

Appendix

Table A.1 Data for monitoring, sources and timing: examples from a poverty alleviation strategy

Type	Indicator	Instrument	Agency	Level	Frequency
Input	Public finance data: revenues, expenditures by category Human resources	Budget documents; expenditure data Expenditure tracking surveys Payroll data	Ministries of finance, planning and administration; sectoral ministries; public accounting and audit agencies	National and various sub-national administrative levels	Monthly or quarterly where possible; at least yearly
Output	Outputs of public expenditures: infrastructure, services provided	Administrative systems, Management Information Systems Community surveys	Sectoral ministries; project implementation units; local administrations and local service providers	National and various sub-national administrative levels; facilities (schools, clinics, etc)	Possibly every six months; at least yearly
Outcome	Access to, use of and satisfaction with services	Priority and quick monitoring surveys; multi-topic household surveys; qualitative studies	Central statistical agency; local service providers; others	Households and individuals, facilities (schools, clinics, etc); communities	Yearly where possible
Impact	Household consumption and income; living conditions; social indicators; household priorities; perceptions of well-being	Household budget/ expenditure/ income surveys, labour force surveys; living standard measurement surveys; qualitative studies	Central statistical agency	Households and individuals; communities	Every three to five years
Context	National accounts: GDP, consumption, investment, exports, imports, etc Consumer and producer prices Climatic data	System of national accounts, trade statistics Direct measurement	Central statistical agency, central bank National weather agency, others	National (largest sub-national levels in some cases) As detailed as possible	Monthly or quarterly trade statistics, price collection; yearly consumer price index basket Daily where possible

Source: Prennushi et al (2001)

Table A.2 CSD list of indicators of sustainable development (September 1996)

Chapters of Agenda 21	Driving force (pressure) indicators	State indicators	Response indicators
Category: social			
<i>Chapter 3:</i> Combating poverty	Unemployment rate	Indices of poverty: head count; poverty gap; squared poverty gap; Gini index of income inequality Female:male wage ratio	
<i>Chapter 5:</i> Demographic dynamics and sustainability	Population growth rate Net migration rate Total fertility rate	Population density	
<i>Chapter 36:</i> Promoting education, public awareness and training	Rate of change of school-age population Enrolment ratio (gross and net) in primary and secondary school Adult literacy rate	Children reaching grade 5 School life expectancy Difference between male and female enrolment Women per hundred men in the labour force	GDP spent on education
<i>Chapter 6:</i> Protecting and promoting human health		Basic sanitation Access to safe drinking water Life expectancy at birth Adequate birth weight Infant mortality rate Maternal mortality rate Nutritional status of children	Immunization against childhood diseases Contraceptive prevalence Proportion of chemicals monitored in food National health expenditure devoted to local health care Total national health expenditure related to GNP
<i>Chapter 7:</i> Promoting sustainable human settlement development	Growth of urban population Per capita consumption of fossil fuel by vehicles Losses – natural disaster	Percent in urban areas Area and population of urban settlements Floor area per person House price:income ratio	Infrastructure expenditure per capita
Category: economic			
<i>Chapter 2:</i> International cooperation to accelerate sustainable development	GDP per capita Net investment in GDP Sum of exports and imports as percentage of GDP	Environmentally adjusted net domestic product Share of manufactured goods in total exports	
<i>Chapter 4:</i> Changing consumption patterns	Annual energy consumption Share of natural-resource intensive industries in manufacturing value-added	Mineral reserves Fossil fuel reserves Lifetime of proven energy reserves Intensity of material use Share of manufacturing value-added in GDP	
<i>Chapter 33:</i> Financial resources and mechanisms	Net resources transfer/GNP Total ODA as a percentage of GNP	Debt/GNP Debt service/export	Environmental protection expenditures (% of GDP) New or additional funding for sustainable development

Chapters of Agenda 21	Driving force (pressure) indicators	State indicators	Response indicators
<i>Chapter 34:</i> Transfer of environmentally sound technology, cooperation and capacity building	Capital goods imports Foreign direct investments	Share of environmentally sound capital goods imports	Technical cooperation grants
Category: environmental			
<i>Chapter 18:</i> Protection of the quality and supply of freshwater resources	Annual withdrawals of ground and surface water Domestic consumption of water per capita	Groundwater reserves Faecal coliform ratio Biochemical oxygen demand in water bodies	Waste-water treatment coverage Density of hydrological networks
<i>Chapter 17:</i> Protection of the oceans, all kinds of seas and coastal areas	Population growth in coastal areas Discharges of oil, nitrogen and phosphorus into coastal waters	Maximum sustained yield for fisheries Algae index	
<i>Chapter 10:</i> Integrated approach to planning and management of land	Land use change	Changes in land condition	Decentralized local-level natural resource management
<i>Chapter 12:</i> Combating desertification and drought	Population living below poverty line in dryland areas	National monthly rainfall Vegetation index Extent of desertification	
<i>Chapter 13:</i> Sustainable mountain development	Population change in mountain areas	Sustainable use of NRs in mountain areas Welfare of mountain populations	
<i>Chapter 14:</i> Promoting sustainable agriculture and rural development	Use of pesticides Use of fertilizers Irrigation percentage Energy use in agriculture	Arable land per capita Area affected by salinization and waterlogging	Agricultural education
<i>Chapter 11:</i> Combating deforestation	Wood harvesting intensity	Forest area change	Managed forest area ratio Protected forest area as a proportion of total area
<i>Chapter 15:</i> Conservation of biological diversity		Threatened species as a percentage of total native species	Protected area as a percentage of total area
<i>Chapter 16:</i> Environmentally sound management of biotechnology			R&D expenditure for biotechnology National biosafety regulations or guidelines
<i>Chapter 9:</i> Protection of the atmosphere	Emissions of greenhouse gases; sulphur oxides; and nitrogen oxides Consumption of ozone depleting substances	Ambient concentrations of pollutants in urban areas	Expenditure on air pollution abatement

Chapters of Agenda 21	Driving force (pressure) indicators	State indicators	Response indicators
<i>Chapter 21:</i> Environmentally sound management of solid wastes and sewage	Generation of industrial and municipal solid waste Household waste disposed per capita		Expenditure on waste management Waste recycling and reuse Municipal waste disposal
<i>Chapter 19:</i> Environmentally sound management of toxics		Chemically induced acute poisonings	Number of chemicals banned or severely restricted
<i>Chapter 20:</i> Environmentally sound management of hazardous wastes	Generation of hazardous wastes Imports and exports of hazardous wastes	Area of land contaminated by hazardous wastes	Expenditure on hazardous waste treatment
<i>Chapter 22:</i> Management of radioactive wastes	Generation of radioactive wastes		
Category: institutional			
<i>Chapter 8:</i> Integrating environment and development in decision-making			NSDSs NCSDs Integrated environmental and economic accounting Mandated EIA
<i>Chapter 35:</i> Science for sustainable development		Potential scientists and engineers per million population	R&D employees per million population R&D expenditure as % of GDP
<i>Chapter 39:</i> International legal instruments and mechanisms			Ratification of agreements Implementation of ratified global agreements
<i>Chapter 40:</i> Information for decision-making		Telephone lines/person Access to information	Programmes for national environmental statistics
<i>Chapters 23–32:</i> Strengthening the role of major groups			Major groups, ethnic minorities, indigenous people on NCSDs Contribution of NGOs to sustainable development

Source: www.un.org/esa/sustdev/isd