-31

Annexure 6.6:

SUSTAINABLE DEVELOPMENT INDICATORS FOR ARGENTINA

(English translation & adaptation of :
Argentina 2005: Sistema de Indicadores de Desarrollo Sostenible Republica Argentina, ECLAC, Santiago,
Chile, August 2005, pp 41-44.)

As a basis for discussion, certain indicators are prioritized that are more relevant for evaluating sustainable development. At the same time, it has to be emphasized that this system constitutes a first approximation. The indicators are the following:

A Social subsystem

- **Development**

1. Percentage of the population that lives below the poverty line.
2. Percentage of the population that lives below the indigent or destitute line
3. Percentage of the population with unsatisfied or inadequate basic necessities
4. The infant mortality rate
5. The mortality rate for children up to five years
6. Life expectancy from birth
7. Percentage of the population with access to health systems
8. Completion rate of basic general education [primary education]
9. Percentage of the population of 20 years and older that has completed secondary education

- **Sustainability**

10. The relation between the 10% highest income and the 10% lowest income groups
11. The rate of population growth
12. The rate of dependent population

B Environmental subsystem

- **Development**

13. Surface area of natural forests
14. Known and proven reserves of more than 50% of potential hydrocarbons [oil & gas]
15. Annual waste

- **Sustainability**

16. Forest area as percentage of total area

17. Percentage of hectares degraded by erosion
18. Evolution of the biomass [B] and reproductive biomass [BR] of commercial fishing
19. Proportion of renewable energy sources of total supply of primary energy [OTEPE]
20. The annual relationship between reserves and production of hydrocarbons [oil & gas]

C Economic subsystem

- **Development**

21. GDP per person
22. Growth rate of GDP
23. Role of the three sectors in GDP (social, economic, environmental)

- **Sustainability**

24. Role of investments in GDP
25. Tax collected as a percentage of GDP
26. Employment rate
27. Consumer price index

D Institutional subsystem

- **Development**

28. Utilization of semi-direct democratic mechanisms
29. Participation of civil society
30. Number of proceedings brought before the Public Protector

- **Sustainability**

31. Percentage of participation of voters in presidential elections
32. Development of public protest
33. Circulation of newspapers and magazines

E The National-Global inter-relationship

34. Consumption of chlorofluorocarbons [CFC]
35. Total emissions of hothouse gasses
36. Participation in international treaties or conventions on global warming and the control of greenhouse gases

F Cross-Sectoral indicators: Economic impact on the Environment

37. Generation of solid urban waste

- 38. Consumption of fertilizers
- 39. Volume of commercial pesticides
- 40. Changes in the utilization of land

G Cross-Sectoral indicators: Environmental impact on the Economy

- 41. Exploitation of fossil fuels for the generation of energy
- 42. Production of commercial timber/wood
- 43. Steel production

H Cross-Sectoral indicators: Environmental impact on Society

- 44. Percentage of the population with access to safe public water networks
- 45. Percentage of the population with access to water-born sewage systems
- 46. Notified cases of diarrhea, cholera, and typhoid

I Cross-Sectoral indicators: Social impact on the Economy

- 47. The percentage of homes in which inhabitants live as illegal/irregular occupants [squatters?]

J Cross-Sectoral indicators: Economic impact on Society

- 48. Unemployment rate
- 49. The rate of underemployed hourly workers
- 50. Rate of school leavers as a percentage of vulnerable [at risk] school learners
- 51. Rate of successful learners in languages and mathematics as a percentage of vulnerable school learners
- 52. Youth between 18 and 24 years who do not study nor work

K Cross-Sectoral indicators: Institutional impact on the Economy

- 53. The percentage of businesses that implement measures for clean production
- 54. The number of ISO 14.001 certificates
- 55. Human resources dedicated to research and development

L Cross-Sectoral indicators: Economic impact on the Institutional subsystem

- 56. Expenditure on research and development in relation to GDP

M Cross-Sectoral indicators: Institutional impact on Society

- 57. Social welfare spending

N Cross-Sectoral indicators: Social impact on the Institutional subsystem

58. Delinquency per 10 000 of the population.

O Cross-Sectoral indicators: Institutional impact on the Environment

59. Public spending on the environment

60. Protected land areas as a percentage of total land

61. Relationship between commercial fishing and the maximum permitted

P Cross-Sectoral indicators: Relationship between Intensity of use and Efficiency

62. Energy intensity [total energy supply/GDP]

63. The emission of hothouse gasses in relation to GDP

64. Availability of surface water [dams etc.] per person

65. Final energy consumption per capita

Annexure 6.7: Ten Tear Review Report Indicators (SA-PCAS 2003:119-127)

Annexure II: INDICATORS

Category

1. **Current growth**
 - Real per capita GDP growth
 - Net creation of SMEs
2. **Sustainable growth**
 - Inward FDI in USD
 - Capital formation/GDP %
3. **Economic stability**
 - Inflation (CPI)
 - (alternate) Real interest rate
4. **Economic governance**
 - Government debt/GDP %
 - (alternate) Budget deficit before borrowing
5. **Employment**
 - Number employed, broad definition
 - (alternate) Percentage unemployed, broad definition
6. **Innovation**
 - Technology balance of trade
 - (alternate) R&D expenditure/GDP %
7. **Future competitiveness**
 - Number of SET graduates from university
 - (alternate) Number of matrics with maths and science HG pass
8. **Inequality**
 - Percentage of total income received by the fifth quintile
9. **Poverty (Income)**
 - Percentage below minimum living level (defined in terms of expenditure)
10. **Empowerment**
 - Percentage of top and middle managers and professionals who are black and/or women
 - (alternate) Black ownership of public companies
11. **Transport and communications**
 - Proportion of income spent on transport
 - Unit cost of telephone use
 - Unit cost of freight transport (road/rail)
 - Port charges
12. **Health and food security**
 - Life expectancy

- Infant mortality rate
- Maternal mortality rate
- TB prevalence rate
- HIV/AIDS prevalence rate
- Malaria prevalence rate
- Kwashiorkor prevalence rate
- Stunting

13. Human resource development

- Participation rate
 - Pre-primary
 - Primary
 - Secondary
 - Tertiary
- Student teacher ratio
 - Pre-primary
 - Primary
 - Secondary
 - Tertiary
- Gender equity
 - Pre-primary
 - Primary
 - Secondary
 - Tertiary
- Matric pass rate with university exemption
- Senior certificate pass
- African learner pass HG maths

14. Housing

- Ratio of formal housing/informal housing/homelessness
- Proportion of households with access to water and sanitation
- Proportion of households with access to electricity

15. Public safety

- Number of violent crimes, including rape and abuse of women and children
- Conviction rate
- The prisoner population
- The proportion of awaiting-trial prisoners
- Number of complaints about police brutality
- Crime victims' satisfaction with support from agencies
- Community police relations
- Case time lags
- The State's territorial integrity

16. International relations

- Membership of international organisations
- Number of embassies in South Africa and abroad
- FDI inflows into South Africa
- Bilateral and multilateral trade
- South African-led peace initiatives
- Number of diplomats trained

17. ***Voice and accountability***
 - Free and fair elections and public acceptance of election results
 - Extent of political competition/participation of civil society
 - Composition and accountability of Parliament
 - Civil liberties and freedom of the press/media
18. ***Political instability and violence***
 - Political violence
 - Ethnic violence
19. ***Government effectiveness***
 - Transaction costs of doing business in government
 - Quality of public services
 - Effective implementation of government decisions
 - Access to services
 - Wasteful expenditure
 - Bureaucratic delays
 - Public opinion of government service
20. ***Regulatory quality***
 - Regulatory burden to starting a business, registering for social grants and services
 - Incidence of company tax policy
 - Number of patent rights cases
 - Size of the 'informal sector'
21. ***Rule of law***
 - Losses and costs of crime
 - Cases referred to higher courts
 - Predictability of the judiciary
 - Legitimacy of judgements in popular perceptions
 - Enforceability of contracts
 - Property rights
 - Access to justice for the poor
 - Tax compliance
22. ***Ethics***
 - Number of corruption cases in public and private sectors
 - Sources of exposure of corruption
 - Existence and effectiveness of institutional arrangements to deal with corruption

Annexure III: COMPOSITE INDEXES

The composite indexes were created by identifying aspects of the general quality of life affecting all South Africans and measuring changes in them. To do this with any validity, the constituent parts have to be of roughly similar significance to the population. Including a measure that affects a small percentage of the population among measures that reflected more general trends would skew the index.

Composite indicators can be designed to capture particular dimensions of social change when appropriate direct measures of social change are not available. Two of the main virtues of composite measures are that they are able to reflect diverging or contradictory trends, and

they are typically "robust". This robustness is an advantage when it is necessary to keep measures as simple and as transparent as possible. Such composite indices are not sensitive to small changes in trends or in definitions.

There is another advantage of composites – trends can be captured by proxy measures. The insight offered by composite indicators rests largely on the selection of the components. Very often the components are proxy measures for other data that is unavailable. For example, if a composite measure of housing conditions is required, little is gained by measuring 1) access to electricity, 2) access to piped water and 3) housing type (i.e. formal or informal). The close correlation between formal housing and access to both piped water and in-house electricity is such that housing type contributes nothing additional to the other variables. This unfortunately may give rise to the appearance that important dimensions have been omitted when instead they have been captured by proxy.

To keep these measures comparable, they had to be put on the same scale. For instance, crime rates are measured in terms of incidents per 100 000 population, and access to piped water is measured in terms of percentage of households. As the range of observed values for these diverse measures fluctuates dramatically they have to be placed on a similar scale. The scale adopted was based on a comparison of provincial rates of each index in the two time periods. That province which was ranked worst of all at either of the two time-points received a score of zero for that component. The province that had the best measure of that component in either of the two years received a score of 1. In order to achieve this, some of the components are expressed somewhat awkwardly. Instead of talking about unemployment rates we have to use the less familiar "employment rates" – which is 100 minus the percent unemployed.

After scaling all the constituent parts of the index from 0 to 1, they were then averaged to reveal an index value for the two periods in question. Thus if a province received, in any one year, the worst provincial ranking for all the constituent measures it would receive a composite score of 0. All other provinces receive a score of more than 0 and less than or equal to 1.

Infrastructure

This title is somewhat of a misnomer as it refers to the level of services associated with housing. Nevertheless, this one index captures many of the thrust of the RDP-type programmes:

- access to piped water
- access to toilets (excluding bucket latrines)
- weekly rubbish removal
- access to telecommunications
- access to electricity.

Quality of life

This index is intended to measure the quality of life beyond the mere ability to access employment and services.

- Access to medical facilities indicates the degree to which people can address health issues. This is measured by the percentage of households reporting that they can access a hospital or clinic in less than an hour.
- Adult functional literacy shows the increasing extent to which adults can access the opportunities associated with the ability to read. Literacy gives people the ability to follow written instruction and thereby get better access to services and facilities and other opportunities.

- The percentage of people using electrical stoves reflects, largely, the proportion of households not using wood or coal fires and thereby detracting from the quality of urban air. It is a proxy measure for environmental quality.

Political participation

This index measures the involvement individuals have in the wider community. Three forms of involvement were identified: political participation, trust in political structures and workplace participation.

- Political involvement was measured by the proportion of eligible people voting in the two most recent local government elections. Use of the local government elections gets us away from the use of the founding election of 1994, which had anomalously high turnout.
- Political approval was measured by an approval rating of the political institutions derived from Afrobarometer.
- Workplace involvement is measured by the percentage of formally employed workers who belong to a trade union.

Social inclusion

This index is used to gauge the extent to which South Africans are integrated into society as a whole. The three measures used here are:

- Membership of cultural organisations.
- The proportion of households in which the household head has a partner.
- Home ownership which is used as a proxy for inclusion. There is a strong body of international literature pointing to home ownership as a prime motivator for individuals to include themselves in the community.

Economic participation

Both the components of this measure are well-known and need little expansion.

- Employment rate reflects the proportion of the economically active population who consider themselves employed or looking for work (narrow definition). The measure thus excludes that proportion of people who are of economically active age but who have given up on seeking employment. This latter group is no longer considered economically active.
- Average earnings indicate the earning received by workers. To keep the earnings for the two periods comparable, the 1995 earnings have been adjusted to reflect 2002 values by multiplying them by 1.53.

Economic preparedness

This composite index attempts to capture the extent to which the population can exploit opportunities should they present themselves. The constituent measures include the:

- proportion of the adult population which is economically active.
- average number of years schooling.
- extent to which grade 11 progress to grade 12.
- proportion of science and technology enrolment in higher education institutions.

Safety and security

This index reflects not only people's exposure to serious crime (including murder, robbery with aggravating circumstances, common robbery, rape, assault, burglary and auto theft) but also the likelihood victims will see some element of justice.

The constituent measures are the:

- serious crime rate.
- court prosecution rate.
- The resolution rate.

The latter two are correlated but point to different dimensions of the security system. The prosecution rate indicated the likelihood a reported crime will end up with a suspect appearing in court. The resolution rate indicates the likelihood that suspect is convicted or acquitted.

Annexure 6.8

PROVISIONAL SUSTAINABLE DEVELOPMENT INDICATOR FRAMEWORK

(Notes: ratios linking current state linked to increasing or decreasing trend is preferable, and recommended indicators are presented in bold font)

<u>SOCIAL INDICATORS</u>		
Theme	Sub-theme	Indicator
<u>Equity</u>	<u>Poverty</u> (Agenda 21-3)	<p>% of population living below poverty line (CSD, Mil 1 \$1, WB \$1, TYR)</p> <p>Poverty gap ratio: incidence x depth (Mil 2, WB)</p> <p>% of poor households (< R1 100 pm) access to free basic services : water, sanitation - incl solid waste removal, health & electricity) (loc gov reg 10a & 10b)</p> <p>Gini-index of income inequality (CSD, Mil)</p> <p>% of total income & expenditure of 5th quintile (Mil 3, WB, TYR)</p>
	<u>Gender & race equality</u> (Agenda 21-24)	<p>Ratio of average female wage to male wage (CSD, Mil 11 non-agric sector, ILO)</p> <p>Adult gender unemployment ratio (Mil 45)</p> <p>Gender adult literacy ratio (Mil 10, UNESCO)</p> <p>Female school & university enrolment as ratio of male enrolment</p> <p>% black sr & middle managers/ professionals or ownership of public organisations & businesses (TYR, loc gov reg 10e: mun mngt 3 top levels access by designated groups)</p>
<u>Health</u> (Agenda 21-6)	<u>Nutritional Status</u>	<p>Nutritional status of children (Mil 4-<5, UNICEF-WHO, TYR)</p> <p>% below min dietary energy consumption (Mil 5, FAO)</p>
	<u>Mortality</u>	<p>Mortality Rate Under 5 Years Old (CSD, Mil 13, UNICEF-WHO, TYR)</p> <p>Life expectancy at birth (CSD, TYR)</p> <p>Infant mortality (Mil 14, UNICEF-WHO)</p> <p>Maternal mortality (TYR, Mil 16, UNICEF-WHO)</p> <p>General mortality</p>
	<u>Sanitation</u>	<p>% of population with access to adequate sewage Disposal Facilities (CSD, Mil 31, UNICEF)</p>

	<u>Drinking Water</u>	% <u>population with access to safe drinking water</u> (CSD, Mil 30-sust access, UNICEF-WHO)
	<u>Health care Delivery</u>	% of <u>population with access to primary health care facilities</u> (CSD, Mil 46-sustainable access to affordable essential drugs, WHO)
		Births attended by skilled health professionals (Mil 17, UNICEF-WHO)
		<u>Immunization Against Infectious Childhood Diseases</u> (CSD, Mil 15, UNICEF-WHO)
		Contraceptive prevalence rate (CSD, Mil 19 - condom use rate, UNAIDS) TB cases & medication use (Mil 23/24, WHO), malaria cases & successful treatment (Mil 21/22,WHO), kwashiorkor, Cholera prevalence rate (WHO) HIV/Aids prevalence rate (Mil 18, UNICEF-WHO) (TYR) Aids orphans (Mil 20, UNICEF-UNAIDS)
<u>Education</u> (Agenda 21-36)	<u>Education Level</u>	Children reaching grade 5 of primary education (CSD, Mil 7, UNESCO) Nett enrolment ratio in primary school (Mil 6, UNESCO)
		Adult secondary education achievement level (CSD) Participation rate, student teacher ratios, gender equity rate (Mil 9, UNESCO), matric & tertiary pass rates, matric pass rate with S&T(TYR)
	<u>Literacy</u>	Adult literacy rate (CSD, Mil 8, UNESCO) 15-24 yr old literacy rate (Mil 8, UNESCO)
<u>Housing</u> (Agenda 21-7)	<u>Living Conditions</u>	<u>Floor Area per Person</u> (CSD) Formal-informal housing ratio (TYR, Mil) % of household access to secure tenure (Mil 32, UN-HABITAT) % of households satisfied with their quality of life (StatsSA Household Surveys)
<u>Security</u>	<u>Crime</u> (Agenda 21-36, 24)	Number of Recorded Crimes per 100,000 Population (CSD) Judicial mngt index : Violent crimes, conviction rates, prisoner population, % awaiting trial prisoners, complaints about police brutality, crime victims satisfaction, community police relations, case time logs, state territorial integrity (TYR)
<u>Population</u> (Agenda 21-5)	<u>Population Change</u>	Population Growth Rate (CSD, Mil 14)
		Population of urban formal and informal settlements (CSD)

Social cohesion	Community organisations & networks & social capital	Number of active community organisations per size of community Degree of public participation Degree of voluntarism in communities

ENVIRONMENTAL / NATURAL RESOURCE CONSERVATION & UTILISATION INDICATORS

Theme	Sub-theme	Indicator
<u>Atmosphere</u> (Agenda 21-9)	<u>Climate Change</u>	<u>Emissions of greenhouse gases</u> (CSD) Source of energy for electricity generation Temperature and rainfall trends
		<u>Consumption of ozone depleting substances</u> (CSD)
	<u>Air Quality</u>	<u>Concentration of criteria air pollutants in urban areas</u> (CSD) Source of energy for electricity generation and household energy Vehicle emissions Electricity consumption/energy intensity
<u>Land</u> (Agenda 21-10)	<u>Agriculture</u> (Agenda 21-14)	<u>Arable and permanent crop land area</u> (CSD)
		<u>Land productivity vs potential</u> (DEAT-NEIP:LU02) Livestock stocking rate vs carrying capacity
		<u>Use of fertilizers</u> (CSD) <u>Use of agricultural pesticides</u> (CSD)
	<u>Forests and woodlands</u> (Agenda 21-11)	<u>Forest area as a percent of land area</u> (CSD, Mil 25, FAO)
		<u>Wood harvesting intensity</u> (CSD)
	<u>Land degradation and Desertification</u> (Agenda 21-12)	<u>Land affected land degradation and desertification</u> (CSD)
	<u>Urbanization</u> (Agenda 21-7)	<u>Area of urban formal and informal settlements</u> (CSD) Population urban vs rural
<u>Oceans, Seas and</u>	<u>Coastal Zone</u>	<u>Algae concentration in coastal waters</u> (CSD)

Comment [DJD1]: I know you have energy intensity indicators in the sustainable consumption and production section but they need to be related to these sections

Comment [DJD2]: Consumption and production of ODSs is virtually zero and has been since 1996 - it is worth measuring this?

Comment [DJD3]: It will be important to distinguish between ambient and indoor air quality - many houses ... [1]

Comment [DJD6]: I'm not sure how valuable this is in SA - the area of some of our ... [2]

Comment [DJD5]: As overstocking is a major cause of land degradation in SA ... [3]

Comment [DJD7]: This indicator is a nice to have but there are currently no data ... [4]

Comment [DJD4]: There should be something on the % of transformed land, or the ... [5]

Comment [DJD8]: I assume that by 'forest' you are referring to indigenous forests ... [6]

Comment [DJD9]: Again this would apply to woodlands as well as indigenous forests ... [7]

Comment [DJD10]: Data will be a problem here - we do not have a reliable way to measure ... [8]

Comment [DJD11]: Not necessary in my opinion

<u>Coasts</u> (Agenda 21-17)		<u>Percent of total population living in coastal areas</u> (CSD) Protection of priority areas (SOC-004) Status and exploitation of selected commercial and recreational fish species (SOC-003) Vulnerable and endangered South African coastal species (SOC-002) Pollutant incidents along the coast (SOC-010)
	<u>Fisheries</u>	<u>Annual catch by major species/sectors</u> relative to maximum available yield (CSD; SOC-021, DEAT-NEIP:MC01)
<u>Fresh Water</u> (18)	<u>Water Quantity</u>	Annual withdrawal of ground and surface water as a percent of total available water (CSD, DEAT-NEIP:IW01)
	<u>Water Quality</u>	BOD and COD in water bodies (CSD) Salinity levels (DEAT-NEIP:IW08/9)
		Concentration of faecal elements in freshwater (CSD, DEAT-NEIP:IW)
<u>Biodiversity</u> (Agenda 21-15)	<u>Ecosystem</u>	<u>Area, status and level of protection of selected key ecosystems</u> (CSD) Protected area as a % of total country surface area (CSD, Mil 26, UNEP/IUCN)
		<u>Species</u>

Comment [DJD12]: State of Coasts report on Monitoring and evaluation

Comment [DJD13]: Much of it isn't fresh - perhaps consider renaming to "Inland Water"

Comment [DJD14]: BOD gives only a partial picture - one needs Chemical Oxygen demand to balance this also

Comment [DJD15]: Although the WHO steers clear of this because it is so variable, it is a serious problem in SA and can be measured relatively easily

Comment [DJD16]: One needs to report on the status of the remaining areas - same argument as for the degradation of woodlands above. These need to include terrestrial, aquatic and marine & coastal systems

Comment [DJD17]: This indicator on its own will not give a complete picture

ECONOMIC INDICATORS

Theme	Sub-theme	Indicator
<u>Economic Structure</u> (Agenda 21-2)	<u>Economic Growth</u>	Real per capita growth (GWM&ES, CSD, Mil) Real % GDP growth Nett creation of SMEs (GWM&ES, locgov reg 10d:led initiative)
		Investment share in GDP (CSD)
	Sustainable growth	Balance of trade in goods and services (CSD) Capital formation/GDP (GWM&ES) Tariffs by developed countries on imports from developing countries (Mil 39, WTO, WB) %ODA for trade (Mil 41, WTO)
		Economic stability & governance (Agenda21-33)
<u>Sustainable consumption and Production Patterns</u> (Agenda 21-4)	<u>Materials Consumption</u>	Intensity of materials use (CSD)
	Energy consumption	Annual energy consumption per capita (CSD, Mil 27-kg oil equiv per \$GDP, WB, DEAT-NEIP:HW12:household energy use)
		Share of consumption of renewable energy resources (CSD)
		% pop use of solid fuels (Mil 29, WHO)
		Intensity of energy use (CSD)
<u>Waste Generation and Management</u> (Agenda 21-19-22)	Carbon dioxide emission per capita & use of CFC's (Mil 28) Generation of industrial and municipal solid waste (CSD) General waste produced per income group per year (DEAT-NEIP: WM01)	

		<u>Generation of hazardous waste (CSD)</u>
		<u>Management of radioactive waste (CSD)</u>
		<u>Waste recycling and re-use (CSD, DEAT-NEIP:WM04)</u>
	<u>Competitiveness</u>	<p>Number of HE graduates, SET & Social sciences Unit labour costs internationally benchmarked Skilled/unskilled labour cost-ratio Mechanisation vs manual labour Unemployment rate : narrowly or widely conceived (CSD, ILO, TYR) Other traditional competitiveness indices</p>

INSTITUTIONAL INDICATORS

Theme	Sub-theme	Indicator
<u>Institutional Frame-work</u> (Agenda 21-38,39)	<u>Strategic Governance of SD</u> (Agenda 21-8)	<p>Existence of a National Sustainable Development Strategy: effective problem identification, planning, implementation, monitoring, evaluation & review systems (CSD)</p> <p>Democratic participation & accountability : free & fair elections & public acceptance of results, political competition, composition (GWM&ES, WB-KKZ, Mil 12-gender, IPU) & accountability of Parliament (GWM&ES)</p> <p>% voter efficacy perceptions (Loc gov indic PP1)</p> <p>Instability (legitimacy of government): democratic nature of transitions of power, levels & nature of political protest, political & ethnic violence (GWM&ES, WB-KKZ)</p> <p>Govt effectiveness & efficiency : transaction costs, service quality, bureaucratic delays, public satisfaction with services (GWM&ES, PSC citizen satisfaction surveys, WB-KKZ, TYR)</p> <p>Regulatory quality : ease of access to services & opportunities, company tax policy & patent rights protection (GWM&ESWB-KKZ, TYR)</p> <p>Rule of law: Cases referred to higher court, predictability of the judiciary, legitimacy of judgements in popular perceptions, enforceability of private contracts, justice for the poor, human rights enforcement (GWM&ES, WB-KKZ, TYR)</p> <p>Ethics : Codes of conduct, existence and effectiveness of institutional arrangements to deal with corruption, number of corruption cases, sources of exposure of corruption, protection of whistleblowers (WB-KKZ, TYR)</p>
	<u>International Cooperation</u>	Implementation of ratified global agreements (CSD,DEAT-NEIP:EM01:multilateral environmental agreements)
<u>Institutional Capacity</u> (Agenda21-	<u>Information Access</u> (Agenda 21-40)	No of dept service points per 1000 of population % of govt services available online <u>Number of internet subscribers per 1000 inhabitants</u> (CSD)

37)	<u>Infrastructure</u> (Agenda21-40)	<u>Distance traveled per capita by mode of transport</u> (CSD) Proportion of income spent on transport (TYR) Access to public transport (Mil) Road & rail infrastructure per capita (WB) Electricity network coverage Water supply ratios: private homes, businesses, agriculture & industry Main telephone lines per 1000 inhabitants (CSD, Mil 47 - also cellular) % of people with access to telephones (TYR) PC's per 100 (Mil 48, ITU) Internet connections per 100 (Mil 48, ITU)
	Resource availability	Appropriateness & sufficiency of policy design & content, financial, human, political and other resources
	<u>Science and Technology</u> (Agenda 21-35)	<u>Expenditure on research and development as a percent of GDP</u> (CSD, TYR) No of maths & science matrics / S&T graduates (TYR)
	<u>Disaster Preparedness and Response</u>	<u>Economic and human loss due to natural disasters</u> (CSD)
Institutional processes	Resource conversion attributes	Efficiency, effectiveness, productivity, responsiveness & participation, equity, transparency, accountability, flexibility, integration, innovation.
Institutional Outcomes	Nature of impacts achieved	Degree of vision & goal achievement, affordability, fairness, developmental, stability, democracy, empowerment, citizen satisfaction, adequacy & future availability of remaining resources to meet desired outcome levels within specified time frames, review of lessons learnt.

CROSS-SECTORAL INDICATORS ?

Social-economic		
Social-environmental		
Social-institutional		
Economic-environmental		
Economic-institutional		

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Page 50: [1] Comment [DJD3]	Donald Gibson	08/02/2006 16:14:00
It will be important to distinguish between ambient and indoor air quality - many households are using fossil fuels for energy in rural areas also which is a major contributor to respiratory disease in SA		
Page 50: [2] Comment [DJD6]	Donald Gibson	08/02/2006 16:14:00
I'm not sure how valuable this is in SA - the area of some of our crops is decreasing e.g. maize and wheat, and there is not much potential for increasing the land area under cultivation due to land potential limitations - at a national scale it may not be meaningful to report on this		
Page 50: [3] Comment [DJD5]	Donald Gibson	08/02/2006 16:14:00
As overstocking is a major cause of land degradation in SA, I think there should be an indicator on		
Page 50: [4] Comment [DJD7]	Donald Gibson	08/02/2006 16:14:00
This indicator is a nice to have but there are currently no data on which to calculate the ratio - a potential indicator to consider is productivity per capita		
Page 50: [5] Comment [DJD4]	Donald Gibson	08/02/2006 16:14:00
There should be something on the % transformed land, or the % natural habitat remaining		
Page 50: [6] Comment [DJD8]	Donald Gibson	08/02/2006 16:14:00
I assume that by 'forest' you are referring to indigenous closed canopy forest. If so, this indicator is problematic as SA has a very small coverage of indigenous forests, not worth monitoring on a national scale - what would be useful is to understand the coverage of forest relative to what it was at some date in the past. Also, often the problem is not the total destruction and removal of forest, but rather the gradual degradation of forest, so some sort of degradation or fragmentation index would be more useful. Also bear in mind that savanna woodlands are also covered in the National Forests Act and because deforestation in these woodlands is a major cause of degradation, particularly in communal areas, and because livelihoods are so often largely dependent on the services and goods produced by woodlands, this would be an important indicator		
Page 50: [7] Comment [DJD9]	Donald Gibson	08/02/2006 16:14:00
Again this would apply to woodlands as well as indigenous forests data for this will not be available easily - it is in fact a cause of land degradation so could fall under that heading also		
Page 50: [8] Comment [DJD10]	Donald Gibson	08/02/2006 16:14:00
Data will be a problem here - we do not have a reliable way to measure the area of land affected - but there is current research to do this which forms part of the National Action Programme to Combat Land Degradation		